

European Higher Education Institutions under EU Law Constraints

An interdisciplinary analysis of the position of European higher education institutions between directly applicable EU law and their public service mission

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Submitted in accordance with the requirements for the degree of
Doctor of Philosophy

The University of Leeds
School of Law
Centre for European Law and Legal Studies (CELLS)

December, 2013

The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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Acknowledgements

First and foremost I would like to thank my supervisor Professor Dagmar G. Schiek who not only provided invaluable feedback and encouragement for my PhD, but who was also a supportive superior in my work for the EESCATL project, CELLS and as a teaching assistant for EU law. Even beyond this, she has always been an approachable mentor for any other questions I have had concerning my academic career and progress and I would not be here without her. I would also like to thank my second supervisor Ann Blair for her insights and comments on my work, especially for the interesting discussions about the English higher education system. Professor Susanne Karstedt has very kindly advised me on the empirical part of my work. I am very grateful to all of them.

I would like to thank the School of Law for funding my tuition fees with the William Harrison Scholarship and providing travel assistance for presenting my work at conferences. Furthermore, I would like to thank the interviewees and their universities for the time and invaluable information the interviewees have given me.

Finally, I would like to thank my friends, family and colleagues for their practical and moral support and their patience. In particular, I owe thanks to John Mellors, Sam Theisens, Dinnia Joedadibrata, Jule Mulder, Christiane and Helmut Gideon, Janna Köke, Beatrice Weihert, Christine Thevissen, Sarah and Jenny Mellors, Lena Kruckenberg and Ulrike Vieten for giving feedback on my work, letting me stay at their homes during the empirical phase of my work or helping with the interview transcription. I am indebted to all these as well as my other friends, family members and colleagues.

This work is dedicated to my grandfather, Viktor Albert Benedikt Walther Titius, who always encouraged me very strongly in the pursuit of my academic career, but who sadly did not live to see me submit my thesis.

Abstract

This thesis investigates the impact of EU law and policy on the Member States' higher education institution (HEI) sectors with a particular emphasis on the exposure of research in universities to EU competition law. This study is exceptionally well-suited to illustrate how applying EU economic law to formerly public sectors can create tensions between the economic and the social in the EU. Given the reluctance of the Member States to openly develop an EU level HEI policy, these tensions appear as unintended consequences of the traditional application of Treaty provisions such as those on Union citizenship, free movement and competition to the HEI sector which may endanger the traditional non-economic mission of European HEIs. Whilst the effects of Union citizenship and free movement law on HEIs have received some attention, the impact of EU competition law constitutes a largely unexplored site.

This thesis submits that intended and unintended consequences of the EU economic constitutions are enhanced by a parallel tendency of Member States to commercialise formerly public sectors such as the HEI sector. Here, commercialisation is mirrored in offering study places only against substantive fees instead of as a public service funded from the public purse and in encouraging universities to compete for public research funding as well as to attract funding from the private sector. This kind of commercialisation makes HEIs vulnerable to the seemingly inevitable pulls of internal market law which might, in turn, lead to further commercialisation. This thesis investigates the potential problems through doctrinal analysis and a qualitative study focussing on the exposure of HEI research to EU competition law as an under-researched example of exposure to economic constraints. It concludes that such exposure may compromise the wider aims that research intensive universities pursue in the public interest.

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Abbreviations

ABA	American Bar Association
BBC	British Broadcasting Corporation
BERs	Block exemptions regulations
BGH	Bundesgerichtshof (German Federal Court)
BIS	Department for Business, Innovation and Skills
BMBF	Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research)
BMWi	Bundesministerium für Wirtschaft und Technology (Federal Ministry of Economics and Technology)
BV	Besloten vennootschap (private limited liability company in the Netherlands)
BVerfGE	Bundesverfassungsgerichtsentscheidung (decision of the German constitutional court)
CELLS	Centre for European Law and Legal Studies
CESifo	Umbrella organisation of the ‘Center for Economic Studies’ and ‘Information und Forschung’
Charter	Charter of Fundamental Rights of the European Union
CHEPS	Center for Higher Education Policy Studies, University of Twente
CHERPA	Consortium for Higher Education and Research Performance Assessment
CJEU	Court of Justice of the European Union
CMLR	Common Market Law Review
CöV Heft	Rechnungswesen und Controlling in der öffentlichen Verwaltung (Publication on controlling in public administration)
CUP	Cambridge University Press
CV	Curriculum Vitae

CWTS	Centrum voor Wetenschaps- en Technologie-Studies (Centre for Science and Technology Studies)
DFG	Deutsche Forschungsgemeinschaft (German research foundation)
DLO	Dienst Landbouwkundig Onderzoek (Agricultural Research Service)
e.g.	Exempli gratia (for example)
EC	European Community
ECJ	European Court of Justice (previous name and abbreviation of the CJEU)
ECR	European Court Reports
ECTS	European Credit Transfer System
edn	Edition
eds	Editors
EEC	European Economic Community
EESCATL	Research Project: ‘Economic and Social Constitutionalism after the Treaty of Lisbon “an Interdisciplinary Perspective”’
EHEA	European Higher Education Area
EIoP	European Integration online Papers
ELJ	European Law Journal
ERA	European Research Area
ERA	Education Reform Act 1988
ERC	European Research Council
Etc.	Et cetera (and so forth)
ETSGIs	Education and training services of general interest
EU	European Union
EUA	European University Association
EuZW	Europäische Zeitschrift für Wirtschaftsrecht (academic journal)

EZ	Ministerie van Economische Zaken (Ministry of Economic Affairs, Netherlands)
F+E	Forschung und Entwicklung (R&D)
fEC	Full Economic Costing (English full costing methodology)
FHEA	Further and Higher Education Act 1992 (UK)
FP	Framework Programme (EU)
FQS	Forum: Qualitative Social Research
fte	Full time equivalent
GBER	General block exemption regulation
GDP	Gross Domestic Product
GERD	Gross domestic expenditure on R&D
GG	Grundgesetz (German Constitution)
GRUR	Gewerblicher Rechtsschutz und Urheberrecht (journal)
GTIs	Grote technologische instituten (large technology institutes)
HEFCE	Higher Education Funding Council for England
HEIF	Higher Education Innovation Fund
HEIs	Higher Education Institutions
HMRC	Her Majesty's Revenue and Customs
HRG	Hochschulrahmengesetz (Framework Act for Higher Education)
HSGIs	health services of general interest
HU Berlin	Humboldt Universität zu Berlin
i.e.	Id est (that is)
Ibid	Ibidem (at the same place)
ICESC	International Covenant on Economic, Social and Cultural Rights
IJELP	International Journal for Education Law and Policy
IPR	Intellectual property rights

IT	Information technology
JCER	Journal of Contemporary European Research
JGIM	Journal of General Internal Medicine
KNAW	Koninklijke Nederlandse Akademie van Wetenschappen (Royal Netherlands Academy of Arts and Sciences)
KvK	Kamer van Koophandel
LMU	Ludwig-Maximilians-Universität
LSE	London School of Economics and Political Sciences
M	Million
MIT	Massachusetts Institute of Technology
MTIs	Maatschappelijk Top Instituten (Top Societal Institutes)
n	Note
N8	Eight universities in the North of England
NCA _s	National competition authorities
NHS	National Health Service
NMa	Nederlandse Mededingsautoriteit (Dutch competition authority)
No.	Number
NSO	Netherlands Space Office
NWO	Nederlandse Organisatie voor Wetenschappelijk Onderzoek (Netherlands Research Council)
OCW	Ministerie van Onderwijs, Cultuur en Wetenschap (Ministry for Education, Culture and Sciences)
OECD	Organisation for Economic Co-operation and Development
OFT	Office of Fair Trading (UK competition authority)
OJ	Official Journal
OMC	Open Method of Coordination
Ors	Others

OUP	Oxford University Press
p.	Page
PACEC	Public and Corporate Economic Consultants
PhD	Doctor of Philosophy
PI	Principal investigator
PPPs	Public private partnerships
QR	Quality-related research funding
QS	Quacquarelli Symonds
R&D	Research and development
RAE	Research Assessment Exercise
RCUK	Research Councils UK
REF	Research Excellence Framework
s	Section
SEP	Standard Evaluation Protocol (Netherlands)
seq	Sequentes (following)
SGEIs	Services of general economic interest
SGIs	Services of general interest
SMEs	Small and medium sized enterprises
SNIP	Small but significant and non-transitory increase in price
SSGIs	Social services of general interest
SSRN	Social Science Research Network
STEM	Science, technology, engineering and maths
STW	Stichting voor de Technische Wetenschappen (Technology Foundation)
TFEU	Treaty on the functioning of the European Union
THE	Times Higher Education

TKI	Topconsortia voor Kennis an Innovatie (Top Consortia for Knowledge and Innovation)
TNO	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek (Netherlands Organisation for Applied Scientific Research)
TRAC	Transparent Approach to Costing
TSB	Technology Strategy Board
TTIs	Top Technological Institutes
UCAS	Universities and Colleges Admission Service
UCU	University and College Union
UIFZ	Universitäts-Industrie-Forschungs-Zentren (University-industry research centres)
UK	United Kingdom
US/USA	United States (of America)
UvA	Universiteit van Amsterdam
VAT	Value added tax
VSNU	Vereniging van universiteiten (association of universities in the Netherlands)
VU	Vrije Universiteit Amsterdam
VVDstRL	Veröffentlichungen der Vereinigung der Deutschen Staatsrecht-slehrer (publication series)
WHW	Wet op het hoger onderwijs en wetenschappelijk onderzoek (Higher Education and Research Act)
ZonMw	Zorgonderzoek Nederland en Medische Wetenschappen (Netherlands Organisation for Health Research and Development)

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95-1211(CR) (D. D. C. 1996)*

934 F. Supp. 435

Legislation

Treaties (in chronological order)

Treaty establishing the European Economic Community (EEC Treaty)

Single European Act OJ [1987] L 169/1

Treaty of Maastricht on European Union OJ [1992] C 191/01

Treaty on European Union, together with the complete text of the Treaty establishing the European Community OJ [1992] C 224/01 (EU Treaty and EC Treaty)

Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and related acts OJ [1997] C 340/01

Treaty of Nice amending the Treaty on European Union, the Treaties Establishing the European Communities and certain related acts OJ [2001] C 80/01

Treaty establishing a Constitution for Europe OJ [2004] C 310/01 (European Constitution)

Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community OJ [2007] C 306/01

Charter of Fundamental Rights of the European Union OJ [2010] C 83/02

Treaty on the Functioning of the European Union (Consolidated version 2012) OJ [2012] C 326/01

Secondary legislation (in alphabetical order)

Commission Communications

Commission Communication 'Europe 2020 - A strategy for smart, sustainable and inclusive growth' COM(2010) 2020 final

Commission Communication 'European Union framework for State aid in the form of public service compensation' OJ [2012] C 8/03

Commission Communication 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' OJ [2009] C 45/02

Commission Communication 'Guidelines on the application of Article 81(3) of the Treaty' OJ [2004] C 101/08

Commission Communication 'Implementing the Community Lisbon Programme: Social Services of General Interest in the European Union' COM(2006) 177 final

Commission Communication 'Services of general interest in Europe' OJ [2001] C 17/04

Commission Communication 'Towards a European research area' COM(2000) 6 final

Commission Communication concerning the prolongation of the application of the Community framework for State aid for research and development and innovation OJ [2013] C 360/1

Commission Communication on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest OJ [2012] C 8/02

Communication from the Commission to the Council 'Report on the functioning of Regulation No 139/2004' COM(2009) 281 final

Commission Notices

Commission Notice 'Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty' OJ [2004] C 101/81

Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (de minimis) OJ [2001] C 368/07

Commission Notice on the definition of the relevant market for the purposes of Community Competition law OJ [1997] C 372/5

Conclusions

European Council Conclusions EUCO13/10 CO EUR 9 CONCL 2, 17 June 2010

Presidency Conclusions, Barcelona European Council, 15 and 16 March 2002

Presidency Conclusions, Lisbon European Council 23./24.03.2000

Decisions

Decision 1513/2002/EC concerning the sixth framework programme of the European Community for research, technological development and demonstration activities, contributing to the creation of the European Research Area and to innovation (2002 to 2006) OJ [2002] L 232/01

Decision 1982/2006/EC concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013) OJ [2006] L 412/01

Decision 2006/225/EC on the aid scheme implemented by Italy for the reform of the training institutions OJ [2006] L 81/13

Decision 2012/21/EU on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest OJ [2012] L 7/3

Directives

Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States amending Regulation (EEC) No 1612/68 and repealing Directives 64/221/EEC, 68/360/EEC, 72/194/EEC, 73/148/EEC, 75/34/EEC, 75/35/EEC, 90/364/EEC, 90/365/EEC and 93/96/EEC OJ [2004] L 158/77

Directive 2005/36/EC on the recognition of professional qualifications OJ [2005] L 255/22

Directive 2006/111/EC on the transparency of financial relations between Member States and public undertakings as well as on financial transparency within certain undertakings OJ [2006] L 318/17

Directive 2008/6/EC amending Directive 97/67/EC with regard to the full accomplishment of the internal market of Community postal services OJ [2008] L 52/3

Directive 77/388/EEC on the harmonization of the laws of the Member States relating to turnover taxes - Common system of value added tax: uniform basis of assessment OJ [1977] L 145/1

Regulations

Regulation 1/2003/EC on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty OJ [2003] L 1/1

Regulation 1217/2010/EU on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of research and development agreements OJ [2010] L 335/36

Regulation 1218/2010/EU on the application of Article 101(3) of the Treaty on the Functioning of the European Union to certain categories of specialisation agreements OJ [2010] L 335/43

Regulation 1224/2013/EU amending Regulation (EC) No 800/2008 as regards its period of application OJ [2013] L 320/22

Regulation 139/2004/EC on the control of concentrations between undertakings (the EC Merger Regulation) OJ [2004] L 24/1

Regulation 1998/2006/EC on the application of Articles 87 and 88 of the Treaty to de minimis aid OJ [2006] L 379/5

Regulation 330/2010/EU on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices OJ [2010] L 102/1

Regulation 360/2012/EU on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid granted to undertakings providing services of general economic interest OJ [2012] L 114/12

Regulation 4064/89/EEC of 21 December 1989 on the control of concentrations between undertakings OJ [1989] L 395/01

Regulation 492/2011/EU on freedom of movement for workers within the Union Text with EEA relevance OJ [2011] L 141/01

Regulation 772/2004/EC on the application of Article 81(3) of the Treaty to categories of technology transfer agreements OJ [2004] L 123/11

Regulation 800/2008/EC declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation) OJ [2008] L 214/3

Regulation XXXX/2013/EU on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to de minimis aid (publication in the Official Journal foreseen on 24 December 2013)

Other acts

Commission White Paper on the modernisation of the rules implementing Articles 85 and 86 of the EC Treaty Programme No 99/027 OJ [1999] C 132/01

Communication to the Spring European Council - Working together for growth and jobs - A new start for the Lisbon Strategy - Communication from President Barroso in agreement with Vice-President Verheugen COM(2005) 24 final

Community framework for state aid for research and development and innovation OJ [2006] C 323/01 (in this thesis referred to as Research Framework)

Community framework for State aid for research and development OJ [1996] C 45/5

Draft Commission Communication (2004) ‘A new framework for the assessment of State aid which has limited effects on intra-Community trade’ available on http://ec.europa.eu/competition/state_aid/reform/sit_let_en.pdf

Framework Programme for Research 1984-87 COM(83) 260 final

Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings OJ [2004] C 31/03

Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings OJ [2008] C 265/07

Issue Paper ‘Revision of the state aid rules for research and development and innovation’ from 12 December 2012 available on http://ec.europa.eu/competition/state_aid/legislation/rdi_issues_paper.pdf

Report to the Laeken European Council ‘Services of General Interest’ COM(2001) 598 final

Bologna (in chronological order)

Sorbonne Joint Declaration on harmonisation of the architecture of the European higher education system by the four Ministers in charge for France, Germany, Italy and the United Kingdom, 25 May 1998

Bologna Joint Declaration of the European Ministers of Education, 19 June 1999

Leuven and Louvain-la-Neuve Communiqué of the Conference of European Ministers Responsible for Higher Education, 28-29 April 2009

Budapest-Vienna Declaration on the European Higher Education Area, 12 March 2010

National Legislation (in alphabetical order)

Germany

Bayerisches Hochschulgesetz (Bavarian Higher Education Act)

Berliner Hochschulgesetz (Berlin HEI Act)

Bremisches Hochschulgesetz (Bremen HEI Act)

Deutsches Gesetz über Arbeitnehmererfindungen, short
Arbeitnehmererfindungsgesetz (Employee Invention Act)

Gesetz über die Hochschulen in Baden-Württemberg (Act on HEIs in Baden-Württemberg)

Gesetz über Urheberrecht und verwandte Schutzrechte (Copyright Act)

Gesetz zur Flexibilisierung von haushaltsrechtlichen Rahmenbedingungen außeruniversitärer Wissenschaftseinrichtungen, short *Wissenschaftsfreiheitsgesetz*
(Freedom of Research Act)

Grundgesetz (Constitution) English translation available on: http://www.gesetze-im-internet.de/englisch_gg/englisch_gg.html#p0493

Hochschulrahmengesetz (Framework Act for Higher Education) English translation available on http://www.bmbf.de/pubRD/hrg_20050126_e.pdf

Netherlands

Akkord bekostiging wetenschappelijk onderzoek 2008 (Agreement on Common Guidelines for Funding Provision)

Kader financieel beheer rijkssubsidies (Subsidy Framework for Public Subsidies)

Kaderbesluit EZ-subsidies (Framework Act for EZ Subsidies)

Regeling onderwijscontroleprotocol OCW/EZ 2012 (Regulation Education Control

Protocol OCW/EZ 2012)

Uitvoeringsbesluit WHW 2008 (WHW Executing Act 2008)

Wet op het hoger onderwijs en wetenschappelijk onderzoek (Higher Education and Research Act)

Wet Versterking Besturing (Strengthening Administration Act)

UK

Competition Act 1998

Education Act 2011

Education Reform Act 1988

Further and Higher Education Act 1992

Higher Education Act 2004

Patents Act 1977

Teaching and Higher Education Act 1998

Other

Sherman Act (US American Competition Act)

Chapter 1

Introduction: An interdisciplinary analysis of the mission of European HEIs and potential external constraints

1.1. Introduction

The position of HEIs in the European integration project mirrors tensions between EU economic integration and the EU's and its Member States' wider missions, which are frequently discussed as tensions between economic and social integration. On the one hand, the European Union does not use the supranational method of integration in this field but employs soft law measures (Open Method of Coordination (OMC) and the extra-EU Bologna Process). On the other hand, the main activities of HEIs, namely higher education and research, constitute yet another field where the forces of directly applicable Treaty provisions, such as Union citizenship, the free movement provisions and provisions on competition law and state aid, may deconstruct some national policy concepts. At the same time, HEIs in many Member States have been subjected to national policies, partly influenced by EU policy, that force them to commodify their 'products', making HEIs more vulnerable to the more economic provisions of EU law and potentially forcing further commercialisation which could endanger the traditional non-economic mission of European HEIs. The thesis analyses how EU law and policy impact on the HEI sector with a specific focus on the exposure of HEI research to EU competition law.

Whilst tensions between the economic and the social have generally received increasing awareness over the last decade,¹ HEIs have received less attention in this

¹ See, for example, the contributions in G de Burca and B de Witte, *Social Rights in Europe* (OUP, Oxford 2005), M Dougan and E Spaventa, *Social welfare and EU law* (Hart Publishing, Oxford/Portland/Oregon 2005), U Neergaard, R Nielsen and L Roseberry, *Integrating Welfare Functions into EU Law - From Rome to Lisbon* (DJØF, Copenhagen 2009), E Mossialos et al, *Health systems governance in Europe: the role of EU law and policy* (CUP, Cambridge 2010), D Schiek, U Liebert and H Schneider, *European Economic and Social Constitutionalism after the Treaty of Lisbon* (CUP, Cambridge 2011), N Bruun, K Lörcher and I Schömann, *The Lisbon Treaty and social Europe* (Hart, Oxford/Portland 2012), L Burrioni, M Keune and G Meardi, *Economy and society in Europe: a relationship in crisis* (Edward Elgar, Cheltenham/Northampton 2012), B Cantillon, H Verschuere and P Ploscar, *Social inclusion and social*

respect and work which has investigated the influences of EU law on HEIs has mainly focussed on citizenship and the free movement provisions.² The consequences of EU competition law have only been tentatively investigated by few authors³ and almost exclusively with regard to the education aspect of HEIs.⁴ Furthermore, the discussion on the position of HEIs in Europe which takes place more widely in other disciplines⁵ has received only limited attention from an EU legal studies perspective.⁶

This thesis aims to fill these gaps, by linking the debates and situating European HEI policy within the context of European integration theories. It will, furthermore, conduct an in-depth legal doctrinal analysis of potential EU competition law

protection in the EU: interactions between law and policy (Intersentia, Cambridge/Portland 2012), P Whyman, M Baimbridge and A Mullen, *The political economy of the European social model* (Routledge, Milton Park/New York 2012), U Neergaard et al, *Social Services of General Interest in Europe* (T.M.C. Asser, The Hague 2013) and D Schiek, *The EU Economic and Social Model in the Global Crisis* (Ashgate, Farnham 2013).

² See, for example, AP Van der Mei, 'EU Law and Education: Promotion of student mobility versus protection of the education systems' in M Dougan and E Spaventa (eds), *Social welfare and EU law* (Hart Publishing, Oxford/Portland/Oregon 2005), M Dougan, 'Cross-border educational mobility and the exportation of student financial assistance' (2008) 5 *European Law Review* 723, S Garben, 'The Belgian/Austrian Education Saga' (2008) 1 *Harvard European Law Working Paper*, N Reich, 'Herkunftsprinzip oder Diskriminierung als Maßstab fuer Studentenfreizügigkeit?' (2009), 18 *EuZW* 637 and D Damjanovic, "'Reserved areas" of the Member States and the ECJ: the case of higher education' in H-W Micklitz and B De Witte (eds), *The European Court of Justice and the Autonomy of the Member States* (Intersentia, Cambridge 2012).

³ Mainly E Steyger, 'Competition and Education' in J de Groof, G Lauwers and G Dondelinger (eds), *Globalisation and Competition in Education* (Wolf Legal Publishers, Nijmegen 2002), H Swennen, 'Onderwijs en Mededingsrecht' (2008/2009) 4 *Tijdschrift voor Onderwijsrecht en Onderwijsbeleid* 259, F Amato and K Farbmann, 'Applying EU competition law in the education sector' (2010) 6 *IJELP* 7 and R Greaves and A Scicluna, 'Commercialization and competition in the education services sector - Challenges to the education service sector from the application of Articles 101 and 102 TFEU' (2010) 6 *IJELP* 13.

⁴ The exception is S Huber and J Prikoszovits, 'Universitäre Drittmittelforschung und EG-Beihilfenrecht' (2008) 19 *EuZW* 171.

⁵ See, for example, F Van der Ploeg and R Veugelers, 'Higher education reform and the renewed Lisbon strategy: role of member states and the European Commission' (2007) 1901 *CESifo Working Paper*, AR Cardoso et al, 'Demand for Higher Education Programs: The Impact of the Bologna Process' (2008) 54 *CESifo Economic Studies* 229, H-A Koch, *Die Universität - Geschichte einer europäischen Institution* (Wissenschaftliche Buchgemeinschaft, Darmstadt 2008), JG Wissema, *Towards the Third Generation University* (Edward Elgar, Cheltenham/Northampton 2009) or the contributions to J Enders and E de Weert, *The changing face of academic life* (Palgrave Macmillan, Basingstoke/New York 2009), M McKelvey and M Hølem, *Learning to compete in European Universities* (Edward Elgar, Cheltenham/Northampton 2009) and D Palfreyman and T Tapper, *Structuring Mass Higher Education* (Routledge, New York/London 2009).

⁶ Most prominently by S Garben, 'The Bologna Process: From a European Law Perspective' (2010) 16 *ELJ* 186.

constraints on HEIs. This analysis is further specified for HEI research in three Member States, whose HEI systems have been commercialised to different degrees. A qualitative empirical study will illustrate even more specifically how research in universities may be impacted upon by EU competition law (as an example of exposure to economic constraints) and in how far pivotal actors in universities are aware of this impact. This thesis will, thus, not only expound the knowledge about European (legal) integration and its effects on national HEI policies, but will also offer practical insights which can serve as guidance for policymakers and professionals in the national HEI sectors, allowing them to address potential problems and identify best practices.

1.2. Studying EU law constraints on HEIs

HEIs are investigated as a field where Member States avoid establishing supra-national law, but where HEIs, nevertheless, can come within the ambit of directly applicable EU law, especially if Member States pursue national policies of commercialisation thereby increasing the likeliness of applicability of the more economic provisions of directly applicable EU law. Therefore, provisions of EU law seemingly unrelated to HEIs such as those on citizenship, the fundamental freedoms, competition and state aid can ‘spill over’ and might lead to unintended consequences for national policy choices. This may even trigger further commercialisation of the sector, which, in turn, may endanger the traditional non-economic missions of European HEIs. The thesis analyses how EU law and policy impact on the HEI sector with a specific focus on potential constraints from EU competition law on research in HEIs as an example of exposure to economic constraints.

This question is investigated from political and social science perspectives as well as through legal doctrinal analysis of legislation and case law,⁷ culminating in a qualitative empirical study covering ten universities in three Member States. Research in publicly funded research intensive universities has been chosen as the field for the empirical study, since market structures are increasingly being introduced in this area and HEIs thus compete with each other and with other research providing

⁷ For more on legal doctrine analysis see EH Tiller and FB Cross, 'What is legal doctrine?' (2006) 100 *Northwestern University Law Review* 517, especially p. 518 seq.

actors. Research, therefore, has the potential to fall into the ambit of the more economic provisions of EU law and thus lends itself as an illustrative example of the constraints that may arise for the sector. EU competition law has been chosen, not only because there is little research on its potential impact, but also because this impact has the potential to demand significant changes in HEI practice, as already evident in the Research Framework's⁸ requirement to introduce full costing for research in publicly funded research organisations in Europe, including HEIs. The doctrinal and empirical investigation of competition law implications will demonstrate that even more demands for commercialisation of public universities may derive from EU competition law.

The thesis is structured into six chapters (including this introductory chapter). The remainder of this chapter will be dedicated to illuminating the historical and theoretical background. It will be shown how HEIs moved away from their traditional mission to become more economic in nature, leading to a potential spilling-over from the more economic provisions of EU law. Chapter 2 will analyse the current EU and extra-EU policies showing that Member States were reluctant to use the supranational method of integration. It will then demonstrate in overview the potential of spill-over from directly applicable EU law, namely from Union citizenship, the free movement provisions and competition law. Chapter 3 continues this study in more detail in the area of EU competition law. It will first assess the concept of 'undertaking' and services of general economic interest (SGEIs) to determine in how far HEIs might fall under the competition law provisions in the first place. The second part of chapter 3 then conducts an in-depth legal-doctrinal analysis of potential constraints on HEIs arising from competition and state aid law.

Chapter 4 prepares for the empirical study by laying out which countries have been chosen for the study and introducing a common approach to discussing their research systems. Each country is then analysed in a separate subchapter after which a section provides a tentative overview of potential conflicts with competition law. The empirical study is contained in chapter 5. In its first subchapter the methodology of the empirical study is explained showing, inter alia, how the universities under

⁸ Community framework for state aid for research and development and innovation OJ [2006] C 323/01 (Research Framework).

scrutiny have been chosen and how the interview questions have been drafted as well as how the interviews will be analysed; namely by employing a framework developed on the basis of the results of chapters 3 and 4. This is followed by a subchapter on each country discussing the economic constraints in the relevant system as experienced by interviewees, their awareness of and the potential constraints arising from EU competition law. Chapter 6 will connect the results of the empirical study with the previous chapters thereby assessing how applying the EU's economic constitution to HEIs may lead to unforeseen consequences including further commodification which could endanger the traditional non-economic mission of European HEIs. The constraints faced by the sector are then contextualised in the wider debate before concluding that alternative strategies to EU policy on HEIs might be desirable.

1.3. Historical and theoretical background

As mentioned above the remainder of this chapter will outline the development of Europe's HEIs to explain their character and current influences upon them. It will also position the thesis within the approaches of European integration theory to illuminate the theoretical background.

1.3.1. The original non-economic purpose of European HEIs

The first HEIs⁹ in Europe developed in the Middle Ages¹⁰ and have since undergone two significant periods of change.¹¹ Originally HEIs were bodies widely

⁹ The terms HEI and university are used interchangeably here as in most literature on the subject (see M Allen, *The Goals of Universities* (Milton Keynes, Philadelphia 1988) p. 14). This phenomenon, might be based on the fact that for many centuries the university was the most important HEI in the meaning of the term today. Where differentiation is essential this has been made clear.

¹⁰ See DJ Farrington and D Palfreyman, *The Law of Higher Education* (OUP, Oxford 2012) p. 11 who trace the earliest forerunner HEI in Europe back to the Pandidakterion in what is now Istanbul in 425 AD. The first universities in the narrower sense in Europe then developed in the High Middle Ages starting with the University of Bologna in 1158. See also WB Cowan, R Cowan and P Llerena, 'Running the marathon' in M McKelvey and M Holem (eds), *Learning to compete in European Universities* (Edward Elgar, Cheltenham/Northampton 2009) p. 278, Koch (n 5) p. 20 seq, Wissema (n 5) p. 3, 9.

¹¹ The features of universities in different periods are elaborated upon here in an ideal-typical manner in the Weberian sense by describing the archetype extracted from common appearances. Such an analysis thus explicitly does not entail that every situation is exactly in accordance with the ar-

autonomous from church and state.¹² This, despite the Bible being regarded as the ultimate truth, allowed them to question current doctrine (the scholastic method) which is considered the beginning of academic freedom.¹³ Whilst the medieval universities' main focus was to teach students recognising 'divine truth', professors also conducted experiments and knowledge transfer activities such as serving as advisors or judges.¹⁴ As HEIs developed under pre-nation-state conditions and Latin served as the *lingua franca*, they were international institutions engaged in lively mutual exchange.¹⁵

In early modernity¹⁶ corresponding to the rise of nation states in Europe, HEIs too became national institutions. At the same time, societal developments such as the exploration of (to Europeans) hitherto unknown parts of the world, discoveries in the natural sciences by Copernicus, Galileo and, later, Newton and the rise of humanist philosophy nourished HEIs.¹⁷ In the 19th century, the Prussian Minister of Education Wilhelm von Humboldt established a new concept by integrating a stronger research focus into the nationalised HEIs.¹⁸ Accordingly, research was conducted for the sake

chetype, instead it is more a trend becoming apparent. See M Weber, *Wirtschaft und Gesellschaft* (Zweitausendundeins, Frankfurt am Main 2005) p 4 seq.

¹² See JC Scott, 'The Mission of the University: Medieval to Postmodern Transformations' (2006) 77 *The Journal of Higher Education* p. 7, G Neave, 'The Academic Estate Revisited: Reflections on Academia's Rapid Progress from the Capitoline Hill to the Tarpeian Rock' in J Enders and E de Weert (eds), *The changing face of academic life* (Palgrave Macmillan, Basingstoke/New York 2009) p. 19, R Stichweh, 'Universitaet in der Weltgesellschaft' (2009 academic speech at the Dies Academicus der Universitaet Luzern) <http://www.unilu.ch/files/Universitaet-in-der-Weltgesellschaft.pdf> accessed 19 January 2010 p. 2, Wissema (n 5) p. 6 seq, 10.

¹³ See Scott (n 12) p. 2 seq, 8 seq, Wissema (n 5) p. 5, Allen (n 9) p. 16.

¹⁴ See Scott (n 12) p. 6 seq, Wissema (n 5) p. 4 seq, 9 seq, Allen (n 9) p. 16, W Clark, *Academic Charisma and the Origins of the Research University* (University of Chicago Press, Chicago 2006) p. 4 seq, Neave (n 12) p. 24.

¹⁵ See Scott (n 12) p. 7 seq, Wissema (n 5) p. 10, Stichweh (n 12) p 2.

¹⁶ Early 16th until late 18th century. See M Erbe, *Die frühe Neuzeit* (Kohlhammer, Stuttgart 2007) p. 11.

¹⁷ See Scott (n 12) p. 10 seq, Wissema (n 5) p 9 seq, 14, Cowan, Cowan and Llerna (n 10) p. 279, Clark (n 14) p. 6 seq, Allen (n 9) p. 16, 21, Koch (n 5) p. 74 seq.

¹⁸ See Scott (n 12) p. 19 seq, Wissema (n 5) p. 13 seq, E Denninger, 'Art. 5 Abs. 3 I GG' in E Denninger and others (eds), *Kommentar zum Grundgesetz fuer die Bundesrepublik Deutschland* (3rd edn, Hermann Luchterhand Verlag, Neuwied/Kriftel 2001) p. 10, Clark (n 14) p. 3 seq, Cowan, Cowan and Llerna (n 10) p. 279, Neave (n 12) p. 24. Further on Humboldt's writings about the university see Koch (n 5) p. 143 seq.

of acquiring new knowledge with no applications in mind,¹⁹ was chiefly mono-disciplinary with increasing specialisation and was supposed to inform teaching. Furthermore, the ideas of allowing students to choose their courses freely and to guarantee professors freedom of choice regarding the directions of research and teaching, strengthened the academic freedom.²⁰

By the end of the 19th century European universities had thus developed into research intensive institutions which, despite being nationalised, retained a high degree of academic freedom and autonomy. They served the public purpose in the national interest by teaching and conducting research for knowledge's sake rather than towards a particular, commercially exploitable aim and were funded mainly by the state.²¹

1.3.2. The republican university in the US

HEIs across the Atlantic developed differently; influenced by the spirit of establishing a democratic republic, the US HEI model focussed on equality of access (which, however, did not initially include gender and race) and equality between academic subjects. This led to the establishment of a vast variety of HEIs and was the basis for the beginning of mass higher education.²² Two sets of ideas shaped a second trend in US HEIs; the philosophy of the Progressive Era (late 19th until mid 20th century) aimed at the refinement of big business and government towards their use for the public and economic efficiency²³ and the Wisconsin Idea promoted that

¹⁹ Applied research as well as some research in the very expensive 'big science' thus developed mainly outside HEIs. See further Scott (n 12) p. 21 seq.

²⁰ See H Röhrs, *Der Einfluss der klassischen Deutschen Universitätsidee auf die Higher Education in Amerika* (Deutscher Studienverlag, Weinheim 1995) p. 124, Denninger (n 18) p. 10 seq, Clark (n 14) p. 3 seq, H Connell, 'The growing significance of the research mission to higher education institutions' in H Connell (ed) *University Research Management* (OECD, Paris 2004) p. 19, Scott (n 12) p. 20 seq, Wissema (n 5) p. 13 seq, E de Weert, 'Organised Contradictions of Teaching and Research: Reshaping the Academic Profession' in J Enders and E de Weert (eds), *The changing face of academic life* (Palgrave Macmillan, Basingstoke/New York 2009) p. 135, 140, Neave (n 12) p. 31.

²¹ In the following, the term HEIs when used in the European context refers to these (usually public) institutions which combine research and tertiary education, since, despite the fact that there are now also other forms of HEIs, these classical European HEIs, for which the term 'university' could almost be used interchangeably, are the focus of this research.

²² See Röhrs (n 20) p. 104, 116 seq, 121 seq, Scott (n 12) p. 14 seq, 17.

²³ The Progressive Era with its high time from 1890 to 1916 was a movement of various interest groups, however, with some major influences from the white US middle classes who next to the

HEIs should be of service to the public through, inter alia, a focus on applied research, vocational education as well as knowledge exchange and facility sharing.²⁴ As a result, HEIs were expected to serve society more directly, for example, through providing vocational education, conducting applied research and cooperating with businesses and government.²⁵ This also led to an increase in external funding for, as well as influences on, the directions of research.²⁶

These universities, while still serving the public good, were susceptible to commercialisation of academic life. As early as in 1970, critical observers noticed that the logic of the market place had become increasingly dominant in US universities, as aptly summarised in the term 'commodification'.²⁷ This term, though of Marxist origin,²⁸ is used here to describe the changing process towards creating something for market rather than for ideal purposes.²⁹ On the basis of this business-like re-conceptualisation, US universities started to compete with each other and to reach out to international markets of education, arguably creating a world-wide market for higher education and academic research dominated by industrial centres of the world.³⁰

mentioned focus also included a broad variety of other issues such as women's suffrage, restriction of immigration and prohibition. See AS Link, 'What Happened to the Progressive Movement in the 1920's?' (1959) 64 *The American Historical Review* 833, F Jaycox, *The Progressive Era* (Facts on File, New York 2005) preface and introduction, MJ Sklar, *The United States as a developing country: studies in U.S. history in the Progressive Era and the 1920s* (CUP, Cambridge/New York 1992) p. 38.

²⁴ The Wisconsin Idea started in Wisconsin and was originally focussed on the state's university. See further JD Hoeveler, 'The university and the social gospel: the intellectual origins of the 'Wisconsin Idea' (1976) 59 *Wisconsin Magazine of History* 282.

²⁵ See Scott (n 12) p. 23 seq, Allen (n 9) p. 21 seq, Röhrs (n 20) p. 108, 115 seq, 123.

²⁶ See Röhrs (n 20) p. 107 seq, Scott (n 12) p. 27 seq. The external influences on universities have later been criticised in the student protests of the 1960s (Scott (n 12) p. 24).

²⁷ W Shumar, *College for sale: a critique of the commodification of higher education* (Routledge, Milton Park/New York 2013 (republication, originally 1997)).

²⁸ *Ibid* pp. 15seq.

²⁹ See also H Radder, *The commodification of academic research: science and the modern university* (University of Pittsburgh Press, Pittsburgh 2010), p. 4 seq who perceives the interpretation and assessment of processes on the basis of economic criteria as the main characteristic of commodification.

³⁰ See S Choon Fong, 'The global challenge for universities' in S Marginson and R James (eds), *Education, Science and Public Policy - Ideas for an Education Revolution* (Melbourne University Press, Carlton 2008) p. 79 seq who predicts that Asia will be this centre in the future.

1.3.3. Gradual commodification of European HEIs

European HEIs did not go through an idealistic phase of orienting themselves on how to serve the public good more directly. However, from the second half of the 20th century onwards universities were gradually re-structured in congruence with the demands of increasingly complex economies demanding qualified employees. Governments aimed at expanding access to higher education from the 1980s, opening existing HEIs to more students and creating a number of new HEIs. Dwindling public resources³¹ seemed to require the end of free university education and the introduction of study fees. The increased numbers of institutions competed for public and private resources and also for being perceived as offering the most competitive education and highest levels of employability. The influence of the global successes of US universities contributed to the acceleration of internationalisation; together with new information technologies (IT), it incited the national European HEIs to re-internationalise, using English as the new *lingua franca* and supporting student and researcher mobility as well as international research collaborations.³²

While all this did not necessitate turning the activities of HEIs into marketable services, it certainly facilitated this development. The concept of commodification seems suitable to describe the recent developments of European HEIs. As briefly mentioned above, commodification is the process by which an activity (such as higher education or research) is changed in order to become a service tradeable on markets. This process thus turns education and research from a public good into a

³¹ Former Higher Education Minister for England, David Lammy, for example, declared that ‘any pressures on spending should be seen against the background of a long-term increase in student numbers [...] with "more students than ever before in our history"’. See H Richardson, 'University budget cuts revealed' *BBC News* (1 February 2010) <http://news.bbc.co.uk/1/hi/education/8491729.stm> accessed 2 February 2010.

³² See Choon Fong (n 30) p. 80 seq, Connell (n 20) p. 17 seq, 22 seq, Cowan, Cowan and Llerna (n 10) p. 278 seq, 290 seq, E Deiacio, M Holmen and M McKelvey, 'From social institution to knowledge business' in M McKelvey and M Holmen (eds), *Learning to Compete in European Universities* (Edward Elgar, Cheltenham/Northampton 2009) p. 329 seq, de Weert (n 20) p. 143 seq, L Hubig, *Die Universitaet - Leistungsbemessung und -bewertung in einer komplexen Organisation* (Josef EUL Verlag, Lohmar/Koeln 2009) p. 51, Konsortium Bildungsberichterstattung, *Bildung in Deutschland* (Bertelsmann Verlag, Bielefeld 2006) p. 101, Neave (n 12), D Palfreyman and T Tapper, 'What is an 'Elite' or 'Leading Global' University?' in D Palfreyman and T Tapper (eds), *Structuring Mass Higher Education* (Routledge, New York/London 2009) p. 205 seq, 209 seq, Röhrs (n 20) p. 109 seq, 115, Scott (n 12) p. 30 seq, T Steinfeld, 'Unternehmen Universitaet' (2009) 5 *Forschung & Lehre* 346 p. 346, Stichweh (n 12) p. 2, Wissema (n 5) p. 17 seq, 31 seq.

commodity. European public HEIs, as has been mentioned above, are national institutions. They are publicly funded, containing elements of national identity and culture and are tasked with accumulating and disseminating knowledge and providing higher education (without a particular, commercially exploitable aim) for all.³³ Especially public higher education can be regarded as belonging to the welfare state as wider access to HEIs is seen as a precondition of participation in complex economies and thus increasingly constitutes an element of social policy. Therefore, in Europe, where higher education and research can widely be comprehended as a public good, commodification of HEIs also inverts the process of de-commodification characteristic for public services in the welfare state.³⁴

The following trends are seen as characteristic for the commodification of European HEIs: public funding is reduced which leads to the introduction of business style administration of HEIs as well as competitive parameters for public funding and the need to look for alternative sources. Private providers start offering degree courses and organising research projects in the HEI 'market'. Academic research not only becomes more interdisciplinary, but also more applied.³⁵ Furthermore, universities start to focus on such fields of research where demand by business

³³ U Teichler, 'Geschichte und Entwicklung der Bildungsprogramme der Europaeischen Union' in U Teichler (ed), *Die Internationalisierung der Hochschulen - Neue Herausforderungen und Strategien* (Campus Verlag, Frankfurt am Main 2007) p. 105, H Walkenhorst, 'Explaining change in EU education policy' (2008) 15 *Journal of European Public Policy* 567 p. 567, 574 seq.

³⁴ Esping-Andersen coined the term 'de-commodification' to explain the purpose of welfare systems as a means to create independence for individuals of their capacity to engage in the market. See G Esping-Andersen, *Three Worlds of Welfare* (Princeton University Press, Princeton 1990) p. 21 seq, 35 seq, G Esping-Andersen, *Social Foundation of Postindustrial Economies* (OUP, Oxford 1999) 43 seq.

³⁵ The following definition used by the OECD in its Frascati Manual will be used throughout this thesis: 'Basic research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view. Applied research is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective. Experimental development is systematic work, drawing on existing knowledge gained from research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.'. OECD, *Frascati Manual* (OECD, Paris 2002).

and public funders is greatest, disregarding their ideal aims. HEIs also increasingly cooperate with industry and commercially exploit the results of their own research.³⁶

1.3.4. Positioning of the thesis in European integration theory

These two recent, though not necessarily linked,³⁷ tendencies of commercialisation and internationalisation have not gone unnoticed at the European level where HEIs did not originally play a role, and attempts have been made to establish European policies on HEIs. However, as will be explained further in chapter 2, the supranational method of integration was not chosen. Instead Member States decided to apply EU and extra EU soft law approaches. The negative connotation of these approaches³⁸ and (particularly since the economic crisis) of the EU in general,³⁹ might make further integration into the hard law frame unlikely at present.

³⁶ For more on commodification trends see, Connell (n 20) p. 17 seq, 21 seq, Deiacco, Holmen and McKelvey (n 32) p. 330 seq, Palfreyman and Tapper (n 32), Choon Fong (n 30) p. 78 seq, 82 seq, Steinfeld (n 32), Stichweh (n 12) p. 2, Cowan, Cowan and Llerna (n 10), de Weert (n 20), Hubig (n 32) p. 50 seq, 57, B Jongbloed and B van der Meulen, *Investeren in Dynamiek - Eindrapport Commissie Dynamisering Deel 1* (2006) available on <http://www.utwente.nl/cheps/publications/Publications%202006/dynamiek1.pdf> p. 28 seq, B Kempen, 'Universitaet - Zentrum der Forschung?' (2009) 5 *Forschung & Lehre* 334, Konsortium Bildungsberichterstattung (n 32) p. 101 seq, Neave (n 12), Röhrs (n 20) p. 106 seq, M Thornton, *Privatising the public university* (Routledge, Abingdon 2012). In favour of these trends see Wissema (n 5) p. 17 seq, 31 seq, 38 seq, Van der Ploeg and Veugelers (n 5) p. 26 seq.

³⁷ Internationalisation was, for example, also a feature of the medieval university model (see above) and there were tendencies towards commodification in the US American model in recent decades before re-internationalisation. In fact, HEIs worked closely with national industry partners and government in the frame of the national war effort in the second World War and the Cold War as part of the second US American HEI trend of serving society directly. See Röhrs (n 20) p. 107 seq, Scott (n 12) p. 27 seq.

³⁸ See chapter 2 below on criticism of the Lisbon/Europe2020 Strategy and, especially, the Bologna Process. Although the latter is not an EU mechanism, it might negatively influence supranational integration, since the general public often does not differentiate between EU and extra EU measures at the European level. As an example for the latter see the statement by a journalist in a German weekly news magazine; '[...] die seit zwei Jahren anhaltenden Bemühungen der 27 Bologna-Bildungsminister, die „Grundfreiheit des Wissens“ in die EU-Verträge aufzunehmen [...]’ (... the for two years continuing efforts of the 27 Bologna education ministers to integrate the fundamental freedom of knowledge into the EU Treaties ...). S Dreisbach, 'Studienreform - Gleichberechtigung sieht anders aus' *FOCUS-Online* (4 August 2010) http://www.focus.de/wissen/campus/tid-18713/studienreform-gleichberechtigung-sieht-anders-aus_aid_521074.html accessed 12 December 2013.

³⁹ Most significantly, this has been recently expressed in the UK Prime Minister's speech on UK-EU relations (available as PDF on <http://s3.documentcloud.org/documents/560654/cameron-europe-transcript.pdf>) urging renegotiation of this Member State's status in the EU and promising a referendum on exiting the EU completely (further on the speech see, for example, BBC News, 'David Cameron promises in/out referendum on EU' *BBC News* (23 January 2013) <http://www.bbc.co.uk/news/uk-politics-21148282> accessed 22 February 2013). See further on

This latter assumption is based on social constructivist conceptions of the EU integration project. Social constructivism is an approach in European integration theory⁴⁰ which employs a societal notion of the European project by focussing on all agents rather than just on Member States. According to social constructivism, reality is created by agents which are both influenced by and simultaneously influencing the social space.⁴¹ Therefore, if the agents are negative or even hostile towards the social space (in a certain policy area) this can limit further development of said area. In respect of HEI policy at the European level, Member States seem to have already decided to keep this area out of the supranational EU frame and, as other important agents in this space, such as students and academics, are critical towards measures at the EU and wider European level, a coherent EU supranational policy seems unlikely to develop in the near future.

While HEI policies are thus still the main responsibility of the Member States, HEIs are not immune to EU law.⁴² It is well established that EU law enjoys primacy over national law⁴³ and that certain provisions have direct effect.⁴⁴ Constitutionalised

the rise of euroscepticism D Schiek, 'The EU's Socio-economic Model(s) and the Crisi(e)s - any Perspectives?' in D Schiek (ed) *The EU Economic and Social Model in the Global Crisis* (Ashgate, Farnham/Burlington 2013) p. 11 seq with further references.

⁴⁰ European integration theory evolved in the interdisciplinary subject of EU studies and aims at explaining changes in the political reality in the EU. See RA Cichowski, *The European Court and Civil Society* (CUP, Cambridge 2007) p. 3, DN Chrysochoou, *Theorizing European Integration* (2nd edn Routledge, London/New York 2009) p. 14, T Diez and A Wiener, 'Introducing the Mosaic of Integration Theory' in A Wiener and T Diez (eds), *European Integration Theory* (2nd edn, OUP, Oxford 2009) p. 1 seq. The approaches in European integration theory differ in a variety of ways, for example, as to their assumption of the end state and the importance given to the process of integration (PC Schmitter, 'Neo-Neofunctionalisms' in A Wiener and T Diez (eds), *European Integration Theory* (1st edn, OUP, Oxford 2004) p. 47 seq with a useful diagram on p 48) or as to how far they consider non-actors (D Schiek, 'Re-embedding Economic and Social Constitutionalism: normative perspectives for the EU' in D Schiek, U Liebert and H Schneider (eds), *European Economic and Social Constitutionalism after the Treaty of Lisbon* (CUP, Cambridge 2011) p. 19 seq). For an overview of varying approaches of European integration theory see A Wiener and T Diez, 'Taking Stock of Integration Theory' in A Wiener and T Diez (eds), *European Integration Theory* (2nd edn, OUP, Oxford 2009) p. 243 seq, 250 seq.

⁴¹ For more on social constructivism see T Risse, 'Social Constructivism and European Integration' in A Wiener and T Diez (eds), *European Integration Theory* (2nd edn, OUP, Oxford 2009).

⁴² Similar E Beerkens, 'The Emergence and Institutionalisation of the European Higher Education and Research Area' (2008) 43 *European Journal of Education* p. 407.

⁴³ 6/64 *Costa*.

⁴⁴ 26/62 *Van Gend*.

elements of EU integration⁴⁵ thus apply to HEIs, if they fall within their ambit. This means that certain areas of EU law can spill-over into HEI policies and have an influence upon them. Spill-over is a concept of neo-functionalism, another approach in European integration theory. While neo-functionalism expects an ever closer Union as the outcome of European integration, it is more concerned with the process itself.⁴⁶ Regarding this process, neo-functionalism assumes that a certain policy can only with difficulty be integrated in itself, since policy areas tend not to be completely separable. Therefore, it is likely, even though the newer versions of neo-functionalism acknowledge other outcomes, that an integrated area will ‘spill-over’ (functional spill-over) into other areas potentially fostered by European institutions (cultivated spill-over).⁴⁷ Such spill-over could cause unforeseen problems for HEIs which will be outlined in chapter 2. On a more general level, this is also problematic since spill-over is often triggered by individuals relying on rights derived from EU law⁴⁸ and is therefore not necessarily coherent or in the general interest. This can also be seen through the prism of social constructivism because agents are altering the social space by enforcing their rights, in turn leading the social space to expand by spilling over into other areas. Furthermore, with regards to the more economic areas of EU law, the recent commodification of HEIs increases the likeliness of ap-

⁴⁵ On the constitutional character of EU law see further D Schiek, *Economic and Social Integration - The challenge for EU constitutional law* (Edward Elgar, Cheltenham 2012) p. 64 seq.

⁴⁶ In both it can be regarded as the antipode of liberal intergovernmentalism which assumes the Member States to remain the sole masters. See further on liberal intergovernmentalism A Moravcsik and F Schimmelfennig, 'Liberal Intergovernmentalism' in A Wiener and T Diez (eds), *European Integration Theory* (2nd edn, OUP, Oxford 2009).

⁴⁷ On neo-functionalism see Schmitter (n 40), A Niemann and PC Schmitter, 'Neofunctionalism' in A Wiener and T Diez (eds), *European Integration Theory* (2nd edn, OUP, Oxford 2009), L Hooghe and G Marks, 'The neo-functionalists were (almost) right: politization and European integration' in C Crouch and W Streeck (eds), *The Diversity of Democracy: Corporatism, Social Order and Political Conflict* (Edward Elgar, Cheltenham 2006), G de Burca, 'Rethinking law in neo-functionalist theory' (2005) 12 *Journal of European Policy* 310, W Sandholtz and A Stone Sweet, 'Neo-functionalism and Supranational Governance' in E Jones, A Menon and S Weatherill (eds), *The Oxford Handbook of the European Union* (Oxford University Press, Oxford 2012). With a focus on competition law, which arguably is one of the most integrated areas with extensive powers of the Commission, see L McGowan, 'Theorizing European Integration: revisiting neo-functionalism and testing its suitability for explaining the development of EC competition policy' (2007) 11 *EIoP* p. 3, 5 seq.

⁴⁸ The important role of individuals in enforcing EU law can be seen in the high number of preliminary ruling procedures; with the exception of 2003, preliminary ruling procedures have been the most common kind of new cases to come before the Court every year since 1994 with 404 new cases in 2012. See Court of Justice, *Annual Report 2012* (Publications Office of the European Union, Luxembourg 2013) p. 109/110.

plicability of some of these norms. The potential legal consequences, can, in turn, drive HEIs towards even further commodification. However, the main activities of HEIs, teaching and research, are not only of a heightened social relevance,⁴⁹ but the provision of these ‘services’ as public services by public HEIs is socially important in itself, as it allows for a certain independence (for example, independence from market forces regarding the direction of research and teaching and equality in access to higher education for students).⁵⁰

According to critical political economy (an approach in European integration theory which explains integration with economic reasoning),⁵¹ the European integration project started out as an economic integration endeavour, as this was assumed to be the best way to rebuild the war aggrieved economies of the Member States.⁵² Economic integration is, therefore, at the current stage of European integration, more constitutionalised than social integration.⁵³ The latter is here understood in a wider sense as areas with a social purpose which empower the individual through de-commodification and thus includes areas such as health care and education, rather than just social policy in the narrower sense. Given the general turn towards neoliberalism of the European integration project in recent decades,⁵⁴ many policy areas previously provided by the state in the general interest, such as utilities and later health care, have been subjected to the regime of constitutionalised economic EU

⁴⁹ B Lange and N Alexiadou, 'How to Govern for Solidarity? An Introduction to Policy Learning in the Context of Open Methods of Coordinating Education Policies in the European Union' in M Ross and Y Borgmann-Prebil (eds), *Promoting Solidarity in the European Union* (OUP, Oxford 2010), p. 235.

⁵⁰ See M-E Geis, 'Universitäten im Wettbewerb, 1. Bericht' (2010) 69 VVDStRL 364, p. 390 as regards independence in research and S Collini, 'Browne's Gamble' (2010) 32 *London Review of Books* 23, 23 seq, as regards problems for teaching, inter alia inequality of access and dependence on market forces in a market system.

⁵¹ AW Cafruny and JM Ryner, 'Critical Political Economy' in A Wiener and T Diez (eds), *European Integration Theory* (2nd edn, OUP, Oxford 2009).

⁵² See Article 2 EEC Treaty: 'The Community shall have as its task, by establishing a common market and progressively approximating the economic policies of the Member States, to promote throughout the Community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the states belonging to it.'

⁵³ Schiek (n 45) p. 74.

⁵⁴ According to critical political economy, a shift from the post-war 'European Social Model' towards a more neoliberal endeavour took place after the Bretton Wood crisis. See Cafruny and Ryner (n 51) p. 224 seq, 237 seq.

law,⁵⁵ while social integration has only developed slowly to balance this. Now, education and research in public HEIs may only be the latest public service with a social aim threatened to face constraints arising from EU economic integration as will be outlined further in chapter 2.

1.4. Conclusion

This introductory chapter has delineated the topic of the PhD, set out the research question and provided an overview of the research around the topic under study. It has described the methods to be used and outlined the structure of the thesis. It has then explained the historical and theoretical background for studying HEIs under EU law constraints. In this it has been shown that European HEIs are traditionally widely autonomous institutions funded by the state which provide higher education for knowledge's sake and research with a strong focus on curiosity driven, basic research. Recently, these HEIs have tended towards commodification and internationalisation. Having employed approaches from European integration theory it has been shown that directly applicable EU law can spill-over into the sphere of HEIs potentially requiring further commodification.

The aim of this thesis is to explore this further by, first, situating HEIs in the context of EU policy and law and then conducting an empirical study focussing on exposure of HEI research to EU competition law as an underresearched example of exposure to economic constraints in order to obtain a more in-depth appreciation of the constraints HEIs may face in a specific field. The next chapter will provide a discussion of EU policy on HEIs and the potential of spill-over from directly applicable EU law in overview.

⁵⁵ See, for example, on the incorporation of the utility sector into the ambit of competition law and offering an explanation in neo-functionalism McGowan (n 47) p. 11, 13. He also points to external factors (p. 12) in line with generally more neo-liberal thinking as explained by critical political economy.

Chapter 2

The position of HEIs in European Policy and Law

2.1. Introduction

The aim of this chapter is to provide an overview of the position of HEIs in European law and policy as well as discussing potential spill-over from directly applicable EU law. It will be shown that the EU hard law frame currently only contains limited competences in devising policies regarding HEIs. Instead, policy is made through EU and extra-EU soft law. Nevertheless, other provisions of EU law have already spilled over into the area of HEIs influencing national policy concepts. On-going commodification could increase this effect, thereby endangering the traditional non-economic mission of European HEIs.

The chapter is divided into two subchapters. It first explores how HEIs are positioned within EU policy and law and what reasons might be behind this. The subchapter following thereafter will then be dedicated to the examination of potential ‘accidental’ effects directly applicable EU law might have on HEIs. The chapter will end in a conclusion bringing together the results and leading over to the next chapter.

2.2. Locating HEIs in European policy

As has been discussed in chapter 1, the two main activities of HEIs are higher education and research. An exploration of the position of HEIs in EU law and policy thus requires an examination of policy areas in education and research and development (R&D). It will be shown that ‘hard’ EU competences are limited in both areas. The need for a certain degree of coordination beyond the Member States identified in chapter 1 has instead led to policies outside the supranational EU framework. EU competences will first be discussed here and will be followed by an analysis of EU and extra-EU soft law policies.

2.2.1. Supranational EU policy on education and R&D

When the European Communities (European Coal and Steel Community, European Atomic Energy Community and European Economic Community (EEC)) were founded, the founding Treaties contained only a few isolated provisions on

education and R&D. This might have been the case because European integration started as an economic integration endeavour and the economic value of HEIs was not apparent at the time.⁵⁶ Applying neo-functionalism as conceived by Sandholtz and Stone Sweet, this might also be due to the fact that initially there were no ‘transactors’ desiring cross-border interaction.⁵⁷ With further development of the Community, however, these areas became part of EU policy, potentially because the commodification of HEIs made their economic value more apparent, whilst simultaneously the EU expanded its mission and activities. This latter phenomenon can be equally explained both by neo-functionalism and social constructivism. Schmitter’s version of (neo-)neo-functionalism⁵⁸ accounts for political spill-over through the shifting of expectations to the EU level and for cultivated spill-over through EU institutions working towards integration in new areas. According to Sandholtz’ and Stone Sweet’s neo-functionalism, transactors or ‘agents’ in social constructivist parlance influence integration, if this seems desirable to them. Nevertheless, Member States have been reluctant to give up their power in the area of HEIs. This is perhaps unsurprising considering the fact that HEIs are regarded, partly, as belonging to the welfare state (directly affecting national finances) and also as part of national culture and identity and as such educating future leaders and civil servants and stimulating national industry and development.⁵⁹ The competences of the EU thus remain limited.

2.2.1.1. EU education policy

Article 128 EEC was most significant amongst the few provisions on education in the founding Treaties; it gave the Council the power to ‘lay down general principles for implementing a common vocational training policy’.⁶⁰ The Treaty of Maas-

⁵⁶ Similar Walkenhorst (n 33) p. 571 seq.

⁵⁷ Sandholtz and Stone Sweet (n 47).

⁵⁸ Schmitter (n 40), Niemann and Schmitter (n 47).

⁵⁹ See Teichler (n 33) p. 105, Walkenhorst (n 33) p. 567 with further references. On the purpose of HEIs see also section 1.3.1 The original non-economic purpose of European HEIs above.

⁶⁰ For more on Article 128 EEC and problems resulting from this limited competence in the field of vocational education, see W Hummer, ‘Vom "Europäischen Hochschulraum" zum "Europäischen Forschungsraum". Ansätze und Perspektiven einer europäischen Bildungs- und Forschungspolitik’ in M Prisching, W Lenz and W Hauser (eds), *Bildung in Europa - Entwicklungsstand und Perspektiven* (Verlag Österreich, Wien 2005) p. 56 seq.

tricht specified the provision on vocational training and renumbered it to Article 127 EC. Furthermore, general education, including higher education, became a policy area to be found in Article 126 EC. These provisions, however, only provided supplementary competences and did not enable the Community to harmonise national education systems. The Treaty of Amsterdam merely renumbered the provisions to Articles 149 – 150 EC and neither the Treaty of Nice nor the draft European Constitution included any content changes. Since the Treaty of Lisbon, education is to be found in Articles 165 – 166 TFEU and sport has been added to the title, but the competences remained unchanged. The Union, therefore, still has very limited competences basically amounting to the possibility of passing programmes to support national education policies.⁶¹

However, since the 1970s the Council of Education Ministers started meeting, European Parliament (EP) and Commission have education divisions, education received a budget and education policy could be reviewed by the Court of Justice of the European Union (CJEU). There have been successful EU programmes,⁶² most significantly the Erasmus programme established in the late 1980s which aims to encourage the mobility of students and in the course of which the European Credit Transfer System (ECTS) was invented.⁶³ Despite its being limited to supporting and complementing national policies, there thus is education policy at the supranational level which is driven economically (to facilitate the internal market) and politically (to achieve European integration and identity).⁶⁴

2.2.1.2. Diploma recognition

Despite the limited competences for education at the EU level, functional spill-over from free movement provisions has taken place early on. To achieve the free movement of persons in the internal market it was necessary to harmonise certain aspects of access to individual professions and therefore, inter alia, to harmonise pro-

⁶¹ On EU competences for education see Hummer (n 60) p. 33 seq, 57 seq, 71, Teichler (n 33) p. 105 seq, Garben (n 6) p. 189 seq, Walkenhorst (n 33) p. 568, Van der Ploeg and Veugelers (n 5) p. 19.

⁶² See Teichler (n 33) p. 111 seq.

⁶³ On EU education policy see Garben (n 6) p. 187 seq, Teichler (n 33) p. 105 seq, 109 seq, Van der Ploeg and Veugelers (n 5) p. 22, 24 seq, Walkenhorst (n 33) p. 568 seq.

⁶⁴ On motives and developments see Walkenhorst (n 33) p. 571 seq.

professional recognition⁶⁵ of diplomas to guarantee access to regulated professions.⁶⁶ A regime of directives based on what is now Article 53 TFEU has been passed in this respect, which have later been consolidated into Directive 2005/36/EC.⁶⁷ Additionally, the Court has made it clear⁶⁸ that Member States have to check the substantive comparability of qualifications received in another Member State in cases not covered by secondary law.⁶⁹

It is generally assumed that academic diploma recognition cannot be harmonised on the basis of Article 53 TFEU since the internal market competences are regarded as having strict functionality and, therefore, not allowing abstract content or structural harmonisation, especially if the strict subsidiarity of Article 165 and 166 TFEU is taken into account.⁷⁰ Academic recognition thus still takes place according to national law, potentially influenced by the Bologna Process which will be discussed further below. The only other requirements arising from primary EU law concern cases where both academic and professional recognition are possible. Here, the migrant may not be forced to choose and if one form of recognition has been obtained, the other can still be sought at a later stage under certain circumstances. In particular, when academic recognition is requested for professional reasons in addition to professional recognition, it cannot be denied. Also, if academic recognition has been obtained, but does not in itself give access to the profession, professional recognition can be additionally demanded.⁷¹

⁶⁵ Professional recognition allows the migrant the right to carry the title of the profession, but not the host state's academic title, Hummer (n 60) p. 67.

⁶⁶ Regulated professions can, according to national law, only be executed after the fulfilment of certain qualifications, Hummer (n 60) p. 61.

⁶⁷ Directive 2005/36/EC on the recognition of professional qualifications OJ [2005] L 255/22. There have been additional amendments since. A consolidated version of Directive 2005/36/EC can be found on <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2005L0036:20110324:EN:PDF>.

⁶⁸ See e.g. C-340/89 *Vlassopoulou*.

⁶⁹ On diploma recognition see Hummer (n 60) p. 60 seq, Garben (n 6) p. 191, Van der Ploeg and Veugelers (n 5) p. 22 seq. For a more extensive discussion see H Schneider, *Die Anerkennung von Diplomen in der Europäischen Gemeinschaft* (Maklu, Antwerpen 1995).

⁷⁰ Hummer (n 60) p. 58 seq. See also Garben (n 6) p. 191 seq, S Garben, *EU Higher Education Law - The Bologna Process and Harmonization by Stealth* (Kluwer, Alphen aan den Rijn 2011) p. 186 seq who thinks that a different interpretation would be possible and a CJEU judgement would be needed for clarification.

⁷¹ See Hummer (n 60) p. 67 seq.

2.2.1.3. EU R&D policy

Whilst the Founding Treaties also contained no provisions on R&D, a common R&D policy was starting to be adopted from the 1970s onwards. This was based on Article 235 EEC (now Article 352 TFEU) which gave the EEC the competence to ‘take the appropriate measures’ where action was deemed necessary to achieve the Community’s objectives. This led to the adoption of the First Framework Programme⁷² in 1983, which defined a budget and activities for a period of three years and focussed mainly on energy research. Efforts amplified from the late 1980s onwards, as R&D was considered increasingly important for the development and competitiveness of Europe.⁷³ With the Single European Act the policy area ‘research and technological development’ was incorporated into primary law as Articles 130f - 130q EEC. These provisions officially foresaw the multi-annual Framework Programmes (FPs)⁷⁴ as a basis for more detailed initiatives. The competences given to the EEC were complementary in nature, meaning to support actions of the Member States. However, unlike in education policy they did not stand under strict subsidiarity and an absolute prohibition of harmonisation. The policy aims were to increase collaborative research with businesses, support cooperation beyond the EU, the dissemination and transfer of knowledge, increase of competition and support of mobility in the Community. The Maastricht Treaty made ‘research and technology’ a Community objective (Article 3 m EC), while the Treaty of Amsterdam only renumbered the provisions, but the content was neither changed with this Treaty nor with Treaty of Nice.⁷⁵

Since the Treaty of Lisbon the provisions on R&D have been located in Article 179 – 190 TFEU and they have been slightly strengthened. Under Article 4 TFEU research policy has become a shared competence and the Union can pass legislation in addition to FPs to attain the European Research Area (ERA) following the ordi-

⁷² Framework Programme for Research 1984-87 COM(83) 260 final.

⁷³ RA Jones, *The Politics and Economics of the European Union* (2nd edn Edward Elgar, Cheltenham/Northampton 2001) p. 325 seq. This corresponds with the changing nature of HEIs as described in chapter 1.

⁷⁴ Further on the FPs see Jones (n 73) p. 329.

⁷⁵ On the development of supranational R&D policy and its objectives see Jones (n 73) p. 325 seq, Hummer (n 60) p. 33 seq, 70 seq, K Lenaerts and P Van Nuffel, *Constitutional Law of the European Union* (2nd edn, Sweet & Maxwell, London 2005) p. 318 seq.

nary legislative procedure (Article 182 (5) TFEU). Paragraph 1 of Article 179 TFEU makes R&D a Union objective and explicitly mentions the establishment of the ERA in which ‘researchers, scientific knowledge and technology circulate freely’. The latter is stressed again in paragraph 2 which foresees that the Union shall aim at ‘permitting researchers to cooperate freely across borders and at enabling undertakings to exploit the internal market potential to the full’. Furthermore, the title ‘research and technological development’ is complemented by the words ‘and space’ and a new Article 189 TFEU on a common space policy has been inserted.⁷⁶ All together, seven FPs have been passed, the last of which, FP7,⁷⁷ will be replaced in 2014 by Horizon2020⁷⁸ bringing EU research funding closer to the Europe2020 Strategy which will be discussed further below.⁷⁹

2.2.1.4. Interim conclusion on supranational EU policy

The value of education and research became more apparent towards the end of the 20th century with the shift from an industrial production-based society to a knowledge-based one.⁸⁰ Additionally, as discussed in chapter 1, the nature of HEIs changed towards commodification and internationalisation. These developments made European coordination desirable. EU education and R&D policy began to develop, but the Member States seemed reluctant to provide the Union with extensive competences or indeed to utilise potential possibilities of existing competences. Garben, for example, argues conclusively that there might already be a basis in primary law for legislation on academic recognition of diplomas.⁸¹ This might be explained with ongoing controversies in the public realm about ‘competences creep’, the legitimacy of the European project and the desire to keep education policy national

⁷⁶ This would have been similar under the Constitution. See Lenaerts and Van Nuffel (n 75) p. 319.

⁷⁷ Decision 1982/2006/EC concerning the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007-2013) OJ [2006] L 412/01.

⁷⁸ European Commission, ‘Horizon 2020 - The EU Framework Programme for Research and Innovation’ (2012) http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020 accessed 7 March 2013.

⁷⁹ For an in-depth analysis of the governance and functioning of EU research policy at supranational and soft law (OMC) level see A Pilniok, *Governance im europäischen Forschungsförderverbund* (Mohr Siebeck, Tübingen 2011).

⁸⁰ Walkenhorst (n 33) p. 574 seq.

⁸¹ See Garben (n 6) p. 189 seq, Garben (n 70) p. 184 seq.

and retain power. Nevertheless, further coordination appears to have been deemed necessary. Therefore, a significant part of European policies affecting HEIs started using soft law mechanisms to avoid the supranational policy mode.⁸²

2.2.2. EU soft law: The Lisbon/Europe2020 Strategy

As it was deemed that Europe was in need of reform to keep up with its competitors and face internationalisation of HEIs, the European Council in Lisbon in 2000 announced that its strategic goal for the next ten years would be for the EU 'to become the most competitive and dynamic knowledge-based economy in the world'.⁸³ Particularly relevant for HEIs in this respect was the announcement of the ERA, the concept of which encourages many of the commodification trends discussed in chapter 1,⁸⁴ and the endorsement of the aims of the Bologna Process as part of the Lisbon Strategy.⁸⁵ The Lisbon Strategy itself is only a declaration and not legally binding. Instead the OMC has been chosen as the appropriate instrument for achieving the aims of the Lisbon Strategy which have been further specified in numerical targets.⁸⁶ It is supposed to allow common will formation and enhance social learning by providing a network for EU organs, national authorities and social partners as well as the private and the third sectors. The Commission evaluates progress on the basis of reports and the European Council, meeting annually, lays down the guiding principles, decides about the following measures and coordinates the process.⁸⁷ The effects of this soft law approach will be discussed together with the effects

⁸² See also Garben (n 6) p. 187 seq, P Maassen and C Musselin, 'European Integration and the Europeanisation of Higher Education' in A Amaral et al (eds), *European Integration and the Governance of Higher Education and Research* (Springer, Dordrecht/London 2009), Walkenhorst (n 33) p. 573 seq, Teichler (n 33) p. 114.

⁸³ Lisbon European Council 23 and 24 March 2000 Presidency Conclusion paragraph 5.

⁸⁴ Presidency Conclusion (n 83) paragraph 12 seq. This was based on Commission Communication 'Towards a European research area' COM (2000) 6 final, 18.01.2000.

⁸⁵ Presidency Conclusion (n 83) paragraph 25 seq.

⁸⁶ I Begg, 'Is there a Convincing Rationale for the Lisbon Strategy?' (2008) 46 JCMS 427 p. 431, L Cohen-Tanugi, *Beyond Lisbon - A European Strategy for Globalisation* (PIE Peter Lang, Brussels 2008) p. 23 seq, 47 seq, Hummer (n 60) p. 72 seq. An in-depth account of the OMC can be found in, for example, S Kröger, 'The Open Method of Coordination: Underconceptualisation, overdetermination, de-politicisation and beyond' in S Kröger (ed), *What we have learnt: Advances, pitfalls and remaining questions in OMC research* (EIoP 2009).

⁸⁷ Cohen-Tanugi (n 86) p. 23 seq, Hummer (n 60) p. 72 seq.

of the Bologna Process below in the interim conclusion on the position of HEIs in European policy.

The ambitious numerical targets have not been met and the Lisbon Strategy was re-launched in 2005⁸⁸ and re-introduced after the financial crisis as the new Europe2020 Strategy in 2010.⁸⁹ The most important numerical targets in higher education and research to be achieved by 2020 are: an increase in research spending to 3% GDP, a decrease of school drop-out rates to less than 10% and an increase to 40% of all 30-34 year olds with tertiary education. None of these differ significantly from the original aims.⁹⁰

2.2.3. Extra EU-Modes: The Bologna Process

Following the initiative of the education ministers of Italy, France, Germany and the UK to reform European higher education systems expressed in the ‘Sorbonne-Declaration’,⁹¹ the education ministers of 29 European countries⁹² officially launched the Bologna Process with the ‘Bologna Declaration’ in 1999.⁹³ The Bologna Declaration is not legally binding and, with 47 countries involved at present, the Bologna Process goes far beyond the EU.⁹⁴ The overall aim of the Bologna Process was to establish an internationally competitive ‘European Higher Education Area’ (EHEA) by 2010 which was specified through long-term and intermediate targets in regular ministerial meetings. Additionally, a follow-up group tasked with facilitating

⁸⁸ Brussels European Council 22 and 23 March 2005 Presidency Conclusions. Further on the development of the Lisbon Strategy see Cohen-Tanugi (n 86) p. 51 seq, Hummer (n 60) p. 74.

⁸⁹ Brussels European Council 17 June 2010 Conclusions.

⁹⁰ For an overview of targets and current achievements see, Eurostat ‘Europe 2020 indicator’ (2013) http://epp.eurostat.ec.europa.eu/portal/page/portal/europe_2020_indicators/headline_indicators accessed 5 December 2013.

⁹¹ Sorbonne Joint Declaration on harmonisation of the architecture of the European higher education system by the four Ministers in charge for France, Germany, Italy and the United Kingdom, Paris, the Sorbonne, 25 May 1998.

⁹² The 15 EU Member States of the time, all of the candidate countries which subsequently became Member States in the 2004 and 2007 enlargements except Cyprus as well as Iceland, Norway and Switzerland. On the beginnings of the Bologna Process see Eurydice, *Focus on Higher Education in Europe 2010: The impact of the Bologna Process* (Eurydice, Brussels 2010) p. 9 seq.

⁹³ Joint declaration of the European Ministers of Education of 19 June 1999.

⁹⁴ For the latest up-dates and evaluations of the Bologna Process see Eurydice, *The European Higher Education Area in 2012: Bologna Process Implementation Report* (Education, Audiovisual and Culture Executive Agency, Brussels 2012).

the development of the process was set up. It contains, alongside representatives of the Bologna countries and the Commission (which joined as a member in 2001), representatives of the Council of Europe, the European University Association (EUA), the European Students Union and other organisations.⁹⁵ The main features include the achievement of a common three-cycle study structure (undergraduate, master and doctoral level), the standard issuing of diploma supplements, the implementation of a module system, the usage of ECTS, the establishment of national qualification frameworks describing the qualifications available and the introduction of quality assurance.⁹⁶ At the 2009 Leuven conference it was agreed to proceed with the Bologna process until 2020, as it was generally regarded as successful by the participating countries.⁹⁷ Consequently, in 2010 the EHEA was officially launched at the meeting in Budapest-Vienna.⁹⁸

2.2.4. Interim conclusion: The location of HEIs in European policy

While originally not featuring in primary law, policies on education and research have been developed at the supranational level. The main competences, however, still lie with the Member States. That this strict divide is difficult to maintain has already been shown; functional spill-over from free movement provisions has led to the need for secondary legislation on the professional recognition of diplomas. Furthermore, coordination beyond what has been achieved within these policies seemed necessary, but the Member States opted for the Bologna Process and the OMC rather than extending primary law competences or using existing competences to their full potential. Only with the Treaty of Lisbon has the competence base for R&D been slightly strengthened. However, that does not appear to have led to extensive legislation so far. The Lisbon/Europe2020 Strategy and the Bologna Process are only soft law and thus not legally binding. It has been suggested that their advan-

⁹⁵ On the history and set up of the Bologna process see Eurydice (n 92) p. 9 seq, Hummer (n 60) p. 49 seq.

⁹⁶ See further Eurydice (n 94) p. 7 seq, Hummer (n 60) p. 47 seq, Van der Ploeg and Veugelers (n 5) p. 21 seq.

⁹⁷ Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009 no. 1, 24.

⁹⁸ Budapest-Vienna Declaration on the European Higher Education Area 12 March 2010 paragraph 1.

tages lie in their flexibility, the prevention of undesired consequences of supranational integration and their involvement of various actors.⁹⁹

However, these approaches do have their disadvantages. As can be seen from the Lisbon Strategy which originally envisaged for its targets to be achieved by 2010, results cannot be achieved as straightforwardly as with hard law. Nevertheless, many have described these soft law approaches as having developed a certain inevitability, that they intertwine and that they are leading into the direction of further commercialisation.¹⁰⁰ Indeed, the Bologna process in particular has certainly changed the landscape of European higher education. It has done so despite being unpopular with stakeholders such as students and academics who, inter alia, criticise the, in their eyes, too inflexible three cycle structure and the focus on employability. It has also been felt that the process would lead to fierce competition among students, be too paternalistic and would not fit with every subject.¹⁰¹ Since, however, the Europe2020 and the Bologna Process are only soft law mechanisms the Member States do not have to implement them. Neither do the features of the Bologna Process demand exact implementation, but instead they provide guidelines (for example, the length of three years of undergraduate study is a minimum requirement not a fixed term). It might thus often be the national measures and not necessarily the Bo-

⁹⁹ See Begg (n 86) p. 430 seq (433).

¹⁰⁰ E.g. A Nóvoa, 'Ways of thinking about education in Europe' in A Nóvoa and M Lawn (eds), *Fabricating Europe - The formation of an education space* (Kluwer, Dordrecht 2002), G Neave and P Maassen, 'The Bologna Process: an intergovernmental policy perspective' in P Maassen and J Olsen (eds), *University dynamics and European integration* (Springer, Dordrecht 2007), P Ravinet, 'From Voluntary Participation to Monitored Coordination: why European countries feel increasingly bound by their commitment to the Bologna Process' (2008) 43 *European Journal of Education* 354, S Croché, 'Bologna Network: a new sociopolitical area in higher education' (2009) 7 *Globalisation, Societies and Education* 489, Å Gornitzka, 'Bologna in Context: a horizontal perspective on the dynamics of governance sites for a Europe of Knowledge' (2010) 45 *European Journal of Education* 535, A Corbett, 'Education and the Lisbon Strategy' in P Copeland and D Papadimitriou (eds), *The EU's Lisbon Strategy: evaluating success, understanding failure* (Palgrave MacMillan, Basingstoke 2012).

¹⁰¹ See, for example, U Banscheraus et al, *Der Bologna-Prozess zwischen Anspruch und Wirklichkeit* (Hochschule und Forschung, Leutheusser Druck, Coburg 2009) p. 11 seq with further references on criticism in Germany, AR Cardoso et al, 'Demand for Higher Education Programs: The Impact of the Bologna Process' (2008) 54 *CESifo Economic Studies* 229 on criticism regarding the degree structure, Hummer (n 60) p. 78 seq on problems in Austria, R Cippitani and S Gatt, 'Legal Developments and Problems of the Bologna Process within the European Higher Education Area and European Integration' (2009) 34 *Higher Education in Europe* 385, p. 391 on legal and practical problems with a focus on Italy, S Garben, 'The Future of Higher Education in Europe: The Case for a Stronger Base in EU Law' (2012) 50 *LSE 'Europe in Question' Discussion Paper Series* p. 20 seq with further references on student and teacher protests.

logna features themselves which attract the criticism. It has indeed been argued that the Bologna Process serves as ‘an efficient smokescreen for governments to agree on unpopular reforms’¹⁰² while advertising them as binding and thus putting implementation pressure on national parliaments. Additionally, while these approaches are advertised as bottom-up, only certain actors participate. In particular, since the EP, the CJEU and the general public are not involved, this could be regarded as causing democratic concerns.¹⁰³

The turn towards commodification which endangers the traditional non-economic mission of HEIs through the soft law measures, the confusing jungle of EU law, EU soft law and international instruments as well as the democratic concerns mentioned, make one wonder whether a coherent supranational policy on HEIs would not have been the better choice. However, the negative perceptions of the soft law measures and the EU in general might, as explained above in chapter 1, make further integration into the EU hard law frame momentarily unlikely. At the same time, HEIs are not immune to the forces of directly applicable EU law which can lead to spill-over.

2.3. Spill-over from directly applicable EU law

EU law constraints on HEIs can arise from different provisions. Firstly, the Union Citizenship provisions in their broad application by the Court potentially open higher education systems to more students than they were originally created for. This could have an increasing impact on the organization of national higher education systems.¹⁰⁴ Secondly, HEIs might, as a result of the commodification tendencies ana-

¹⁰² Garben (n 6) p. 206.

¹⁰³ See also Garben (n 6) p. 205 seq, Garben (n 70) p. 210 seq. See also Walkenhorst (n 33) p. 579 seq, Maasen and Musselin (n 82) p. 9 seq. Garben also explores the question of whether the Bologna Process could be seen as depriving the Union of its power and contradicting Article 4 (3) TEU and Article 5 TEU and therefore it could be regarded as illegal for Member States to undertake action collectively instead of using the EU frame. Garben (n 6) p. 198 seq, Garben (n 70) p. 203. In the latter she concludes, though, that while the course taken was not exactly in the spirit of cooperation, it would probably not amount to a breach of law.

¹⁰⁴ See M Dougan, 'The spatial restructuring of national welfare states within the European Union: the contribution of Union Citizenship and the relevance of the Treaty of Lisbon' in U Neergaard, R Nielsen and LM Roseberry (eds), *Integrating welfare functions into EU Law: from Rome to Lisbon* (DJØF Forlag, Copenhagen 2009) p. 154 seq, U Neergaard, R Nielsen and L Roseberry, 'Introduction' in U Neergaard, R Nielsen and L Roseberry (eds), *Integrating Welfare Functions into*

lysed in chapter 1, more regularly fall under the free movement provisions. Thirdly, HEIs could (in part) be regarded as undertakings and thus fall under the competition rules. The latter two areas of law might then require further commodification threatening the traditionally non-economic mission of European HEIs. In the following, a brief description of these areas of law will be undertaken.

2.3.1. Union Citizenship

Traditionally, national public services were based on nationality and territoriality. These traditional settings changed through European integration. According to the free movement provisions, economically active citizens of other Member States have to be treated as nationals, which, inter alia, allows them to take part in their host state's education system and makes them eligible for benefits. With the introduction of Union Citizenship, free movement and the prohibition of discrimination were then extended to all Union citizens.¹⁰⁵

2.3.1.1. Union Citizenship and HEIs

According to Article 21 TFEU every Union citizen has the right to reside wherever he or she wishes within the EU. Article 18 TFEU provides that a Union citizen legally residing in the territory of another Member State has the right to equal treatment. However, this is subject to Directive 2004/38/EC,¹⁰⁶ which gives Member States the right to deny residency if the Union Citizen does not have sufficient income and health insurance and would thus become an unreasonable burden on the host state. However, a line of CJEU case law broadened the scope of the Citizenship

EU Law - From Rome to Lisbon (DJØF Forlag, Copenhagen 2009) p. 7. On the role of the Court in the sphere of citizenship see, M Dougan, 'Judicial Activism or constitutional interaction? Policymaking by the ECJ in the Field of Union Citizenship' in H-W Micklitz and B De Witte (eds), *The European Court of Justice and the Autonomy of the Member States* (Intersentia, Cambridge/Antwerp/Portland 2012).

¹⁰⁵ See Dougan 2009 (n 104) p 154 seq, M Dougan and E Spaventa, 'Educating Rudy and the non English patient: a double bill on residency rights under Article 18 EC' (2003) 28 *European Law Review* 699, p. 699 seq, Dougan (n 2) p. 723, C Kohler and N Görlitz, 'Auswirkungen des europarechtlichen Diskriminierungsverbots auf den Bildungssektor - Grundlinien der Rechtsprechung des Europäerischen Gerichtshofs' (2008) 4 *IJELP* 92 p. 93 seq, AAM Schrauwen, 'The Future of EU Citizenship: Corrosion of National Citizenship?' SSRN eLibrary p. 4 seq.

¹⁰⁶ Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States amending Regulation (EEC) No 1612/68 and repealing Directives 64/221/EEC, 68/360/EEC, 72/194/EEC, 73/148/EEC, 75/34/EEC, 75/35/EEC, 90/364/EEC, 90/365/EEC and 93/96/EEC OJ [2004] L 158/77.

provisions. It remains the case that only the financially independent migrant have to be granted residency, but this independence does not have to cover absolutely every circumstance. A certain amount of solidarity from the host state can be expected and such limited reliance on the host state's finances does not give the host state the right to deny residency.¹⁰⁷ When it comes to equal treatment, the lawfully residing EU migrant (and his or her family members) can expect equal treatment even if secondary measures normally exclude the reliance on benefits if such reliance is only temporary.¹⁰⁸ Besides that, unless there is a 'real link' to the host state's society,¹⁰⁹ Union Citizenship can only offer the right to equal treatment regarding access to social benefits without the security of residency rights.¹¹⁰ In the field of higher education, the Court in *Gravier*¹¹¹ developed the approach (now to be found in Article 24 Directive 2004/38) that no discrimination is allowed in any area connected with access to higher education, but that access to additional support (for example, maintenance grants) could be limited to permanent residents since it would otherwise constitute an unreasonable burden for the host state.¹¹²

A similar approach is taken towards the home state and the exportation of grants; generally no territoriality requirement can be imposed unless either the increased number of potential benefit recipients would provide an unreasonable burden

¹⁰⁷ C-184/99 *Grzelczyk*, C-413/99 *Baumbast*.

¹⁰⁸ C-184/99 *Grzelczyk*, C-138/02 *Collins*.

¹⁰⁹ C-85/96 *Martinez Sala*, C-209/03 *Bidar*. More recently in C-158/07 *Förster* the Court up-held this line of reasoning. It did, however, allow a rather long residency requirement (five years) for the 'real link' to be established.

¹¹⁰ C-456/02 *Trojani*.

¹¹¹ 293/83 *Gravier*. C-39/86 *Lair* paragraph 16. These cases were decided before Union Citizenship had been established with the Treaty of Maastricht and the Court thus needed to go into some length to explain why students would fall under the Treaty provisions in the first place. They were, however, decided on the basis of what is now Article 18 TFEU. The latter has, with the Treaty of Lisbon, been incorporated into the citizenship provisions after it has been read together with what is now Article 21 TFEU for some time.

¹¹² On the Citizenship rulings see M Dougan, 'Fees, grants, loans and dole cheques: who covers the costs of migrant education within the EU?' (2005) 42 *Common Market Law Review* 943, Dougan (n 2) p. 723 seq, Dougan 2009 (n 104) p. 157 seq, Dougan (n 105), Van der Mei (n 2) p. 225 seq, Kohler and Görlitz (n 105) p. 95 seq, J De Groof, 'European higher education in search of a new legal order' in BM Kehm, J Huisman and B Stensaker (eds), *The European Higher Education Area: Perspectives on a Moving Target* (Sense Publishers, Rotterdam 2009) p. 80 p. 92 seq.

or no ‘real link’ to the home state exists anymore.¹¹³ The two approaches are regarded cumulatively and interactive in that the migrant’s home state is supposed to support him or her until his or her ties to the host state are close enough to allow benefits to be granted there. The latter argument was posited as the way forward in the field of educational mobility.¹¹⁴ It is noticeable that in the citizenship cases the Court takes into account the individual circumstances of the case and does not allow the Member States to rely solely upon generalized criteria.¹¹⁵

Member States have eagerly tried to retain control over social areas. In health (Article 168 TFEU), education (Article 165 seq TFEU) and social security (Article 151 seq TFEU) the EU has only limited competences. In the field of education, the Member States avoided the supranational mode of harmonisation and during the negotiations for the Treaty of Lisbon¹¹⁶ much emphasis was placed on the principle of conferral of competences and the principle of subsidiarity. The Court’s judgements on EU Citizenship have thus been criticised for interfering with national welfare systems which are particularly sensitive areas closely related to national finances.¹¹⁷ Additionally, the Court’s case to case approach makes this area somewhat unpredictable. Even if one might disagree and instead find the Court’s overall approach to be reasonable, appearing as it does, to strike a balance between upholding the free movement of citizens and the concerns of the Member States, the cases discussed subsequently demonstrate that the citizenship provisions can in fact lead to significant spill-over into policies regarding HEIs.

¹¹³ C-499/06 *Nerkowska* and in the field of education C-11-12/06 *Morgan and Bucher*, C-523-585/11 *Prinz and Seeberger* and, recently, C-220/12 *Thiele* and C-275/12 *Elrick* all on restrictions to the exportation of maintenance grants in Germany. On the exportation of grants and the earlier case law see NN Shuibhne, 'Case C-76/05 Schwarz and Gootjes-Schwarz v. Finanzamt Bergisch Gladbach, Judgment of the Grand Chamber of 11 September 2007, not yet reported; Case C-318/05, Commission v. Germany, Judgment of the Grand Chamber of 11 September 2007, not yet reported; Joined Cases C-11/06 & C-12/06 *Morgan v. Bezirksregierung Köln; Bucher v. Landrat des Kreises Düren*, Judgment of the Grand Chamber of 23 October 2007, not yet reported' (2008) 45 CMLR. 771, Dougan (n 2) p. 727 seq and (n 112) p. 980 seq, Schrauwen (n 105) p. 4 seq, 9 seq.

¹¹⁴ For an in-depth discussion see van der Mei (n 112). See also Dougan (n 2) p. 737.

¹¹⁵ See further those mentioned in n 112.

¹¹⁶ In this regard it is even said that the problems during the constitutional reform process might partly have been caused by a negative opinion towards Union Citizenship and what it brings with it. See Dougan 2009 (n 104) p. 164 seq.

¹¹⁷ On this point see Dougan (n 2) p. 729, 738, Dougan 2009 (n 104) especially p. 161 seq, 181 seq, Schrauwen (n 105) 10 seq.

2.3.1.2. The infringement procedure against Austria and Belgium

The infringement procedures against Austria and Belgium are especially interesting here.¹¹⁸ Both countries had an ‘open-access to education’ policy in order to increase the percentage of their population in tertiary education.¹¹⁹ Residents only had to have a secondary school certificate to be admitted to an HEI. For students from other Member States, however, additional requirements were imposed; they had to qualify for the same course of study in their home state. Austria and Belgium deemed this necessary to avoid an influx of German and French students respectively who, given the much stricter requirements for university accession in their home states, would come to the neighbour states where they could gain access more easily and also study in their native language. It was feared that this would become too much of a burden on state finances and perhaps threaten the open access. The Court, however, decided that these rules constituted indirect discrimination and therefore infringed Article 18 TFEU. It did not accept the defence due to a lack of evidence and as it deemed the discriminatory system disproportionate.¹²⁰ The judgments received fierce academic criticism because the Court was regarded as having overstepped its competences in an area of primary responsibility of the Member States. While the Court, in fact, just followed its long established case law that access to higher education requires equal treatment, whilst additional benefits do not, these cases, indeed, had a significant impact on the policy choice of the open education system which either had to be surrendered or opened up to a large influx of non-residents. It was generally considered that the Court should at least have been more lenient at the justification stage rather than demanding hard proof and applying a strict proportionality test.¹²¹

¹¹⁸ Cases C-147/03 *Commission v Austria* C-65/03 and *Commission v Belgium* respectively. There had already been an infringement procedure against Belgium for quota legislation in the 1980’s (case 42/87) which had been found to infringe the Treaty. See Kohler and Görlitz (n 105) p. 97.

¹¹⁹ The fact that this is after all a goal of Lisbon Strategy has, however, not been brought as a justification in the proceedings.

¹²⁰ For more on the cases see Damjanovic (n 2) p. 157 seq, Reich (n 2) p. 637, Kohler and Görlitz (n 105) p. 95 seq, Garben (n 2) paragraph 6 seq, C Rieder, ‘Case C-147/03, Commission of the European Communities v. Republic of Austria’ (2006) 43 CMLR. 1711.

¹²¹ See Damjanovic (n 2) p. 158 seq, Reich (n 2) p. 637 seq.

After the judgments, Austria and Belgium abolished the discriminatory measures which led to disproportionately high numbers of German and French students in certain subjects studying in both states, especially in the field of medicine.¹²² As these were considered to be mostly ‘free-riders’, it was feared that this would also result in a threat to the health care system. Both countries thus introduced quota systems reserving 75% (Austria) and 70% (Belgium) of the places for residents.¹²³ The Commission then, again, initiated infringement procedures against Austria and Belgium, but suspended them for five years in order for the countries to gather evidence that the quota system might be necessary.¹²⁴

However, in line with both neo-functionalism and social constructivism, integration cannot necessarily be halted by such arrangements and in the meantime a preliminary reference from a Belgian court came before the CJEU.¹²⁵ Upon a claim for access by French students, the national court had asked about the compatibility of the quota system with Article 18 TFEU and any potential justifications due to the threats to the national education and, potentially, health care system. In its questions, the national court also pointed to the fact that open access to education was equally an aim of Article 165 TFEU and Article 13 (2) of the International Covenant on Economic, Social and Cultural Rights (ICESC) and that Article 165 TFEU states that the Union shall support this and Article 13 (2) ICESC contains a standstill obligation towards measures achieving that aim. The CJEU, confirming its earlier case law, decided that Articles 18 and 21 TFEU prohibit such a quota system, but that ‘the objective of protection of public health’ could constitute an exemption. It was left to the national court to determine the latter. A similar outcome had been suggested in the pre-ruling literature, since by doing this the Court could reach a political compromise by upholding its former case law and avoiding the more general questions of who pays for cross-border education and how an open access system can be upheld

¹²² Up to 80% of French students were, for example, enrolled in the relevant subjects in Belgium. Damjanovic (n 2) p. 162 with further references.

¹²³ Damjanovic (n 2) p. 163 with further references.

¹²⁴ It has been suggested that Austria’s strong demand during the Lisbon Treaty negotiations to expressly declare public education as a non-economic service of general interest for which Article 2 Protocol 9 reassures the competence of the Member States might also have played a role in that respect. See Damjanovic (n 2) p 163.

¹²⁵ See case C-73/08 *Bressol*.

in net receiver states.¹²⁶ The issue thus seems to remain a sore point, as can be seen by the Austrian attempt to reduce the public transport available to permanent resident students, something that has equally been found to infringe the citizenship provisions.¹²⁷ Another ploy is the current considerations of introducing fees for all students which would then be covertly repaid to Austrian students through higher maintenance grants as a 'payback' for German plans to introduce road charges.¹²⁸

2.3.1.3. Interim conclusion on Union citizenship and HEIs

Union citizenship generally only provides students with the right to reside in the territory and have access to the higher education of another Member State.¹²⁹ Additional benefits are generally excluded for EU migrant students unless a 'real link' to the host state can be established. Instead these benefits can be exported from the home state. Whilst this system does not seem to cause too many concerns generally, the cases of Belgium and Austria have shown that the citizenship provisions can have significant spill-over effects threatening the whole concept of an open access to education policy. Here further regulation seems required.¹³⁰

2.3.2. The free movement provisions

The free movement provisions are the core of internal market law. They require that goods (Articles 34 TFEU seq), economically active persons (Article 45 TFEU seq for workers and Article 49 TFEU seq for establishment), services (Article 56 TFEU seq) and capital (Article 63 TFEU seq) from all EU Member States can move

¹²⁶ See, Garben (n 2) paragraph 20 seq. Rieder (n 120) p. 1725, by contrast, suggested that the quota system would infringe EU law.

¹²⁷ C-75/11 *Commission v Austria*.

¹²⁸ BR.de, 'Die Alpenrepublik schlägt zurück' *BR.de* (2 December 2013) <http://www.br.de/nachrichten/oberbayern/inntalautobahn-maut-vignette-100.html> accessed 2 December 2013.

¹²⁹ In England there currently appears to be some confusion about what exactly has to be granted to other EU citizens and certain fee loans have been halted. However, there does not appear to sufficient information available to assess this situation further. See S Malik, 'College course subsidy spirals out of control' *The Guardian* (18 November 2013) <http://www.theguardian.com/education/2013/nov/18/college-course-chaos-budget-shortfall> accessed 22 November 2013

¹³⁰ Van der Mei (n 112) p. 232 seq had suggested a justified quota system which, however, seems difficult as the Court only let the concerns about the health system count as a justification and not the threats to the education system itself. On the attempts to establish a reimbursement scheme between certain Member States see Damjanovic (n 2) p. 162 seq with further references.

freely within the EU. They are therefore provisions of economic law, which on the surface do not have anything to do with HEIs.

Early on, however, the free movement of persons spilled over into the sphere of HEIs with regards the professional recognition of diplomas as discussed above. Furthermore, the free movement of economically active persons provides full equal treatment rights. The Court has, therefore, made it clear that limitations in respect of access to maintenance grants and benefits, which apply to mere citizens, do not apply to free moving economically active persons.¹³¹ The latter can, thus, access grants and benefits which, in some cases, might have an effect on such benefit schemes. Access to education is also extended to third country nationals related to economically active EU migrants, who, once in education, have an independent residency right which they could extend to family members.¹³²

The other area which could influence HEIs within the free movement provisions is the free movement of services (or establishment, if on a more permanent basis). If higher education and research are regarded as services, Article 56 TFEU (or Article 49 TFEU) would prohibit restrictions on foreign and commercial providers of these services unless there is a valid justification. Initially, the Court's view was that education, including higher education, was not a service in the meaning of the Treaty, as, in Europe, education is not 'normally provided for remuneration', even if students occasionally pay insubstantial fees.¹³³ However, the Court also made it clear that education has to be regarded as a service, if it is taking place in institutions which are 'financed essentially out of private funds, in particular by students or their parents, and which seek to make an economic profit'.¹³⁴ Following this line of rea-

¹³¹ C-39/86 *Lair*. This has been reaffirmed in case C-46/12 *N*. In C-542/09 *Commission v the Netherlands* and case C-20/12 *Giersch* the Court also declared the denial of the portability of a grant to the child of a migrant and frontier worker respectively, if they did not fulfil a certain length of residence, as incompatible with Article 45 TFEU. In *Giersch* the Court considered the aim of increasing the percentage of residents with tertiary education as a valid justification, but found the residency requirement to be disproportionate. The latter is interesting, since increasing the percentage of residents with tertiary education is after all an aim of the Lisbon/Europe 2020 Strategy, but this had not been brought as a justification in the citizenship cases of Austria and Belgium mentioned above. It now seems that it can potentially be a valid justification ground for a limitation of free movement.

¹³² C-529/11 *Alarape*.

¹³³ Cases 263/86 *Humbel* and, for higher education, C-109/92 *Wirth*.

¹³⁴ Case C-109/92 *Wirth* paragraph 13 seq.

soning, one would assume that a similar distinction would have to be made in the area of research. This means that basic research in the general interest with not identifiable paying ‘customer’ would not amount to a service, whilst commercial research for private clients would.¹³⁵ For education as well as for research, the distinction would probably have to be made on a case to case basis.

During the last decades of on-going commodification at the national levels, there have already been a number of cases where the Court declared activities by (higher) education institutions to be services in the meaning of the Treaty. The cases all concerned education, but it seems possible that in the future there will also be cases concerning research. In the case *Neri*¹³⁶ an Italian national wanted to study at the Italian subsidiary of an English private HEI which provided educational courses for an English university, but was informed that the degree which she would obtain from these studies would not be recognized as a qualification in Italy. Here the Court clearly stated that ‘organisation for remuneration of university courses is an economic activity’ and the Italian administrative practise of not recognising such degrees was found to be infringing the freedom of establishment. The cases *Schwarz*¹³⁷ and *Jundt*¹³⁸ were both about tax advantages. In *Schwarz* German residents wanted to claim tax advantages for school attendance fees for their child incurred in Scotland. This was refused by the German tax authorities because the legislation only provided such an option for attendance fees incurred in Germany. The Court held that this infringed the free movement of services.¹³⁹ In *Jundt* a lawyer residing in Germany who had provided a university course in France wanted to claim tax advantages which could have been claimed for educational courses provided in German HEIs. This was equally refused by the local authorities due to national legislation. The Court again held such legislation to be an infringement.

¹³⁵ The Commission draws a similar distinction in the Research Framework (n 8) for the field of state aid law (further below).

¹³⁶ Case C-153/02 *Neri*.

¹³⁷ Case C-76/05 *Schwarz*.

¹³⁸ Case C-281/06 *Jundt*.

¹³⁹ This has been reaffirmed in case C-56/09 *Zanotti*, where the Court, however, allowed a maximum limit for reimbursement set at the level of the costs of the same education in a national public HEI.

These cases illustrate that, especially with increasing commodification, HEIs can come into the ambit of the free movement provisions and this can have unforeseen consequences. Excluding private providers or imposing strict regulations on them, which is often demanded to safeguard quality and equality in higher education,¹⁴⁰ could, for example, constitute a restriction of the free movement of services or the freedom of establishment. Furthermore, as the cases discussed above illustrate, tax advantages could no longer be granted exclusively to national (public) providers. Such consequences could have significant effects on national policy concepts for HEIs.

2.3.3. Competition rules

Competition and state aid law aims to avoid collusions, dominant positions and state interference which could hinder free competition and controls mergers. However, entities only fall under these provisions, if they are ‘undertakings’. The Court has defined an undertaking as ‘every entity engaged in an economic activity, regardless of the legal status of the entity and the way in which it is financed’.¹⁴¹ An economic activity consists, according to the Court, of ‘offering goods or services on the market’.¹⁴² With ongoing commodification of HEIs, they might qualify as undertakings. How far this can be expected and what consequences this could have for them will be discussed in detail in chapter 3.

2.4. Conclusion

This chapter has illuminated the rather complicated situation of HEIs in EU policy and law. Whilst HEIs did not originally play a role in EU policy and law, ongoing commodification and internationalisation seem to have required a certain amount of coordination. Nevertheless, the policy areas appeared to be too treasured by Member States to provide the EU with far reaching competences. Rather than utilising the supranational frame, Member States have thus opted for EU and extra-

¹⁴⁰ See on concerns regarding private providers in higher education UCU, ‘High cost, high debt, high risk: why for-profit universities are a poor deal for students and taxpayers’ (UCU, 2011) available at <http://whitepaper.web.ucu.org.uk/files/2011/08/HighCostHighDebtHighRisk.pdf>.

¹⁴¹ See case C-41/90 *Höfner* paragraph 21.

¹⁴² See case 118/85 *Commission v Italy* paragraph 7.

EU soft law mechanisms. It has been held that these cause democratic concerns, as they are agreed upon by national governments without involvement of the EP. Furthermore, despite their soft law character, many have pointed to implementation pressures on national legislators, the intertwining of the two mechanisms and the emanating tendency towards commodification. It has thus been suggested that there have been attempts to justify, unpopular, national policy choices with, in particular, the Bologna 'rules'.

Additionally, HEIs are not immune to directly applicable EU law. Spill-over can result from citizenship, free movement and competition law provisions. That this can have severe effects on national policy choices has been shown by the cases of Austria and Belgium. Whilst the Court has suffered a great deal of criticism for ruling on matters affecting HEIs due to spill-over from directly applicable EU law, Member States remain reluctant to establish a coherent supranational strategy. Therefore the law in this area is made on a case to case basis without a coherent strategy, which creates fragmentation and can lead to legal uncertainty.¹⁴³ As regards the more economic provisions of EU law, the likeliness that HEIs will fall into their ambit increases with ongoing commodification which, in turn, might require even further commodification potentially endangering the traditional non-economic mission of European HEIs as discussed in the last chapter. In the remainder of the thesis this will be studied more specifically on the example of EU competition law, a thus-far less explored area. The next chapter will begin this study with an in-depth legal doctrinal assessment of potential competition law constraints on HEIs.

¹⁴³ Similar Schrauwen (n 105) p. 10 seq.

Chapter 3

HEIs and EU competition law¹⁴⁴

3.1. Introduction

The aim of this chapter is to conduct an in-depth legal doctrinal assessment of potential competition law constraints on HEIs. As introduced in more detail in chapter 1, this thesis uses the relatively unexplored relation between HEIs and EU competition law as an example of how applying the EU's economic constitution to formerly public sectors may increase tensions between economic integration and the EU's wider aims, including social integration. The general analysis of potential competition law constraints on HEIs in this chapter lays the ground for a detailed discussion of research in HEIs in three Member States in the following chapters.

Since there is no CJEU case law yet, the analysis has to be conducted theoretically by drawing on experiences in national case law as well as on experiences of the application of competition law to public services in other areas, such as health care. The chapter will employ a contextual approach by, firstly, discussing the notions of 'undertaking' and 'SGEIs', as, in effect, they are both limits on the reach of competition law. The second subchapter discusses possible constraints arising from the application of the competition rules on HEIs, namely from the prohibition of anti-competitive collusions in Article 101 TFEU, from the prohibition of the abuse of a dominant market position in Article 102 TFEU, from the merger control regime in Regulation 139/2004/EC and from the prohibition of state aid in Article 107 TFEU. This will be followed by a conclusion bringing together the results of this chapter.

3.2. Application of EU competition law on HEIs? - The notions of 'undertaking' and 'SGEIs'

As we have seen in chapter 2, competition law is only applicable to 'undertakings' which, as will be discussed further below, are defined as bodies which are conducting an economic activity. Originally public services, such as utilities and em-

¹⁴⁴ A condensed version of this chapter has been published as A Gideon, 'Higher Education Institutions and EU Competition Law' (2012) 8 Competition Law Review 169.

ployment and health services were not considered under the competition law regime. However, with increasing liberalisation of these services¹⁴⁵ they have, over time, been progressively regarded as economic activities.¹⁴⁶ Therefore, the entities which conduct them, as well as public market regulations regarding such service have been subjected to EU competition law.¹⁴⁷ The aim behind this development has been to achieve the single market by excluding national protectionism.¹⁴⁸ The problem is, however, that such services cannot always both be provided in a competitive market and, at the same time, retain their general interest character including such elements as universal provision, trust based relationships¹⁴⁹ or equality of access.¹⁵⁰ Therefore, Article 106 (2) TFEU offers an exemption for SGEIs in cases where the application of competition rules obstructs the provision of the SGEI. The importance of this provision has increased with more public services being regarded as economic in nature. Nevertheless, placing public services ‘in the market’ requires a more commercial mode of operation and the exemption is not necessarily always available because the Court sometimes conducts a very strict proportionality test.¹⁵¹ In the following, the notion of ‘undertaking’, the relationship between public regulation of markets and

¹⁴⁵ For more on liberalisation tendencies in the Member States, see P Vincent-Jones, *The New Public Contracting* (OUP, Oxford 2006) p. 358 seq.

¹⁴⁶ This is in line with critical political economist assumptions that the European integration project became more neo-liberal in the last quarter of the 20th century and can also be seen as a functional spill-over. For more on integration theory, see chapter 1 above.

¹⁴⁷ For more on the inclusion of public services into EU competition and internal market law see, Steyger (n 3) p. 275, T Prosser, ‘Competition Law and Public Services: From Single Market to Citizenship Rights?’ (2005) 11 *European Public Law* 543, T Prosser, ‘EU competition law and public services’ in E Mossialos et al (eds), *Health Systems Governance in Europe* (Cambridge University Press, Cambridge 2010), D Chalmers, G Davies and G Monti, *European Union Law* (CUP, Cambridge 2010) p. 1013 seq, C Graham, *EU and UK Competition Law* (Pearson Education, Harlow 2010) p. 68, Neergaard U, ‘Services of general economic interest under EU law constraints’ in Schiek D, Liebert U and Schneider H (eds), *European Economic and Social Constitutionalism after the Treaty of Lisbon* (CUP, Cambridge 2011) p. 174 seq.

¹⁴⁸ An extreme example of liberalisation is Directive 2008/6/EC amending Directive 97/67/EC with regard to the full accomplishment of the internal market of Community postal services OJ [2008] L 52/3, which, in Article 1 (8) provides that all special and exclusive rights shall be abandoned in postal services.

¹⁴⁹ On the latter, see C Newdick, ‘Charities in the Health Care Market: Can Trust survive NHS competition?’ (2007) 18 *The King's College Law Journal* 415.

¹⁵⁰ Additionally, the question has been raised by Chalmers, Davies and Monti (n 147) p. 1046 seq with further references, if liberalisation has actually practically led to more competitive markets and, in effect, to greater consumer welfare.

¹⁵¹ Prosser 2005 (n 147) p. 544, 549, 560, Prosser 2010 (n 147) p. 315 seq, 335 seq.

EU competition law and the notion of ‘SGEIs’ will be analysed before evaluating the position of HEIs in these regards.

3.2.1. The notion of ‘undertaking’

An entity is subject to the Treaty provisions on competition law, if it is an ‘undertaking’ in the meaning of Article 101 TFEU. The concept of ‘undertaking’ is not defined in the Treaty itself. Instead the definition is to be derived from the Court’s case law according to which ‘the concept of undertaking encompasses every entity engaged in an economic activity, regardless of the legal status of the entity and the way in which it is financed’.¹⁵² An activity is economic in nature if it consists of ‘offering goods or services on a market’¹⁵³ which *can*, in principle, be offered commercially. All entities engaged in such activities are thus undertakings, irrespective of whether or not the services *have* actually been offered commercially. In particular, it does not matter if the entity is profit-making or not, nor whether or not it forms part of the state’s administration. It also does not have to have legal personality, as the legal form is irrelevant for the definition. Therefore, third sector¹⁵⁴ and public organisations can be regarded as undertakings even if they do not make a profit and, in the case of public organisations, are financed from taxes or social insurance contributions.¹⁵⁵ Obviously, this broad definition leaves very few activities outside the

¹⁵² C-41/90 *Höfner* paragraph 21.

¹⁵³ 118/85 *Commission v Italy* paragraph 7.

¹⁵⁴ Most commonly defined as neither the public nor the private sector, the third sector (also referred to as, for example, voluntary sector or community sector) is made up of organisations with specific charitable goals which operate in a not-for profit fashion. See I Wendt and A Gideon, ‘Services of general interest provision through the third sector under EU competition law constraints: The example of organising healthcare in England, Wales and the Netherlands’ in D Schiek, U Liebert and H Schneider (eds), *European Economic and Social Constitutionalism after the Treaty of Lisbon* (CUP, Cambridge 2011) p. 255.

¹⁵⁵ On the concept of ‘undertaking’ see A Jones and BE Sufrin, *EC Competition Law* (OUP, Oxford 2011) p. 124 seq, J Aicher et al, ‘EGV Art. 81 Verbot wettbewerbsbeschränkender Vereinbarungen und Verhaltensweisen (Nizza-Fassung)’ in Grabitz E, Hilf M and Nettesheim M (eds), *Das Recht der Europäischen Union* (40th edn, Beck, Munich 2009) paragraph 51, 56 seq, 67 seq, Chalmers, Davies and Monti (n 147) p. 964, Graham (n 147) p. 66 seq, A Kaczorowska, *European Union Law* (2nd edn, Routledge, London/New York 2011) p. 780 seq, 785 seq, W Weiß, ‘EGV Art. 81 (ex Art. 85) [Verbot wettbewerbsbeschränkender Maßnahmen]’ in C Callies and M Ruffert (eds), *Das Verfassungsrecht der Europäischen Union* (3rd edn, Beck, München 2007) paragraph 13, W Sauter and H Schepel, *State and Market in European Union Law* (CUP, Cambridge 2009) p. 75 seq, 80 seq, 95, W Sauter, ‘Services of general economic interest and universal service in EU law’ (2008) 33 *European Law Review* 167 p. 181 seq, Steyger (n 3) p. 276, Swennen (n 3) p. 263 seq, 278 seq.

competition law regime, as it seems hard to imagine an activity that could not, at least in principle, be conducted commercially.

The EU courts have acknowledged two exceptions: the exercise of sovereign power and the offering of services governed by the principle of solidarity. The sovereignty exception applies when an entity acts in the service of the state's prerogatives to conduct acts of official authority, irrespective of whether this authority is executed by a public or private entity.¹⁵⁶ The principle of solidarity¹⁵⁷ exception has been found to apply to national social insurance schemes, such as health, pension and accident at work insurance schemes, if contributions were disproportionate to the risks and the benefits paid to the beneficiaries had no relation to the amount of the contribution. The schemes thus involved an element of cross-subsidy where insured persons with higher incomes or constituting lower risks supported those with lower incomes or those suffering from higher risks. Additionally, the Court took aspects such as the public nature and necessity of compulsory schemes to ensure their financial equilibrium into consideration when employing this exception.¹⁵⁸ Without the principle of solidarity, such national insurance schemes could be regarded as undertakings.¹⁵⁹ The concept of 'undertaking' is, however, relative;¹⁶⁰ an entity can be regarded as being an undertaking for certain parts of its activities even if other parts fall under one of the two exceptions. For the former parts, the undertaking (as it is

¹⁵⁶ C-364/92 *Eurocontrol* paragraph 19 seq, in particular paragraph 30 and 31, C-343/95 *Diego Cali v SEPG* paragraph 16 seq, C-113/07 P *SELEX* paragraph 65 seq.

¹⁵⁷ For more on the principle of solidarity in competition law, see M Ross, 'Promoting Solidarity: From Public Services to A European Model of Competition?' (2007) 44 *Common Market Law Review* 1057 p. 1067 seq, N Boeger, 'Solidarity and EC competition law' (2007) 32 *European Law Review* 319.

¹⁵⁸ C-159, 160/91 *Poucet et Pistre* paragraph 18 seq, C-218/00 *Cisal* paragraph 38 seq, C-264, 306, 354, 355/01 *AOK Bundesverband* paragraph 45 seq, C-205/03 P *FENIN* paragraph 25 seq.

¹⁵⁹ C-244/94 *FFSA and others* paragraph 15 seq, in particular paragraph 22, C-67/96 *Albany* paragraph 77 seq.

¹⁶⁰ The notion 'relative concept' was used by the Advocate-General in C-475/99 *Ambulanz Glöckner* paragraph 72 ('the notion of "undertaking" is a relative concept in the sense that a given entity might be regarded as an undertaking for one part of its activities while the rest fall outside the competition rules') and adopted by Jones and Sufrin (n 155) p. 125 seq. Others use the term 'functional approach' to describe the fact that the CJEU does not consider a whole entity as an undertaking per se, but differentiates between its tasks (see, for example, Chalmers, Davies and Monti (n 147) p. 1026).

then defined), has to comply with the competition rules, unless it is exempted by Article 106 (2) TFEU.¹⁶¹

In summary, for an entity not to fall under the competition rules, it has to conduct an activity that is, per se, not economic in nature, is part of the states prerogatives or is organised on the basis of solidarity. Demonstrating the former seems nearly impossible, as it is difficult to imagine which activities might not theoretically be offered on a market. Regarding the exceptions, it appears from case law that the more commercial elements an entity or a system adopts, the more likely it becomes that it will be regarded as undertaking.

3.2.2. Anti-competitive regulation of markets by Member States

It was not only entities providing public services that came under the scrutiny of EU competition law, however, but also public market regulation. Firstly, according to the case law, a general obligation regarding anti-competitive state regulation arises from Article 4 (3) TEU which contains the ‘principle of sincere cooperation’ in achieving the aims of the Treaties. The *effet utile* of competition law would be undermined, according to the Court, if the Member States were allowed to keep in force legislation which allows or even requires undertakings to engage in anti-competitive conduct.¹⁶² There seems to be no public interest exemption from this principle.¹⁶³ However, state legislation based on a recommendation by a committee

¹⁶¹ On the exceptions and the relative concept of ‘undertaking’ see Jones and Sufrin (n 155) p. 127 seq, Chalmers, Davies and Monti (n 147) p. 1026 seq, Aicher et al (n 155) paragraph 52, 61, 70 seq, Graham (n 147) p. 67, 68 seq, Kaczorowska (n 155) p. 781 seq, Sauter and Schepel (n 155) p. 79 seq, 83 seq, 95, Sauter (n 155) p. 182 seq, Prosser 2010 (n 147) p. 319 seq. On the second exception see also Steyger (n 3) p. 276, Swennen (n 3) p. 263 seq, 278 seq. The latter interestingly raises the point that rather than asking whether or not it is desirable that competition law is applicable to public undertakings, one could ask the question whether competition law as a whole should be drafted differently, as currently it conceivably favours a specific kind of undertaking. In a completely different competition law the problems arising from application on public services could become irrelevant.

¹⁶² 13/77 *INNO v ATAB* para. 30 seq. The Court, in this case, established the principle that, while the competition law provisions only apply to undertakings, national legislation requiring or enabling undertakings to violate competition law, infringes Article 4 (3) TFEU (then Article 5 EEC) in conjunction with the competition law provisions.

¹⁶³ Chalmers, Davies and Monti (n 147) p. 1019 suggest that this might change in the future after the Court considered ‘ancillary constraints’ in C-309/99 *Wouters* as part of Article 101 TFEU. The Court also followed this line of reasoning in C-519/04 P *Meca-Medina*. Both cases, however, concerned very specific circumstances and it has to be seen how far this line of reasoning can actually be utilised beyond such cases.

of experts from industry will not be regarded as a decision by an association of undertakings if the experts come to their decision independently from any interested undertakings and if governmental review of the composition of the committee and the decision is possible.¹⁶⁴ Chalmers et al call this a ‘procedural defence’¹⁶⁵ which ensures that national law is in the public interest rather than national governments giving in to industrial lobbying. The Court has applied Article 4 (3) TEU in conjunction with Article 101 (1) TFEU in cases where an actual infringement of competition law by undertakings took place rather than allowing the review of legislation as such in itself.¹⁶⁶ Purely governmental regulation of the market might thus still be possible from this perspective.¹⁶⁷

Secondly, Article 106 (1) TFEU has led to the opening of markets because it prohibits national measures regarding ‘public undertakings and undertakings to which Member States grant special or exclusive rights’ to infringe the TFEU. In contrast to Article 4 (3) TEU, which is not limited in its substantive scope, Article 106 (1) TFEU is thus applicable only to such undertakings.¹⁶⁸ It does not, however, prohibit the existence of these,¹⁶⁹ but only those measures¹⁷⁰ regarding such undertakings which infringe the Treaty. Article 106 (1) TFEU has been used to review legislation without an actual infringement by an undertaking having occurred.¹⁷¹ Whilst Article 4 (3) TEU has mostly been employed in cartel cases, the abuse of a dominant

¹⁶⁴ C-185/91 *Reiff* paragraph 14 seq, case C-35/99 *Arduino* paragraph 34-37.

¹⁶⁵ Chalmers, Davies and Monti (n 147) p. 1018 seq.

¹⁶⁶ C-2/91 *Meng* paragraph 14 seq. As there was no actual collusion between undertakings in this case, the Court did not find an infringement of Article 4 (3) TFEU in conjunction with Article 101 TFEU.

¹⁶⁷ For more on the limits of market regulation according to Article 4 (3) TFEU see Chalmers, Davies and Monti (n 147) p. 1014 seq, Steyger (n 3) p. 277, Weiß (n 155) paragraph 14.

¹⁶⁸ For more on the definition of ‘public undertakings and undertakings to which Member States grant special or exclusive rights’ see R Wish, *Competition Law* (6th edn, OUP, Oxford 2009) p. 221 seq.

¹⁶⁹ 155/73 *Sacchi* paragraph 14: ‘Article 90 (1) [EEC, now Article 106 (1) TFEU] permits Member States inter alia to grant special or exclusive rights to undertakings.’

¹⁷⁰ Further on the definition of ‘measures’ see Wish (n 168) p. 224, who concludes that a wide approach, similar to the approach concerning the definition of the term in respect to the free movement provisions, is envisaged here.

¹⁷¹ 18/88 *RTT* paragraph 23 seq.

position has predominantly been dealt with under Article 106 (1) TFEU.¹⁷² In this respect it seems that any legislation containing the threat of putting an undertaking into a position where it is abusing, cannot help but or is likely to abuse its dominance, infringes Article 106 (1) TFEU in conjunction with Article 102 TFEU.¹⁷³

Article 4 (3) TEU and Article 106 (1) TFEU therefore render inapplicable such national measures which infringe competition law (or other Treaty provisions). While this does not require market opening as such, it can lead to new national legislation that does so. Chalmers et al express the opinion that the Court has enforced Article 106 (1) TFEU and Article 4 (3) TEU in a less harsh manner against Member States than it could have. Instead, it used these provisions as a threat to encourage the ‘voluntary’ opening of markets.¹⁷⁴ Additionally, it has been remarked that the Court seems less strict in its assessment the more ‘public’ or ‘social’ the service. Sometimes the Court, however, does not seem to go through the effort of demonstrating an infringement with regards to public services at all, but goes straight to examining the exemption in Article 106 (2) TFEU.¹⁷⁵

3.2.3. SGEIs

If public services are regarded as economic ones, the competition rules have to be complied with unless they can be exempted as SGEIs by Article 106 (2) TFEU. However, SGEIs are not a straight forward concept and confusion has arisen in many areas.¹⁷⁶

¹⁷² See, for example, C-49/07 *MOTOE* paragraph 50.

¹⁷³ On Article 106 (1) TFEU see Chalmers, Davies and Monti (n 147) p. 1020 seq, Wish (n 168) p. 220 seq, Neergaard (n 147) p. 182, Sauter and Schepel (n 155) p. 93 seq, 96.

¹⁷⁴ Chalmers, Davies and Monti (n 147) p. 1014.

¹⁷⁵ See Chalmers, Davies and Monti (n 147) p. 1014, 1024 seq with further references, Neergaard (n 147) p. 183 seq, Weiß (n 155) paragraph 15, Wish (n 168) p. 231.

¹⁷⁶ Neergaard (n 147) p. 183 seq, Aicher et al (n 155) paragraph 69, E-J Mestmäcker and H Schweitzer, *Europäisches Wettbewerbsrecht* (2nd edn, Beck, München 2004) § 34, paragraph 17, Wish (n 168) p. 220, Sauter (n 155) p. 167, 183, Steyger (n 3) p. 276.

3.2.3.1. Terminology

The term SGEIs is, itself, bewildering, since, despite the word ‘economic’ being part of the term, the interest behind those services¹⁷⁷ is public rather than economic. The criterion ‘economic’ refers to the fact that these are economic services to start with, as otherwise they would not fall under competition law and thus would not need to be exempted. The term ‘services of general interest’ (SGIs) is used as an umbrella category for SGEIs and non-economic services by the Commission.¹⁷⁸ According to Hatzopoulos the notion of SGIs seems to correspond with the French ‘service public’ and the ‘overriding principles of general interest’ established as a justification in the field of the free movement provisions.¹⁷⁹ The terms ‘public services’ and ‘public service obligations’ are not used by the Commission, as it deems them ‘ambiguous’.¹⁸⁰ The Court, however, seems to use them in the same context as SGEIs. The main characteristics of SGIs are universality, equality of access, a certain level of quality, continuity and a public aim.¹⁸¹

Additionally, a new category, called ‘social services of general interest’ (SSGIs), was introduced by the Commission in the early 2000s.¹⁸² The definition of

¹⁷⁷ The term ‘services’ under Article 106 (2) is to be understood in a wider sense than ‘services’ under Article 57 TFEU to also include the production and distribution of goods. See Mestmäcker and Schweitzer (n 176) §34, paragraph 17.

¹⁷⁸ See Commission Communication ‘Services of general interest in Europe’ (2001/C 17/04) Annex II. Different ETUCE, *The European Court of Justice’s rulings on the definition of educational services* (ETUCE, 2006) available on http://etuce.homestead.com/Campaign_Directive_Services/ENG/ETUCE_NoteECJ_education_ENG.doc p. 2 where SGIs are equated to non-economic services.

¹⁷⁹ V Hatzopoulos, ‘Services of General Interest in Healthcare: An Exercise in Deconstruction?’ in U Neergaard, R Nielsen and L Roseberry (eds), *Integrating Welfare Functions into EU Law - From Rome to Lisbon* (DJØF Forlag, Copenhagen 2009) p. 226. Regarding the correspondence of the term with the French ‘service public’ see Mestmäcker and Schweitzer (n 176) §34, paragraph 17. See Sauter and Schepel (n 155) 89 seq, 95 regarding convergence with internal market reasoning.

¹⁸⁰ See Communication SGEIs in Europe (n 178) Annex II.

¹⁸¹ For more on terminology see Hatzopoulos (n 179) p. 225 seq, Jones and Sufrin (n 155) p. 568 seq, Neergaard (n 147) p. 175 seq, Mestmäcker and Schweitzer (n 176) § 34, paragraph 17 seq, Sauter (n 155) p. 181.

¹⁸² See, U Neergaard, ‘The Concept of SSGIs and the Asymmetries between Free Movement and Competition Law’ in U Neergaard et al (eds), *Social Services of General Interest in the EU* (T.M.C. Asser, The Hague 2013) p. 206 who spotted the first use of the term SSGIs in the Commission’s Report to the Laeken European Council COM(2001) 598 final, where the term is, however, only mentioned and not further elaborated upon.

SSGIs is still rather disputed. In its Communication from 2006, the Commission states that ‘in addition to health services, which are not covered by this communication, we find two main categories of social services’. These categories are, according to the Commission, social security schemes and ‘other essential services provided directly to the person’. In a footnote to the latter category the Commission explains that ‘education and training, although they are services of general interest with a clear social function, are not covered by this Communication’.¹⁸³ This vague definition has led to different interpretations in the literature; whilst some believe health and education are included in the definition others argue in favour of separate categories, namely health services of general interest (HSGIs) and education and training services of general interest (ETSGIs).¹⁸⁴ Either way, it seems that SSGIs (and, if separate categories, also HSGIs and ETSGIs), comprise services which have a social aim in the broader sense. In them, Member States have primary competences and they are often traditionally regarded as non-economic, but have recently also sometimes been categorised as economic. These services thus seem to contain the unclear cases and seem to be situated somewhat in the middle of SGEIs and non-economic services with overlaps into both. The question of whether or not such services fall under the competition law regime, however, still seems to depend on their classification as economic in nature.¹⁸⁵

3.2.3.2. The development of SGEIs

Whilst Article 106 (2) TFEU has been part of EU law from the very beginning, (then Article 90 EEC), it gained in importance when public services were increasingly subjected to the competition law regime as mentioned above.¹⁸⁶ Neergaard thus describes the provision as being directly in the middle of the diverging interest of

¹⁸³ Commission Communication ‘Implementing the Community Lisbon Programme: Social Services of General Interest in the European Union’ COM (2006) 177 final p. 4.

¹⁸⁴ See Neergaard (n 182) p. 210 seq. A useful diagram is also provided in U Neergaard, ‘Services of general economic interest: the nature of the beast’ in M Krajewski, U Neergaard and J van de Gronden (eds), *The Changing Legal Framework for Services of General Economic Interest* (T.M.C. Asser, The Hague 2009) p. 20. Explanations of SGIs, SGEIs, non-economic services, market service and the disputed categories of SSGIs, HSGIs and ETSGIs are provided on the following pages.

¹⁸⁵ See further Neergaard (n 182) p. 210 seq, 239 seq, Neergaard (n 184) p. 19 seq.

¹⁸⁶ Neergaard (n 147) p. 176.

market rules and social objectives.¹⁸⁷ With the Treaty of Amsterdam Article 14 TFEU (then 16 EC), the requirement that Member States and the Union ensure that SGEIs are enabled to ‘fulfil their missions’, has been inserted into the Treaty principles even though the scope of this insertion seems to have been limited.¹⁸⁸ The Treaty of Lisbon broadened Article 14 TFEU by the insertion that the ‘economic and financial conditions’ for the provision of such services need to be ensured and a legislative competence in this respect was given to the EU legislator.¹⁸⁹ The latter, however, has to be used ‘without prejudice to the competence of the Member States’ and Protocol 26 stresses the wide discretion of the Member States regarding SGEIs (Article 1) and their exclusive competence regarding non-economic services (Article 2). Additionally, SGEIs also found mentioning in Article 36 of the Charter of Fundamental Rights of the European Union (Charter), which became legally binding with the Treaty of Lisbon.¹⁹⁰ Aside from the developments in primary law, there have also been (limited) harmonisation efforts for certain fields of SGEIs in secondary law.¹⁹¹

3.2.3.3. The application of Article 106 (2) TFEU

In order for a measure to be exempted by Article 106 (2) TFEU, three conditions have to be fulfilled. Firstly, the undertaking in question must have been entrusted with an SGEI by the Member State. The Member States have a wide margin of discretion regarding what they consider to be a SGEI, but, as it is an EU concept, the Commission and the Court can review their decisions for manifest errors.¹⁹²

¹⁸⁷ Neergaard (n 147) p. 175, U Neergaard, ‘Services of General (Economic) Interest: What Aims and Values Count?’ in U Neergaard, R Nielsen and L Roseberry (eds), *Integrating Welfare Functions into EU Law - From Rome to Lisbon* (DJØF Forlag, Copenhagen 2009) p. 195, Neergaard (n 184) p. 17. Similar Sauter (n 155) p. 167.

¹⁸⁸ See Neergaard (n 187) p. 196 seq, Neergaard (n 147) p. 177 seq, Sauter (n 155) p. 168 seq, 171 seq.

¹⁸⁹ This competence is, however, limited to passing regulations, in contrast to the proposed provision in the Constitution, which, in Article III-122, referred to ‘European laws’ in general. The legislative competence of Article 14 TFEU is an addition to the competence of the Commission to issue directives and decisions according to Article 106 (3) TFEU). See Neergaard (n 147) p. 179, Sauter (n 155) p. 169 seq, 172.

¹⁹⁰ See Neergaard (n 187) p. 196 seq, Neergaard (n 147) p. 178 seq, Chalmers, Davies and Monti (n 147) p. 1035 seq, 1048, Sauter (n 155) p. 171 seq.

¹⁹¹ For more see Chalmers, Davies and Monti (n 147) p. 1038 seq, 1048.

¹⁹² 10/71 *Muller* paragraph 13 seq, C-67/96 *Albany* (n 159) paragraph 103 seq and T-17/02 *Olsen* paragraph 216.

Generally it seems that the service needs to be associated with public duty and be provided in the general, rather than satisfying only particular, interests. Additionally, a 'uniform' and 'binding nature' of the service seems to be required.¹⁹³ These criteria are, however, not interpreted strictly. The 'uniform nature', does not mean that the service has to be supplied in the whole territory of the Member State or be applicable to the whole of the population and the 'binding nature' does not require prescribing the details of service to the provider.¹⁹⁴ In particular, utilities, telecommunications and transport services are considered to be SGEIs.¹⁹⁵ If they are seen as economic services in the first place, services such as health insurance,¹⁹⁶ pension schemes or services including elements of environmental protection have also been regarded as SGEIs.¹⁹⁷ The undertaking has to be entrusted with the SGEI by the Member State in an official act (for example, by legislation)¹⁹⁸ which also should include a description of the SGEI.¹⁹⁹ The classification of an undertaking as being entrusted with a SGEI is, as when deciding if an entity is an undertaking in the first place, relative.²⁰⁰ It might therefore be that an undertaking provides an SGEI in one market, but is not exempted from the application of competition law in another.²⁰¹

¹⁹³ T-289/03 *BUPA* paragraph 172 seq.

¹⁹⁴ *Ibid* paragraph 186 seq.

¹⁹⁵ Communication SGEIs in Europe (n 178) Annex II.

¹⁹⁶ On the problematic classification of health care see J van de Gronden, 'Purchasing care: economic activity or service of general (economic) interest?' (2004) 25 *European Competition Law Review* 87, Prosser 2010 (n 147).

¹⁹⁷ See, for example, case T-289/03 *BUPA*.

¹⁹⁸ 10/71 *Muller* (n 192) paragraph 10 seq.

¹⁹⁹ Commission Decision 2012/21/EU on the application of Article 106(2) of the Treaty on the Functioning of the European Union to State aid in the form of public service compensation granted to certain undertakings entrusted with the operation of services of general economic interest Article 4. The Commission refers, in its preliminary observations (recital 4) of this decision, to the *Altmark* judgment (C-280/00) in which the Court required inter alia that a public service obligation must be clearly defined for the compensation of such a service not to constitute state aid. See also Sauter (n 155) p. 190 seq.

²⁰⁰ See, for example, 18/88 *RTT* paragraph 22 where the network company was not regarded as providing a SGEI in the telecommunication equipment market.

²⁰¹ On the first criterion see Neergaard (n 187) p. 211 seq, 219 seq, Neergaard (n 147) p. 185, 191 seq, Chalmers, Davies and Monti (n 147) p. 1030 seq, Prosser 2005 (n 147) p. 550, Sauter (n 155) p. 174 seq, 178 seq (in particular, on the universal service obligation as part of SGEIs), 183 seq, 192 seq. For a different take on the first criterion see Mestmäcker and Schweitzer (n 176) § 34, paragraph 17 seq who argue in favour of a strict European definition and a tight margin of discretion for the Member States.

Secondly, according to Article 106 (2), the application of competition rules would have to ‘obstruct the performance, in law or fact, of the particular tasks assigned’ to the undertaking and the setting aside of the competition rules would have to be proportional to the aim pursued. Concerning the criterion of ‘obstruction’ it appears that the Court has become much more lenient. Whilst in the initial judgments on the issue the viability of the undertaking had to be threatened in order for its performance to be ‘obstructed’²⁰², the Court, in more recent judgments, deems an ‘obstruction’ to be present if it would not be possible for the undertaking to perform the particular tasks entrusted to it under ‘economically acceptable conditions’.²⁰³ Whilst the Court occasionally conducts a strict proportionality test focussing on necessity,²⁰⁴ such a strict test is not undertaken in every case. Sometimes the Court does not explicitly conduct a proportionality test at all and sometimes it seems to focus rather on overall proportionality than on strict necessity.²⁰⁵ Neergaard assumes this might be the case because of the controversial nature of such a strict test and Sauter concludes that the question of EU ‘pre-emption’ in the field might play a role here.²⁰⁶

Finally, the development of trade must not be affected in such a way that it would be contrary to the EU’s interests. Obviously, this condition requires more than an ‘effect on trade between Member States’ since the cross border element is generally necessary for there to be an infringement of the Treaty provisions in the first

²⁰² See, for example, 155/77 *Sacchi* paragraph 15 and C-41/90 *Höfner* paragraph 24 both referring to the ‘incompatibility’ of the undertaking to comply with competition rules and to fulfil its tasks.

²⁰³ See, for example, C-475/99 *Ambulanz Glöckner* paragraph 57.

²⁰⁴ See, for example, C-203/96 *Dusseldorp* paragraph 67 where the Court held that the national government had to show that the SGEI mission, if given at all, ‘cannot be achieved equally well by other means’ for the measure to be proportional.

²⁰⁵ See, for example, C-475/99 *Ambulanz Glöckner* paragraph 62 seq. Whilst the Court does not explicitly conduct a proportionality test, and, even if it does, it is not a very strict one focussing on necessity, it seems to come to the conclusion that the extension of a right into a connected market would be disproportionate if demand in the connecting market could not be satisfied.

²⁰⁶ See, for a more detailed analysis of the second criterion, Neergaard (n 187) p. 211 seq and Neergaard (n 147) p. 185 seq, 190 seq, who evaluates the question of whether the application of competition rules would obstruct the performance of the SGEI and the proportionality test as two separate conditions. Generally on the second criterion also see Chalmers, Davies and Monti (n 147) p. 1030, 1032 seq, Mestmäcker and Schweitzer (n 176) § 34, paragraph 19, Prosser 2005 (n 147) p. 550, Prosser 2010 (n 147) p. 325. See also Sauter (n 155) p. 171, 178, 180 seq (relating the proportionality test to market failure), 186 (relating the proportionality test to pre-emption), 189 seq, 193 who also divides the second criterion into two steps; the questions of obstruction and proportionality being one and the question of necessity of extended rights (‘ancillary constraints’) as another.

place as will be discussed below. Thus, if any effect on trade between Member States meant that the exemption could not be applied, this would render the exemption useless.²⁰⁷ What exactly this condition pertains to is, thus far, not entirely clear.²⁰⁸

3.2.3.4. Interim conclusion on SGEIs

Generally it appears that the Court's approach to SGEIs has become less strict in recent years. This might be connected to the fact that the Court seems to have been stricter regarding the question whether a situation falls under a certain EU law provision (here; whether an entity is an undertaking) in the first place. If EU law is more frequently held to be applicable, the exemption becomes more relevant and needs to be interpreted less strictly to allow, at least, a certain balance between economic and public interests. As Neergaard points out, however, this field of law is not yet fully developed, but is still under construction, so changes in this respect might occur.²⁰⁹

3.2.4. HEIs

Traditionally public HEIs have not been regarded as undertakings. Instead they were seen as state institutions conducting typical government activities because HEIs were basically administering a scheme funded by general taxation to provide education and research in the public interest.²¹⁰ The students were not deemed to be con-

²⁰⁷ See C-157/94 *Commission v Netherlands* paragraph 67. In this case a Dutch company's exclusive right of electricity imports had been challenged by the Commission. A potential effect on trade between Member States was given, as it would have been theoretically possible that the exclusive right led to reduced imports compared to a situation where every potential customer could have imported electricity directly. As the Commission had not shown, however, that 'the development of intra-Community trade in electricity had been and continued to be affected to an extent contrary to the interests of the Community' the Court dismissed the case.

²⁰⁸ For more on the final criterion see Chalmers, Davies and Monti (n 147) p. 1030, Neergaard (n 187) p. 211 seq, Neergaard (n 147) p. 185.

²⁰⁹ See Neergaard (n 187) p. 223 seq, Neergaard (n 147) p. 184, 194 seq.

²¹⁰ See Commission Communication on the application of the European Union State aid rules to compensation granted for the provision of services of general economic interest OJ [2012] C 8/02 paragraph 26 seq and Commission Decision 2006/225/EC on the aid scheme implemented by Italy for the reform of the training institutions OJ [2006] L 81/13 paragraph 41 seq. In both instances, the Commission explicitly imported the reasoning from internal market law in the field of education into competition and state aid law. On the reasoning in internal market law, which established the principle that education is generally not a service in the meaning of the Treaty see C-263/86 *Humbel* and C-109/92 *Wirth* discussed above in chapter 2, C Barnard, *The substantive law of the EU* (3rd edn, OUP, Oxford 2010) p. 368. See the Research Framework (n 8) paragraph 3.1.1. where it establishes the principle that research in the public interest in public

sumers, they did not pay fees (or at least not significant ones) and research was not conducted for a customer but was, as the Research Framework phrases it ‘independent R&D for more knowledge and better understanding’. However recent developments suggest that this might be changing.²¹¹

Universities would be conducting an economic activity if they provided research or education (or additional activities, such as offering accommodation or selling certain products) on a market. The mere aim of increasing student numbers as such is not significant to show that there is an economic activity occurring. Instead a service would have to be provided in the interest of the consumer by a potentially profit-oriented entity.²¹² Whilst the absence of profit could be an indicator that a given entity does not operate on a market, it is insufficient in itself. Similarly, cross-subsidy of possible profits into other charitable parts of its activities would not hinder the classification as an undertaking. Thus non-profit and not-for-profit entities can be included in the definition if the services they provide could theoretically be conducted in a market setting. Likewise, as has been seen above, the public character of an entity does not hinder the categorisation as undertaking. Instead, the classification solely depends on the activities’ (potentially) economic character. Whether or not that is the case has to be evaluated on a case by case basis and might differ significantly depending on the way the systems are constructed.²¹³

HEIs is usually not an economic activity. This has been reinforced by the Communication on state aid and SGEIs mentioned earlier in this note in paragraph 29.

²¹¹ For more on recent developments in the HEIs sector see chapter 1. On the classification of HEIs, see also Steyger (n 3) p. 275 seq, 277 seq, ETUCE (n 178) p. 4 seq, Swennen (n 3) p. 265, 268, 279.

²¹² In the field of the free movement provisions, the emphasis is more on the aspect of remuneration while in competition law the potential profit-making ability is the key factor (see O Odudu, ‘Are State-owned health-care providers undertakings subject to competition law?’ (2011) 32 *European Competition Law Review* 231, p. 235). However, the changing definition in the field of the free movement provisions and the fact that remuneration was found there can be an indicator that there is the potential to make a profit and that the service is thus of an economic nature. In C-109/92 *Wirth*, for example, the Court suggested that essentially private education, which the recipients pay for, would be a service in internal market law and in C-153/02 *Neri* paragraph 39 the Court explicitly stated that the ‘organisation for remuneration of university courses is an economic activity’. For more see chapter 2 above. See also Barnard (n 210) p. 368.

²¹³ See also Steyger (n 3) p. 277 seq, Swennen (n 3) p. 265 seq, 268 seq, 275, 279 seq, ETUCE (n 178) p. 5 seq. For an analysis of the question as to whether an entity is an undertaking in the field of health care (as a similar field of public service provisions), see Odudu (n 212). See also Prosser 2010 (n 147) p. 335.

Whilst the classification as undertaking might, in many HEI settings, presently still be exceptional, it might become more common with further commodification. The Commission stated in Decision 2006/225/EC that

*'[...] recent case law also shows that the concept of economic activity is an evolving concept linked in part to the political choices of each Member State. Member States may decide to transfer to undertakings certain tasks traditionally regarded as falling within the sovereign powers of States. Member States may also create the conditions necessary to ensure the existence of a market for a product or service that would otherwise not exist. The result of such state intervention is that the activities in question become economic and fall within the scope of the competition rules.'*²¹⁴

With regards to research, the Commission, in paragraph 3.1.2. of the Research Framework, assumes that research organisations such as HEIs might be conducting 'economic activities, such as renting out infrastructure, supplying services to business undertakings or performing contract research'. In the Issue Paper on the revision of the Research Framework²¹⁵ the Commission clarifies this by, inter alia, pointing out that exploitation of IPRs can amount to an economic activity if exclusive or arising from work outside the 'primary non-economic activities'. It also specifically mentions that the simple 'labelling' of an activity as 'collaborative research' does not make it non-economic, but that it depends on the actual activity conducted. Regarding education the Commission in its Communication on state aid and SGEIs states that 'in certain Member States public institutions can also offer educational services which, due to their nature, financing structure and the existence of competing private organisations, are to be regarded as economic'.²¹⁶

²¹⁴ See Decision 2006/225/EC paragraph 50.

²¹⁵ The Research Framework was due to expire on 31 December 2013, however, in Commission Communication concerning the prolongation of the application of the Community framework for State aid for research and development and innovation OJ [2013] C 360/1 the Commission extended its applicability until 30 June 2014. Whilst the Commission in a reply to a request for information on the state of the revision process has stated that a proposal of the revised framework would be expected before the end of 2013, this has not been made available as of 18 December 2013. The latest document in the review process is the Issue Paper 'Revision of the state aid rules for research and development and innovation' from 12 December 2012 available on http://ec.europa.eu/competition/state_aid/legislation/rdi_issues_paper.pdf.

²¹⁶ Communication on state aid and SGEIs (n 210) paragraph 28. In paragraph 30 the potentially economic nature of research services has equally been reinforced.

An indicator that an economic activity is being conducted could therefore be seen in the fact that private for-profit HEIs or research institutes are operating in a specific market. Public HEIs providing services on such a market could then be considered to compete in a market place and thus might be regarded as undertakings. For example, a business school in a university could be seen as competing with private business schools and a research institute in a university providing research for a private business would compete with private research institutes. In such cases the services are mainly provided for the consumer rather than in the general interest and a profit could be achieved. As the relative concept of ‘undertaking’ allows a functional definition of the character of the entity as an undertaking according to the tasks it conducts, the HEI could therefore be regarded as an undertaking for these parts of its activities and would have to comply with competition law.²¹⁷

Changes in the way in which a Member State organises its HEI system (namely by integrating more market like structures) might lead to a more general classification of HEIs as undertakings. For example, in the UK students are paying around £9000 a year in public universities and the very aim of the Browne report²¹⁸ is to make them customers and to create a marketplace for higher education.²¹⁹ Taking this into consideration, it seems conceivable that HEIs of such systems will be more generally regarded as undertakings. Research funding from private firms is also increasingly encouraged and commercial research co-operations are becoming more

²¹⁷ See also Swennen (n 3) p. 266, 268, 275 seq with examples of national cases, 279 seq, Steyger (n 3) p. 278 seq (who, however, differs in the point that the concept of undertaking is relative; ‘Under community law, the entity as a whole will be seen as such undertaking. Contrary to national law, there is no separation of the commercial activity from the government activity.’ Quote p. 278).

²¹⁸ J Browne et al, ‘Securing a sustainable future for higher education’ (Independent Review, 2010) available on <http://webarchive.nationalarchives.gov.uk/+/hereview.independent.gov.uk/hereview/report/>.

²¹⁹ For more on the developments in England see M Robb, ‘Here be treasure, but sector unprepared for private raiding parties’ *THE* (12 May 2011) <http://www.timeshighereducation.co.uk/story.asp?storycode=416122> accessed 31 May 2011. Robb suggests that more private providers will enter the higher education ‘marketplace’ and this will require more business style operation of the public sector institutions. See also, on the suggested fully paid additional places at universities, H Mulholland and V Jeevan, ‘Willets forced on to back foot over premium rate university places’ *guardian.co.uk* (10 May 2011) <http://www.guardian.co.uk/education/2011/may/10/plan-rich-pay-extra-university-places-entrench-privilege> accessed 20 May 2011.

common in many Member States.²²⁰ Such research would then no longer solely be ‘independent R&D for more knowledge’. All this strengthens the foreboding that EU competition law will have to be applied more generally to public HEIs in the future.²²¹

If this becomes the case and HEIs are in danger of infringing competition law, one would have to raise the question of whether they could be exempted under Article 106 (2) TFEU. That would mean that the specific task would still fall under their general interest obligation (research in the public interest and teaching) and could not be achieved under economically acceptable conditions if the competition rules were to be enforced. This would, however, depend on the individual case. It would not be possible for a Member State to simply declare all tasks undertaken by HEIs as SGEIs. Additionally, the proportionality requirement might necessitate questioning whether less severe measures could have been used and the demand also has to be met in markets for which exclusive rights are granted. Finally, intra-union trade must not be affected to an extent contrary to the Union’s interest. It is, however, thus far not quite clear what the latter criterion entails.²²²

3.2.5. Interim Conclusion

With the liberalisation of ever more public services, an increasing number of activities have been classified as economic activities and competition law has therefore been applied to them. This led to the exemption in Article 106 (2) TFEU playing a more significant role and the Court now only requires, for exemption, that a measure allows an undertaking to conduct its task under ‘economically acceptable conditions’ rather than requiring the viability of the undertaking to be threatened.

Neither research in the public interest in public HEIs nor education has traditionally been regarded as an economic service. However, the Court has, in more recent judgments regarding the free movement provisions, declared primarily privately financed education to be a service. In Decision 2006/225/EC and the recent Commu-

²²⁰ See also *Swennen* (n 3) p. 271, 275 with further references (for example, on the co-operation ‘Leuven Research and Development’, Belgium). On commodification in HEIs in general see chapter 1 and on further developments in the Member States under scrutiny see chapter 4.

²²¹ See also *Gideon* (n 144) p. 173.

²²² Also on SGEIs and HEIs *Swennen* (n 3) p. 266, *Steyger* (n 3) p. 278 seq, *ETUCE* (n 178) p. 2.

nication on state aid and SGEIs, the Commission imported the reasoning developed in internal market law into competition law and stated that the classification of an educational activity as economic or not, is not a fixed definition. Instead it is linked to the way in which the Member States organise their systems. If market mechanisms are introduced, the activities can become economic activities. A very similar distinction is made for research in the Research Framework clarified by the Issue Paper. If, therefore, HEIs can be regarded as undertakings for certain activities, they have to comply with the competition rules unless they can be exempted by Article 106 (2) TFEU. The ongoing commodification of higher education and research in many Member States makes it seem likely that certain activities in public HEIs could already be regarded as economic and that this will increase in the future. HEIs would then have to be prepared to take competition law into account. In the following, potential consequences from the application of the competition law provisions on HEIs shall be evaluated.

3.3. Consequences resulting from the application of EU competition law on HEIs

The aim of competition law is to protect the consumer and competition, which sometimes means protecting competitors. In the EU context, it should also work against the partitioning of the internal market.²²³ However, when it comes to public service provision, the application of competition law can have negative consequences. The aim of this subchapter is to explore possible consequences for HEIs.

Competition and state aid law are located in Title VII, chapter 1, Articles 101-109 TFEU. The substantive provisions are Article 101 TFEU (prohibiting any collusion between undertakings which negatively impacts on competition), Article 102 TFEU (forbidding the abuse of a dominant market position) and Article 107 TFEU (disallowing state aid). Furthermore, mergers between undertakings are subject to EU merger control if they have a Union dimension. In the following these provisions will be explored further with regards to potential constraints for HEIs. This does not

²²³ See Greaves and Scicluna (n 3) p. 15. For a critical assessment of the market integration aim of EU competition law see O Odudu, 'The last vestiges of overambitious EU competition Law ' (2010) 69 *The Cambridge Law Journal* 148.

entail that the application of competition law could not also have positive effects in some cases, for example, when HEIs fix prices at an unreasonably high level. However, these are consequences envisaged by competition law, while this subchapter is aiming at illuminating potential unforeseen negative consequences.

3.3.1. Market Definition

As will be seen below, the application of both the competition rules and certain exemptions often depends on the undertakings holding a certain market share. Therefore, before moving on to the competition law provisions, it is necessary to briefly sketch the subject of market definition in this respect.²²⁴

To determine the relevant market, one has to evaluate both the product and the geographical market.²²⁵ The product market is defined by examining product interchangeability and the concept of the geographical market is based on homogeneity of the conditions of competition.²²⁶ When evaluating the relevant market the Commission mainly examines ‘demand substitution’.²²⁷ ‘Supply substitution’ might be considered only in specific cases where an undertaking can easily produce a variety of products which from a demand perspective are not interchangeable.²²⁸ The third competitive constraint, ‘potential competition’, will only be evaluated at a later stage if necessary.²²⁹ In order to assess demand substitution, the SNIP (small but significant and non-transitory increase in price) test is used. This test asks whether the consumers would switch to a different product or receive the same product from a different region if the price of the original product is increased.²³⁰ All products which

²²⁴ See also Amato and Farbmann (n 3) p. 8 seq, Greaves and Scicluna (n 3) p. 16.

²²⁵ Commission Notice ‘on the definition of the relevant market for the purposes of Community Competition law’ OJ [1997] C 372/5 paragraph 9.

²²⁶ Ibid paragraph 7 seq.

²²⁷ Ibid paragraph 13 seq. If the concentration is on the side of the buyer the same test is used to find out alternative supply routes (paragraph 17).

²²⁸ Ibid paragraph 20 seq.

²²⁹ Ibid paragraph 24 seq.

²³⁰ Ibid paragraph 15 seq.

would be bought as an alternative and all regions, from which the products would be received, would be part of the same market.²³¹

Regarding the product market from a demand perspective this would mean for HEIs that the market for research would have to be separated from the higher education market. Furthermore, undergraduate education, taught postgraduate and postgraduate research education would all constitute separate markets. One would also assume that education taking place in different languages is not interchangeable and thus that every language forms an independent market. Additionally, every subject will constitute a separate market since a course or research in electrical engineering, for example, is hardly interchangeable with those activities in philosophy. However, aside from these obvious considerations, it is difficult to determine the product market. The question could, for example, be if courses in electrical engineering form an individual product market or if they are part of the market for higher education in engineering in general. For research this is complicated even more by increasing specification, since every level of specification could potentially be regarded as a separate market. With regards to higher education, the type of institution might also play a role. In Germany, for example, the *Fachhochschulen* (a more vocational type of HEI) might not be considered to be in the same market as universities, inter alia, as their degrees do not necessarily allow postgraduate studies.²³² This might be similar in other Member States where such a division exists. Even in England, where the distinction has been abandoned,²³³ universities might still not necessarily be regarded as interchangeable due to questions of prestige.²³⁴

Market definition becomes even more complicated when defining the relevant geographical market. In particular regarding the education of undergraduates who might prefer to stay close to their parents' homes, one might wonder if the geographical market might be limited to one city, one area or at least one Member State.

²³¹ On market definition see also Amato and Farbmann (n 3) p. 9 seq, S Weatherill, *EU Law* (9th edn, OUP, Oxford 2010) p. 523 seq, 529 seq.

²³² In the German federalist system this is a matter of the federal German states and thus provisions concerning this will be found in state laws. See, for example, §65 *Bremisches Hochschulgesetz* (Bremen HEIs Act).

²³³ See chapter 4 below.

²³⁴ See also on the product market in respect to HEIs Amato and Farbmann (n 3) p. 9 seq, Gideon (n 144) p. 176 seq.

The cases of Belgium and Austria²³⁵ have, however, shown that at least in the markets for medical education in the German and French languages, the geographical market went beyond the borders of the Member States. With the encouragement of educational mobility, the harmonisation of degree structures and a growing number of courses being offered in English, it is likely that markets will increasingly exist across borders. On the other hand, considerations such as the prestige of the higher education systems in some Member States might play a limiting role in defining the geographical market. Regarding research, markets are even more likely to exist across borders, as only feasibility of transport, as well as the price and quality of the services play a role rather than emotional considerations.²³⁶

If one considers supply substitution (the question of how easily an HEI could switch between different 'products' even if they are not interchangeable from a demand side perspective), this might lead to undergraduate and postgraduate taught education being considered as one market, as it might be easily possible for HEIs to switch between them. Postgraduate research studies, on the other hand, would probably, have to be regarded separately due to the special position between student and researcher inherent in PhD students.²³⁷ Additionally, postgraduate research education requires a higher staff-student ratio and in some Member States only specific members of academic staff are allowed to supervise such students at all. Finally, in certain subjects, more laboratories could be required. Therefore it would be less easy to switch 'production' in this respect. It might also be possible that from a supply substitution perspective, sub-subjects which are not interchangeable for the 'consumer' (student or research client), are, however, easily interchangeable for the 'producer' and could thus be regarded as one market. Finally, the geographical extent of supply might be easily broadened, for example, through distance learning options

²³⁵ See chapter 2 above.

²³⁶ See also Amato and Farbmann (n 3) p. 9 seq, Greaves and Scicluna (n 3) p. 20 seq.

²³⁷ In some Member States, such as the Netherlands, postgraduate research students are regarded and treated as staff and earn a salary. See VSNU (vereniging van universiteiten - association of universities in the Netherlands), 'Doctoral education' (2011) <http://www.vsnunl.nl/Focus-areas/Research/Doctoral-education-.htm> accessed 20 September 2011. In other Member States, such as England, they are regarded as more like students.

which could lead to a bigger market even if the ‘consumer’ feels more bound to a certain area.²³⁸

To make this more accessible, an attempt should be made to illustrate this with a few hypothetical scenarios from the HEI sector. Very specialised research in the medical field might, for example, be regarded as a market independent from general medical research. This market might thus just consist of a very limited number of HEIs and/or research institutes which then would each have a very large market share. To illustrate the point further, postgraduate research degree studies in oriental philology in the Dutch language shall be considered as another example of a small market. Higher education in the Dutch language is only provided by HEIs in the Netherlands and Flemish HEIs in Belgium, not all of which are necessarily able to provide doctorates. This would reduce the number of potential providers to a small number of universities, not all of which necessarily teach oriental philology. These universities are, therefore, also likely to have big market shares. On the other hand, subjects such as business administration at Masters level are widely taught and often in English. Educational mobility at the masters level is considered to be generally higher than at the undergraduate level. Such a market is, therefore, expected to be rather big and the market shares of individual HEIs relatively small. As these examples show, what exactly the market is depends very much on the individual case.

3.3.2. Article 101 TFEU

Under Article 101 (1) TFEU undertakings²³⁹ are prohibited to engage in any collusion (enter into an agreement, make a decision to coordinate behaviour in an association or conduct tacit collusion)²⁴⁰ which has as its ‘object or effect^[241] the

²³⁸ See also Amato and Farbmann (n 3) p. 10.

²³⁹ See above on the notion of ‘undertaking’ and on the fact that in conjunction with other Treaty provisions, Article 101 TFEU can also apply to state action.

²⁴⁰ Tacit collusion takes place if there is some indication that there is an understanding between the undertakings involved concerning their market conduct without them having formed an agreement. Whilst parallel behaviour is an indicator for a concerted practise it does not in itself establish it (48/69 *Imperial Chemical Industries* paragraph 8). See further on tacit collusion S Bishop and M Walker, *The economics of EC competition law* (Sweet&Maxwell, London 2010) p. 164 seq, M Horspool and M Humphreys, *European Union Law* (OUP, Oxford 2010) p. 482 seq.

²⁴¹ As the provision states, the collusion must have as its object *or* effect the negative impact on competition. It is not necessary that both can be established. This was reinforced by the Court in C-

prevention, restriction or distortion of competition'. The list of examples of anti-competitive behaviour in Article 101 (1) TFEU is not exhaustive, but a broad range of behaviour can fall under the provision.²⁴² Whilst collusion with an anti-competitive *object* is always illegal the Courts seem to be slightly more flexible as it comes to the *effects* of a collusion. The General Court, however, rejected the thought that this establishes a rule of reason in EU competition law. Instead it stated that the actual weighing of pro-and anti-competitive aspects should only take place under Article 101 (3) TFEU.²⁴³ Finally, such coordination has to 'affect trade between Member States' in order to fall under Article 101 (1) TFEU, which means that there must be a cross-border element. This, though, has also been widely interpreted; the closing of a national market²⁴⁴ and even potential effects²⁴⁵ on intra-EU thus fall under this criterion.²⁴⁶ In addition to the elements inherent in the provision itself, any effect on competition must be appreciable.²⁴⁷ This is, according to the Commission's *De Minimis* Notice,²⁴⁸ only the case if the undertakings in question hold a market

501, 513, 515 and 519/06 P *GlaxoSmithKline* paragraph 55. See also Horspool and Humphreys (n 240) p 488.

²⁴² See further Lübbig T, '§ 7 Rechtsgrundlagen' in Wiedemann G (ed), *Handbuch des Kartellrechts* (2nd edn, Beck, Munich 2008) paragraph 20 seq.

²⁴³ T-112/99 *Métropole* paragraph 72 seq. In this respect it is also worth mentioning that certain potentially anti-competitive clauses which are essential for the main agreement (ancillary restraints), are to be considered together with the latter under Article 101 (1) and, if necessary, (3) TFEU rather than individually (ibid paragraph 104 seq, in particular 104, 115 seq). See also Horspool and Humphreys (n 240) p 488 seq.

²⁴⁴ 8/72 *Vereeniging van Cementhandelaren* paragraph 29 'an agreement extending over the whole territory of a Member State by its very nature has the effect of reinforcing the compartmentalisation of markets on a national basis, thereby holding up the economic interpenetration which the Treaty is designed to bring about and protecting domestic production'.

²⁴⁵ 56/65 *Maschinenbau Ulm* p. 249 'it must be possible to foresee with a sufficient degree of probability [...] that the agreement in question may have an influence, direct or indirect, actual or potential, on [...] trade between Member States'.

²⁴⁶ For more on the criterion of effect on intra-Union trade see Commission Notice 'Guidelines on the effect on trade concept contained in Articles 81 and 82 of the Treaty' OJ [2004] C 101/81. In particular the effect on trade must be appreciable (paragraph 44 seq of the Notice). This is, however, not to be confused with the concept of appreciability regarding the impact on competition mentioned below. See also on the effect of trade concept Chalmers, Davies and Monti (n 147) p. 966, Horspool and Humphreys (n 240) p. 492.

²⁴⁷ First established by the Court in 5/69 *Völk* paragraph 7.

²⁴⁸ Commission Notice on agreements of minor importance which do not appreciably restrict competition under Article 81(1) of the Treaty establishing the European Community (de minimis) OJ [2001] C 368/07 section II 7 seq.

share of at least 10% as regards horizontal and 15% as regards vertical²⁴⁹ collusions²⁵⁰ unless they are engaging in certain hardcore restrictions.²⁵¹

A collusion prohibited by Article 101 (1) TFEU is, according to Article 101 (2) TFEU, automatically void,²⁵² unless it falls under the exemption of Article 101 (3) TFEU.²⁵³ A collusion can be exempted if it involves efficiency gains ('improving the production or distribution of goods' or 'technical or economic progress') of which the consumer receives 'a fair share' (they at least must not be worse off), is necessary for these gains to be achieved and does not completely prevent competition. According to Regulation 1/2003,²⁵⁴ Article 101 (3) TFEU has become directly applicable overcoming the necessity of prior notification. It also decentralised competition law giving more investigative and decisive powers to national competition authorities (NCAs). Nevertheless, the Commission's approach still is the major guideline for the application of Article 101 (3) TFEU. In its approach the Commission seems to strictly interpret the above mentioned criteria, focussing mainly on economic considerations.²⁵⁵ There thus seems to be little chance of exempting collusions in the

²⁴⁹ Horizontal collusion is collusion between competitors, while vertical collusion is collusion between undertakings operating on different levels of production. In the latter the concern is rather the portioning of the internal market than consumer welfare which is why the threshold regarding such collusion is higher. See Horspool and Humphreys (n 240) p. 486 seq.

²⁵⁰ See the *De Minimis* Notice for further details as regards markets share thresholds in specific circumstances such as cumulative foreclosure effects.

²⁵¹ On Article 101 (1) TFEU see Horspool and Humphreys (n 240) p. 476 seq, Bishop and Walker (n 240) p. 158, 160 seq, 163 seq, I Ward, *A Critical Introduction to European Law* (3rd edn, CUP, Cambridge 2009) p. 130 seq. With a focus on HEIs see Greaves and Scicluna (n 3) p. 15, 20, Amato and Farbmann (n 3) p. 8 and Gideon (n 144) p. 175.

²⁵² This applies only to the anti-competitive parts of the collusion, other parts might retain validity. See Horspool and Humphreys (n 240) p. 476, 493.

²⁵³ As regards public undertakings or undertakings with special or exclusive rights there is, of course, also the exemption provided in Article 106 (2) TFEU as discussed above.

²⁵⁴ Regulation 1/2003/EC on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty OJ [2003] L 1/1 Article 1 (2).

²⁵⁵ See, for example, Commission White Paper on the modernisation of the rules implementing Articles 85 and 86 of the EC Treaty Programme No 99/027 OJ [1999] C 132/01 paragraph 57 describing the purpose of Article 101 (3) TFEU (then Article 85 (3) EC) as 'to provide a legal framework for the economic assessment of restrictive practices and not to allow application of the competition rules to be set aside because of political considerations'. Also, see Commission Communication 'Guidelines on the application of Article 81(3) of the Treaty' OJ [2004] C 101/08 paragraph 42 stating that 'the four conditions of Article 81(3) [now Article 101 (3) TFEU] are also exhaustive. When they are met, the exception is applicable and may not be made dependent upon any other condition. Goals pursued by other Treaty provisions can be taken into account to the extent that they can be subsumed under the four conditions of Article 81 (3) [now

HEI sector on grounds of public policy considerations under Article 101 (3) TFEU.²⁵⁶

Exemptions are often provided for a specific kind of coordination in block exemptions regulations (BERs).²⁵⁷ Regarding HEIs, three BERs in particular, could be useful. The Specialisation BER exempts specialisation agreements with a combined market share of below 20%, unless they contain the hardcore restrictions price fixing, limitation of outputs or market division.²⁵⁸ HEIs might utilise this BER for joint course agreements or joint research programmes. The Research and Development BER exempts vertical research cooperation agreements as well as horizontal ones with a combined market share which does not exceed 25%, unless they contain certain hardcore restrictions and only if 'the parties have full access to the final results'.²⁵⁹ Finally, the Technology Transfer BER exempts technology transfer agreements related to the production of contractual goods and services, unless they contain certain hardcore restrictions or other excluded restrictions, if the common market share does not exceed 20% in horizontal cases and the market share of each party does not exceed 30% in vertical cases.²⁶⁰ Additionally, the vertical agreement

Article 101 (3) TFEU]'. See also G Monti, *EC Competition Law* (CUP, Cambridge 2007) chapter 4 in particular p. 89 seq, 102 seq and 122 seq and Jones and Sufrin (n 155) p. 244 seq. Especially on HEIs in this respect see Greaves and Scicluna (n 3) p. 20.

²⁵⁶ On Article 101 (2) and (3) TFEU see Horspool and Humphrey (n 240) p. 476, 490, 493 seq, Bishop and Walker (n 240) p. 158 seq, Ward (n 251) p. 130 and, specifically on HEIs, Greaves and Scicluna (n 3) p. 16, 19 seq and Gideon (n 144) p. 179.

²⁵⁷ For a critical analysis of BERs in the system of competition law after Regulation 1/2003 see F Marcos and A Sánchez Graells, 'A Missing Step in the Modernisation Stairway of EU Competition Law - Any Role for Block Exemption Regulations in the Realm of Regulation 1/2003?' (2010) 6 *Competition Law Review* 183.

²⁵⁸ Commission Regulation 1218/2010/EU on the application of Article 101(3) of the Treaty on the Functioning of the European Union to certain categories of specialisation agreements OJ [2010] L 335/43. A specialisation agreement requires that one or more competing undertakings specialise in one area and therefore receive goods or services from competing undertakings in this area which they would have normally provided themselves (Article 2 (1)). The BER also covers certain aspects of intellectual property rights related to specialisation (Article 2 (2)).

²⁵⁹ Commission Regulation 1217/2010/EU on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of research and development agreements OJ [2010] L 335/36.

²⁶⁰ Commission Regulation 772/2004/EC on the application of Article 81(3) of the Treaty to categories of technology transfer agreements OJ [2004] L 123/11. This BER is currently being reviewed (updates on the process can be found on http://ec.europa.eu/competition/consultations/2012_technology_transfer/index_en.html).

BER²⁶¹ exempts all vertical collusions below a market share of 30% of the buyer and the seller respectively, except for certain hardcore restrictions.²⁶²

In the following a few scenarios will be discussed in which HEIs might come into conflict with Article 101 TFEU. These are by no means exclusive; there may well be other scenarios where constraints arise from this provision aside from the ones discussed here. In individual cases there might, of course, always be the possibility of exemption.

3.3.2.1. Price fixing

Any kind of cooperation between HEIs regarding prices for higher education or research²⁶³ could be regarded as price fixing. This seems less problematic when it comes to research. As has been said above, HEIs only fall under the competition provision if they conduct research of an economic nature. In that case they must not fix prices. This fact does not generally seem to result in any unforeseen detrimental consequences for HEIs. On the other hand, the prohibition of price fixing might indeed cause problems for HEIs regarding tuition fees. If governmental regulations set, or put a cap on, tuition fees, this could still constitute price fixing, in cases where government rules allow scope for price competition and HEIs collaborate within this margin. Additionally, governmental measures demanding or encouraging price fixing could equally be anti-competitive according to Article 4 (3) TFEU in conjunction with Article 101 TFEU.

Whilst there is no case law by the Court yet, the Office of Fair Trading (OFT, the UK's competition authority) has already investigated educational institutions and has found a group of private schools to have been engaged in anti-competitive collu-

²⁶¹ Commission Regulation 330/2010/EU on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices OJ [2010] L 102/1.

²⁶² On BERs regarding HEIs see also Greaves and Scicluna (n 3) p. 16, 19 seq, Amato and Farbmann (n 3) p. 8 seq, Gideon (n 144) p. 180. On BERs generally see Horspool and Humphrey (n 240) p. 494 seq, Bishop and Walker (n 240) p. 158 seq.

²⁶³ Any additional activities conducted by HEIs, such as housing for students, selling of clothes with the university logo etc, shall be left aside in the following, as they are not the main purposes of an HEI.

sion.²⁶⁴ The schools had conducted a 'survey' each year from 2001 to 2003 regarding each other's future pricing. The sharing of confidential information, such as the prices for the coming academic year, is regarded as an infringement of competition by its object, if it is conducted on a regular basis, relates to future conduct and the information is not available to the public. The OFT, therefore, did not evaluate the question whether this actually had any effect on the price levels. Instead it found the schools guilty of 'participating in an agreement and/or concerted practice having as its object the prevention, restriction or distortion of competition in the relevant markets for the provision of educational services'. The schools each had to pay a fine of £10,000.²⁶⁵ Another possible price fixing incident occurred in the Netherlands. Due to newer legislation (Wet Versterking Besturing, Strengthening Administration Act 2010), Dutch universities can now set tuition fees independently. It appears from media coverage that after the government discontinued funding for second degrees and the universities had therefore introduced higher fees for such degrees, a student organisation (Stichting Collectieve Actie Universiteiten, Foundation Collective Action Universities) initiated legal proceedings against eight Dutch universities for charging excessive prices.²⁶⁶ The writ for these proceedings apparently also included minutes of common discussions between the Universiteit Amsterdam and the Vrije Universiteit Amsterdam agreeing on prices for second Masters degrees. This has then led to investigations by the Dutch competition authority (Nederlandse Mededingsautoriteit, NMa) into a possible cartel between these universities fixing prices for

²⁶⁴ OFT Decision CA98/05/2006 from 20 November 2006 available on <http://www.of.gov.uk/OFTwork/cartels-and-competition/ca98/decisions/schools>. The OFT applied the prohibition of section 2 (1) Competition Act 1998, the equivalent to Article 101 (1) TFEU. For more on the case see Greaves and Scicluna (n 3) p. 13, 21 seq, Amato and Farbmann (n 3) p. 10 seq, Swennen (n 3) p. 277, Gideon (n 144) p. 175.

²⁶⁵ Certain exception where applicable for example, because of Crown immunity. Ibid.

²⁶⁶ I de Pous, 'Amsterdamse universiteiten gedaagd om prijsafspraken' *de Volkskrant* (1 September 2011) <http://www.volkskrant.nl/vk/nl/4884/Bezuinigingen-in-het-hoger-onderwijs/article/detail/2880822/2011/09/01/Amsterdamse-universiteiten-gedaagd-om-prijsafspraken.dhtml> accessed 14 October 2011, JP Myklebust and B O'Malley, 'NETHERLANDS: Dawn raids over 'illegal' tuition fees' *University World News* (7 September 2011) <http://www.universityworldnews.com/article.php?story=20110907191951868> accessed 23 September 2011, Dijkstra, 'Amsterdam Universities fix prices: how to prevent this from happening?' (2011) *Knowledge Debate* <http://www.rug.nl/kennisdebat/onderwerpen/actueel/universitiesFixPrices> accessed 14 October 2011.

second Bachelor and/or Masters degrees except for medical subjects.²⁶⁷ The investigation was closed when the universities offered to discontinue fixing prices with each other or other universities.²⁶⁸

These examples illustrate that educational institutions are not beyond the reach of the competition provisions. The prohibition of price fixing is, *inter alia*, intended to protect the consumer. In the cases reported above, the application of competition law would presumably achieve that aim. However, currently, with governmental funding still prevailing and higher education still considered as being in the general interest, one could imagine cases where such a collusion would be to the advantage of the students, encouraging fair pricing and equal access. Challenging this could thus be harmful to the general interest involved. This can be illustrated in a German case regarding public music schools.²⁶⁹ The music schools entered into contracts with self-employed teachers, requiring them not to charge prices higher than 85 German Marks per hour of tuition. In return, the teachers were allowed to use the facilities of the music schools for their lessons and the school would arrange their contracts. The school fixed the price with the teachers in order to allow equal and low pricing, so that everybody could have access to music education. The arrangement was challenged by a music teacher, who wanted to charge higher prices for her lessons. The German Court regarded the music school, as well as the self-employed teachers, as undertakings and the contract terms of the music school as price fixing. This case nicely illustrates how in such cases the prohibition of price fixing could be to the detriment of the consumer. Additionally, the constellation of the case makes one wonder whether, in the final consequence of the thought, even governmental regulation regarding tuition fees could be challenged under Article 4 (3) TEU in conjunction with Article 101 (1) TFEU.

²⁶⁷ See NMa, 'Bedrijfsbezoeken NMa bij Amsterdamse universiteiten' (2011) http://www.nma.nl/documenten_en_publicaties/archiefpagina_nieuwsberichten/webberichten/2011/20_11_bedrijfsbezoeken_nma_bij_amsterdamse_universiteiten.aspx accessed 12 October 2011. For more on the case see Gideon (n 144) p. 175.

²⁶⁸ NMa, 'NMa accepteert maatregelen van UvA en VU' (2012) <https://www.acm.nl/nl/publicaties/publicatie/10780/NMa-accepteert-maatregelen-van-UvA-en-VU/> accessed 16 October 2012.

²⁶⁹ BGH Judgement 23.10.1979 in (1980) 82 GRUR 249. For more on the case see H Kroitzsch, 'Anmerkungen BGH 23.10.1979 KZR 22/78 "Berliner Musikschule"' (1980) 82 GRUR 249 p. 251 seq, Swennen (n 3) p. 277, Gideon (n 144) p. 178.

Another example where price fixing could have positive effects for students can be derived from a case in the US. The Department of Justice has investigated HEIs for price fixing violating the Sherman Act (US American Competition Law Act) in the early 1990s.²⁷⁰ HEIs had agreed on a policy according to which they would discuss what they believed an applicant who had applied to a variety of HEIs could pay. They would then offer financial aid to this applicant accordingly, so that the student's financial burden would remain unchanged, regardless of which offer he or she accepted, although the level of tuition fees differed between universities. The aim of the scheme was to ensure that students would pay a price they could afford and that financial help would only be given as to the shortfall. In this way, HEIs would not compete on the basis of financial aid allowing more students to profit. Instead, HEIs would compete on the quality of their services.²⁷¹ Whilst some HEIs ended the dispute in a settlement agreeing to discontinue the allegedly anti-competitive behaviour,²⁷² the Massachusetts Institute of Technology continued the trial and was found guilty of price fixing in the first instance.²⁷³ In the appeal decision, the Third Circuit decided that the rule of reason in US American Antitrust law requires a more thorough weighing of pro- and anti-competitive effects and referred the case back.²⁷⁴ Before a final decision could be reached, a compromise was found and the dispute ended in a settlement the terms of which were then to be applicable

²⁷⁰ Complaint, *United States v. Brown Univ.*, No. 91-CV-3274 (E.D. Pa., filed May 22, 1991). For more on the case see SC Salop and LJ White, 'Antitrust goes to college' (1991) 5 *Journal of Economic Perspectives* 193, DR Carlson and GB Shepherd, 'Cartel On Campus: The Economics and Law of Academic Institutions' *Financial Aid Price Fixing* (1992) 71 *Oregon Law Review* 563, TJ Stachtiaris, 'Antitrust in need: undergraduate financial aid and *United States v. Brown University*' (1993-1994) 62 *Fordham Law Review* 1745, MC Petronio, 'Eliminating the Social Cost of Higher Education: The Third Circuit Allows Social Welfare Benefits to Justify Horizontal Restraints of Trade in *United States v. Brown University*' (1994-1995) 83 *Georgetown Law Journal* 189.

²⁷¹ See Stachtiaris (n 270) p. 746 seq, Scalop and White (n 270) p. 198 seq who, however, doubt that such arguments would stand up in Court under Antitrust law (the article was written before the actual proceedings had been started) and Carlson and Shepherd (n 270) who, however, oppose the scheme, as they believe it was economically inefficient.

²⁷² Stipulation, *United States v. Brown Univ.*, No. 91-CV-3274 (E.D. Pa., filed May 22, 1991).

²⁷³ Decision and Order, *United States v. Brown Univ.*, No. 91-CV-3274 (E.D. Pa., filed Sept. 2, 1992).

²⁷⁴ Opinion of the Court, *United States v. Brown Univ.*, No. 92-1911 (3d Cir. Sept. 17, 1993).

to all HEIs.²⁷⁵ This settlement, inter alia, provides that HEIs are allowed to give financial aid according to need, to agree on methods to determine need and to involve a third party to gather financial background information on applicants which will then be provided to all HEIs involved. It prohibits, however, agreement on common fees.

Whilst, thus, in the end, a compromise was reached which was actually very close to the original scheme, the case nevertheless shows the possible threats arising from competition law for the public service character of HEIs.²⁷⁶ At the same time, it also shows the possibility of compromise in this regard and could serve as an example for European HEIs should competition law become more generally applicable to them. It could even be used as a blue print for future secondary legislation. Whilst there is no rule of reason in EU competition, Article 106 (2) TFEU might be utilised to achieve a similar result.

3.3.2.2. Market foreclosure or disturbance

Another example where HEIs might infringe Article 101 (1) TFEU is if they cooperate in bodies which essentially define who can enter (a significant part of) the market such as accreditation or quality assurance agencies for teaching and research or bodies distributing study places. These could, if consisting mainly of experts from within HEIs, be regarded as making a decision by an association of undertakings foreclosing (parts of) the market and preventing access to newcomers. If such bodies themselves conducted an economic activity and are thus undertakings, this could be regarded as a vertical cartel.²⁷⁷ Even if such bodies are foreseen in national law, this could still fall under the prohibition of Article 101 (1) TFEU if read in conjunction with Article 4 (3) TEU.

²⁷⁵ Letter of 22 December 1993 by the US Department of Justice – Antitrust Division, available on http://www.appliedantitrust.com/06_reasonableness/brown/litan_thane_settlement12_22_1993.pdf.

²⁷⁶ Similar Stachtiaris (n 270), who argues that therefore HEIs should not fall under Antitrust law in the first place.

²⁷⁷ For example, see 107/82 *AEG* paragraph 35 seq. The case concerned a distribution network which is, as such, not incompatible with Article 101 (1) TFEU, if any undertaking, which wishes to do so and which fulfils objective qualitative criteria, can enter the network. However, if undertakings which meet the qualitative criteria are prevented from entering, this does constitute an infringement. This is regarded as collusion as the acceptance of the conditions by the participating undertakings is regarded as approval. See *Horspool and Humphreys* (n 240) p. 479 seq.

A body distributing university places could, for example, be regarded as an association of undertakings. If this association only allows certain HEIs to be registered within it (for example, only national ones) and thus only allocates places to them, this forecloses the market to newcomers. The case of Maastricht University applying for registration in the British Universities and Colleges Admission Service (UCAS) has, for example, been discussed in the press.²⁷⁸ The request was, according to the *Sunday Times*, turned down because Maastricht University is not British. The article further reported that Maastricht University planned to challenge the decision under EU law, as it constitutes discrimination.²⁷⁹ It might also be conceivable, though difficult to specify without knowing the details of this case, that such arrangements could be challenged under Article 101 (1) TFEU or Article 4 (3) TEU in conjunction with Article 101 (1) TFEU, if bodies such as UCAS are required by a state measure.²⁸⁰

In the USA the accreditation of, in particular legal, education has been discussed widely in the context of its compatibility with the Sherman Act.²⁸¹ Indeed, there have been some privately initiated cases against legal and other educational accreditation agencies, which have, however, not been successful.²⁸² A case by the US Department of Justice against the American Bar Association (ABA),²⁸³ however,

²⁷⁸ See J Grimston and J Winch, 'Maastricht University is fighting for a listing in order to attract British students' *The Sunday Times* (24 October 2010) News 4. There does not seem to be anything available on the case since initial press coverage.

²⁷⁹ This might probably have referred to the free movement of services, but the article is not very precise here and also talks about effects on competition. A challenge under the free movement provisions would imply that UCAS would be regarded as part of the Member State (the UK) which discriminates against foreign service providers. Higher education would thus have to be regarded as a service in the meaning of the free movement provisions.

²⁸⁰ On the market foreclosure scenario see Gideon (n 144) p. 179.

²⁸¹ For an evaluation of accreditation agencies under US American antitrust law see CC Havighurst and PM Brody, 'Accrediting and the Sherman Act' (1994) 57 *Law and Contemporary Problems* 199. For an evaluation of legal education accreditation under the Sherman Act see H First, 'Competition in the legal education industry (II): an antitrust analysis' (1979) 54 *New York University Law Review* 1049, M Lao, 'Discrediting Accreditation?: Antitrust and Legal Education' (2001) 79 *Washington University Law Quarterly* 1035, J Areen, 'Accreditation Reconsidered' (2011) 96 *Iowa Law Review* 1471.

²⁸² See those discussed in Havighurst and Brody (n 281) p. 201, 203, in First (n 281) p. 1062, p. 1080 and in Lao (n 281) p. 1037.

²⁸³ Competitive Impact Statement, *United States v American Bar Association*, No. 95-1211(CR) (D. D. C. 1996). In this case the fixing of salaries and working conditions had also been challenged and was amongst the conduct the ABA had to agree to stop in the consent decree (section I A).

ended in a consent decree in which ABA consented to refrain from specific accreditation practices. In particular they consented to accredit for-profit institutions on equal terms. In England, for example, there is also some support for applying stricter rules to for-profit providers of higher education, in order to ‘mitigate the extra risk posed by for-profit corporate forms’.²⁸⁴ The US case implies that accreditation practices are not beyond the reach of competition law in principle, potentially also for European institutions. Again, even if accreditation is foreseen by national law, this might, in EU law, be challengeable under Article 4 (3) in conjunction with Article 101 (1) TFEU.

However, such bodies might disturb the market beyond preventing access completely. UCAS has recently made it into the press again when it decided not to publish university application figures believing this to be anti-competitive.²⁸⁵ It was alleged that publishing the figures would lead to a competitive disadvantage for some HEIs since the figures ‘could be overinterpreted by both institutions and applicants, and give rise to unintended markets effects’.²⁸⁶ Whilst publishing such information might indeed have a negative effect on certain institutions, it might also, as a student organisation has argued, enhance consumer welfare to have the relevant information available.

Competition law can thus have potential effects on the bodies regulating teaching or research activities. The opening of such institutions to every interested HEI from every Member State could put a significant strain on the national systems. This would particularly cause problems if such institutions are publicly funded. Additionally potential judicial reviews of accreditation standards might lead to lower quality and a further opening of education systems to private providers. Finally, if UCAS

In Europe such problems seem less likely due to different labour law traditions and a reluctant approach by the European judiciary in this respect (see Monti (n 255) p. 96 seq). For more on *United States v American Bar Association* see Lao (n 281) p. 1037 seq, Areen (n 281) p. 1487 seq.

²⁸⁴ UCU, 'UCU politics monthly - March 2013 - Westminster' (2013) <http://www.ucu.org.uk/index.cfm?articleid=6653#wmin> accessed 15 April 2013.

²⁸⁵ J Morgan, 'Ucas withholds 2013-14 application data' *THE* (14 February 2013) <http://www.timeshighereducation.co.uk/news/ucas-withholds-2013-14-application-data/2001543.article> accessed 17 April 2013.

²⁸⁶ *Ibid.*

was right in its assumption that publishing certain figures was anti-competitive, systems could become less transparent.

3.3.2.3. Market division

It might also be conceivable that HEIs, whether by agreement or by tacitly coordinating their behaviour, divide the subject market. This would be the case if they decide to offer a certain variety of subjects in coordination with what other HEIs in the area are offering. Whilst orienting their behaviour around others in an economically reasonable way would not amount to collusion, actual coordination on the matter could do so.²⁸⁷ HEIs could then be regarded as dividing the market into segments of subjects which are only offered by few HEIs which are geographically distant and thus not in direct competition. This might create local monopolies regarding teaching and research at the same time, if one considers the history of the university with the aim of teaching and research going hand in hand.²⁸⁸ Considering the fact that most students still study in their home state²⁸⁹ and that small and medium size undertakings often also seek partners locally, this would limit their choices and they might be encouraged to challenge such coordination. With decreasing public funding, however, it might no longer be possible for every HEI to offer every subject and (local) collaboration dividing the subjects (joint course agreements) between them might be the only solution for HEIs. If, at the same time, they cooperate by consulting primarily with each other in areas in which they do not themselves conduct research and teaching, this might be regarded as a cartel with the aim of driving a competitor out of the market. Of course, HEIs might be able to utilise the previously mentioned BER on specialisation agreements in this respect.²⁹⁰

²⁸⁷ If the collaboration goes as far as creating a new organisation this might have to be considered as a merger, which is discussed below.

²⁸⁸ See chapter 1 above.

²⁸⁹ For more on student mobility see Lanzendorf U, 'Foreign students and study abroad students' in Kelo M, Teichler U and Wächter B (eds), *Eurodata - Student mobility in European higher education* (Lemmens, Bonn 2006) p. 8 seq. According to the data given here, on average only 3% of students in the Eurodata countries study abroad with Iceland having the highest quota of students studying abroad with more than 10%. The Eurodata countries comprise the EU-27 as well as Turkey, Switzerland, Iceland, Liechtenstein and Norway. See Kelo M, Teichler U and Wächter B, 'Introduction' in Kelo M, Teichler U and Wächter B (eds), *Eurodata - Student mobility in European higher education* (Lemmens, Bonn 2006) p. 5.

²⁹⁰ See above text n 258.

Another example of potential market division might be seen in practices such as UCAS' practice of allowing applications to only five courses at a time and usually to only one of either Oxford or Cambridge.²⁹¹ Through such practices HEIs ensure that the education market is divided (more or less equally) between them as regards student numbers. At the same time, however, it might be unfeasible to allow unlimited applications, since the relevant bodies might not be able to process them. Public regulation requiring or encouraging market division in these (or other) scenarios could potentially be challenged according to Article 4 (3) TFEU in conjunction with Article 101 TFEU.

3.3.2.4. Research co-operation

Research cooperation could be regarded as collusion if two or more HEIs or HEIs and other research undertakings conduct research together with a view to exploiting the results. Such cooperation may conflict with Article 101 (1) TFEU if it restricts competition. This could, for example, be the case if the cooperation limits the activities of the parties beyond the research, if the parties were not far from achieving the research result individually and thus competition is limited or if the collusion comprises constraints on the parties regarding exploitation of the research.²⁹² It might also be conceivable that vertical cooperation between HEIs and research users, could be regarded as a vertical cartel when the research users do not pay a representative price and/or different prices are charged to different users. This might cause problems for HEIs in the future, given that cooperation with non-academic partners is increasingly encouraged, if, for example, a vertical cooperation is limited to a certain region or favourable prices are charged regarding undertakings from that region. If they infringe Article 101 (1) TFEU through a research collaboration, HEIs might in some cases, however, be able to utilise the previously mentioned Research and Development BER.²⁹³

²⁹¹ On UCAS' practise and its potential anti-competitiveness see Morgan (n 285).

²⁹² For more on research and development agreements see Lübbig T and Schroeder D, '§ 8 Einzelfragen' in Wiedemann G (ed), *Handbuch des Kartellrechts* (2nd edn, Beck, Munich 2008) paragraph 120 seq.

²⁹³ See above n 259.

3.3.2.5. Limiting markets

Article 101 (1) TFEU also prohibits the limitation of markets. In this respect one might wonder whether restrictions on education places through a collusion of HEIs could be regarded as such. With regards to higher education places, demand is, in general, higher than supply, particularly in certain subjects.²⁹⁴ If HEIs were to be considered as undertakings it is imaginable that students, who have been turned away, challenge such limitations. This would also be the case if HEIs decide to limit their private research output to a certain number of contracts or if governmental regulations require it. The limit on student numbers, might, however, be necessary to retain the public (or, in some Member States, even free of charge) character of higher education and limitations to research contracts might be necessary to ensure enough capacity for public interest research. Therefore, such limitations, depending on the individual case, might be able to benefit from Article 106 (2) TFEU.

3.3.3. Article 102 TFEU

Article 102 TFEU prohibits the abuse of a dominant market position. According to the Court an undertaking holds a dominant position if it enjoys ‘a position of economic strength [...] which enables it to prevent competition being maintained on the relevant market by giving it the power to behave to an appreciable extent independently of its competitors, customers and ultimately its consumers’.²⁹⁵ Usually, the dominance of an undertaking is established according to its market share and barriers to entry. Whilst a market share of more than 50% in the relevant market normally leads to the presumption of dominance, the undertaking is, nevertheless, not considered dominant if market entry is easy.²⁹⁶ At the same time, depending on the market,

²⁹⁴ See, for example, chapter 2 above on the high number of students in the medical field who cannot gain a study place in their home state and thus emigrate to other Member States, thus meaning demand can also not be met in the states anymore. On the re-occurring problem that demand for study places cannot be met in England see for example, H Richardson, 'Thousands "to miss out on university degree"' *BBC News* (1 February 2010) <http://news.bbc.co.uk/1/hi/education/8487354.stm> accessed 9 February 2010. It is currently being discussed to force private higher education providers in England to control student numbers. See S Malik, R Adams and Ó Ryan, 'Poorest students face £350m cut in grants' *The Guardian* (22 November 2013) <http://www.theguardian.com/education/2013/nov/22/poorest-students-face-350m-cuts> accessed 29 November 2013.

²⁹⁵ 27/76 *United Brands* paragraph 65.

²⁹⁶ 62/86 *Akzo* paragraph 60.

undertakings with lower market shares could also be regarded as dominant. The dominant undertaking is abusing its dominance if its actions are regarded as having an anti-competitive effect²⁹⁷ which goes beyond the non-exhaustive list of examples in Article 102. Whilst dominance as such is not prohibited, the concept of abuse is influenced by the established dominance; a behaviour which is regarded as competitive if conducted by a non-dominant undertaking, can be classified as an abuse if conducted by a dominant one. Unlike under Article 101 TFEU, there are no exemptions for the abuse of a dominant position foreseen in the Treaty.²⁹⁸ However, as part of the concept of abuse, the Court sometimes assesses inherent objective justifications.²⁹⁹ The Commission, similarly to its approach under Article 101 (1), also recently developed a more economic approach towards Article 102 which would lead to those exclusionary practices which can be proven to be economically efficient, not being considered as abuse.³⁰⁰ As under Article 101 (1) TFEU, the abuse must have an effect on intra-Union trade.³⁰¹

In the following some examples will be explored. Obviously, these require a HEI to be an undertaking and to be in a dominant position or for a few HEIs to be in a position of collective dominance, which depends on market definition. It is not unimaginable, however, that for subjects which are less common, HEIs hold a dominant position or that they do so in an area of specialised research.³⁰² Generally, the strong position of public HEIs, due to their long-term (near) monopoly status in

²⁹⁷ This question is closely linked to the aims of competition law, a detailed discussion of which would go beyond the scope of this thesis (on the aims of competition law see briefly above text accompanying n 223). For more on the concept of abuse see Monti (n 255) p. 160 seq, C Jung, 'EGV Art. 82 Missbrauch einer marktbeherrschenden Stellung (Nizza Fassung)' in E Grabitz, M Hilf and M Nettesheim (eds), *Das Recht der Europäischen Union* (40th edn, Beck, Munich 2009) para101 seq, Weatherill (n 231) p. 534 seq.

²⁹⁸ Except for SGEIs under Article 106 (2) TFEU (see above).

²⁹⁹ C-95/04 P *British Airways* paragraph 86. For more see Monti (n 255), p. 162 seq, in particular p. 171 on the *British Airways* case and p. 203 seq on justifications, Chalmers, Davies and Monti (n 147) p. 1004.

³⁰⁰ See Commission Communication 'Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to abusive exclusionary conduct by dominant undertakings' OJ [2009] C 45/02 paragraph 19. See also Weatherill (n 231) p. 543.

³⁰¹ See further on Article 102 TFEU Monti (n 255) p. 160 seq, Jung (n 301), Chalmers, Davies and Monti (n 147) p. 98 seq, Weatherill (n 231) p. 522 seq, Ward (n 251) p. 131. With a focus on HEIs see Greaves and Scicluna (n 3) p. 15, Amato and Farbmann (n 3) p. 9. With a focus on health care provision as a similar area see Wendt and Gideon (n 154) p. 270 seq.

³⁰² See above section 3.3.1. Market Definition.

many Member States, makes them susceptible to challenge by private providers entering the market and this might not always be to the advantage of students or in the interest of public research.³⁰³ As will be seen, some behaviour discussed above for Article 101 TFEU, could also fall under Article 102 TFEU if conducted by a dominant undertaking unilaterally rather than by a collusion of undertakings. This might be more detrimental to HEIs, because, as has been mentioned above, there are no exemptions to Article 102 TFEU.

3.3.3.1. Exploitative abuses

Article 102 TFEU is, in particular, intended to restrict exploitative monopoly behaviour by dominant undertakings. This includes abuses such as setting excessive prices if the undertaking in question is the provider and requiring abusively low prices if it is the buyer. Furthermore, the dictation of unreasonable contract conditions, artificially limited out-puts, the refusal to enter into contractual relations, the refusal to provide licenses or the requirement of unreasonably long license duration, would fall under this kind of abuse. The abuses could take place indirectly if the dominant undertaking is not dealing directly with the consumer, but requires the passing-on of the abuse.³⁰⁴

Whilst the elimination of exploitative abuses is obviously intended to protect the consumer, the application of this to public HEIs might cause problems with their public service character. Similarly to what is mentioned above regarding collusion, one might, for example, wonder if the limitation of study places could be regarded as limiting outputs under Article 102 b) TFEU. In England, for example, plans were aired that additional places for students willing and able to pay higher fees could be created,³⁰⁵ seeming to suggest that the limitation of study places thus far is not a business necessity from the point of view of the HEI. If places are limited artificially,

³⁰³ For this argument in a reversed fashion, namely regarding the use of Article 102 TFEU to the advantage of third sector providers in their relationship towards established NHS providers in health care 'markets' see Wendt and Gideon (n 154) p. 271.

³⁰⁴ See Jung (n 301) paragraph 143 seq.

³⁰⁵ See J Vasagar, 'Richest students to pay for extra places at Britain's best universities' *The Guardian* (9 May 2011) <http://www.guardian.co.uk/education/2011/may/09/universities-extra-places-richest-students> accessed 11 July 2011. The plans were not taken over into the government white paper as such, but the white paper still includes the possibility of such extra prices being funded by business and charities. See BIS, *HIGHER EDUCATION - Students at the Heart of the System* (The Stationary Office, Norwich 2011) p. 51 paragraph 4.22 seq.

this could enable students to challenge such behaviour under Article 102 TEU if conducted by a dominant HEI. Article 106 (1) TFEU in conjunction with Article 102 TFEU would also allow challenges to government regulations which enable dominant undertakings to abuse their position. As the citizenship cases of Belgium and Austria discussed in chapter 2 have shown, the equilibrium of public finances might, however, not necessarily allow the offering of publicly financed places for everybody, particularly if one considers that all EU students have to be granted equal access.³⁰⁶ Additionally, in the field of research, there could equally not be artificial limits placed on output, which could possibly lead to an increase in commercial research in comparison to public service research.

With regards to education, a student in Ireland has, indeed, already attempted to challenge the limitation of study places for medicine for European students in that country inter alia under Article 102 TFEU.³⁰⁷ Whilst publicly subsidised European students had to fulfil very high entrance criteria, international students who paid full cost prices did not. The student in question had offered to equal the full cost price, if he would then be admitted with his lower grades, which was denied. The national court dealt at length with the issues of national law, but only discussed EU competition law in two short paragraphs which are not overly clear. It appears that the national court assumed that because medical schools could, in theory, opt out of government subsidies and offer private education at full cost rates and because medical education is expensive for the government to subsidise ‘that there is nothing wrong in competition terms’. However, the medical schools offered medical education as a market service at least for international students, it appears from this case that there are only five medical schools in Ireland which therefore all hold positions of economic strength and it might also be assumed that barriers to entry are rather high in the medical education market. It, thus, seems possible to regard the individual medical schools as undertakings in a dominant position which abuse that position by limiting outputs for certain consumers. A reference for a preliminary ruling might have been indicated in this case.

³⁰⁶ See chapter 2 above.

³⁰⁷ *Prendergast v Higher Education Authority & Ors* [2008] IEHC 257.

Furthermore, if governments were to adopt a strategy of different prices for different students based on their financial background, as has been explored by the British Government,³⁰⁸ this could be regarded as price discrimination and could therefore also be an abuse of a dominant market position. Similarly, excessive prices for research, favourable purchase prices or contract conditions regarding supplies for research or discounts for certain undertakings (for example for local undertakings) could be challenged. It might, in particular, cause problems to charge undertakings from other Member States more than national ones because this would cause partitions in the internal market. Whilst price discrimination, particularly the originally envisaged price strategy for tuition fees in England, is generally debatable, it could theoretically also be used to enhance equality (for example, higher prices for better-off students could cross-subsidise places for less well-off students). Price reductions for local undertakings regarding research could help to promote a certain region. Furthermore, high priced private research could be utilised to cross-subsidise teaching and research in the public interest. The application of Article 102 TFEU would also take away the opportunity to attach additional contract conditions which are not economically justified to the contracts. The behaviour of some HEIs in demanding that students not only prove that they can pay the fee, but also prove in advance that they can cover their living costs for the time of the study³⁰⁹ might potentially be regarded as such. Whilst, as mentioned above, there are no exemptions for Article 102 TFEU, an exemption under Article 106 (2) TFEU might be possible if the application of competition law would obstruct the public service obligation of an HEI.

3.3.3.2. Exclusionary abuses

Exclusionary abuses are aimed at driving competitors out of the market and retaining or strengthening the dominant position. Such abuses could lie in technical restrictions, predatory pricing, refusal to issue licenses to competitors, refusal to sup-

³⁰⁸ See n 305 above.

³⁰⁹ Such a policy at the University of Oxford has been challenged by a student under the British Human Rights Act 1998. See BBC News, 'Judgement reserved over Oxford University student discrimination row' *BBC News* (15 February 2013) <http://www.bbc.co.uk/news/uk-england-21465879> accessed 17th February 2013.

ply competitors and abusing a monopoly (for example, excluding competitors despite not being able to fulfil demand).³¹⁰

With regards to HEIs it would be possible that problems arise concerning low tuition fees or low prices for research contracts. Such low prices could be regarded as predatory pricing which is aimed at driving (or keeping) competitors out of the market. Due to their financial support from the state, public HEIs are in a position to provide research for lower prices than their competitors and to hold tuition fees at a low level. Disregarding for now what that could entail in state aid terms,³¹¹ this might cause a problem with Article 102 TFEU.³¹²

The Dutch NMa had already had to deal with a case in this respect involving music schools.³¹³ In contrast to the German music school case, wherein a vertical cartel between the self-employed teachers and the music school was in question, this case involved a collective dominant position of public music schools. The schools were accused of predatory pricing by a competitor. As the schools were bound to certain prices by law and had no free choice the NMa could not find an abuse on the side of the schools. Furthermore, it was not in the authority of the NMa to review national legislation. This would sit differently with regards to EU law. If, in a similar situation, HEIs would be challenged for predatory pricing considering their dominant position in the higher education market or in a specific research market in question, a law binding them to such pricing could, as mentioned above, be challenged under Article 102 in conjunction with 106 (1) TFEU. This example might, were HEIs considered to be dominant undertakings, pose a threat to a cap on tuition fees. HEIs would equally not be able to use their public position to offer research services for lower prices than their competitors.

As in the scenario under Article 101 TFEU, any agencies, such as UCAS, which have a significant influence on market access for study places, could get into conflict with Article 102 TFEU. It would depend on whether the collusion aspect is

³¹⁰ See Jung (n 301) paragraph 186 seq.

³¹¹ On state aid see below.

³¹² Similar Greaves and Scicluna (n 3) p. 18.

³¹³ Besluit bk005-9801 available on www.nmanet.nl/Images/0005BEMP_tcm16-97472.pdf. On the case see also Swennen (n 3) p. 275, Gideon (n 144) p. 177.

more pronounced or whether the case concerns unilateral conduct to determine which provision would be applicable. Under Article 102 TFEU such agencies could potentially abuse their dominant position as such, if they are regarded as undertakings themselves, while a group of HEIs acting together in such a body might be seen as abusing collective dominance. The abuse could lie in not allowing newcomers any access to the distribution network, as this could be regarded as controlling market access. If the entry criteria to the distribution network are based on the the HEI's home Member State this seems particularly problematic given that it contributes to the partitioning of the internal market. If the HEIs in question cannot fulfil demand, this would be especially abusive conduct. Again, it does not play a role if national law prescribes such practices as the national law can also be challenged according to Article 106 (1) TFEU in conjunction with Article 102 TFEU. Such challenges might be more severe under Article 102 TFEU, as it contains no exemptions and exemptions are thus only possible under Article 106 (2) TFEU.

3.3.4. Mergers

Merger control is not regulated in the Treaty itself, but in the Merger Regulation.³¹⁴ The regulation subjects concentrations³¹⁵ of undertakings³¹⁶ to merger control by the Commission if these have a Union-dimension.³¹⁷ Undertakings planning to

³¹⁴ Council Regulation 139/2004/EC on the control of concentrations between undertakings (the EC Merger Regulation) OJ [2004] L 24/1. Before the first Merger Regulation (Council Regulation 4064/89/EEC on the control of concentrations between undertakings OJ [1989] L 395/01) was passed, the Court had assessed mergers through Article 102 TFEU. For example, see 6/72 *Continental Can*. See further M Furse, *Competition Law* (OUP, Oxford 2008) p. 382 seq, Ward (n 251) p. 131. The Commission has started a review procedure of Regulation 139/2004/EC the latest document of which is 'Communication from the Commission to the Council 'Report on the functioning of Regulation No 139/2004' COM(2009) 281 final. Updates on the review process can be found on <http://ec.europa.eu/competition/mergers/legislation/regulations.html>.

³¹⁵ These can be mergers of undertakings, the acquisition of undertakings and permanent joint ventures (Article 3 Merger Regulation). The term acquisition is broadly defined to include all means by which 'decisive influence' over an undertaking can be obtained. For more see Furse (n 314) p. 385 seq, 410 seq.

³¹⁶ The Merger Regulation also applies to 'persons' holding interests in undertakings and thus executing the relevant control. 'Persons' in this respect can be individuals and even Member States if they are acting in a commercial manner. See Furse (n 314) p. 386.

³¹⁷ According to Article 1 (2) Merger Regulation, a merger has a Union dimension if it either has at least a combined world turnover of 5000 million Euros and an individual Union turnover of at least 250 million Euros in at least two involved undertakings unless the undertakings involved achieve two-thirds of their Union turnover in only one Member State or if it has at least a combined world turnover of 2500 million Euros, a combined turnover of at least 100 million Euros in at least three Member States, in at least three of these Member States the individual turnover

conduct a merger need to notify this (Article 4 (1)). The merger can be prohibited³¹⁸ if it would appreciably³¹⁹ impede competition (Article 2), particularly by acquiring (collective) dominance³²⁰ in respect of the merging undertakings. Executed mergers might have to be disentangled or restorative measures can be imposed.³²¹ Whilst there are no justifications for mergers that are found to impede on competition, the Commission can take inherent justifications³²² into consideration when making its decisions on whether or not a merger impedes competition (Article 2 (1)). When assessing a merger the Commission also assesses all related restrictions in one decision (Article 6 (1) (b) Merger Regulation). Differing from the regime under Articles 101

of at least two undertakings is at least 25 million Euros and the individual Union turnover of at least two undertakings is at least 100 million Euros unless the undertakings involved achieve two-thirds of their Union turnover in only one Member State. The actual seat of an undertaking or the question of where their main activities take place is irrelevant. In addition, mergers of undertakings which do not have a Union dimension, but would need to be reviewed under the national competition law of at least three Member States, can be reviewed by the Commission if the undertakings in question apply for the Commission to do so and the Member States do not object (Article 4 (5) Merger Regulation). Member States may also request the Commission to investigate a merger if they feel it has an effect on competition and trade between Member States (Article 22 Merger Regulation). On the other hand, mergers which do have a Union dimension can also be referred back to the Member States, if appropriate (Articles 9, 4 (4) Merger Regulation) and Member States can take necessary actions if legitimate national interest are at stake (article 21 (4) Merger Regulation and Article 346 TFEU).

³¹⁸ The Commission can also ask for modifications or impose conditions (Article 8 (2) Merger Regulation).

³¹⁹ This is not deemed to be the case if the undertakings concerned have a market share below 25% (recital 32 Merger Regulation).

³²⁰ Article 2 (3) Merger Regulation. A merger can lead to an undertaking achieving individual dominance, undertakings achieving collective dominance (this would be given if the actors would not be able to execute independent market strategies without the other market players copying such strategies) or a merger can cause an oligopoly in a market in which unilateral effects of the merger can restrict competition. See further Furse (n 157) p. 391 seq, S Simon, '9. Teil. Fusionskontrollverordnung' in U Loewenheim, KM Meessen and A Riesenkauff (eds), *Kartellrecht* (Beck, Munich 2009) paragraph 53 seq.

³²¹ See Furse (n 157) p. 402 seq. In this respect also see Furse (n 157) p. 401 seq on the problems which a wrongful Commission decision (whether clearance or prohibition) could cause, as disentanglement or lost opportunities can cause high costs for the undertakings involved.

³²² See recital 29 Merger Regulation. See also Guidelines on the assessment of horizontal mergers under the Council Regulation on the control of concentrations between undertakings OJ [2004] C 31/03 paragraph 76 seq, Guidelines on the assessment of non-horizontal mergers under the Council Regulation on the control of concentrations between undertakings OJ [2008] C 265/07 paragraph 53 referring to the relevant section in the Horizontal Merger Guidelines. For more on the weighing of pro- and anti-competitive effects see Furse (n 157) p. 398 seq.

and 102 TFEU, merger control does not fall under Regulation 1/2003 (Article 1 (2)), but the Merger Regulation sets out its own procedural rules.³²³

Due to the requirement of a high common world turnover in EU merger control, HEI mergers will probably only exceptionally fall under the EU merger control regime.³²⁴ However, HEIs might more frequently be evaluated under national competition law. Indeed, the OFT has already twice checked educational institutions in England, both times in Manchester. The merger between the City College Manchester and the Manchester College of Arts and Technology has not been further investigated as the relevant market shares were not met.³²⁵ The merger of the University of Manchester, the Victoria University of Manchester and the University of Manchester Institute of Science and Technology, however, was investigated further by the OFT.³²⁶ The OFT came to the conclusion that these institutions were, for the most part not competitors and, for those parts in which they were, there was still enough competition available and market entry would still remain possible. It therefore allowed the merger. More generally one might assume, however, that an oligopolistic nature of the market might easily be given in certain scenarios depending on how the market is defined and that, in other cases, mergers could be prohibited (for example, ancient languages might be provided by only few universities, a merger of which then could be prohibited). With the further commodification of HEIs, the desire to join forces might increase and the application of EU or (more likely) national competition law might then cause problems.

3.3.5. State aid law

Article 107 (1) TFEU prohibits Member States from granting any aid involving state resources selectively to undertakings if this distorts competition and affects

³²³ For more on merger control see Furse (n 314) p. 380 seq, Horspool and Humphrey (n 240) p. 503, 516 seq, Weatherill (n 231) p 534, Ward (n 251) p. 131, Amato and Farbmman (n 3) p. 9.

³²⁴ The annual turnover of UK HEIs, for example, varies between less than £9 million and over £600 million according to U Kelly, D McLellan and I McNicoll, *The impact of universities on the UK economy* (Fourth Report, Universities UK, London 2009) p. 7. Taking this as indicative for HEIs' annual turnovers, there would need to be at least five HEIs with a relatively high annual turnover each in a merger to meet the world turnover requirement.

³²⁵ Case ME/3080/07 available on <http://www.offt.gov.uk/OFTwork/mergers/decisions/2007/City>. On the case also see Swennen (n 3) p. 277.

³²⁶ Case ME/1613/04 available on http://www.offt.gov.uk/shared_offt/mergers_ea02/uompublish.pdf. On the case also see Swennen (n 3) p. 277, Gideon (n 144) p. 181.

trade between Member States. In addition to these elements of Article 107 (1) TFEU, the Commission requires a certain amount of appreciability thereby excluding *de minimis* aid of €200,000 over any period of three fiscal years from the scope of Article 107 (1) TFEU.³²⁷ The concept of ‘aid’ is much broader than direct subsidies involving a wide spectrum of benefits for undertakings. The Court has taken an ‘effects based approach’ which focuses solely on the effects on competition rather than analysing aims or causes of a certain measure.³²⁸ The criterion ‘transfer of public resources’ is, according to the Court, necessary to distinguish state aid from a mere advantage that an undertaking might have.³²⁹ Regarding the criterion of ‘selectivity’ the aim of a measure, different from when determining whether or not a measure constitutes ‘aid’, can be taken into consideration; if different treatments of undertakings are justified by the general nature of a scheme, the measure is not regarded as selective.³³⁰ The criterion of ‘effects on intra-Union trade’ is, as under the competition law provisions discussed above, a very broad concept.³³¹ The Commission issued a draft communication in this respect,³³² providing for a simplified assessment procedure for certain activities including education, which, however, has never been followed up by a final document.³³³

Member States are, however, allowed to invest their money, as long as this is not disguised state aid as well as to ‘buy’ public services for their citizens. Accord-

³²⁷ Commission Regulation 1998/2006/EC on the application of Articles 87 and 88 of the Treaty to *de minimis* aid’. The Regulation is due to expire at the end of 2013 and will be replaced by Regulation XXXX/2013/EU on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid (publication in the Official Journal foreseen on 24 December 2013). The new *De Minimis* Regulation will retain the current *de minimis* ceiling.

³²⁸ 173/73 *Italy v COM* paragraph 13.

³²⁹ E.g. C-189/91 *Kirsammer-Hack* paragraph 17 seq. The Commission also emphasises this in Communication on state aid and SGEIs (n 210) paragraph 31.

³³⁰ 173/73 *Italy v COM* paragraph 15.

³³¹ See, for example, T-55/99 *CETM* paragraph 86.

³³² Draft Commission Communication (2004) ‘A new framework for the assessment of State aid which has limited effects on intra-Community trade’ available on http://ec.europa.eu/competition/state_aid/reform/sit_let_en.pdf.

³³³ On the state aid criteria see A Biondi and L Rubini, ‘Aims, Effects and Justifications: EC State Aid Law and Its Impact on National Social Policy’ in M Dougan and E Spaventa (eds), *Welfare and EU Law* (Hart, Oxford/Portland 2005) p. 80 seq, 102 seq, G von Wallenberg, ‘Abschnitt 2. Staatliche Beihilfen’ in E Grabitz, M Hilf and M Nettesheim (eds), *Das Recht der Europäischen Union* (Beck, Munich 2009) paragraph 35 seq.

ing to the ‘private investor principle’ the former is not state aid, if the state acts as a private investor would have done. After some contradictory earlier judgements,³³⁴ the approach towards public service compensation was clarified in the Court’s *Altmark*³³⁵ decision. Four conditions need to be fulfilled for public service compensations not to be regarded as state aid: The public service obligations must be clearly defined, the parameters on which the compensation is calculated must be transparent and must have been established in advance, the compensation must not be excessive and the costs included in the calculation of the compensation must themselves be reasonable. In order to establish the latter a public procurement procedure or an analysis of the normal price of such a service in this particular sector would have to be undertaken. Whilst the *Altmark* conditions have been applied strictly in fields such as transportation or energy, the General Court in *BUPA*³³⁶ followed a more indulgent approach regarding the establishment of a ‘public service obligation’. Hatzopoulos³³⁷ sees in this the possibility that the Union’s judicial bodies only check for manifest errors in areas which concern the primary responsibility of the Member States which then might also affect HEIs.³³⁸

³³⁴ The Court initially did not regard public service compensation as state aid (240/83 *ADBHU*). The General Court then took a different approach and did consider such compensation as state aid, but then exempting it under Article 106 (2) TFEU (T-106/95 *FFSA* and T-46/97 *SIC*). The Court in C-53/00 *Ferring* upheld its original approach deeming public service compensation not as state aid unless exceeding the actual costs borne by the public service provision in which case the aid could then also not be exempted under Article 106 (2) TFEU, as it would not meet the proportionality requirement. This judgement received fierce criticism because it was felt that such an approach would move away from the effects based approach, that Article 106 (2) TFEU would lose its meaning, that the discretionary powers of the Commission to exempt certain aid under Article 107 (3) and 106 (2) TFEU would be severely limited and that the actual link between the public service obligation and the financing by the state was not sufficiently investigated. It was also found that this approach makes it difficult to assess whether or not the compensation exceeds the costs, as there was no necessity for the undertakings to keep the costs low. For more see further Biondi and Rubini (n 333) p. 93 seq, von Wallenberg (n 333) paragraph 17 seq, Prosser 2005 (n 147) p. 554 seq.

³³⁵ C-280/00 *Altmark*.

³³⁶ T-289/03 *BUPA*.

³³⁷ Hatzopoulos (n 179) p. 236 seq.

³³⁸ On the ‘private investor principle’ and public service compensation see Biondi and Rubini (n 333) p. 80 seq, 89 seq, von Wallenberg (n 333) paragraph 12 seq, Hatzopoulos (n 179) p. 228 seq, Gideon (n 144) p. 182 seq, Wendt and Gideon (n 154) p. 272, Huber and Prikoszovits (n 3) p. 171.

The Commission followed up on the *Altmark* judgement by issuing clarifying legislation and communications. Directive 2006/111/EC³³⁹ requires separate accounting for the public service obligations and Decision 2012/21/EU provides a block exemption for compensation below €15M per annum for SGEIs (except in the field of transport), for smaller air and sea ports, for hospitals and for SGEIs ‘meeting social needs as regards health and long term care, childcare, access to and reintegration into the labour market, social housing and the care and social inclusion of vulnerable groups’.³⁴⁰ A Union Framework³⁴¹ sets out guidelines of the Commission’s position regarding exemptions under Article 106 (2) TFEU for state aid which is not covered by Decision 2012/21/EU and a Communication³⁴² sets out the ‘key concepts underlying the application of the state aid rules to public service compensation’. Additionally, the Commission issued a *de minimis* Regulation for SGEIs which takes aid below €500,000 ‘over any period of three fiscal years’ out of the scope of Article 107 (1) TFEU.³⁴³

Illegally granted state aid has to be paid back unless it can be exempted by Article 107 (2) and (3) TFEU. The Commission has the power to decide upon this. The approach towards these paragraphs is different from that taken towards Article 107 (1) TFEU, which solely relies on economic analysis, since it involves broader assessments of diverging factors.³⁴⁴ Article 107 (2) TFEU exempts aid with a social character for individual consumers, aid for recovery after natural catastrophes and aid for the German states affected by the division of Germany, none of which is of particular relevance for HEIs in general. Article 107 (3) provides for exemptions for aid for a) economically deprived regions, b) ‘an important project of common European

³³⁹ Commission Directive 2006/111/EC on the transparency of financial relations between Member States and public undertakings as well as on financial transparency within certain undertakings OJ [2006] L 318/17.

³⁴⁰ SGEI Decision (n 199). This, however, only applies to public service compensation if the undertaking has been entrusted with the public service for a maximum period of ten years.

³⁴¹ Commission Communication ‘European Union framework for State aid in the form of public service compensation’ OJ [2012] C 8/03.

³⁴² Communication on state aid and SGEIs (n 210) paragraph 3.

³⁴³ Regulation 360/2012/EU on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to *de minimis* aid granted to undertakings providing services of general economic interest OJ [2012] L 114/12.

³⁴⁴ See Biondi and Rubini, (n 333) p. 79 seq.

interest' or economic disturbances, c) the facilitation in the development of 'certain economic activities' or 'certain economic areas', d) 'culture and heritage conservation' and e) 'other categories of aid as may be specified by decision of the Council'. Of these b)-d), might in particular be helpful in exempting state aid for HEIs.³⁴⁵

The Commission has also issued secondary legislation providing for exemptions.³⁴⁶ For HEIs, the General Block Exemption Regulation (GBER)³⁴⁷ might be helpful, as it contains an exemption for basic research³⁴⁸ of up to €20M per project with 100% aid intensity, for applied research of up to €10M per project with 50% aid intensity and for experimental research of up to €7.5M with 25% aid intensity.³⁴⁹ According to Article 5 of the General BER only transparent aid is exempted, however. The exemptions provided for training activities in the General BER are not applicable to HEIs because they concern training for employees rather than the education of students.³⁵⁰ Most HEIs will also not be able to utilise the exemption for small and medium sized enterprises (SMEs), since SMEs, according to the definition in the GBER, are undertakings with 250 or less employees; usually too low a threshold for HEIs. As mentioned above, Decision 2012/21/EU provides an exemption for aid below €15M per annum for SGEI provision. Aid that does not fall under the named exemptions would have to be notified. With regards to the application of Article 107 (3) (b) and (c), the Research Framework provides some guidance on how the Commission will apply these to research and devel-

³⁴⁵ See Gideon (n 144) p. 183 seq.

³⁴⁶ A 'Compilation of State aid rules in force' is available on http://ec.europa.eu/competition/state_aid/legislation/compilation/index_en.html.

³⁴⁷ Commission Regulation 800/2008/EC declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General block exemption Regulation) OJ [2008] L 214/3. The GBER was due to expire at the end of 2013, but has been extended until 30 June 2014 (see Regulation 1224/2013/EU amending Regulation (EC) No 800/2008 as regards its period of application OJ [2013] L 320/22). The exemptions proposed in the draft for a revised GBER are similar to the guidance on applying the exemptions of Article 107 (3) currently contained in the Research Framework mentioned below. The draft is available on http://ec.europa.eu/competition/consultations/2013_gber/gber_draft_regulation_en.pdf.

³⁴⁸ The Commission uses the terms 'fundamental research', 'industrial research' and 'experimental research'. The definitions provided in the Research Framework (section 2.2.) for these terms lead to the conclusion that they are used in the same way as the terms 'basic research', 'applied research' and 'experimental development' as defined by the OECD which are used for this thesis (n 35).

³⁴⁹ GBER Articles 6, 30 seq. The amounts double if the project in question is a EUREKA project (Article 6 (e) (iv)). There are special provisions in the GBER for agricultural research and research in the fisheries sector.

³⁵⁰ Ibid Article 38.

opment activities in sections 4 and 5. The latter in particular removes the ceilings of the GBER for research and development if the aid intensities are adhered to, the other conditions of that section are fulfilled and the aid has an incentive effect (section 6). The incentive effect must, according to the Framework, also be generally fulfilled for any aid to be exempted and the negative effects of the aid must not outweigh this incentive effect (section 7).³⁵¹

3.3.5.1. Hidden aid

HEIs could get into conflict with Article 107 (1) TFEU if they conduct research, teaching or knowledge transfer on a market and do not charge the full price for these services. This would thus require HEIs to use full costing for all such activities since all unaccounted use of state facilities would constitute state aid either to the HEI itself or to the undertaking the HEI is providing the services for.³⁵² Whilst there have been no cases regarding HEIs yet, the General Court had to deal with an action to annul a Commission decision regarding aid from a public research organisation.³⁵³ Here

'the aid had come about as a result of the existence of commercial subsidiaries and the concurrent conclusion of exclusive agreements between those subsidiaries and the parent company, in so far as those subsidiaries did not guarantee total coverage of the costs of work carried out by [...] [the public research organisation] on behalf of [...] [the commercial subsidiaries]'.³⁵⁴

The Commission had, however, exempted the measure, as it fulfilled the criteria for exemption under Article 107 (3) (c) TFEU as set out in an earlier version of the Research Framework.³⁵⁵ In this case a competitor had challenged the decision which had been dismissed because the competitor was found not to have standing. The case shows, however, that public research organisations such as HEIs can come into the ambit of state aid law if they do not apply full costing to economic activities. To

³⁵¹ See also on exemption for HEIs from the state aid provision Gideon (n 144) p. 183 seq, Huber and Prikoszovits (n 4) p. 172.

³⁵² See Gideon (n 144) p. 183 seq, Huber and Prikoszovits (n 4) p. 171 seq. In respect to hospitals see Hatzopoulos (n 179) p. 244 seq.

³⁵³ T-198/09 *UOP*.

³⁵⁴ *Ibid* paragraph 8.

³⁵⁵ Community framework for State aid for research and development OJ [1996] C 45/5.

avoid this, a more economic mode of operation with separate accounting of economic and non-economic activities and a full cost methodology would be necessary and the Research Framework indeed required implementation of such measures until January 2009 for research organisation to comply with it. As will be seen in the next chapter, this has still not necessarily entirely happened. Aside from this, full costing systems in themselves are not sufficient, but full cost plus reasonable profit would actually need to be charged for economic activities.

3.3.5.2. Applying the *Altmark* criteria

If a market system is introduced in a Member State and therefore most of the services a HEI conducts need to be regarded as economic in nature, the Member State would also have to follow the *Altmark*³⁵⁶ criteria for these services. This would mean that if the Member State aims to pay certain providers to conduct these services for the public, the Member State would normally need to commission these services in a public procurement procedure. If the Member State aims at having a system where it leaves the choice to the consumer and just pays the bill or gives out vouchers or other financial help to consumers to buy these services themselves, the consumer must also be able to choose the provider freely or choose from a range of providers which have been established according to objective criteria, normally in a public procurement procedure.

It has, for example, been recently reported that the UK government might be stepping back from making publicly funded student loans available to private providers of higher education due to those providers having recruited too many students and thus having brought the government in financial difficulties.³⁵⁷ After having, however, introduced a market system into higher education, it seems doubtful whether giving student loans only to students attending selective institutions does not constitute state aid under the EU state aid rules. The dangers of funding private providers have been widely discussed, though, and appear to be highlighted by the financial difficulties now occurring.³⁵⁸

³⁵⁶ See text surrounding n 335 above.

³⁵⁷ Malik, Adams and Ryan (n 294).

³⁵⁸ *Ibid.* On the argument that economic services of HEIs need to be commissioned according to the *Altmark* rules see also Gideon (n 144) p. 183.

The same is true for research services. If a research service can be classified as economic in nature, it must be commissioned according to objective criteria and it must be possible for public, private, third sector and foreign providers to apply. One might wonder if certain governmental funding programmes could fall under this category and whether they thus must be open for all undertakings to apply for them. This could then create a very different, more commercial character out of certain publicly funded research.

3.3.5.3. Other possible forms of state aid

Another possibility where HEIs could get into conflict with the state aid rules might be given if students write their Masters or PhD theses with a private firm. In such cases a student writes his or her dissertation on a subject that interests the company and normally has a supervisor in the company as well as in the HEI.³⁵⁹ If the student is not or only marginally paid by the firm or even receives state funding, this could possibly be regarded as state aid. Furthermore, tax incentives provided only for some HEIs could be regarded as state aid. In England, for example, it has been discussed not to extend VAT exemptions to private providers due to the comprehensible reason that they are working for profit and do not reinvest resources into public interest activities.³⁶⁰ Nevertheless, in a market based set-up this might amount to state aid, although it might be possible to employ the exemption of Article 106 (2) in such cases.

3.3.6. Interim conclusion

It has been shown that many activities conducted by HEIs could potentially be in conflict with EU competition and state aid law. The result would not only be that the actions would have to be discontinued, but, according to Article 23 and 24 of Regulation 1/2003, fines and periodic penalty payments until the infringement is stopped can be imposed. Additionally, the infringement of competition law could constitute a tort under national law and give rise to actions for damages. Thus, aside

³⁵⁹ This is, for example, increasingly popular in Germany. See Zander H, 'Starthilfe' *Der Tagesspiegel* (26 April 2009) <http://www.tagesspiegel.de/studium-starthilfe/1797792.html> accessed 28 February 2012, Studieren.net, 'Abschlussarbeit Teil 4' (2012) <http://www.studieren.net/studienphase/studienabschluss/abschlussarbeit-teil-4.html> accessed 28 February 2012.

³⁶⁰ UCU (n 284).

from the question of whether the application of EU competition law leads to the destruction of national policy concepts, it might also lead to financial problems. Facing an imposed fine the HEIs would have to cut back on their resources or increase prices (tuition fees, research costs and prices of other activities such as student accommodation or meals) which would, either way, endanger their mission of providing high quality and equally accessible teaching and research in the public interest.³⁶¹

Of course, there might still be a possibility of exemption according to Article 101 (3) and 107 (3) and secondary legislation or as SGEIs according to Article 106 (2) TFEU. However, these might not apply in all cases. In particular, with regards SGEIs, the performance of the SGEI might not be seen as obstructed by the competition rules. Especially in systems such as the English one (which is consciously being turned into a market system) it might be difficult to then rely on Article 106 (2) TFEU.³⁶² Even if the EU institutions might adopt a more careful approach regarding higher education, since this area is mainly the responsibility of the Member States, they might be stricter regarding research considering that, since the Treaty of Lisbon, this area is a shared responsibility, as has been explained in chapter 2. Additionally, since Regulation 1/2003 the enforcement of competition law is decentralised and therefore much depends on the NCAs. As the national case law examined in this chapter has shown NCAs were less reluctant to apply competition law to educational institutions.³⁶³

3.4. Conclusion

The aim of this chapter was to conduct an in-depth legal doctrinal assessment of potential competition law constraints on HEIs. It has been shown that the main activities of HEIs, teaching and research, could, especially with increasing commodification, be regarded as economic in nature. This would then mean that HEIs would have to be regarded as undertakings and would have to comply with EU competition and state aid rules. Whilst this can potentially lead to positive results, especially in cases where a high degree of marketisation is already achieved and HEIs are actually

³⁶¹ Similar Greaves and Scicluna (n 3) p. 21, 24.

³⁶² Similar regarding health care markets see Wendt and Gideon (n 154) p. 274.

³⁶³ Similar Greaves and Scicluna (n 3) p. 24.

acting in commercial way (as demonstrated in the price fixing case of the two Amsterdam universities), the application of competition law can also lead to detrimental effects in cases where the public service character of the services performed by HEIs still prevails. The analysis of individual competition provisions has shown that this can cause potential problems because the economic competition and state aid law provisions might clash with the public service nature of the teaching and research activities of HEIs. To avoid conflict HEIs would have to operate even more economically by separating accounts for economic and non-economic activities, adhering to full costing for teaching and research, refraining from price fixing even if it is to the advantage of the consumer and private providers would have to be treated equally.

Additionally, fines for competition law infringements could be imposed and the question would arise of how or by whom these would be paid. With the decentralisation of competition law, NCAs would have to investigate cases regarding HEIs and they might be less reluctant to apply competition rules to them than EU institutions. As the *BUPA* case illustrates, EU institutions might treat HEIs cautiously, considering that higher education is still the main responsibility of the Member States. However, EU institutions might refrain from using caution when it comes to research which is now a shared responsibility as explained in chapter 2. While there are exemptions for competition law infringements, these might not always apply. Even if they are applicable, they might require a more commercial way of operation for a measure to be proportionate.

The legal doctrinal analysis of potential competition law constraints on HEIs in general provided in this chapter will serve as the basis for examining competition law constraints on research in HEIs in three Member States in more detail by employing socio-legal methods in the subsequent chapters. The next chapter will begin this examination by exploring the research systems of the three countries under scrutiny.

Chapter 4

The structure of research funding in Germany, the Netherlands and the UK

4.1. Introduction

The last chapter concluded that HEIs may be classified as ‘undertakings’ under EU competition law if they conduct services on a market. It has also been shown that requiring compliance from HEIs with the EU competition law regime may impact negatively on their public interest commitments. The final chapters of the thesis are dedicated to empirically examining university practices as well as the perceptions of key officers. By this research design the thesis aims to answer the questions of whether there is indeed increased exposure to EU competition law in countries where commodification of HEIs³⁶⁴ is further developed, what consequences such exposure might have and also whether professional actors in the field are aware of the risks.

Obviously, it is only possible to empirically analyse a small sample within the limited scope of a PhD thesis. The sample chosen here is research in (public) HEIs in Germany, England and the Netherlands. Research has been chosen as the area of analysis, because it is a particularly competitive field;³⁶⁵ not only do private and/or public HEIs compete with each other, but also other private and public research organisations conduct research. It is, therefore, to be expected that some research is conducted in a market setting, meaning that competition law can be applied. The three national systems chosen for comparison differ in terms of their welfare state models, which makes it likely that the degree to which university research has been commodified also differs. These differences will be relevant to the analysis of how EU competition law, which is analysed as an important element of EU economic law, impacts on the systems.

³⁶⁴ On commodification of HEIs see above section 1.3.3. Gradual commodification of European HEIs.

³⁶⁵ See Enders, 'Reform and Change of German Research Universities' (2007) 4 Higher Education Forum 19 p. 19, B Candemir and M Meyer, 'Grossbritannien' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010) p. 511.

In Esping-Andersen's categorisation of welfare states, which is based on the questions of how far they de-commodify, socially stratify and rely on the market and the family,³⁶⁶ Germany is categorised as conservative, the Netherlands as social democratic and the UK as liberal.³⁶⁷ A liberal system relies highly on the market with a low-degree of de-commodification and enables social stratification. A conservative system has a higher degree of de-commodification, but due to its conservative values it relies more on the family and retains social stratification. Finally, a social democratic system has a high degree of de-commodification, decreases social stratification and has no particular reliance on either the market or the family.³⁶⁸ Whilst in further research these categorisations have been confirmed, overwhelmingly for Germany and to a large extent for the UK, the Netherlands have been categorised in many different ways within and beyond Esping-Andersen's original categories.³⁶⁹ It has even been suggested that the Netherlands are uncategorisable.³⁷⁰

If one turns towards the commodification of HEI systems, one can observe that each of these countries have been increasingly developed to react to market pressures and compete with commercial sector entities. Yet, the degree to which this commodification has progressed differs; England has progressed furthest along the path to commercialisation of the activities of its HEIs,³⁷¹ whilst in Germany only the first steps have been taken in this direction.³⁷² This positioning is also mirrored in the reactions of these Member States to the financial crisis. While Germany is amongst those states which have, inflation considered, increased spending on HEIs by 10% or more since 2008, the Netherlands are located amongst those having increased spending by only 1-5% and the UK is amongst the states which decreased spending by

³⁶⁶ Esping-Andersen 1990 (n 34) p. 26 seq.

³⁶⁷ Ibid p. 52.

³⁶⁸ Ibid p. 26 seq.

³⁶⁹ For an overview see E Ferragina and M Seeleib-Kaiser, 'Welfare regime debate: past, present, futures?' (2011) 39 *Policy & Politics* 583.

³⁷⁰ Ibid p. 591 with further references.

³⁷¹ Candemir and Meyer (n 365) p. 511.

³⁷² See D Jansen, 'Von der Steuerung zur Governance: Wandel der Staatlichkeit?' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010) p. 43, J Enders (n 365) p. 19.

10% or more and is relying on high tuition fees for funding the HEI sector instead.³⁷³ The different degrees of commodification might have different consequences as to the assessment of HEIs as ‘undertakings’ and thus on the threats that might arise from competition law.

At the same time, these Member States also represent very different governance structures. Germany is a federal republic and for this reason the organisation of research funding can vary between the federal states. Specific attention will be paid to the states of Bremen, Berlin, Bavaria and Baden-Württemberg, as these are the states in which the universities selected for the empirical study are located.³⁷⁴ The Netherlands, on the other hand, are governed in a centralised manner. Finally, the UK is a devolved state with four separate countries each with largely independent structures.³⁷⁵ As it would not be possible to analyse all four devolved countries here and since England has the highest degree of commodification regarding HEIs, only England, which itself has a rather centralised system of governance, will be analysed.

In order to assess the relevance of competition law for HEI research in the three countries, it is necessary to provide an overview of their research systems which is the aim of this chapter. The subchapters will start with a general overview of the systems; the general funding streams and which entities conduct research will be introduced. They will proceed to a more in-depth examination of research in HEIs. Firstly, how far research in HEIs is an official public task and if there are any limitations as to privately funded research in HEIs will be assessed. Secondly, public funding of HEI research will be evaluated and the extent to which it is provided generically or on a project related basis will be identified. Thirdly, an overview of funding from non-public sources will be provided. Finally, how far full costing for research is applied will be examined. The subchapters will end with an interim conclusion integrating the results. The country specific subchapters will be followed by a

³⁷³ EUA, *EUA's Public Funding Observatory (Spring 2013)* (EUA, 2013) available on http://www.eua.be/Libraries/Governance_Autonomy_Funding/EUA_PFO_report_2013.sflb.ashx p. 5, 7.

³⁷⁴ On the selection of the universities see below chapter 5.

³⁷⁵ It would go beyond the scope of the PhD to discuss differences and similarities between devolution and federalism. See further DL Horowitz, 'The Many Uses of Federalism' (2006-2007) 55 Drake L. Rev 953.

tentative competition law analysis which will focus on research funded by national public, private and third sources (rather than by EU or international funding), as the thesis investigates EU competition law constraints on research in public HEIs as an example of tension between EU law and national public service concepts more generally. The chapter conclusion will then bring together the results for all three countries.

4.2. England

Among the three countries compared in this study, the UK is the one with the lowest expenditure on R&D as a percentage of gross domestic product (GDP); in 2012 UK expenditure amounted to only 1.77% of its GDP. This expenditure has been relatively stable over the last ten years with the lowest (1.67% GDP) in 2004 and the highest (1.82% GDP) in 2009.³⁷⁶ The system has been in state of reformation since the early 2000s.³⁷⁷ The relatively low spending (compared to the 3% target of the Europe 2020 Strategy)³⁷⁸ has been identified as a problematic area in the UK research system, as have an insufficient capacity for attracting researchers and generating knowledge transfer between academic and commercial sectors, particularly with an eye on innovation.³⁷⁹ However, as a result of devolution, the governments of the devolved countries have significant freedom in devising their policies and budgets in devolved policy areas.³⁸⁰ As mentioned above, the focus here will be on England

³⁷⁶ EUROSTAT, 'Gross domestic expenditure on R&D (GERD)' (2013) http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020_20 accessed 8 December 2013. GERD is defined as the 'total intramural expenditure on R&D performed within a country [from all sectors], funded nationally and from abroad but excludes payments for R&D performed abroad'. See accompanying notes available on http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/t2020_20_esmsip.htm. Eurostat is, according to these notes, following the OECD guidelines laid down in the Frascati Manual (n 35). The latter defines R&D as comprising basic and applied research as well as experimental development (on these terms see n 35) conducted formally in R&D units and informally or occasionally in other units (Frascati Manual p. 30).

³⁷⁷ Candemir and Meyer (n 371) p. 496.

³⁷⁸ See chapter 2 above.

³⁷⁹ Candemir and Meyer (n 377) p. 496, Elsevier, *International Comparative Performance of the UK Research Base - 2011* (Department of Business, Innovation and Skills, 2011) available on <http://www.bis.gov.uk/assets/biscore/science/docs/i/11-p123-international-comparative-performance-uk-research-base-2011.pdf> p. 5.

³⁸⁰ Directgov, 'Devolved government in the UK' <http://www.direct.gov.uk/en/governmentcitizensandrights/ukgovernment/devolvedgovernment/d>

where the trend has been towards less public funding and more commodification, especially after the change in government in 2010.³⁸¹

4.2.1. General overview

The private sector is the most important research funder in the UK and its funding input increased steadily in real terms from 2000 to 2011 with only slightly lower spending in 2009 and 2010. The public sector (government, research councils, the higher education funding council and HEIs) is the second most important funder (32%), but foreign funding also plays a significant role (18%). The third sector contributes about 5%.³⁸² The private sector is also the most important research provider conducting an even higher share of the research than it finances (almost two thirds of all research) as the private sector receives significant foreign contributions and some public funding. HEIs are the second most important research provider, whilst less than 9% of all research is conducted by government institutions and research councils and only 1.8% by the third sector.³⁸³ Traditionally, military research has been very strong in the UK. While this has dropped considerably from 52% in 1960³⁸⁴ to 7.5% in 2011³⁸⁵ the proportion of all research spending used on defence is still significant.

4.2.1.1. Public research

The UK has a relatively long tradition of close links between public and private sector research and commercial use of publicly funded research.³⁸⁶ With decreasing

g_073306 accessed 20th May 2012, *HEFCE, Higher Education - Business and Community Interaction Survey 2010-11* (HEFCE, Bristol 2012) p. 8.

³⁸¹ UCU, 'Funding' (2012) <http://www.ucu.org.uk/index.cfm?articleid=2088> accessed 20 May 2012.

³⁸² For a definition of the third sector see above n 153.

³⁸³ Office for National Statistics, *UK Gross Domestic Expenditure on Research and Development, 2011* (2013) available on http://www.ons.gov.uk/ons/dcp171778_302928.pdf table 1, table 4. The Office for National Statistics is following the guidelines of the Frascati Manual (ibid p. 1 seq).

³⁸⁴ Candemir and Meyer (n 377) p. 496.

³⁸⁵ Office for National Statistics (n 383) table 1. For an overview of the decrease in defence spending since 2000 see ibid table 3 and 5.

³⁸⁶ Candemir and Meyer (n 377) p. 505, 511.

public research funding since 2010 (in real terms),³⁸⁷ public research organisations are increasingly encouraged to attract external funding and to cooperate with industry. Furthermore, research policy planning considers the needs of industry and the commercial sector also receives public support for research.³⁸⁸

4.2.1.1.1. *The governmental structure*

The main accountability for research policy lies with the Department for Business, Innovation and Skills (BIS) within which the Minister of State for Universities and Science is responsible for UK research and English HEIs, as the latter is a devolved policy area.³⁸⁹ Alongside the BIS, other departments might issue research policies concerning their remit. Advice for the government is provided by the Government Office for Science through the Government Chief Scientific Advisor and independent advice can be obtained from the Council for Science and Technology. Policy review is undertaken by the relevant parliamentary select committees in both houses. The Parliamentary Office of Science and Technology as well as all-parliamentary groups function as sources of information.³⁹⁰

Public sector funding is also provided directly through research councils, through higher education funding councils and HEIs themselves contribute their own resources for research activities. The majority of direct governmental funding goes to the private sector and governmental research institutions. The research councils mainly fund HEIs and research in own institutes. The higher education funding councils only funds research in HEIs. HEIs use their own resources to support the research they conduct, but they also, to a limited extent, contribute to research by councils, the third sector and governmental institutions.³⁹¹ Whilst direct governmental funding for research has decreased since 2000, funding provided by research

³⁸⁷ Office for National Statistics (n 383) table 4, Research Information Network, *Government and research policy in the UK: an introduction - A guide for researchers* (Research Information Network, London 2010) p. 4.

³⁸⁸ See Candemir and Meyer (n 377) p. 505 seq.

³⁸⁹ Research Information Network (n 387), BIS, 'History' (2012) <http://www.bis.gov.uk/about/who-we-are/history> accessed 21 May 2012, Candemir and Meyer (n 377) p. 500 seq.

³⁹⁰ Research Information Network (n 387) p. 6 seq, 14 seq.

³⁹¹ Office for National Statistics (n 383) table 1.

councils, higher education funding councils and HEIs has increased. However, since 2010, this situation has been reversed.³⁹²

Most public funding in England is administered by the Higher Education Funding Council for England (HEFCE) and the seven research councils. The HEFCE provides generic funding and the research councils (organised into Research Councils UK (RCUK)) provide competitive public funding. The Technology Strategy Board is responsible for technology and innovation and the National Endowment for Science, Technology and the Arts for long term strategy.³⁹³ Finally, academies and learned societies such as the British Academy and the Royal Society also play roles in the research system. Despite being partly publicly funded, they are independent scholarly institutions which offer advice to government and provide funding for research.³⁹⁴

4.2.1.1.2. *Public research organisations*

The 166 UK HEIs, almost 80% of which are located in England,³⁹⁵ are the most important public research providers and the amount of research conducted by them has increased steadily since 2000.³⁹⁶ Whilst there are a number of specialised HEIs, England, unlike the other two countries under scrutiny, no longer maintains a binary HEI system. The separation between vocational HEIs and universities was abolished in the Further and Higher Education Act 1992 (FHEA). The HEI sector is rather heterogeneous with regards to student numbers, income³⁹⁷ and research-teaching focus.³⁹⁸ Unlike many continental HEIs, English public HEIs 'are legally

³⁹² Office for National Statistics (n 383) table 4.

³⁹³ Research Information Network (n 387) p. 10 seq, HEFCE, 'Our relationship to Government' (2012) <http://www.hefce.ac.uk/about/intro/wip/ourrelationshipstogovernment/> accessed 23 May 2012.

³⁹⁴ Research Information Network (n 387) p. 13.

³⁹⁵ Kelly, McLellan and McNicoll (n 324) p. 7.

³⁹⁶ Office for National Statistics (n 383) table 2.

³⁹⁷ See further Universities UK, *Higher education in facts and figures* (Universities UK, London 2012) p. 16.

³⁹⁸ On HEIs in the UK see Candemir and Meyer (n 377) p. 500, 505, 509 seq, Kelly, McLellan and McNicoll (n 324) p. 7 seq, Farrington and Palfreyman (n 10) para 1.22, P Zoontjes, 'Protecting 'university' as a designation - analysis and comparison of the legal position in several countries' (2010) 11 *Education Law Journal* 117 p. 123, P Scott, 'Structural Changes in Higher Education -

independent entities and are classified [traditionally] as non-profit institutions'.³⁹⁹ However, Privy-Council involvement is required for their creation and government influence is asserted to a large extent through the public funding they receive. Despite officially being completely independent, English HEIs therefore, as Palfreyman puts it, 'are in practice [...] closely Government-regulated via its Higher Education Funding Council "quango" and are depressingly weak in terms of asserting their potential independence'.⁴⁰⁰

Before the move towards privatisation during the Thatcher government, there were a variety of other public research organisations, especially in the field of military research.⁴⁰¹ Today there are only a limited number of other public institutions conducting research. Among them are research institutes in research councils which carry out 3.8% of all research in the UK.⁴⁰² All the remaining public research institutions together conduct just 4.8% of all UK research.⁴⁰³

4.2.1.2. Non-public research

The private sector is the largest funding contributor and conducts the most research. For this, the sector receives significant overseas funding. The funding provided by the sector finances (in order of relevance) their own research, HEI research, governmental research, research in the third sector and research in research councils.⁴⁰⁴

International and third sector funding contributions altogether amount to almost a quarter of all research funding in the UK. Funding from both sources has increased since 2000. Most third sector funding is used for research in HEIs. The third sector plays a less significant role as a provider of research services with just 1.8% of all research in the UK being conducted by the sector. International funding is mainly

The Case of the United Kingdom' in D Palfreyman and T Tapper (eds), *Structuring Mass Higher Education* (Routledge, New York/London 2009) p. 42 seq.

³⁹⁹ Kelly, McLellan and McNicoll (n 324) p. 8.

⁴⁰⁰ D Palfreyman, 'The English chartered university/college: how 'autonomous', how 'independent' and how 'private'?' (2003) 15 *Education and the Law* 149.

⁴⁰¹ Candemir and Meyer (n 377) p. 506.

⁴⁰² Office for National Statistics (n 383) table 1.

⁴⁰³ Office for National Statistics (n 383) table 1, p. 6 seq.

⁴⁰⁴ Office for National Statistics (n 383) table 1.

received by the private sector, followed by HEIs.⁴⁰⁵ The utilisation of international funding has been identified as a government priority⁴⁰⁶ and there is a special unit dedicated to this within the Government Office for Science.⁴⁰⁷ The importance of EU funding has recently been highlighted by the British Academy who have warned the government that its current negative EU policy and the connected potential loss of funding from this source could have very damaging consequences for the UK's research base.⁴⁰⁸

4.2.2. Research in public HEIs

As has been mentioned above, English HEIs are not public institutions in the same way as many of their continental counterparts. The complicated relationship between the public and the private in English HEIs has become even more difficult with English policy on HEIs increasingly leaning towards commercialisation and internationalisation. The increase of business style administration in governance and the encouragement of financial independence in recent years also contributes to these difficulties.⁴⁰⁹

4.2.2.1. Research as a statutory task of HEIs

The law governing HEIs in England is to be found within a vast variety of sources.⁴¹⁰ Most important among these are the Education Reform Act 1988 (ERA), the FHEA, the Teaching and Higher Education Act 1998, the Higher Education Act 2004 and the Education Act 2011 which changed/amended some of the earlier Acts.⁴¹¹ ERA states in s 124 that 'a higher education corporation shall have the

⁴⁰⁵ Office for National Statistics (n 383) table 1, 4.

⁴⁰⁶ Candemir and Meyer (n 377) p. 507.

⁴⁰⁷ Research Information Network (n 387) p. 6.

⁴⁰⁸ British Academy, 'British Academy raises concerns over the future of EU research funding' (2013) <http://www.britac.ac.uk/news/news.cfm/newsid/860> accessed 8 February 2013.

⁴⁰⁹ Kelly, McLellan and McNicoll (n 324) p. 3, 7 seq, Farrington and Palfreyman (n 10) para 1.01 seq, 3.01, 4.01 seq, Zoontjes (n 398) p. 123 seq.

⁴¹⁰ For an overview see Farrington and Palfreyman (n 10) para 1.04.

⁴¹¹ The latest policy changes for HEIs will, apparently, not be introduced by a comprehensive act, but by executive measures only. See University and College Union, 'UCU politics monthly - June 2012 - Response to HE consultation' (2012) <http://www.ucu.org.uk/index.cfm?articleid=6194#wmin> accessed 29 June 2012.

power [...] to carry out research and to publish the results of the research'. FHEA states in s 65 that

'activities eligible for funding [...] [by the HEFCE] are (a) the provision of education and the undertaking of research by higher education institutions in the council's area, (b) the provision of any facilities, and the carrying on of any other activities [...] for the purpose of or in connection with education or research, [...] (d) the provision by any person of services for the purposes of, or in connection with, the provision of education or the undertaking of research'.

Research thus appears to be an activity which HEIs may carry out and receive funding for, but not a statutorily required task. Indeed, conducting of research does not appear to be part of the definition of a public HEI or even of a university.⁴¹²

According to s 68 (1) FHEA the 'Secretary of State may make grants to [...] [the HEFCE] of such amounts and subject to such terms and conditions as he may determine'. The HEFCE then, if applicable, passes the latter on to HEIs and can attach its own terms and conditions (s 65 (3) FHEA).⁴¹³ However, s 68 (3) provides that the terms and conditions imposed upon the HEFCE by the Secretary of State 'may not be framed by reference to particular courses of study or programmes of research (including the contents of such courses or programmes and the manner in which they are taught, supervised or assessed)'. Furthermore, s 202 (2) ERA requires University Commissioners 'to ensure that academic staff have freedom within the law to question and test received wisdom, and to put forward new ideas and controversial or unpopular opinions, without placing themselves in jeopardy of losing their jobs or privileges'. These provisions seem to limit external steering of research in favour of academic freedom. Quantitative restrictions of research do not seem to exist by statute.

4.2.2.2. Public research funding

There are three main research funding streams for English HEIs; they receive generic funding from the HEFCE, project/programme related funding from research councils and funding from other sources. The first two are public funding streams

⁴¹² See on these definitions Farrington and Palfreyman (n 10) para 3.01 seq, 3.05 seq.

⁴¹³ On the powers of the government and HEFCE see further Farrington and Palfreyman (n 10) para 4.16 seq.

and known as the ‘dual support system’. They comprise the majority of research funding for HEIs.⁴¹⁴ Funding allocation through the dual support system contains competitive elements tending to concentrate funding in a small number of institutions. While this seems to have improved the competitiveness of UK HEIs, it has also been criticised for potentially overlooking high quality research in those HEIs which are not generally regarded as research intensive institutions.⁴¹⁵ Funding from outside the dual support system is also increasingly gaining in importance. It comprises additional competitive public (e.g. specific programmes from the HEFCE in addition to the generic HEFCE funding)⁴¹⁶ as well as private, third sector and international (especially EU) funding.⁴¹⁷

4.2.2.2.1. Public generic funding (HEFCE)

Higher education funding council funding amounts to less than a third of all research funding for HEIs in the UK.⁴¹⁸ It receives its budget, and directions on how to distribute it directly from the BIS. HEIs funded by the HEFCE need to comply with the requirements set out in the HEFCE’s financial memoranda which inter alia set out rules on transparency, efficiency and accountability (including the use of full costing for all activities) as well as requiring the institutions to follow statutes and comply with quality assurance standards.⁴¹⁹

Even the generic funding the HEFCE distributes (also referred to as ‘recurrent funding’) is calculated using partly competitive parameters. In the ‘main research funding method’ (or ‘mainstream quality-related research funding’, for short ‘mainstream QR’) it is first determined how much money will be spent on a certain subject in general. The amount to be given to an individual HEI is then calculated on the basis of research volume, costs, governmental priorities and research quality. The latter

⁴¹⁴ Higher education funding council funding and research council funding amount to 59.5% of all research funding for HEIs in the UK. Office for National Statistics (n 383) table 1.

⁴¹⁵ J Adams and K Gurney, *Funding selectivity, concentration and excellence - how good is the UK's research?* (Higher Education Policy Institute, Oxford 2010) p. 1 seq.

⁴¹⁶ E.g. for knowledge transfer. See further HEFCE (n 380) p. 24.

⁴¹⁷ See on the funding streams Candemir and Meyer (n 377) p. 509, Farrington and Palfreyman (n 10) para 1.01, Kelly, McLellan and McNicoll (n 324) p. 8 seq, 21, Adams and Gurney (n 415) p. 1.

⁴¹⁸ Office for National Statistics (n 383) table 1.

⁴¹⁹ See HEFCE (n 393), Farrington and Palfreyman (n 10) para 4.22 seq, 4.30 seq.

is estimated on the basis of a peer review mechanism called Research Assessment Exercise (RAE). From 2015/2016 onwards, the outcomes of a new mechanism, the Research Excellence Framework (REF), will be used to inform generic funding distribution.⁴²⁰ The REF will, next to quality of output and environment (measured in vitality and sustainability), also take research impact into consideration.⁴²¹ HEIs can freely administer generic funding. In addition to 'mainstream QR', the HEFCE allocates recurrent funding for PhD supervision based numbers, supports charity funded research by paying overhead costs, rewards private sector research and supports national research libraries. Previously, funding had been provided for HEIs which faced significant changes in recurrent funding, but this will now only be provided in very exceptional cases.⁴²² Finally, the HEFCE runs additional programmes such as the Higher Education Innovation Fund (HEIF, also referred to as Third Stream Funding), which aims at encouraging knowledge transfer,⁴²³ and non-recurrent 'special funding and earmarked capital grants'.⁴²⁴

4.2.2.2.2. *Public competitive funding*

27.8% of funding of research carried out in HEIs in the UK is contributed by the research councils.⁴²⁵ They are increasingly under pressure to justify the research they fund with public money. National priorities determined by government can,

⁴²⁰ REF, 'Research Excellence Framework' (2012) <http://www.ref.ac.uk/> accessed 23rd May 2012.

⁴²¹ REF, 'Assessment criteria and level definitions' (2012) <http://www.ref.ac.uk/panels/assessmentcriteriaandleveldefinitions/> accessed 16 December 2012. The inclusion of impact into the assessment has been strongly criticised by academics (BBC News, 'Top scientists attack funding plan' *BBC News* (4 December 2009) <http://news.bbc.co.uk/1/hi/education/8392817.stm> accessed 4 December 2009). A recent survey also reveals employment issues as well as general concerns about the suitability of the REF (UCU, *The Research Excellence Framework (REF) - UCU Survey Report* (UCU, 2013) available on <http://www.ucu.org.uk/media/pdf/0/q/REF-survey-report-September-2013.pdf>).

⁴²² HEFCE, *Recurrent grants and student number controls for 2012-13* (HEFCE, Bristol 2012) p. 6, 21 seq.

⁴²³ See further PACEC and the Centre for Business Research (University of Cambridge), *Evaluation of the effectiveness and role of HEFCE/OSI third stream funding* (HEFCE, Bristol 2009).

⁴²⁴ See on HEFCE funding HEFCE, *Guide to funding - How HEFCE allocates its funds* (HEFCE, Bristol 2010) p. 10, 41 seq, 49, HEFCE (n 393), HEFCE (n 380) p. 23, Farrington and Palfreyman (n 10) para 4.22 seq, 4.30 seq.

⁴²⁵ Office for National Statistics (n 383) table 1.

therefore, play a role in research councils establishing their funding priorities.⁴²⁶ Research councils funding is project/programme specific and distributed on a competitive basis. The assessment of which projects will receive funding is undertaken by peer review. Funding through research councils has gained in importance in the last twenty years in comparison to HEFCE funding.⁴²⁷ As mentioned above, HEIs also receive limited governmental funding from other institutions including ministries, local authorities and the NHS. Funding from these bodies is often more similar to research contracts.⁴²⁸

4.2.2.3. Non-state funding

Funding from outside the dual support system is gaining in importance and comprises of mainly third sector and foreign (especially EU) funding, but also private sector funding and the additional specific public competitive funding streams mentioned above.⁴²⁹ Third sector funding in particular has increased in recent years,⁴³⁰ but also private sector funding, though it currently makes up a smaller share,⁴³¹ has gained in importance⁴³² and ‘looks to be permanently embedded within many HEIs’.⁴³³ Strategic aims such as ‘local partnerships’ and ‘supporting SMEs’

⁴²⁶ In this respect the academic furore following the ‘order’ that the Arts and Humanities Research Council study the government’s ‘big society’ policy made the news (Boffey D, ‘Academic fury over order to study the big society’ *guardian.co.uk* (27th March 2011) <http://www.guardian.co.uk/education/2011/mar/27/academic-study-big-society> accessed 29th March 2011).

⁴²⁷ On the research councils see RCUK, ‘Government Funding’ (2012) <http://www.rcuk.ac.uk/about/Aboutrcs/Pages/Governmentfunding.aspx> accessed 23 May 2012, Department of Finance, ‘How finance works ... in the Higher Education Sector’ (University of Sheffield 2012) http://www.shef.ac.uk/finance/staff-information/howfinanceworks/higher_education/funding_of_research accessed 30 November 2012, Candemir and Meyer (n 377) p. 510, DC Berry, *Gaining Funding for Research* (Open University Press, Berkshire 2010) p. 5, 27, 31.

⁴²⁸ Department of Finance (n 427).

⁴²⁹ Office for National Statistics (n 383) table 1.

⁴³⁰ HEFCE (n 380) p. 3.

⁴³¹ Office for National Statistics (n 383) table 1.

⁴³² HEFCE (n 380) p. 2 seq.

⁴³³ PACEC, *Strengthening the Contribution of English Higher Education Institutions to the Innovation System: Knowledge Exchange and HEIF Funding* (PACEC, Cambridge 2012) p. 2.

are partly supported by government or EU funding. HEIs sometimes also form associations in order to encourage and facilitate private sector interaction.⁴³⁴

Private sector funding reaches HEIs in a variety of ways. In research co-operations, the partners commonly explore a topic on a long term basis. This form of collaboration in particular has gained in importance and is popular, since it can lead to the generation of new ideas and directions of research for both sides. Contract research and consultancy services have also gained in importance. Here the work is commissioned by the external partners who specify the aim to be achieved. It is therefore a plain business transaction rather than a mutual relationship. HEIs also rent out infrastructure such as specialised laboratories, equipment or prototypes to the private sector. Whilst this form of collaboration is less common, it is an economically efficient way to use infrastructure and it is claimed that such transactions can also help with 'relationship building'.⁴³⁵

Another form of private sector collaboration is the commercial use of IPRs. Income from this source has risen significantly in recent years, even though it is not as high as that from research in the previously mentioned forms of collaboration.⁴³⁶ The details of who owns rights depend on the contractual relations between, for example, the HEI and its staff or between the HEI and an external collaborator. Regarding the former, if no terms in the employment contract explicitly specify the question, it is usually assumed that implied contract terms grant the IPR to the employer. For patentable inventions the same is specified in the Patents Act, but it seems that staff are commonly rewarded for patentable inventions.⁴³⁷ Regarding copyright, it is general practice that HEIs leave these to the academics.⁴³⁸ When it comes to external collaborations, the assumption is that the external party retains the rights. This is also the general assumption for students creating IPRs. HEIs usually do not exploit the

⁴³⁴ HEFCE (n 380) p. 9, 11. Howells J, Nedeva M and Georghiou L, *Industry-Academic Links in the UK* (HEFCE/University of Manchester, Manchester 1998) p. 92, 96.

⁴³⁵ On these collaborative forms see HEFCE (n 380) p. 4 seq, 12 seq, Howells, Nedeva and Georghiou (n 434), M Abreu et al, *Universities, Business and Knowledge Exchange* (The Council for Industry and Higher Education and the Centre for Business Research (University of Cambridge), London 2008), Kelly, McLellan and McNicoll (n 324) p. 8.

⁴³⁶ HEFCE (n 380) p. 5 seq.

⁴³⁷ According to HEFCE (n 380) p. 11 this is true for 84% of HEIs.

⁴³⁸ Farrington and Palfreyman (n 10) para 14.36.

IPRs themselves, but sell them or a license for them to external parties. Some HEIs involve private parties to assist them in this process, set up exploitation companies or cooperate with other HEIs for this purpose. It has also become increasingly popular to exploit IPRs through spin-offs for a certain kind of research. External investors are also sometimes involved in spin-offs and these might, at a later stage, be sold.⁴³⁹

HEIs might also set up new companies beyond spin-offs. Such companies are usually external to the HEI, but, depending on the individual case, they might be more or less controlled by it. Sometimes these companies can also be joint ventures with other partners. Income generated through such companies has increased in recent years. Though less common, HEIs also collaborate with the private sector through staff exchanges. The partner in such an exchange might also be a start-up grown out of the university, particularly if it was the entrepreneurial activity of a member of research staff which led to setting up the company in the first place. Another form of interaction is taking place through private sector funding for chairs or fellowships/lectureships.⁴⁴⁰

Science parks are spaces dedicated to certain research fields in which relevant institutions can establish themselves, allowing easier access between institutions. Synergies are facilitated in such parks and they might function as incubators for new companies. Science parks are most often owned by HEIs or local authorities and only occasionally by private sector companies. Another form of interaction is through research clubs or networks. These can merely be dissemination and exchange platforms, clubs which are free for academic members who can bring proposals to the attention of the private sector and for which private sector companies

⁴³⁹ On exploitation of IPRs by HEIs see Farrington and Palfreyman (n 10) para 14.31 seq, Kelly, McLellan and McNicoll (n 324) p. 8, HEFCE (n 380) p. 3 seq, 10 seq, 14 seq, Howells, Nedeva and Georghiou (n 434) p. 12, 35 seq, 79, Elsevier (n 379) p. 72 seq, Abreu et al (n 435). See also on IPR exploitation and recommendations to streamline this P Wellings, *Intellectual property and research benefits* (Lancaster University, 2008) available on <http://webarchive.nationalarchives.gov.uk/+/http://www.bis.gov.uk/wp-content/uploads/2009/10/HE-int-property-research-benefits.pdf>.

⁴⁴⁰ See on these interaction forms HEFCE (n 380) p. 6, 11, 17, Howells, Nedeva and Georghiou (n 434) p. 35 seq, 52 seq, 79, Elsevier (n 379) p. 72, 76 seq, Abreu et al (n 435) p. 12, 15, 57, PACEC (n 433) p. 5.

have to pay, or clubs which uphold a limited number of research facilities for specific projects.⁴⁴¹

4.2.2.4. Full costing

Due to rising non-generic funding, sustainable costing of research became important in the 1990s and the Transparent Approach to Costing (TRAC) was established centrally in England.⁴⁴² It includes an annual reporting process (annual TRAC) and a full costing approach (TRAC fEC, introduced in 2004) as well as a special approach for FP7 projects (TRAC EC-FP7). TRAC fEC adds indirect costs on the basis of what has been reported through annual TRAC to the calculation of direct and directly allocated costs, thus allowing researcher time, support staff time and infrastructure costs to be included in project calculations. Having arrived at the full costs this way, these are, in a final step, ‘adjusted for pay increments and inflation’.⁴⁴³

Research councils fund at a rate of 80%, while other public non-generic funding is provided at 100% of full cost. With regards to non-public funding, prices are negotiated individually or the funders have their own funding rules. However, TRAC fEC provides HEIs with knowledge about the full costs which they can take into consideration.⁴⁴⁴ Since the introduction of TRAC has already led to more sustainable financial arrangements, a next step of using the information achieved through it to cut costs is planned.⁴⁴⁵ However, there has also been criticism from research councils

⁴⁴¹ On these interaction forms see HEFCE, *A guide to UK higher education* (HEFCE, Bristol 2009) p. 30, Howells, Nedeva and Georgiou (n 434), Abreu et al (n 435) p. 15, 54, 57.

⁴⁴² J M Consulting Ltd, 'Transparent Approach to Costing (TRAC) Guidance' (Joint Costing and Pricing Steering Group, 2005 (last updated 2012)) <http://www.jcpsg.ac.uk/guidance/index.htm> executive summary para 2 seq, part I, section A para 1 seq, T Estermann and A-L Claeys-Kulik, *Financially Sustainable Universities - Full Costing: Progress and Practice* (EUA, Brussels 2013) p. 51 seq, HEFCE, 'Background to financial sustainability' (2012) <http://www.hefce.ac.uk/whatwedo/lgm/trac/background/> accessed 13 September 2012.

⁴⁴³ J M Consulting Ltd (n 442) executive summary para 4 seq, 10 seq, 19 seq, part I, section A para 1, 3 seq, 15 seq, 26, HEFCE (n 442). For more detail on the calculation of ‘TRAC fEC’ see J M Consulting Ltd (n 442) part V.

⁴⁴⁴ See HEFCE (n 442), J M Consulting Ltd (n 442) executive summary para 5, 8, 10 seq, part I, section A para 21 seq, 38, Department of Finance (n 427).

⁴⁴⁵ RCUK/UUK Task Group, *Financial Sustainability and Efficiency in Full Economic Costing of Research in UK Higher Education Institutions* (UUK, London 2010), in particular, p. 4 seq and annex C. On the increased sustainability of finances through TRAC see also J M Consulting Ltd

pointing out that projects become much more expensive than predicted and academics complaining that their projects themselves do not seem to be better supported, but that the additional funding is 'disappearing into the university'.⁴⁴⁶ Third sector organisations simply refer to their mission statements in denying paying full costs and private sector companies try to use their negotiating power to cut prices.⁴⁴⁷ There is thus a real, if residual, danger that private research is not funded at least at full cost levels and that public resources are, therefore, used to make up the difference.

4.2.3. Interim conclusion on England

Neither the Lisbon/Europe2020 target of 3% GDP nor the economic crisis appear to have had a significant influence on overall research spending in the UK which has neither significantly increased nor decreased over the last ten years. Generally, the private sector is providing the majority of the funding, even though the difference with other funders is not very significant. Government is the second largest funder and foreign funding also plays an important role. The private sector conducts most of the research for which it receives significant foreign funding. Governmental research is mainly taking place in HEIs; other public research organisations play a smaller role. While the third sector has a role to play as a funder, it only conducts a small percentage of the overall research in the UK. The lack of knowledge transfer and innovation has been identified as a cause for concern and the system is constantly being reformed.

The English system of funding HEI research is very competitive. Even the generic funding provided through the HEFCE is based on competitive assessment⁴⁴⁸ which, in the future, will include the impact of research as a condition for funding. The HEFCE also rewards HEIs who attract external funding. Furthermore, generic

(n 442) executive summary para 8 seq, part I, section A para 5 seq, Estermann and Claeys-Kulik (n 442) p. 52.

⁴⁴⁶ Z Corbyn, 'Cheques and balances' *THE* (19 June 2008)

<http://www.timeshighereducation.co.uk/story.asp?storycode=402420> accessed 2 May 2009.

⁴⁴⁷ *Ibid.* Some of these problems had already been foreseen shortly before the introduction of fEC. See, for example, N Williams, 'Research costing plans raise fears' (2004) 14 *Current Biology* 73.

⁴⁴⁸ For an analysis of the 'relationship between the state, the funding councils and the universities' in the current system see O Filippakou, B Salter and T Tapper, 'Compliance, resistance and seduction: reflections on 20 years of the funding council model of governance' (2010) 60 *Higher Education* 543.

funding constitutes less than a third of all research funding for HEIs in the UK. The research councils provide less than 30% and involve governmental steering.⁴⁴⁹ Other public research funding is received from government institutions, often taking the form of research contracts. Therefore, unless they have own resources,⁴⁵⁰ HEIs need to seek the rest of their research funding from private, third sector and foreign sources. It might be assumed that such funds focus on the particular interests of these funders. The academic freedom of the researcher to research into any area of his or her choice seems to be somewhat limited by this and a fierce competition for limited resources takes place.⁴⁵¹ Due to this competitive approach TRAC fEC has been introduced early, but there nevertheless still seems to be some ambiguity in costing.

4.3. The Netherlands

Research spending in the Netherlands is, at 2.16% of its GDP in 2012, slightly higher than in England. Spending has fluctuated over the last ten years with 1.77% its lowest point in 2007 and its highest point in 2012.⁴⁵² The Netherlands research system is a consociational system, characterised by involvement of a wide variety of actors in policy setting processes. On the one hand, this allows using synergies. On the other hand, it can result in slow decision making processes.⁴⁵³ Despite the fact that research in the Netherlands is doing well when it comes to performance indicators such as the number of publications and citations and general attractiveness of the

⁴⁴⁹ According to PACEC (n 433) 80% of HEIs stated they are 'taking steps to align with key national priorities of research councils'.

⁴⁵⁰ HEIs own contributions amount to about 4% (Office for National Statistics (n 383) table 1) and are assumably mainly making up for funders not providing full costs.

⁴⁵¹ For an early critical voice on this see H Willmoth, 'Managing the academics: Commodification and control in the development of university education in the UK' (1995) 48 *Human Relations* 993.

⁴⁵² EUROSTAT (n 376).

⁴⁵³ B van der Meulen, 'The Netherlands' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010) p. 516 seq, 526, B Jongbloed, 'The Netherlands' in DD Dill and FA van Vught (eds), *National innovation and the academic research enterprise: public policy in global perspective* (Johns Hopkins University Press, Baltimore 2010) p. 287, M Braun, *Country Profile: The Netherlands* (Private Sector Interaction in the Decision Making Process of Public Research Policies, proneos, Bad Camberg 2006) p. 5 seq, L Leisyte, 'University commercialisation policies and their implementation in the Netherlands and the United States' (2011) 38 *Science and Public Policy* 437 p. 441, 446.

system,⁴⁵⁴ a number of challenges have been identified. These include the lack of elite institutions, the need to strengthen private sector research, to set research priorities with practical relevance, to coordinate policies, to increase innovation and use European funding streams.⁴⁵⁵ The Dutch research system has, therefore, recently undergone some changes towards creating excellence, impact agendas, commercialisation and strengthening of institutional autonomy combined with external steering.⁴⁵⁶

4.3.1. General overview

About 50% of research conducted in the Netherlands is financed by the private sector, 36% by the public sector, 11% from abroad and 3% from the third sector.⁴⁵⁷ Whilst there was a dip in private sector funding in 2009, attributed to the financial crisis,⁴⁵⁸ private sector funding has been on the highest level since 1999 in 2011. Public funding has continuously increased.⁴⁵⁹ Measured in funding received, the private sector also conducts most of the research (56%), followed by HEIs (33%). The latter's funding has gone down slightly from 2009. All other institutions (public and third sector) put together only conduct 11% of all research in the Netherlands.⁴⁶⁰

⁴⁵⁴ van der Meulen (n 453) p. 515, Euraxess, 'The Netherlands - Research' (2010) <http://www.euraxess.nl/research> accessed 5 March 2013 section 'Excellent reputation', B Mostert, *Country Fiche Netherlands* (ERAWATCH, 2012) available on http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/nl/country?tab=country&country=nl (n 452) p. 1, Jongbloed (n 453) p. 312 seq.

⁴⁵⁵ van der Meulen (n 453) p. 515, 518, 525, Mostert (n 454), Jongbloed (n 453) p. 293, 314, 318 seq, Braun (n 453) p. 5.

⁴⁵⁶ L Leisyte, J Enders and H De Boer, 'The Freedom to Set Research Agendas - Illusion and Reality of the Research Units in the Dutch Universities' (2008) 21 Higher Education Policy 377, p. 377, Mostert (n 454) p. 4 seq, Jongbloed (n 453) p. 318 seq.

⁴⁵⁷ Centraal Bureau voor de Statistiek, *Research en development; financiering uitgaven per sector van uitvoering* (Centraal Bureau voor de Statistiek, Den Haag/Heerlen 2013). According to the *Centraal Bureau voor de Statistiek* (official English name: Statistics Netherlands) R&D includes basic and applied research as well as development defined similar to the definitions in the Frascati Manual (explanatory note belonging to the table section 2).

⁴⁵⁸ Mostert (n 454) p. 3.

⁴⁵⁹ Centraal Bureau voor de Statistiek (n 457), Centraal Bureau voor de Statistiek, *Centraal Bureau voor de Statistiek, Herkomst en bestemming middelen voor Research en development (R&D)* (Centraal Bureau voor de Statistiek, Den Haag/Heerlen 2011).

⁴⁶⁰ Centraal Bureau voor de Statistiek (n 457).

4.3.1.1. Public research

In line with the nature of a consociational system, public research in the Netherlands is characterised by a multiplicity of actors involved in both policy setting and conducting research. Most public funding goes to research in HEIs (72%), but the public sector also contributes to research in other institutions.⁴⁶¹ Whilst the public sector still provides most funding generically,⁴⁶² there is also a large variety of competitive project funding streams. Furthermore, there have been quite a few competitive institutional funding schemes which have led to the creation of new research performing entities.⁴⁶³

4.3.1.1.1. The governmental structure

Research policy is mainly coordinated by the Ministry for Education, Culture and Sciences (*Ministerie van Onderwijs, Cultuur en Wetenschap*, OCW) and the Ministry of Economic Affairs (*Ministerie van Economische Zaken*, EZ). The former is focussed on basic research and is responsible for the research system in general and for funding universities and various other research organisations. The EZ's involvement, which has increased over recent years, lies mainly in the areas of technology, innovation and agricultural research where it follows a more 'hands-on' approach. Other ministries might be involved as concerns their remit. Ministers coordinate their efforts in the Council for Economic Affairs, Infrastructure and Environment (*Raad voor Economische Zaken, Infrastructuur en Milieu*) and parliament is reviewing the government's policy for which purpose both houses have dedicated commissions.⁴⁶⁴ Advice on research policies is provided by a number of advisory bodies, particularly by the Advisory Council for Science and Technology Policy

⁴⁶¹ Centraal Bureau voor de Statistiek (n 457).

⁴⁶² This is also increasingly the case in innovation policy where public funding is generically provided through tax incentives. See Mostert (n 454) p. 3 seq, 13, Jongbloed (n 453) p. 321, P den Hertog et al, *Science, Technology & Innovation Indicators 2012* (OCW, Utrecht 2012) p. 14 seq, Rathenau Instituut, 'The Dutch Science System' (2013) <http://www.rathenau.nl/en/web-specials/the-dutch-science-system/home.html> accessed 10 April 2013 section 'Innovation policy'.

⁴⁶³ van der Meulen (n 453) p. 524 seq, Euraxess (n 454) section 'Dutch research policy', Mostert (n 454) p. 9.

⁴⁶⁴ van der Meulen (n 453) p. 516 seq, 523 seq, Euraxess (n 454) sections 'Dutch research policy' and 'Dutch research funding', Mostert (n 454) p. 2 seq, 8 seq, 11, Jongbloed (n 453) p. 287 seq, Braun (n 453) p. 1, 5 seq, Leisyte (n 453) p. 439, Rathenau Instituut (n 462) section 'politicians and government'.

(*Adviesraad voor het Wetenschaps- en Technologiebeleid*) and the Royal Netherlands Academy of Arts and Sciences (*Koninklijke Nederlandse Akademie van Wetenschappen*, KNAW).⁴⁶⁵

Several intermediate organisations, most significantly the Netherlands Research Council (*Nederlandse Organisatie voor Wetenschappelijk Onderzoek*, NWO), NL Agency (*Agentschap NL*) and the Technology Foundation (*Stichting voor de Technische Wetenschappen*, STW), are responsible for implementing government policy and for acting as research councils offering a variety of competitive funding opportunities sometimes leading to the creation of new co-operations or institutions.⁴⁶⁶ The NWO focuses on basic research in all fields of enquiry in universities, their own institutes and other organisations. It funds researchers, research infrastructure and whole research institutes and receives its budget mainly from the OCW.⁴⁶⁷ *Agentschap NL* is part of the EZ and is responsible for innovation and sustainability policy utilising synergies between public research organisations, the private sector and government. Its main awarding authorities are, next to the EZ, the Ministry for Infrastructure and Environment (*Ministerie van Infrastructuur en Milieu*) and the Foreign Ministry (*Ministerie van Buitenlandse Zaken*).⁴⁶⁸ The STW is mainly funding applied research and knowledge transfer in technical sciences. It receives its budget mainly from the NWO, EZ and OCW.⁴⁶⁹ Aside from these main intermediate

⁴⁶⁵ On the advisory bodies see Rathenau Instituut (n 462) section ‘Advisory bodies’, ‘Intermediary organisations’, Mostert (n 454) p. 3 seq, 9, Jongbloed (n 453) p. 290, Braun (n 453) p 2 seq, Rijksoverheid, ‘Financiering wetenschap’ (2012) <http://www.rijksoverheid.nl/onderwerpen/wetenschap/financiering-wetenschap> accessed 1 October 2012, van der Meulen (n 453) p. 516, Euraxess (n 454) section ‘Where does Dutch research take place – Research institutes’.

⁴⁶⁶ Rijksoverheid (n 465), van der Meulen (n 453) p. 524 seq, 527, Euraxess (n 454) section ‘Dutch research funding’, Mostert (n 454) p. 2 seq, 10, Jongbloed (n 453) p. 289.

⁴⁶⁷ Mostert (n 454) p. 3, 10, 18 seq, Jongbloed (n 453) p. 288, Rijksoverheid (n 465), Euraxess (n 454) section ‘Dutch research funding’, E De Weert and P Boezeroy, *Higher Education in the Netherlands* (International higher education monitor, CHEPS, Enschede 2007) p. 45, Braun (n 453) p. 3, Rathenau Instituut (n 462) section ‘Intermediary organisations’, E Arnold, J Deuten and P Zaman, *Four Case Studies in University Modernisation: KU Leuven, Twente, Manchester and Loughborough* (Technopolis, 2006) available on http://www.technopolis-group.com/resources/downloads/reports/595_Final_060315.pdf p. 30, Leisyte (n 453) p. 440.

⁴⁶⁸ Mostert (n 454) p. 3, 10, Rathenau Instituut (n 462) section ‘Intermediary organisations’, Rijksoverheid (n 465).

⁴⁶⁹ STW, ‘De Organisatie’ (2013) <http://www.stw.nl/nl/content/de-organisatie> accessed 8th April 2013, Euraxess (n 454) section ‘Dutch research funding’, Mostert (n 454) p. 4, 10, Braun (n 453) p 3.

organisations in the field of research, other organisations might act as intermediaries for research policy and funding for the ambit of their action, for example the Netherlands Organisation for Health Research and Development (*Zorgonderzoek Nederland en Medische Wetenschappen*, ZonMw).⁴⁷⁰ In addition to intermediate organisations, there are a few important research facilitating organisations providing access to scientific materials such as the Royal Library (*Koninklijke Bibliotheek*, KB).⁴⁷¹

4.3.1.1.2. Public research organisations

Most public research is conducted by the 14 research-intensive universities which cooperate in the VSNU. Three of these are technical universities additionally organised in the 3TU.Federation (*3TU.Federatie*). Wageningen University focuses on agricultural research and the Open University offers distance learning. The Netherlands maintain a binary system; next to the universities there are roughly 40 more vocational HEIs called *Hogescholen* (in English usually referred to as universities of applied sciences) which are organised in the *Hoger Beroepsonderwijs Raad*. Finally, there are other, more specific (e.g. belief focussed) public and private HEIs.⁴⁷²

In addition to their other tasks, the NWO and KNAW also maintain institutes in which research is being conducted.⁴⁷³ Furthermore, there are a (decreasing) number of research institutes affiliated with ministries. Whilst some of these are directly linked to ministries, others are more autonomous organisations.⁴⁷⁴ There are also research organisations which receive public funding and focus on more applied research such as the Netherlands Organisation for Applied Scientific Research (*Neder-*

⁴⁷⁰ See ZonMw, 'Over ZonMw' (2013) <http://www.zonmw.nl/nl/over-zonmw/over-zonmw/> accessed 21 April 2013.

⁴⁷¹ Rathenau Instituut (n 462) section 'Auxiliary organisations', Directie Kennis, 'Trends in Beeld' (OCW, Kelpen 2012) p. 114.

⁴⁷² See on HEI research, van der Meulen (n 453) p. 515 seq, Jongbloed (n 453) p. 287, 290, 293, Chiong Meza (n 480) p. 2 seq, Mostert (n 454) p. 7, 15, de Weert and Boezeroy (n 467) p. 37, Rijksoverheid (n 465), Euraxess (n 454) section 'Where does Dutch research take place – Universities', Arnold, Deuten and Zaman (n 467) p. 30, Braun (n 453) p 3, Leisyte (n 453) p. 440.

⁴⁷³ Rijksoverheid (n 465), van der Meulen (n 453) p. 516, Euraxess (n 454) section 'Where does Dutch research take place – Research institutes', 'Dutch research funding', Mostert (n 454) p. 16, Jongbloed (n 453) p. 288, 290, Arnold, Deuten and Zaman (n 467) p. 30, 42, Braun (n 453) p 3, Rathenau Instituut (n 462) section 'NWO and NWO Institutes'.

⁴⁷⁴ Rathenau Instituut (n 462) section 'Ministerial Research Institutes', Mostert (n 454) p. 17, Jongbloed (n 453) p. 282 seq, Euraxess (n 454) section 'Where does Dutch research take place – Research institutes'.

landse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek), agricultural research institutes and large technology institutes.⁴⁷⁵ In addition to these physical institutions, the Dutch government has, since the 1990s, begun initiatives for collaborative research organisations. These include the ‘Top Technological Institutes’ (TTIs) focusing on industrially relevant research,⁴⁷⁶ the ‘Top Societal Institutes’ (*Maatschappelijk Top Instituten*, MTIs) focussing on societal research⁴⁷⁷ and, most recently, the Top Consortia for Knowledge and Innovation (*Topconsortia voor Kennis an Innovatie*, TKI) focussing on research in nine sectors (horticulture and propagating stock, agriculture and food, water, life sciences and health, chemistry, high tech, energy, logistics and creative industries) which have been identified as the particular strengths of the Netherlands (*topsectoren*).⁴⁷⁸ Research organisations are regularly evaluated on the basis of the Standard Evaluation Protocol (SEP)⁴⁷⁹ which has been established by VSNU, NWO and KNAW.⁴⁸⁰

4.3.1.2. Non-public research

Most research in the Netherlands is conducted by the private sector, mainly in large enterprises which focus on product development. Private sector entities are organised in a variety of industry organisations which partly have separate research

⁴⁷⁵ Mostert (n 454) p. 12, 16, Jongbloed (n 453) p. 290, Rijksoverheid (n 465), Euraxess (n 454) section ‘Where does Dutch research take place – Research institutes’.

⁴⁷⁶ van der Meulen (n 453) p. 520 seq, Rathenau Instituut (n 462) section ‘TTIs and MTIs’, Euraxess (n 454) section ‘Where does Dutch research take place – Research institutes’, Mostert (n 454) p. 16, Jongbloed (n 453) p. 292 seq, 307 seq, Arnold, Deuten and Zaman (n 467) p. 30, Braun (n 453) p. 4, 8.

⁴⁷⁷ van der Meulen (n 453) p. 521, Mostert (n 454) p. 16, Jongbloed (n 453) p. 308, Rathenau Instituut (n 462) section ‘TTIs and MTIs’.

⁴⁷⁸ Rijksoverheid, ‘Topconsortia voor Kennis en Innovatie (TKI)’ (2012) <http://www.rijksoverheid.nl/onderwerpen/ondernemersklimaat-en-innovatie/investeren-in-topsectoren/topconsortia-voor-kennis-en-innovatie-tki-s> accessed 11 April 2013, Mostert (n 454) p. 5 seq, 20, Rathenau Instituut (n 462) section ‘Innovation policy’.

⁴⁷⁹ KNAW, VSNU and NWO, *Standard Evaluation Protocol 2009-2015* (KNAW, 2009 (updated 2010)) available on http://www.knaw.nl/Content/Internet_KNAW/publicaties/pdf/20091052.pdf.

⁴⁸⁰ RFJ Becker, ‘States, Markets and Higher Education Reform: The Netherlands and England’ in JI Zajda and VD Rust (eds), *Globalisation, policy and comparative research* (Springer, Dordrecht 2009) p. 162, van der Meulen (n 453) p. 518, Mostert (n 454) p. 7, 9, 19, Jongbloed (n 453) p. 301 seq, C Chiong Meza, ‘*De Nederlandse universiteiten*’ (Science System Assessment - Feiten en Cijfers, Rathenau Instituut, The Hague 2012) p. 21 seq.

and technology commissions.⁴⁸¹ Research conducted by the private sector is financed, for the vast majority, by the private sector itself, but the sector also receives overseas and governmental contributions. Aside from funding its own research, the private sector invests in research abroad and, to a lesser extent, in research in HEIs and other institutions.⁴⁸² The government, in order to encourage private sector investment into R&D, initiated a number of general (tax incentives) and specific funding programmes. The latter includes the Regional Attention and Action for Knowledge Circulation programme (*Regionale actie en aandacht voor kennisinnovatie*) focussing on cooperation between regional SMEs and *hogescholen*.⁴⁸³

At less than 15%, funding from abroad and from the third sector plays a smaller role in the Netherlands than in England. Foreign funding, however, has constantly increased. It is mainly received by the private sector and to a much lesser extent by HEIs and other organisations.⁴⁸⁴ The main sources of foreign funding are foreign companies and the EU. The latter was originally somewhat disregarded, but has increasingly gained in importance. Today the Dutch research sector receives significantly more than the Netherlands contribute. The government currently tries to further encourage international cooperation, particularly to attract more foreign firms to invest into research in the Netherlands.⁴⁸⁵ Whilst the third sector plays a small role as a funder, it is hardly distinguishable as a research provider.⁴⁸⁶ The funding provided by the third sector mainly comes from charities engaged in the medical field⁴⁸⁷ and is, for the vast majority, received by HEIs.⁴⁸⁸

⁴⁸¹ Mostert (n 454) p. 13 seq, 17 seq, Braun (n 453) p. 4, 7, Euraxess (n 454) section ‘Where does Dutch research take place – Commercial enterprise’, Leislyte (n 453) p. 440.

⁴⁸² Centraal Bureau voor de Statistiek (n 457).

⁴⁸³ Mostert (n 454) p. 3, 6 seq, 13.

⁴⁸⁴ Centraal Bureau voor de Statistiek (n 457). Centraal Bureau voor de Statistiek, (n 459).

⁴⁸⁵ van der Meulen (n 453) p. 522 seq, Mostert (n 454) p. 6, 14, 21 seq, Rathenau Instituut (n 462) section ‘Foreign funding sources’, Directie Kennis (n 471) p. 122.

⁴⁸⁶ Centraal Bureau voor de Statistiek (n 457). Centraal Bureau voor de Statistiek, (n 459) explanatory note section ‘Door instellingen’, Rathenau Instituut (n 462) section ‘Organisations’.

⁴⁸⁷ Euraxess (n 454) section ‘Dutch research funding’, Mostert (n 454) p. 15. Further on the health funds see also Rathenau Instituut (n 462) section ‘health funds’.

⁴⁸⁸ Centraal Bureau voor de Statistiek (n 457).

4.3.2. Research in public HEIs

Most of the 14 research-intensive universities are public organisations. Only the Vrije Universiteit Amsterdam, Radboud Universiteit Nijmegen and Tilburg University were, despite now being publicly funded, originally not set up by the government and thus have a different legal form (association or foundation). Universities in the Netherlands focus especially on research in health, natural sciences and engineering. These subject areas together amount to almost 70% of all university research in the Netherlands measured in personnel. Legal research, on the other hand, features at the bottom end of the scale with only 3.1%.⁴⁸⁹

4.3.2.1. Research as a statutory task of HEIs

In the Netherlands, HEIs are regulated in the Higher Education and Research Act (*Wet op het hoger onderwijs en wetenschappelijk onderzoek, WHW*). The WHW provides a task description for four different kinds of HEIs in Article 1.3; the 13 universities, the Open University, additional universities dedicated to certain religions or beliefs (*levensbeschouwelijke universiteiten*) and *hogescholen*. Accordingly, the universities have as their task the provision of higher education, the execution of scientific research, the education of researchers and innovators and the transfer of knowledge for the benefit of society.⁴⁹⁰ The Open University's task is to provide higher education and higher vocational education via distance learning methods, to conduct scientific and practical research in accordance with its profile and to contribute to the renewal of higher education.⁴⁹¹ The *levensbeschouwelijke universiteiten* aim to provide higher education for an office or profession within a certain belief system, conduct research in the area of a belief system, educate researchers and

⁴⁸⁹ Chiong Meza (n 480) p. 2 seq, 15.

⁴⁹⁰ Article 1.3 (1) WHW: 'Universiteiten zijn gericht op het verzorgen van wetenschappelijk onderwijs en het verrichten van wetenschappelijk onderzoek. In elk geval verzorgen zij initiële opleidingen in het wetenschappelijk onderwijs, verrichten zij wetenschappelijk onderzoek, voorzien zij in de opleiding tot wetenschappelijk onderzoeker of technologisch ontwerper en dragen zij kennis over ten behoeve van de maatschappij.'

⁴⁹¹ Article 1.3 (4) WHW: 'De Open Universiteit is gericht op het verzorgen van wetenschappelijk onderwijs en hoger beroepsonderwijs, het, in overeenstemming met het profiel van de Open Universiteit, verrichten van wetenschappelijk onderzoek en onderzoek gericht op de beroepspraktijk, alsmede het leveren van een bijdrage aan de vernieuwing van het hoger onderwijs.'

transfer knowledge for the benefit of society.⁴⁹² Finally, *Hogescholen* are focussed on providing higher professional education, conducting professionally oriented design, development and research activities, transferring knowledge for the benefit of society and contributing to the development of the occupations in which they provide education.⁴⁹³ Research is thus a statutory task of all four kinds of HEIs.

Article 1.9 (1) WHW prescribes that universities receive public funding for research. With regards to *Hogescholen*, research is considered as part of education provision and is funded as such.⁴⁹⁴ According to paragraph (3) the condition for HEIs to receive funding is that they take into account the provisions in the WHW.⁴⁹⁵ Article 2.5 (2) and 2.6 (4) WHW specify this by allowing the relevant minister to attach conditions to research funding relating to quality assurance and making the criteria for determining research funding at universities conditional upon the social and scientific need for the research taking into account the profile of the institutions and the research quality.⁴⁹⁶ However, Article 1.6 WHW declares that the academic freedom shall be observed in HEIs.⁴⁹⁷ These provisions thus seem to constitute some weighing of external factors in determining the lump sums for research funding

⁴⁹² Article 1.3 (2) WHW: ‘Levensbeschouwelijke universiteiten zijn gericht op het verzorgen van wetenschappelijk onderwijs voor een levensbeschouwelijk ambt of beroep. Zij verrichten wetenschappelijk onderzoek op levensbeschouwelijk terrein, voorzien in de opleiding tot wetenschappelijk onderzoeker en dragen kennis over ten behoeve van de maatschappij.’

⁴⁹³ Article 1.3 (3) WHW: ‘Hogescholen zijn gericht op het verzorgen van hoger beroepsonderwijs. Zij verrichten ontwerp- en ontwikkelactiviteiten of onderzoek gericht op de beroepspraktijk [...] en zij dragen in elk geval kennis over ten behoeve van de maatschappij. Zij dragen bij aan de ontwikkeling van beroepen waarop het onderwijs is gericht.’

⁴⁹⁴ Article 1.9 (1) WHW: ‘Ten behoeve van het verzorgen van initieel onderwijs en, voorzover het universiteiten betreft, mede ten behoeve van het verrichten van wetenschappelijk onderzoek hebben de [...] instellingen [voor hoger onderwijs] [...] aanspraak op bekostiging uit ’s Rijks kas [...]. Voor de toepassing van dit lid worden de ontwerp- en ontwikkelactiviteiten en onderzoek gericht op de beroepspraktijk, aan hogescholen gerekend tot het daarop betrekking hebbende onderwijs.’

⁴⁹⁵ Article 1.9 (3) WHW: ‘Voorwaarde [...] is dat de desbetreffende instelling in acht neemt hetgeen bij of krachtens deze wet is bepaald [...].’

⁴⁹⁶ Article 2.5 (2) WHW: ‘Onze minister kan aan de bekostiging van onderzoek aan universiteiten voorwaarden verbinden, verband houdend met de kwaliteitszorg.’ Article 2.6 (4) WHW: ‘De maatstaven voor bekostiging van het wetenschappelijk onderzoek aan de universiteiten hebben in ieder geval betrekking op de maatschappelijke en wetenschappelijke behoefte aan het onderzoek, waarbij rekening wordt gehouden met het profiel van de instellingen alsmede op de kwaliteit van het onderzoek.’ Further on the funding of universities (including teaching) according to Article 1.9, 2.5 and 2.6 WHW see H Schneider et al, *Crossing Borders - Frontier Knowledge* (Maastricht University, Maastricht 2009) part IV p. 1 seq.

⁴⁹⁷ Article 1.6 WHW: ‘Aan de instellingen wordt de academische vrijheid in acht genomen.’

awarded to HEIs and academic freedom. Quantitative restrictions of research do not seem to exist by statute.

4.3.2.2. Public research funding

In the following the focus will be on universities as the most research intensive HEIs. Government provides most funding generically to universities which is referred to as the first funding stream (*eerste geldstroom*). Other public funding is provided through intermediate organisations, in particular the NWO, known as the second funding stream (*tweede geldstroom*). The third stream (*derde geldstroom*) contains research income from industry, contract research for the government, third sector and foreign contributions (in particular from European funds). The fourth stream (*vierde geldstroom*) comes from philanthropic donations.⁴⁹⁸ Despite generic governmental funding still being the most important funding stream, a shift towards a more competitive, impact and priority oriented research system can be observed. This includes the (admittedly currently still limited) involvement of competitive factors⁴⁹⁹ in the determination of generic funding and the growing importance of competitive public funding as well as of commercialisation and industry cooperation.⁵⁰⁰

4.3.2.2.1. Public generic funding

Universities still receive the largest part of their funding as generic funding (on average almost 50%, even though there are vast differences between universities).⁵⁰¹ The Netherlands have moved towards a more indirect concept of research financing in this respect, with more institutional autonomy and (some) external steering policies. HEIs receive a lump sum for research which is calculated on the basis of a for-

⁴⁹⁸ Rijksoverheid (n 465), Mostert (n 454) p. 11 seq, 16, Jongbloed (n 453) p. 294 seq, Schneider et al (n 496) part IV p. 12, Chiong Meza (n 480) p. 8, de Weert and P Boezeroy (n 467) p. 37 seq.

⁴⁹⁹ The definition of ‘competitive factors’ varies. Jongbloed, for example, considers the allocation of generic funding on the basis of degree numbers as competitive and thus arrives at two thirds of university research funding (competitive elements of generic funding in the wider sense, competitive public funding and external funding) being distributed in a competitive way (see Jongbloed (n 453) p. 299). Here, however, ‘competitive factors’ should be understood in a narrower sense relating only to aspects such as quality/performance, impact and following of externally set priorities.

⁵⁰⁰ Leisyte, Enders and De Boer (n 456) p. 378 seq, van der Meulen (n 453) p. 516, Mostert (n 454) p. 19.

⁵⁰¹ See Chiong Meza (n 480) p. 14 seq.

mula set out in a governmental decree.⁵⁰² The formula is mainly based on the number of degrees conferred and so-called strategic considerations which are mainly based on historical allocation.⁵⁰³ Only a small part within the allocation of the lump sum is based on competitive steering factors including aspects such as performance/quality and focus on priorities.⁵⁰⁴ Resistance from the universities prevented attempts by consecutive governments since the early 1980s to give such competitive factors more weight. Within HEIs a more managerial style of university governance is envisaged giving HEIs the freedom to administer the lump sum as they see fit including the possibility of cross-subsidisation between teaching and research. In funding allocation, quality (for example, the quality ratings of the SEP) and impact might play a role.⁵⁰⁵

4.3.2.2.2. *Public competitive funding*

Competitive public funding from intermediary organisations (*tweede gelstroom*) has gained in importance over recent years.⁵⁰⁶ How much of its research funding a university receives this way varies significantly.⁵⁰⁷ The NWO is the most important funder in this respect and covers all academic subjects. One of the most prestigious project funding programmes is the talent funding scheme *Vernieuwingsimpuls* (official English title: Innovational Research Incentive Scheme). This scheme contains special grants for early career (VENI), mid career (VIDI) and senior (VICI) researchers. The NWO also offers open competitions where researchers can apply

⁵⁰² Article 2.6 (1) WHW: ‘De [...] algemene berekeningswijze wordt bij of krachtens algemene maatregel van bestuur vastgesteld.’ This has been specified in the WHW Executing Act 2008 (*Uitvoeringsbesluit WHW 2008*) chapter 4. See also Schneider et al (n 496) part IV p. 2 seq.

⁵⁰³ For the research formula see *Uitvoeringsbesluit WHW 2008* Articles 4.20 - 4.23. For more details see Schneider et al (n 496) part IV p. 5 seq, Jongbloed (n 453) p. 294 seq, Chiong Meza (n 480) p. 8.

⁵⁰⁴ *Uitvoeringsbesluit WHW 2008* Article 4.23. See also Schneider et al (n 496) part IV p. 7, Mostert (n 454) p. 19, Chiong Meza (n 480) p. 8.

⁵⁰⁵ On public generic funding see van der Meulen (n 453) p. 516, Mostert (n 454) p. 19 seq, Jongbloed (n 453) p. 287, 294 seq, 300 seq, 323, 326 seq, de Weert and P Boezeroy (n 467) p. 46 seq, Becker (n 480) p. 160, Leisyte, Enders and De Boer (n 456) p. 378 seq. For an example of internal steering policies based on excellence and impact see the case study on the University of Twente in Arnold, Deuten and Zaman (n 467) p. 42.

⁵⁰⁶ Mostert (n 454) p. 16, Chiong Meza (n 480) p. 8.

⁵⁰⁷ The University of Leiden, for example, secures about 40% of its funding from public competitive funding sources. See Chiong Meza (n 480) p. 14 seq.

freely with their proposals. Aside from open calls, the NWO runs thematic calls targeted to achieve certain government policy aims⁵⁰⁸ and programmes with a focus on female researchers. Finally, it provides support for the publication of research results with a recent focus on open access publication.⁵⁰⁹

In recent years, there have also been attempts at targeted institutional funding. In 1998, the Dutch government had already introduced a programme for funding excellent research schools (*Dieptestrategie*, Depth Strategy). Six top research schools have since been supported with additional institutional funding under this programme.⁵¹⁰ Since 2010, however, only the two best⁵¹¹ of these research schools continued to receive funding and the *Dieptestrategie* was replaced by a new institutional funding programme for excellent research schools, entitled 'Gravitation'.⁵¹² Furthermore, many of the (semi-)public research organisations described above, in which HEIs are often involved, have been set up as a result of specific institutional research funding schemes.⁵¹³ Finally, public institutions might also commission research from HEIs (*derde geldstroom*).⁵¹⁴

4.3.2.3. Non-state funding

The importance of non-state funding (*derde* or, if purely charitable, *vierde geldstroom*) has grown over the last decades and amounts to a little less than a quarter of all research funding for HEIs provided almost equally by the third sector, the private sector and international sources.⁵¹⁵ Government policy encourages the utilisation

⁵⁰⁸ Rathenau Instituut (n 462) section 'NWO and NWO Institutes'.

⁵⁰⁹ On public competitive funding see van der Meulen (n 453) p. 520, Mostert (n 454) p. 10 seq, 20 seq, Jongbloed (n 453) p. 294 seq, Chiong Meza (n 480) p. 23 seq, de Weert and P Boezeroy (n 467) p. 47, Directie Kennis (n 471) p. 124.

⁵¹⁰ For more information see Umbrella Committee for the Evaluation of the Bonus Incentive Scheme 2009-2010, *Evaluation of Leading Research Schools 2009-2010* (NWO, The Hague 2010).

⁵¹¹ Rijksuniversiteit Groningen, 'Top research schools' (2012) <http://www.rug.nl/research/our-top-research/top-research-schools/> accessed 13 July 2013.

⁵¹² Rijksuniversiteit Groningen (n 512), NWO, 'Gravitation - Background' (2013) <http://www.nwo.nl/en/research-and-results/programmes/gravitation/background> accessed 13 July 2013

⁵¹³ On competitive institutional funding see van der Meulen (n 453) p. 519 seq, Jongbloed (n 453) p. 297 seq, 305, de Weert and P Boezeroy (n 467) p. 47.

⁵¹⁴ Jongbloed (n 453) p. 294 seq.

⁵¹⁵ Centraal Bureau voor de Statistiek (n 457). For an overview of the significance of this funding source in the different universities see Chiong Meza (n 480) p. 14 seq.

tion of these funding sources and steers collaborations towards government priorities.⁵¹⁶

With regards to the third sector, it is mainly medical charities that cooperate with HEIs. Many third sector organisations follow a ‘protocol for “good research funding practices” that the charities have agreed upon. It includes the possibility for programmatic priorities, bottom-up project formulation, and selection of proposals by peer review and panels.’⁵¹⁷ In international funding the EU plays an especially important role, but Dutch researchers are also active in a variety of bilateral collaborations within and beyond the EU. To encourage cross-border collaboration, the NWO has opened up an increasing number of competitive funding schemes for foreign researchers and provides additional funding for incoming and outgoing academics.⁵¹⁸

As in England, collaboration with the private sector can take a variety of forms such as research co-operations between HEIs and the private sector, often taking the institutionalised public-private partnership (PPP) form of one of the collaborative research organisations mentioned above.⁵¹⁹ HEIs also undertake contract research and consultancy work which is sometimes internally rewarded.⁵²⁰ Exploitation of IPRs has increased in recent years. Whilst HEIs usually own IPRs developed by their employees, in co-operations, it is often the private sector partner who receives IPRs, or they are jointly owned. However, there is no general policy on this and HEIs sometimes let the researcher receive some of the income generated. Some HEIs have recently introduced special ‘valorisation centres’ or technology transfer offices for the exploitation of IPRs and exchange of best practices. Occasionally, IPR valorisa-

⁵¹⁶ VSNU, *Prestaties in perspectief - Trendrapportage universiteiten 2000-2020* (VSNU, The Hague 2012) p. 24 seq, 89 seq, Mostert (n 454) p. 12, 19 seq, Jongbloed (n 453) p. 294, 306, Chiong Meza (n 480) p. 8, 27, Braun (n 453) p. 6 seq, Leisyte (n 453) p. 439, 441, den Hertog et al (n 462) p. 16, Becker (n 480) p. 159.

⁵¹⁷ Jongbloed (n 453) p. 294 seq, quote p. 295.

⁵¹⁸ Mostert (n 454) p. 21 seq, den Hertog et al (n 462) p. 30 seq, 99 seq, Chiong Meza (n 480) p. 19, 23, 26 seq.

⁵¹⁹ Mostert (n 454) p. 19 seq, Jongbloed (n 453) p. 307 seq, 323, 327 seq, VSNU (n 516) p. 25, 91, Braun (n 453) p. 6, 10, Leisyte (n 453) p. 445, Directie Kennis (n 471) p. 106.

⁵²⁰ Jongbloed (n 453) p. 294, 309, 323 seq, Leisyte (n 453) p. 446, Rathenau Instituut (n 462) section ‘Innovation policy’.

tion is conducted by private holding companies established by the HEI or an HEI might create spin-offs for the purpose of exploiting IPRs.⁵²¹

Start-ups, whether as IPR related spin-offs or beyond, are usually partly owned by the HEI and often managed through the mentioned technology-transfer units or through holding companies which themselves might also collaborate further with the private sector. To encourage entrepreneurship HEIs increasingly offer courses for staff and students in this respect. HEIs might also collaborate with the private sector in science parks (also referred to as innovation campuses (*innovatiecampussen*)). Here, as in England, HEIs, private sector partners and, potentially, other research institutions all work in one geographical location, which is often at least partly owned by the HEI, in order to create synergies and encourage collaboration and entrepreneurship.⁵²² Finally, there are staff exchanges⁵²³ and more informal ways to collaborate, such as research networks or private sector representatives sitting on supervisory or executive boards of HEIs.⁵²⁴

4.3.2.4. Full costing

Since 2006, universities in the Netherlands have implemented full costing methodologies on their own initiative⁵²⁵ but following common standards agreed by the VSNU and in continuous exchange. The reasons were FP7 requirements as well as the desire to attain a financial sustainability unthreatened by matching require-

⁵²¹ Mostert (n 454) p. 1, 15 seq, 20, Jongbloed (n 453) p. 294, 307, 318, VSNU (n 516) p. 89, Leisyte (n 453) p. 442 seq. For an example of a university policy on IPR exploitation and spin-offs see the case study of the University of Twente in Arnold, Deuten and Zaman (n 467) p. 44 seq.

⁵²² Jongbloed (n 453) p. 323, VSNU (n 516) p. 24 seq, 90. See for an example of a university policy on science parks and entrepreneurship the case study of the University of Twente in Arnold, Deuten and Zaman (n 467) p. 44 seq, Leisyte (n 453) p. 443.

⁵²³ Mostert (n 454) p. 20, Jongbloed (n 453) p. 323 seq, Braun (n 453) p. 5, Directie Kennis (n 471) p. 111.

⁵²⁴ Mostert (n 454) p. 20, den Hertog et al (n 462) p. 30 seq, 53, Braun (n 453) p. 4, 7, 10, Leisyte (n 453) p. 444, 447.

⁵²⁵ In the University of Amsterdam, for example, cost allocation sheets have been created to show how costs relate to a certain activity. The individual schools are the profit centres. Full cost rates 'consist of personnel costs and an indirect cost component' which both vary depending on actual costs incurred by the schools. Schools have to use their funds to pay centrally organised support staff units. See Estermann and Claeys-Kulik (n 442) p. 23 seq, 29 seq (quote on p. 23), EUA, *Financially Sustainable Universities - Towards Full Costing in European Universities* (EUA, Brussels 2008) p. 61. The University of Twente separates the more expensive technical from the non-technical subjects applying a higher indirect cost rates for the former. This is then added to the direct costs. EUA *ibid* p. 27, 31, 65.

ments for non-generic funding (which was often not provided at full cost basis).⁵²⁶ The latter is also problematic since matching limits the funds available for direction-free research. Being able to analyse the full costs, universities still negotiate the prices individually with funders to determine which costs they cover.⁵²⁷ In order to avoid underfunding as well as problems with state aid law, the government passed a number of rules and guidelines in this respect essentially requiring universities to at least charge full costs when cooperating with the private sector.⁵²⁸ These rules do not, however, generally seem to apply to public or third sector partners, even though the recent demand is that the NWO should fund at full cost levels.⁵²⁹ To simplify the various funding schemes the NWO, VSNU, KNAW and others have passed an agreement on common guidelines for funding provision (*Akkord bekostiging wetenschappelijk onderzoek 2008*).

4.3.3. Interim conclusion on the Netherlands

While R&D spending has fluctuated in the Netherlands, 2011 has been the highest level of the last ten years. Public sector spending has constantly increased. Private sector spending suffered a dip in 2009, but had recovered in 2011. The private sector provides most research funding and conducts most of the research. HEIs are the most important public research organisations. As well as research in the

⁵²⁶ On the introduction of full costing methods see Estermann and Claeys-Kulik (n 442) p. 19, 23, 30, 47 seq, EUA (n 525) p. 7, 28, 40, 65, Neth-ER, 'EUA toont Europese voortgang full cost' (2013) <http://www.neth-er.eu/nl/nieuws/eua-toont-europese-voortgang-full-cost> accessed 1 May 2013, S Herlitschka, *Diversified Funding Streams for University-based Research: Impact of external project-based research funding on financial management in Universities* (Office for Official Publications of the European Communities, Luxembourg 2009) p. 41, 49.

⁵²⁷ Jongbloed (n 453) p. 309, Tweede Kamer der Staten-Generaal, *Verantwoording en toezicht bij rechtspersonen met een wettelijke taak, deel 2* (Sdu Uitgevers, The Hague 2000) p. 97, 108, de Weert and P Boezeroy (n 467) p. 37.

⁵²⁸ Article 41 (2) *Kaderbesluit EZ-subsidies* (Framework decision EZ subsidies) essentially reinforces the rules of the Research Framework (n 8) for collaborative research subsidised by EZ and requires for collaborations not fulfilling these rules to be approved by EZ. Section 4.5 *Kader Financieel Beheer rijks-subsidies* (Uniform Suidy Framework) explicitly relates to the state aid rules and requires institutions not to breach these. In OCW *Richtlijn Jaarverslag Onderwijs - Toelichtende brochure bij de Regeling jaarverslaggeving onderwijs* (Rijksoverheid, 2011) OCW requires and provides guidance for separation of public and private reserves and determines that private partners may not be subsidised (p. 11 seq, 107 seq). Section 2.3.8. *Regeling onderwijscontroleprotocol OCW/EZ 2012* (Regulation Education Control Protocol) provides that, when it comes to contract research, public funds may not be used in a way which leads to unfair competition and thus HEI accountants need to assure that at least full costs are recovered.

⁵²⁹ Estermann and Claeys-Kulik (n 442) p. 48.

NWO, KNAW, institutes affiliated with ministries and more applied research organisations, there are a variety of collaborative research organisations which are publicly funded.

As a consociational system there are many actors involved in policy setting and implementation. Recent policy aims included mobilisation of the private sector, creating excellence, setting priorities and coordinating policies. This has led to a variety of policy programmes aimed at establishing elite intuitions, priority areas and competition. The programmes have, due to the consociational character of the system, however, rather increased cooperation (e.g. in consortia) than competition and to some extent have led to a very confusing system with a large variety of actors and collaborations.⁵³⁰

HEIs still receive most of their research funding from public sources. On average half of their funding is provided generically in the *eerste geldstroom* which only involves a very limited recourse to competitive factors. However, the importance of *tweede* and *derde geldstroom* (respectively *vierde geldstroom* if purely charitable) is growing. This has been regarded as problematic inasmuch as it might cause constraints for the academic freedom.⁵³¹ Additionally, with the increase in the *tweede* and *derde geldstroom* ‘matching’ became a problem which, combined with the requirements of FP7, led to the introduction of full costing systems and legislation requiring that full costs are met, at least for collaboration with the private sector.

4.4. Germany

Germany is the EU Member State with the fourth highest spending on R&D. In 2012 Germany spent 2.92% of its GDP on R&D having increased spending constantly over the previous ten years. Germany thus nearly met the 3% goal of the Europe2020 Strategy, as currently only Finland and Sweden do.⁵³² Whilst the high

⁵³⁰ van der Meulen (n 453) p. 522, 526, Jongbloed (n 453) p. 308, 329 seq.

⁵³¹ Leisyte, Enders and De Boer (n 456), Jongbloed (n 453) p. 308 seq, 327, 330. The former also describe how researchers find ways around this through intelligent proposal writing. If this strategy is widely used, it would raise the question of why one should impose research agendas in the first place, if it only causes additional administrative work for research that would have been undertaken anyway. See *ibid* case studies on pp. 382 seq.

⁵³² EUROSTAT (n 376). Denmark is, with 2.99% in 2012, still slightly below the target.

spending is a strength of the German research system, weaknesses have been identified in regard to the lack of utilisation of synergies between actors, transparency, coordination and efficiency of funding utilisation. Additionally, Germany decided to increase research funding in response to the economic crisis. Measures to overhaul the system in order to address its weaknesses and to distribute additional funding efficiently have thus been initiated in recent years and the system is, accordingly, in a stage of reformation which also includes steps towards competition and commodification.⁵³³

4.4.1. General overview

About two thirds of Germany's R&D spending comes from the private sector, the importance of which has increased since the early 1990s. This is followed by 30% from the public sector and 4% from foreign sources. Third sector spending plays an insignificant role in overall research spending in Germany amounting to less than 1%.⁵³⁴ The private sector mainly conducts its own research, but increasingly is also funding research in HEIs as well as in other public and third sector organisations. Public funding is provided at the federal as well as state levels mainly for research in HEIs and other public research organisations, but also for research in non-public institutions, particularly for research in the private sector. The majority of international funding goes to the private sector.⁵³⁵

4.4.1.1. Public research

Germany has in recent years begun to introduce measures towards commodification; non-generic public as well as non-public funding (*Drittmittel*) for research in public institutions have gained in importance and are increasingly provided competitively. Generic funding has begun to be allocated partly on the on the basis of com-

⁵³³ S Hinze, 'Forschungsförderung in Deutschland' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010) p. 171 seq, T Schubert and U Schmoch, 'Finanzierung der Hochschulforschung' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010) p. 244, J Edler and S Kuhlmann, 'Coordination within fragmentation: governance in knowledge policy in the German federal system' (2008) 35 *Science and Public Policy* 265, p. 265 seq, 268 seq, Enders (n 365) p. 19 seq, 23 seq, 26 seq, Wissenschaftsrat, *Empfehlungen zur Interaktion von Wissenschaft und Wirtschaft* (Wissenschaftsrat, Oldenburg 2007) p. 7 seq.

⁵³⁴ BMBF - Referat Innovationspolitische Grundsatzfragen, *Bundesbericht Forschung und Innovation 2012* (BMBF, Bonn, Berlin 2012) table 1 (p. 412 seq).

⁵³⁵ See BMBF (n 534) table 1.

petitive, performance based elements (*leistungsorientierte Mittelverteilung*). *Drittmittel* accumulation also became an important indicator of the accomplishments and quality of research organisations, especially HEIs, and thus started to play a role in the performance based elements of generic funding allocation.⁵³⁶

4.4.1.1.1. *The governmental structure*

As, according to Article 20 (1) of the German constitution (*Grundgesetz*, GG), Germany is a federal republic with 16 federal states (*Länder*), competences are divided between the different levels of government. As regards research, a concurrent legislative competence⁵³⁷ exists regarding ‘the regulation of educational and training grants and the promotion of research’ (Article 74 (1) no. 13 GG) ‘if and to the extent that the establishment of equivalent living conditions throughout the federal territory or the maintenance of legal or economic unity renders federal regulation necessary in the national interest’ (Article 72 (2) GG). All remaining competences, in particular competences for HEIs, lie with the *Länder*. According to Article 91b GG the federal level (*Bund*) and the *Länder* can, however, cooperate in cases of ‘supraregional importance’ in respect of non-HEI research, HEI research and the ‘construction of facilities at institutions of higher education, including large scientific installations’.

At the federal level, the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung*, BMBF) is mainly responsible for research, contributing the vast majority of the federal research budget. Aside from BMBF, the Federal Ministry of Economics and Technology (*Bundesministerium für Wirtschaft und Technology*, BMWi) and the Federal Ministry of Defence (*Bundesministerium für Verteidigung*) play a role in research policy coordination. Other ministries are less involved. The government needs to negotiate research related policies with the federal parliament (*Bundestag*) and the representatives of the *Länder* (*Bundesrat*).⁵³⁸ Overall the *Bund* contributes slightly more than half of all public funding with the

⁵³⁶ See Hinze (n 533) p. 162, 167, 171, Edler and Kuhlmann (n 533) p. 265 seq. See also C Albrecht, ‘Die Zukunft der deutschen Universität’ (2009) 2009 *Forschung & Lehre* 8 p. 9 seq who provides a critical perspective of the recent developments.

⁵³⁷ Article 74 GG enumerates areas of concurrent competence. In these areas the *Länder* have competence as long and far as the federal level has not enacted any legislation.

⁵³⁸ On the federal level see Hinze (n 533) p. 162 seq, 171, Edler and Kuhlmann (n 533) p. 265 seq, Wissenschaftsrat (n 533) p. 62 seq.

Länder contributing the remainder. *Bund* and *Länder* are coordinating their activities in the Joint Science Conference (Gemeinsame Wissenschaftskonferenz) and are advised by the Council of Science and Humanities (*Wissenschaftsrat*). Additionally, there have been a number of ad-hoc advisory bodies. Common endeavours of the *Bund* and the *Länder* include, in particular, the financing of the German research foundation (*Deutsche Forschungsgemeinschaft*, DFG) and of the four major non-HEI public research organisations; Helmholtz-Gemeinschaft, Leibniz-Gemeinschaft, Fraunhofer-Gesellschaft and Max-Planck-Gesellschaft. Except for the possibility of cooperation as provided for in Article 91 b GG, the *Länder* are responsible for HEI finances and governance. They voluntarily coordinate their activities in the education minister conference (*Kultusministerkonferenz*) which the federal government may attend as a guest. According to the HEI Pact (*Hochschulpakt*) the *Länder* are to receive federal contributions to their HEI expenditure and the federal government will increase its own competitive funding for HEIs.⁵³⁹

The DFG is an intermediary body whose main task is the promotion of research in HEIs and other public research organisations in all areas of research at a pre-competitive stage. It, however, also promotes the inter-play between research and industries and conducts related activities. The DFG provides project-related and institutional research funding in a competitive way. The latter has gained in importance over recent years. The DFG also advises parliaments, governments and public bodies on academic questions. It is financed by the BMBF (60%) and the *Länder* (40%).⁵⁴⁰

4.4.1.1.2. Public research organisations

There are 458 HEIs in Germany, 108 of which are universities. As with the Netherlands, Germany entertains a binary system with 205 vocational HEIs called *Fachhochschulen* (in English usually referred to as universities of applied sciences) existing alongside the universities. Additionally there are 51 art academies, 37 academies for administration, 36 teaching hospitals, 16 academies for theology and 6

⁵³⁹ On the interplay between *Bund* and the *Länder* see Hinze (n 533) p. 163 seq. Edler and Kuhlmann (n 533) p. 267, 269, 271 seq.

⁵⁴⁰ See DFG, 'DFG im Profil - Aufgaben' (2010) http://www.dfg.de/dfg_profil/aufgaben/index.html accessed 2 August 2012, Hinze (n 533) p. 168 seq, 172, Edler and Kuhlmann (n 533) p. 267, Wissenschaftsrat (n 533) p. 65 seq.

academies for educational science. 296 of all 458 HEIs are (mainly) financed by the *Länder*, 12 by the *Bund* and 150 by non-public sources including 37 HEIs which are financed by religious organisations.⁵⁴¹

Non-HEI public research also has an important role in Germany. The most important players are the Max-Planck-Gesellschaft focussing on basic research, the Fraunhofer-Gesellschaft focussing on applied R&D, the Helmholtz-Gemeinschaft focussing on long term studies which require large scientific installations and the Leibniz-Gemeinschaft focussing on strategic, theme-related research. All these organisations consist of a variety of institutes. Their funding streams are dependent on their tasks; while the Max-Planck-Gesellschaft, for example, is three quarters financed by generic public funding, the Fraunhofer-Gesellschaft only receives one third of its funding as public generic funding.⁵⁴² Generally, however, competitive funding has increasingly gained in importance and the non-HEI research organisations have been subject to reform. The Pact for Research and Innovation (*Pakt für Forschung und Innovation*) aims at a yearly funding increase of 5% for non-HEI research organisations as well as increasing synergies and international and private sector cooperation. The recently passed Freedom of Research Act (*Gesetz zur Flexibilisierung von haushaltsrechtlichen Rahmenbedingungen außeruniversitärer Wissenschaftseinrichtungen*)⁵⁴³ is creating more independence for the non-HEI research organisations. Finally, some ministries also have their own research institutes.⁵⁴⁴

4.4.1.2. Non-public research

Most of Germany's R&D is financed by the private sector which also conducts more than two thirds of the research. The latter is almost entirely funded by the private sector with only limited contributions (less than 8% together) from (in order of

⁵⁴¹ See Statistisches Bundesamt, *Bildung und Kultur - Finanzen der Hochschulen 2011* (Statistisches Bundesamt, Wiesbaden 2013) p. 159.

⁵⁴² For more details see Schubert and Schmoch (n 533) p. 256 seq.

⁵⁴³ On the Freedom of Research Act see BMBF, 'Wissenschaftsstandort Deutschland: Das Wissenschaftsfreiheitsgesetz ist ein Signal zum Aufbruch' (2013) <http://www.bmbf.de/de/12268.php> accessed 11 December 2013.

⁵⁴⁴ On public research outside HEIs see Hinze (n 533) p. 170 seq, Schubert and Schmoch (n 533) p. 255 seq, Edler and Kuhlmann (n 533) p. 267, 270, Enders (n 365) p. 23.

relevance) the state, overseas and the third sector.⁵⁴⁵ Only since the late 1990s/early 2000s has cooperation with external partners such as HEIs, public research organisations and other private sector organisations become a major factor in private sector company strategies inter alia due to the increasing complexity of research.⁵⁴⁶ The private sector has thus begun to invest into research in HEIs and public non-HEI research organisations.⁵⁴⁷ Additionally, there are institutionalised co-operations between private sector entities such as the consortium of industrial research associations (*Arbeitsgemeinschaft industrieller Forschungsgemeinschaften*) focussing on the interests of SME.⁵⁴⁸ Government policy supports private sector R&D⁵⁴⁹ in particular through the ‘High-Tech Strategy’⁵⁵⁰ by encouraging ‘innovation oriented procurement’, a review of the intellectual property regime, incentives for start-ups as well as incentives for collaboration between research organisations from all sectors.⁵⁵¹

We have seen that international funding plays only a minor role in the German research system, whilst third sector funding hardly has any part to play. 60% of the international funding goes to the private sector and the rest is equally divided between HEIs and non-HEI public research organisations. Third sector funding mainly goes to the latter.⁵⁵² However, the importance of, especially international funding, is increasing; in particular for HEIs. Government is encouraging this development and its policy is aiming at better coordination in this respect.⁵⁵³

⁵⁴⁵ BMBF (n 534) table 1.

⁵⁴⁶ R Rohrbeck, ‘F+E Politik von Unternehmen’ in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010). p. 427 seq, 431 seq

⁵⁴⁷ BMBF (n 534) table 1.

⁵⁴⁸ Hinze (n 533) p. 169, Wissenschaftsrat (n 533) p. 66 seq.

⁵⁴⁹ Rohrbeck (n 546) p. 429 seq.

⁵⁵⁰ For an English overview see BMBF, *Idea. Innovation. Prosperity. High-Tech Strategy 2010 for Germany* (BMBF, Bonn 2010).

⁵⁵¹ See BMBF (n 550) p. 9 seq, Edler and Kuhlmann (n 533) p. 271, Wissenschaftsrat (n 533) p. 63 seq, Rohrbeck (n 546) p. 429 seq.

⁵⁵² BMBF (n 534) table 1.

⁵⁵³ See Edler and Kuhlmann (n 533) p. 268, 270.

4.4.2. Research in public HEIs

As mentioned above there are a vast variety of HEIs in Germany. The following will focus on public universities as research intensive public HEIs.

4.4.2.1. Research as a statutory task of HEIs

The division of competences between *Bund* and *Länder* regarding HEIs has long been a controversial subject. Before the federalism reform (a general restructuring of competences in the federal system begun in 2006) the *Bund* had the competence to pass framework legislation (former Article 75 GG) and *Bund* and *Länder* had to cooperate regarding research funding. The removal of federal competences regarding HEIs during the federalism reform had been triggered by a decision of the German constitutional Court (*Bundesverfassungsgericht*) in which the court declared that the *Bund* had overstepped its competences.⁵⁵⁴ However, Article 125 GG ensures that framework legislation already enacted remains valid, unless the *Länder* deviate from it. In the field of HEIs, the relevant framework legislation is the Framework Act for Higher Education (*Hochschulrahmengesetz*, HRG). The annulment of this act has since been discussed but never realised.⁵⁵⁵

Public HEIs are, according to § 58 HRG, bodies governed by public law as well as institutions of the state. According to § 2 (1) HRG, HEIs ‘shall contribute to the fostering and development of the arts and sciences through research, teaching, studies and continuing education’. Regarding research in HEIs § 22 HRG provides that

‘the purpose of research at institutions of higher education shall be the acquisition of scientific knowledge and the scientific underpinning and development of teaching and study. Research at institutions of higher education may, subject to the specific role of the institution concerned, relate to any academic

⁵⁵⁴ BVerfGE 111, 226. Decision of 27 July 2004 (*Junior Professor*). Leaving the majority of the funding competences to the *Länder* has now, however, caused financial difficulties and discussions are underway to change Article 91 b GG again to allow for more cooperation between the *Bund* and the *Länder* as regards research funding in HEIs (Tagesschau.de, 'Hochschulfinanzierung soll reformiert werden' [tagesschau.de](http://www.tagesschau.de/inland/hochschulkooperation100.html) (30 May 2012) <http://www.tagesschau.de/inland/hochschulkooperation100.html> accessed 31 May 2012).

⁵⁵⁵ M Seckelmann, 'Rechtliche Grundlagen und Rahmensetzungen' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2012) p. 227, 229 seq, 232 seq.

discipline and to the practical application of scientific findings, including the potential impact of such application.'

There are no quantitative restrictions in the HRG as to the amount of externally funded research that can be carried out by an HEI as long as 'the fulfilment of the institution's other functions and the rights and obligations of other persons are not impaired and [...] adequate consideration is given to commitments that might result from the project' (§ 25 (2) HRG). The results of such research should generally be made publicly available 'within a reasonable period of time'.

At state level the provisions are similar.⁵⁵⁶ The Bremen HEI Act (*Bremisches Hochschulgesetz*), for example, contains almost identical provisions to § 2 (1), § 22 and § 25 (2) HRG in § 4 (1), § 70 (1) and § 74 (2) respectively. The Berlin HEI Act (*Berliner Hochschulgesetz*) contains very similar provisions to § 2 (1) and § 22 HRG in § 4 (1) and § 37 (1) respectively. With regards to externally funded research, it simply refers to § 25 (2) HRG in its § 40. The Bavarian Higher Education Act (*Bayrisches Hochschulgesetz*) contains similar provisions to § 2 (1), § 22 and § 25 (2) HRG in Article 2 (1), 6 (1) and 8 (1-2) respectively. The Act on HEIs in Baden-Württemberg (*Gesetz über die Hochschulen in Baden-Württemberg*) contains similar provisions to § 2 (1), § 22 HRG in § 2 (1), § 40 (1) respectively. Regarding § 25 (2) HRG the corresponding provision is contained in § 41 (1). In contrast to the federal provision, which only entitles staff to conduct externally funded research, this provision declares the active search for external funds as one of the official duties of research staff. Apart from this, the provision is similar to the relevant provision in the HRG.

It can thus be established that research, including applied research is a statutory task of public HEIs and that there do not seem to be any specific restrictions as to the amount of commercial research undertaken, so long as HEIs can still fulfil the tasks assigned to them. There also cannot (theoretically) be too much external steering, as Article 5 (3) GG provides that the 'arts and sciences, research and teaching shall be free'. This provision essentially makes academic freedom a human right and thus gives it a very strong position in Germany.

⁵⁵⁶ The provisions of the federal states in which the universities chosen for the empirical study are located shall be looked at here as examples. On the choice of universities see chapter 5 below.

4.4.2.2. Public research funding

HEIs receive generic funding and *Drittmittel*. The latter includes public competitive and other funding. The aims behind the introduction of public competitive funding were to reward well-performing HEIs and create transparency after the introduction of lump sums in HEI funding.⁵⁵⁷

4.4.2.2.1. Public generic funding

Whilst HEIs still receive the majority of their funding generically from the *Länder*,⁵⁵⁸ this has decreased in real terms in recent years.⁵⁵⁹ Traditionally, generic funding was allocated on the basis of detailed criteria. However, emphasis on new public management structures and less public regulation, led to generic funding being increasingly provided as lump sums allowing more independence for the HEIs.⁵⁶⁰ At the same time a criticism that has been made is that the new managerial structures decrease the potential for academic self-regulation⁵⁶¹ and create competition between teaching and research.⁵⁶² Whether generic funding allocation also includes performance indicators and agreements towards achieving certain aims (*Zielvereinbarungen*) depends on the *Länder*. In Brandenburg, Hamburg, Hessen and Rhineland-Palatinate, the percentage of generic public funding which is allocated on the basis of such competitive elements is above 35%. In Baden-Württemberg, Berlin, North Rhine-Westphalia and Thuringia, the percentage is between 15-35%. In Mecklenburg-West Pomerania, Lower Saxony and Saarland, it is between 5-15% and in Bavaria, Saxony and Schleswig-Holstein, between 0-5%. Bremen used to have such elements in its funding allocation, but suspended this in 2008. Saxony-Anhalt started

⁵⁵⁷ See Schubert and Schmoch (n 533) p. 248 seq, 251, 253, Hinze (n 533) p. 169 seq, Enders (n 365) p. 22, 28, M Jaeger and S In der Smitten, 'Indikatorenbasierte Modelle der Hochschulfinanzierung - wie wirksam sind die wettbewerblichen Anreize?' (2010) 2010 *HIS Magazin* 6 p. 6, Wissenschaftsrat (n 533) p. 64.

⁵⁵⁸ BMBF (n 534) p. 389, table 26.

⁵⁵⁹ Schubert and Schmoch (n 533) p. 251

⁵⁶⁰ See Schubert and Schmoch (n 533) p. 245 seq, Edler and Kuhlmann (n 533) p. 271, Enders (n 365) p. 20 seq, Jaeger and In der Smitten (n 557) p. 6, Albrecht (n 536) p. 9 seq, Seckelmann (n 555) p. 233 seq, Jansen (n 372) p. 42 seq.

⁵⁶¹ See Seckelmann (n 555) p. 235 seq with further references, who also raises the question of whether this might infringe the democracy principle and academic freedom in the German constitution according to Article 20 and 5 (3) GG respectively.

⁵⁶² Enders (n 365) p. 22 seq.

first introductory steps towards such performance indicators in generic funding allocation in 2011.⁵⁶³

4.4.2.2.2. *Public competitive funding*

Declining generic funding increased the importance of competitive public funding. The DFG is the most important public *Drittmittel* provider, followed by the *Bund*.⁵⁶⁴ The DFG funds research in all disciplines and interdisciplinary research on the basis of applications by German research organisations or individual researchers within these. Whilst purely commercial research organisations are not eligible, international collaborations can also be funded. Next to this non-specific funding, the DFG also maintains more specific funding programmes. A board of volunteer experts assesses the proposals on the basis of scientific criteria. The DFG encourages collaborations with users of research; all funded projects can apply for additional ‘transfer’ funding which inter alia allows for part of the project to take place in a private sector organisation. The researchers are encouraged to develop their research until they have a ‘prototype’ (meaning a transferable result in this context).⁵⁶⁵

One of the most important programmes by the *Bund* is the ‘Excellence Initiative’ (*Exzellenzinitiative*), an institutional funding programme aimed at strengthening HEI research, changing the German HEI landscape and creating synergies between HEIs and other actors by financing graduate schools, excellence clusters and so-called ‘future concepts’ (*Zukunftskonzepte*) which aim to create elite universities.⁵⁶⁶ Decisions regarding which HEIs will be funded are taken by a common commission of the DFG and Wissenschaftsrat. Reactions to the *Exzellenzinitiative* have been mixed. Seckelmann⁵⁶⁷ expresses the thought that it has a reparatory purpose (because

⁵⁶³ See Jaeger and In der Smitten (n 557) p. 6, figure 1.

⁵⁶⁴ See Statistisches Bundesamt, *Bildung und Kultur - Monetäre hochschulstatistische Kennzahlen 2010* (Statistisches Bundesamt, Wiesbaden 2012) p. 121.

⁵⁶⁵ Wissenschaftsrat (n 533) p. 65 seq, DFG (n 540).

⁵⁶⁶ In the final round the following elite universities were selected: the Free University Berlin, the Humboldt University Berlin, the University of Bremen, the University of Dresden, the University of Cologne, the Ludwig Maximilian University Munich, the Technical University Munich, the University of Konstanz, the University of Heidelberg, the Rheinisch Westphalian Technical School of Higher Education Aachen and the University of Tübingen (BMBF, ‘Exzellenzinitiative für Spitzenforschung an Hochschulen: Die Gewinner stehen fest’ (2012) <http://www.bmbf.de/de/1321.php> accessed 28 June 2012).

⁵⁶⁷ Seckelmann (n 555) p. 228 seq, 239.

Länder have come into financial difficulties since the federalism reform), while at the same time encouraging inter-HEI competition. Others⁵⁶⁸ believe that the 'Excellence Initiative' might actually infringe the constitution in its form after the federalism reform.⁵⁶⁹

In addition to the *Exzellenzinitiative*, the *Bund* provides project funding in those areas it deems relevant for future development and economic growth. The trend is towards funding bigger research groups including the private sector as well as HEIs and other public research organisations.⁵⁷⁰ The *Bund* also encourages contract research by HEIs. The High-Tech Strategy, for example, from 2006 to 2009 included a measure (*Forschungsprämie*) which allowed HEIs and other public research organisations to apply for a 25% premium on certain kinds of contract research for SME from the public purse. This money was then supposed to be used to establish further competences regarding knowledge transfer.⁵⁷¹ Finally, the *Länder* also started to introduce additional funding programmes for the interplay of research organisations and the private sector.⁵⁷²

4.4.2.3. Non-state funding

The importance of non-state *Drittmittel* has also increased. The main sources are (in order of significance) funding from the private sector, international funding and funding from third sector organisations.⁵⁷³ As mentioned above, the attraction of

⁵⁶⁸ For a short summary see A Kühne, 'Zweifelhafter Wettbewerb' *Zeit Online* (14 January 2010) <http://www.zeit.de/studium/hochschule/2010-01/exzellenzinitiative-verfassungswidrig> accessed 9 November 2011 with references to the work of S. Sieweke.

⁵⁶⁹ On the excellence initiative see BM Kehm and P Pasternack, 'The German "Excellence Initiative" and It's Role in Restructuring the National Higher Education Landscape' in D Palfreyman and T Tapper (eds), *Structuring Mass Higher Education* (Routledge, New York/London 2009), Hinze (n 533) p. 172, Schubert and Schmoch (n 533) p. 250, Edler and Kuhlmann (n 533) p. 270, Enders (n 365) p. 23, Seckelmann (n 555) p. 228 seq, 239.

⁵⁷⁰ For more details on *Bund* funding for private-public research co-operation in this respect see Wissenschaftsrat (n 533) p. 62 seq.

⁵⁷¹ Bundesregierung, 'Die Forschungsprämie für die öffentliche Forschung' (2012) <http://www.hightech-strategie.de/de/520.php> accessed 3 August 2012.

⁵⁷² On competitive public funding by *Bund* and *Ländern* see Schubert and Schmoch (n 533) p. 248 seq, 251, 253, Hinze (n 533) p. 169 seq, Enders (n 365) p. 22, 28, Jaeger and In der Smitten (n 557) p. 6, Wissenschaftsrat (n 533) p. 64.

⁵⁷³ Statistisches Bundesamt (n 564) p. 121.

non-public *Drittmittel* is encouraged by government policy. EU funding plays an especially important role in international funding.⁵⁷⁴

Whilst third sector funding hardly constitutes a factor in overall research spending in Germany, it does have some significance for funding HEIs. Third sector organisations provide project and institutional funding including establishing their own HEIs, research institutes or chairs.⁵⁷⁵ Some charitable foundations of private sector organisations also have a for-profit section offering advisory services to research organisations such as ‘CHE consult’ of the Centre for HEI development (*Centrum für Hochschulentwicklung*).⁵⁷⁶

Research collaboration with the private sector is becoming increasingly important for HEIs⁵⁷⁷ and the private sector is already contributing almost 30% of all *Drittmittel*.⁵⁷⁸ Funding from the private sector takes similar forms as in the other two countries. Research co-operations are conducted, especially in the natural sciences. However, agreeing on IPR ownership is occasionally an issue in this respect.⁵⁷⁹ Sometimes research co-operations take the form of long term PPPs.⁵⁸⁰ The currently most important form of collaboration between industry and HEIs in Germany is contract research. The increasing integration of contract research into university structures and budgets posed new challenges to the public non-profit character of universities.⁵⁸¹

Universities might also receive private sector funding through the commercial use of IPRs. Whilst, according to the Copyright Act, the copyright always remains with the author rather than with the employer (§7, 11 *Gesetz über Urheberrecht und*

⁵⁷⁴ C Andersen, 'Vollkostenrechnung in Hochschulen zur Erfüllung der EU-Anforderungen' (2010) 10 CöV Heft 1233, 1238, Seckelmann (n 555) p. 228, 240.

⁵⁷⁵ See Hinze (n 533) p. 168 seq, Wissenschaftsrat (n 533) p. 67, R Speth, 'Stiftungen und Think Tanks' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010).

⁵⁷⁶ Enders (n 365) p. 26, Wissenschaftsrat (n 533) p. 67 seq, Speth (n 575) p. 392 seq.

⁵⁷⁷ Rohrbeck (n 546) p. 434, in particular table 2, Wissenschaftsrat (n 533) p. 7.

⁵⁷⁸ Statistisches Bundesamt (n 564) p. 121.

⁵⁷⁹ Wissenschaftsrat (n 533) p. 34 seq.

⁵⁸⁰ Rohrbeck (n 546) p. 435 seq.

⁵⁸¹ Wissenschaftsrat (n 533) p. 37 seq, Enders (n 365) p. 22 seq, Andersen (n 574) p. 1235, Seckelmann (n 555) p. 228.

verwandte Schutzrechte), universities became responsible for patenting innovations made by their employees through a change in the Employee Invention Act (*Deutsches Gesetz über Arbeitnehmererfindungen*) in 2002. Before 2002 there used to be an exemption for HEI personnel. This opened up another source of income from the private sector through licensing or spin-off creation; even though the latter is currently less common.⁵⁸² Patenting as a source of income is especially relevant for the natural and formal sciences. A negative consequence of patenting could, however, be that enjoyment of the publicly generated knowledge is forestalled if a patent is not actually exploited.⁵⁸³

Staff exchanges are equally encouraged by the DFG, at the federal level and by the EU.⁵⁸⁴ The private sector and, to a lesser extent, the third sector and philanthropists also fund chairs (*Stiftungsprofessuren*) in HEIs which are usually taken over by the HEI after a few years. Whilst the funder is not supervising or directing the research undertaken by the chair holder, the funder has previously defined the speciality in which the chair will be established. This form of collaboration has become increasingly popular in recent years.⁵⁸⁵ ‘Clusters’ are what is being referred to as science parks in the other two systems; a regional agglomeration of organisations which are working on related topics. The organisations remain independent and compete with each other.⁵⁸⁶

Unique features of the German system are the so-called ‘*An-Institute*’. These institutes exist outside university structures but are affiliated with them through a cooperation agreement. They are often managed by a university professor, conduct mainly applied research and are usually incorporated as not-for-profit limited liability company (*gemeinnützige Gesellschaften mit beschränkter Haftung*). The Wissen-

⁵⁸² On spin-offs see Wissenschaftsrat (n 533) p. 43 seq, BMBF (n 550) p. 9 seq.

⁵⁸³ On IPR exploitation see Wissenschaftsrat (n 533) p. 41 seq, Enders (n 365) p. 24, Seckelmann (n 555) p. 228.

⁵⁸⁴ Wissenschaftsrat (n 533) p. 50 seq.

⁵⁸⁵ Wissenschaftsrat (n 533) p. 36 seq. For more on externally funded chairs see U Claßen et al, *Stiftungsprofessuren in Deutschland* (Stifter Verband für die deutsche Wirtschaft, Essen 2009). According to this report there were about 660 of such chairs in Germany in 2009 (p. 5).

⁵⁸⁶ Wissenschaftsrat (n 533) p. 39 seq.

schaftsrat⁵⁸⁷ describes them as being problematic in respect of their not-for-profit character, since they do conduct mainly market research.⁵⁸⁸ Finally, university-industry research centres (*Universitäts-Industrie-Forschungs-Zentren, UIFZ*) are a currently less common form of collaboration between the private sector and HEIs in Germany. They are used for long-term collaboration on a topic without a specific aim and might just receive monetary contributions or involve more practical collaboration. An example for this kind of collaboration is the German Research Center for Artificial Intelligence (*Deutsches Forschungszentrum für Künstliche Intelligenz*),⁵⁸⁹ a collaboration between three universities, the Fraunhofer Gesellschaft and a variety of private companies including John Deere and Microsoft.⁵⁹⁰

4.4.2.4. Full costing

Full costing is relatively new in German HEIs. It became relevant because the funding provided by FP7 is given out on a full cost basis and the Research Framework discussed in chapter 3 required implementation of full costing in HEIs by 1 January 2009 (section 10.2 Research Framework) for economic research.⁵⁹¹ While implementation has begun in the last years,⁵⁹² publications on different full costing models for HEIs,⁵⁹³ workshops and conferences on the subject⁵⁹⁴ and consultancies

⁵⁸⁷ Wissenschaftsrat (n 533) p. 36.

⁵⁸⁸ On *An-Institute* see Wissenschaftsrat (n 533) p. 36, Enders (n 365) p. 24.

⁵⁸⁹ For further information see their website on <http://www.dfki.de/web>.

⁵⁹⁰ On UIFZs see Wissenschaftsrat (n 533) p. 37 seq, Rohrbeck (n 546) p. 435.

⁵⁹¹ Andersen (n 574) p. 1236 seq, Enders (n 365) p. 21, Wissenschaftsrat (n 533) p. 86 seq.

⁵⁹² See, for example, the resolution of the conference of German Vice Chancellors (Entschließung der 2. Mitgliederversammlung am 27.11.2007, *Zur Einführung der Vollkostenrechnung an deutschen Hochschulen* (Hochschulrektorenkonferenz, Bonn 2007) p. 8 section 4 d) recommending the introduction of full costing following the Anglo-Saxon model or Universität Heidelberg, 'Regeln zur Auftragsforschung' (2012) <http://www.uni-heidelberg.de/forschung/service/auftragsforschung.html>, accessed 1 July 2012, where the University of Heidelberg explains their approach to full costing which has started to be implemented there in 2010. The Wissenschaftsrat also recommended the introduction of full costing in its 2007 report (Wissenschaftsrat (n 533) p. 87).

⁵⁹³ See, for example, Andersen (n 574) p. 1240 seq, G Friedl, K Eckart and S Winkel, 'Konzeption eines Kostenrechnungsmodells an Hochschulen zur Ermittlung von Gemeinkostenzuschlägen fuer EU-Forschungsprojekte am Beispiel der Universität Mainz' (2008) 30 *Beiträge zur Hochschulforschung* 86.

⁵⁹⁴ For example, Freie Universität Berlin and Syncwork, *UniFinanz 2012: Vollkosten- und Trennungsrechnung - Chancen und Risiken für die Steuerung von Hochschulen* (Berlin 14 June 2012).

offering assistance and advice to HEIs seem to indicate that HEIs struggle with the details of full costing.⁵⁹⁵ Coordination at state level only takes place in a limited number of states. The implementation of full costing thus differs from HEI to HEI in Germany.⁵⁹⁶

4.4.3. Interim conclusion on Germany

Germany has a strong research system with comparably high spending. The private sector finances and conducts most of the research in Germany by far. This is followed by funding from the public sector and, to a much lesser extent, international funding. Whilst third sector funding is negligible in the overall picture, it does have a small role to play when it comes to research funding in HEIs. Being a federal republic, responsibilities for research are divided between the *Bund* and the *Länder*. During the federalism reform, the *Bund* lost some of its former competences, in particular regarding HEIs. Next to HEIs, there are four major public non-HEI research organisations which each have a specific profile.

HEIs receive generic public funding from the *Länder* which has, however, declined in recent years. Instead public funding is increasingly given on a competitive basis and external funders have become more significant. Partly, this is due to an intentional turn towards competitiveness and cooperation between the private and public sector after a lack of transparency in funding and a lack of utilising synergies had been identified as some of the weaknesses of the system. However, it might also partly be due to funding problems created by the federalism reform reducing the power of the *Bund* to fund HEIs. Whether Article 91 b GG should be broadened, therefore, is currently under discussion. The current state of affairs could potentially also lead to problems with the academic freedom protected by Article 5 (2) GG by setting conditions/aims for research funding and thereby influencing the direction of research. The recently introduced changes might thus lead to further change and the system can, therefore, still be regarded to be in the process of overhaul.

⁵⁹⁵ See, for example, the specific service offer for HEIs as regards full costing by the company Syncwork on <http://www.syncwork.de/leistungsangebote/vollkostenrechnung-in-hochschulen/vollkostenrechnung-in-hochschulen-zur-erfuellung-der-eu-anforderungen.html> (accessed 1 July 2012).

⁵⁹⁶ Estermann and Claeys-Kulik (n 442) p. 19 seq

4.5. HEI research in the three countries and EU competition law

The analysis of the different systems has been offered in order to better assess the relevance of EU competition law for research in HEIs in the three countries under investigation. The interim conclusions allow the following provisional assessment, which will form the starting point for the qualitative empirical study conducted in chapter 5. As stated in more detail in chapter 3, EU competition law only applies to ‘undertakings’ a notion that has been defined as ‘every entity engaged in an economic activity, regardless of the legal status of the entity and the way in which it is financed’.⁵⁹⁷ To examine whether or not the research activities of HEIs are within the scope of application of EU competition law, an assessment of whether HEIs qualify as undertakings for (parts of) their activities needs to be made. This seems unlikely when it comes to public generic funding. According the Research Framework,⁵⁹⁸ ‘independent R&D for more knowledge and better understanding’ is a non-economic activity. Under generically funded research the researchers are free to decide what they research and there is no requirement that it has any practical uses or immediate impacts. Even in England where generic funding will soon be dependent on, amongst other factors, impact, the researcher is still free to decide the directions of research and the impact does not have to be immediate or economically relevant. A service is not defined, but instead it is generally assessed if the HEI in question generates impact at all. It is, therefore, hard to imagine how to conduct such research under market conditions. Instead it can be assumed that the non-economic research definition of the Research Framework is being fulfilled here.

Competitive public, international and third sector funding, on the other hand, may have to be regarded in a differentiated way. If such funding is provided merely on academic merit and researchers can decide freely about the directions of research as in German DFG funding and under the Dutch *Vernieuwingsimpuls* scheme, the assessment would probably have to be the same as with public generic funding. Even if the calls broadly pre-define a topic area, this is still unlikely to amount to an activity that could be conducted under market conditions. However, the more pre-set the

⁵⁹⁷ C-41/90 *Höfner* para 21. On the notion see above section 3.2.1. The notion of ‘undertaking’.

⁵⁹⁸ Research Framework (n 8) section 3.1.1.

conditions, the more practical the research and the more identifiable potential users become, the more it is possible to argue that this could be conducted by commercial entities in a market. Actual contract research for these funders, in particular, would clearly be an economic activity.

As regards collaboration with the private sector, this can most easily come into the ambit of competition law. The fact that the private sector is interested in the research area in the first place already indicates a certain economic relevance. Nevertheless, collaborative forms differ. Contract research, consultancy and the renting out of infrastructure are clearly market activities. IPR exploitation is, according to the Research Framework and the Issue Paper discussed in chapter 3, a non-economic activity if the invention has been made in the area of non-economic research, the exploitation takes place internally, is non-exclusive and all income is reinvested into the non-economic research areas. Otherwise, for example, if external investors are brought onboard as happens in England, IPR exploitation is likely to be an economic activity. In clusters/science parks, the individual undertakings remain separated and this collaborative form would, therefore, probably not constitute an economic activity as such, rather it provides a geographical location for undertakings. An-institutes, start-ups and spin-offs, are separate entities despite HEIs holding shares in them or being affiliated with them. The determination of whether any interaction is an economic activity for the HEI would probably depend on the activities these entities conduct, perhaps together with the HEI.

The determination might be more complicated when it comes to the more blurred forms of collaboration such as research co-operations, longer term PPPs, common centres, staff exchanges or research clubs/networks. It would also here depend on the question whether, in the individual case, the research is independent and ‘for more knowledge and better understanding’ or if it is research that could be conducted on a market basis. Private funding for a chair, lectureship or PhD which, aside from the subject area which is preset, does not have any conditions attached to it as well as purely charitable private sector donations are probably to be considered as non-economic activities. If the conditions are too preset and the funded researcher is essentially conducting a service for the private sector partner, the activity might well be economic in nature. These cases, therefore, often need to be assessed on an activity by activity basis.

4.5.1. Potential problems

If competition law is applicable, HEIs must not, according to Article 101 (1) TFEU, enter into any form of anti-competitive collusion nor must national law bring them into a position where they would do so.⁵⁹⁹ An especially severe form of anti-competitive collusion is price fixing. HEIs in England and the Netherlands have real full cost methodologies that relate actual costs to a research project and which do not seem to pose a problem under EU competition law. In Germany, however, there still seems to be some confusion and occasionally overheads are being used instead of real full cost methodologies. If these are fixed between HEIs, by statute or information on them is exchanged, this could potentially be classified as price fixing. After having arrived at the costs, HEIs negotiate prices or follow the rules set by the funders. In the area of economic research, this could lead to potential problems, as, for example, preset funding rules could be regarded as price fixing. Furthermore, common guidelines between funders such as the *Akkord* by NWO, VSNU and KNAW might potentially be seen as anti-competitive.

Aside from price fixing, Article 101 (1) also prohibits undertakings agreeing on any other special conditions or limitations within the collusion without there being an economically justified reason. This could cause problems if government policies are in place that require or encourage HEIs to prefer SMEs or local companies such as in innovation voucher initiatives.⁶⁰⁰ If HEIs in an area of economic activity agree on a collaboration which is not open to all interested parties without an economically justified reason, this could equally be seen as anti-competitive. One might, for example, wonder, if plans for sharing facilities, as discussed between certain research intensive universities in the North of England,⁶⁰¹ could be such a cartel, if other willing HEIs were not allowed to participate or preferential conditions were given to the partners. Furthermore, the provision prohibits market division. This could cause problems, if HEIs agree (or are forced by government policy), to focus on local economies, share the market according to subject areas or enter into specialisation

⁵⁹⁹ 13/77 *INNO v ATAB* para. 30 seq.

⁶⁰⁰ Some English HEIs are, for example, planning to establish 'innovation vouchers'. See PACEC (n 433) p. 5.

⁶⁰¹ See N8 Research Partnership, 'Equipment Sharing' (2013) <http://www.n8research.org.uk/asset-collaboration/> accessed 23 December 2013.

agreements. Research co-operations as such could be anti-competitive if entered into shortly before an individual discovery would have been made anyway or if there are any limitations beyond the research including limitations on parties exploiting the results. Finally, Article 101 (1) TFEU could be infringed if limits on research of an economic nature are agreed upon or prescribed by national legislation. The latter does not seem to be the case, however, in England and the Netherlands. In Germany § 25 (2) HRG only limits economic research at a level where it would collide with the statutory tasks of the HEIs which, if considered anti-competitive in the first place, might be exempted as SGEI.

Article 102 TFEU makes the abuse of a dominant position illegal. As discussed in chapter 3, HEIs could come into conflict with this provision if they conduct an economic activity and are considered dominant in a specific market. In such cases it might, for example, cause problems if HEIs do not charge full costs and reasonable profit, since this could be regarded as predatory pricing by their competitors. Furthermore, if HEIs operate unilaterally as dominant undertakings and offer special conditions, impose special duties, cooperate only with specific partners or limit outputs, they could potentially come into conflict with Article 102 TFEU rather than with Article 101 (1) TFEU as in cases outlined above. Finally, according to Article 102, dominant undertakings might be prevented from refusing access to essential facilities or refusing licenses for IPRs, dividing the market through licenses or attaching specific conditions. Private sector partners might, however, desire special conditions or exclusivity. HEIs would thus need to be aware of these potential problems and avoid them in contracts if operating as an undertaking.

If an economic activity is conducted, the state may also not give particular undertakings advantages exclusively since this could constitute state aid according to Article 107 TFEU. HEIs could get into conflict with this provision specifically, if they do not charge full costs and reasonable profit for research because the receiver of the research (be it their own company) could then be regarded as being subsidised. The Netherlands and England have set up full costing systems, while there is some doubt whether every HEI in Germany has yet done so and whether the systems are correctly measuring full costs. Aside from this, universities still negotiate prices individually or follow funder rules which might not always cover full costs. In the Netherlands, a variety of national legislation also specifically points out that full

costs need to be charged by HEIs from the private sector. Nevertheless, there could still be problems with Article 107 TFEU. Firstly, in the area of economic research full costs are insufficient, but market prices, respectively full costs and reasonable profit need to be charged⁶⁰² something which appears to be required only by the *Kaderbesluit EZ Subsidies* for collaborations which receive subsidies from EZ. Secondly, the concept of undertaking goes beyond private sector companies. Third and public sector organisations can also be classified as undertakings and if HEIs cooperate with them in what constitutes an economic activity, they also need to charge full cost and reasonable profit from them. While the *Kaderbesluit* incorporates the EU definition for ‘undertaking’, the question remains if this is always applied correctly in practice. As regards TKI subsidies the EZ, for example, seems to use the terms ‘industrial partners’, ‘private contributions’ and ‘undertaking’ interchangeably and defines ‘private contribution’ as a monetary contribution which is not received from a research organisation, the NWO, KNAW, public bodies or third sector organisations.⁶⁰³

Additionally, public funding (contracts or calls) which could be classified as an economic activity might potentially not be given directly to one undertaking or calls not be limited to certain types of undertakings respectively. Instead, such activities might have to be commissioned according to the rules set out by the Court,⁶⁰⁴ which usually requires a public procurement procedure also allowing private and overseas providers to tender. Furthermore, it could also cause a problem in state aid terms if additional subsidies are provided to HEIs and other partners in collaborations⁶⁰⁵ for research which could be classified as economic in nature or innovation vouchers are given out by the state or HEIs, as this way public funding would exclusively reach specific undertakings. If HEIs reinvest commercially gained money in further com-

⁶⁰² C-280/00 *Altmark*.

⁶⁰³ Agentschap NL, 'Definities TKI-toeslag' (EZ Topkonsortia voor Kennis en Innovatie 2013) <http://www.agentschapnl.nl/programmas-regelingen/definities-tki-toeslag> accessed 1 May 2013.

⁶⁰⁴ C-280/00 *Altmark*.

⁶⁰⁵ In this respect the BMBF generically points to EU guidelines mentioning that undertakings must contribute their own assets to a collaboration without providing any details of how this is done. It also appears that the term ‘undertaking’ is used interchangeably with ‘private sector entity’ (BMBF, 'Förderung in der Forschung' (2012) <http://www.bmbf.de/de/1398.php> accessed 2 August 2012).

mercial activities and offer discounts in an economically reasonable way, this might, however, not pose a problem in terms of state aid. To an extent this is therefore a question of how separate accounts are. Finally, if IPRs, created in the public area of research, are given out exclusively or for preferential conditions or if staff use their knowledge generated in the area of publicly funded research during an exchange exclusively for the benefit of one other company, this could equally be regarded as state aid.

4.5.2. Exemptions

As has been discussed in chapter 3, Article 101 and 107 TFEU and secondary legislation provide for exemptions for certain breaches of competition law which could be relevant for HEIs many of which depend on market share or the amount of the aid. It would thus be impossible to assess in how far they are generally applicable without further knowledge. Article 102 TFEU does not include such exemptions. If the service is of general interest, Decision 2012/21/EU exempts aid below €15M per annum. Finally, the research activities of HEIs might more generally be exempted as SGEIs under Article 106 (2) TFEU. As discussed in chapter 3, the latter requires a service of general interest to be entrusted to the undertaking in question which would then be obstructed by the application of the competition rules. Whilst in Germany and the Netherlands legislation is making research a statutory task of HEIs, this might in itself not be sufficiently precise to be regarded as an entrustment act. Whether or not the service in question is in the general interest, the application of the competition rules does obstruct it and the question of whether this is proportional would have to be looked at in the individual case.

4.6. Conclusion

The systems investigated differ in a variety of ways from the general national expenditure on research and the overall character of the system to the importance of individual sectors and the extent to which the recent trend of commodification has influenced the research systems. Germany has constantly increased research expenditure coming close to reaching the 3% goal of the Europe2020 Strategy. Spending in the Netherlands has fluctuated, but has now reached its highest level in ten years. The UK has had rather stable expenditure on R&D. Over the last ten years, it has

remained below 2% and public sector spending is especially low. Germany is traditionally characterised by a great extent of academic freedom of the individual which is even represented in its constitution and the federal structure also plays a significant role in the character of the system. England's research system is organised in a much more centralised and top-down fashion with strong elements of a liberal market economy. The Netherlands have a centralised, but very consociational research system. These characteristics are, to a certain extent, still visible in the respective research policies, despite all three systems having recently undergone changes towards external steering, funding on the basis of achievement and commodification.

In all three countries the private sector is the biggest research funding provider. However, this is most pronounced in Germany where the private sector contributes two thirds of all R&D spending, in the Netherlands the contribution is just under half of all research spending and it is even less in England. The second biggest spender is congruently the public sector providing about a third of all research spending in all three countries. Differences are very pronounced when it comes to research financed by foreign sources and the third sector. The UK relies heavily on foreign investment in R&D with about 18% of all research being financed this way. In the Netherlands foreign contributions amount to 11% and in Germany to only 4%. In all countries the third sector plays a small role; in England the third sector provides 5% of all research spending, in the Netherlands 3% and in Germany it is virtually non-existent.

Public sector research is also organised rather differently across the three systems. The German public research sector consists of HEIs and four other public research organisations with clearly defined tasks. In both the Netherlands and England, HEIs are the most important public research providers. Nevertheless, the Dutch research system has also a wide and constantly increasing variety of other research organisations, including many PPPs. In England there are hardly any public research organisations alongside HEIs, but there are relevant third sector providers. The latter play no significant role in Germany and the Netherlands.

When it comes to HEI funding, a large amount of public funding is still provided generically without recourse to competitive factors such as performance or focus on government priorities in Germany and in the Netherlands. In England the generic funding allocation always involves competitive factors based on quality and will soon also include impact. An attempt to introduce such a system early on in the

Netherlands was prevented by strong resistance from the universities, while HEI resistance in England did not lead to the same result. This can be explained through the nature of the research systems as consociational and top down liberal systems respectively.⁶⁰⁶ Despite these differences, an increase in the importance of external funding (public competitive as well as non-public) can be observed in all systems. This kind of funding is often provided for particular aims and thus poses threats for the academic freedom of the individual researcher. Due to the changes in funding, all three systems have introduced or are in the process of introducing full costing methodologies. While in England this has been done centrally through the TRAC fEC, it is undertaken on an individual HEI basis in Germany and the Netherlands. England is the first of the studied systems to have introduced full costing, followed by the Netherlands and, only recently and tentatively, Germany. In all three systems, however, it does not seem to be the case that all non-generic research funding is provided at levels covering the calculated full costs.

From a competition law perspective, generic public funding in all three systems would probably not have to be regarded as economic in nature. Public competitive and third sector funding could possibly be classified as economic in nature in certain cases and thus competition law would have to be applied. This would depend upon whether the activities funded could be classified as, as the Research Framework phrases it, ‘independent R&D for more knowledge and better understanding’ or would amount to a service which could be provided on a market. Private sector funding will in many cases constitute an economic activity, particularly with regards to contract research, consultancy and the renting out of infrastructure. Other forms of collaboration will have to be assessed on an activity by activity basis. If an activity is classified as economic the HEI would have to comply with EU competition and state aid rules. It has been shown that in all three systems potential problems could arise from this. However, the more economically oriented the system, the more often the problems might arise. The next chapter will empirically study in detail how far the established concerns might materialise, how far differences can be observed in the systems in this respect and how far HEIs are aware of possible consequences.

⁶⁰⁶ See also Becker (n 480) p. 167 seq.

Chapter 5

Empirical study

5.1. Introduction

The preceding chapter established how the turn towards commodification of HEIs has been manifested in the three national research systems under scrutiny. Furthermore, it explored how far this can make research in HEIs vulnerable to EU competition law. The purpose of this chapter is to study in detail how far the established concerns might materialise, how far differences can be observed in the systems in this respect and how far key actors in HEIs are aware of possible consequences. The theoretical framework and the investigation of EU competition law and of the respective national legal frameworks for research in public universities led to the expectation that exposure to EU competition law might be greater in the UK, where commercialisation of the HEI sector had progressed the furthest (indicated by numerous competitive elements in allocating public research funding and pronounced encouragement of universities to engage in collaboration with business). It was equally expected that this might have resulted in both a higher awareness of this exposure and the ability to circumvent it through either compliance (an indication of which could be seen in the early introduction of a full costing methodology) or utilisation of relevant exemptions. Germany, with only modest steps towards commodification of HEIs, on the other hand, might suffer less from economic constraints and competition law exposure and, equally, HEIs might be less aware of it.

This chapter will, firstly, explain the methodology used for the empirical study. It will give reasons for the techniques employed (interviews, focus groups) and introduce the strategic sample chosen for the empirical study. It will then elaborate upon how the interview questions were established and how they will be analysed, namely through a framework based on the competition law problems identified in chapter 3 and 4. This will be followed by a subchapter for each country reporting the outcomes of the empirical study. Finally, the results will be brought together in the conclusion.

5.2. Methodology

In the following the design of the empirical study is, first, set out. The next sections elaborate on the strategic sample and the interviews themselves. After a short section on ethical considerations, the last section contains information on data analysis. In the end a short interim conclusion summarises the results, elaborates about the boundaries of the study and leads on to the analytical subchapters.

5.2.1. Design

Specific insights about the universities (for example, on research funding and collaboration strategies) were needed to establish whether or not the potential competition law constraints can materialise. These insights had to be gained from experts in the field i.e. those responsible within the universities for these activities. In-depth answers were required and the opportunity to elaborate on these further needed to be given in order to fully understand research funding in the individual universities. Only through this approach could a substantiated assessment of potential competition law problems be made. Qualitative research by interviewing experts was, therefore, the most appropriate choice,⁶⁰⁷ since interviewing experts who have more information than the researcher directly increases the researcher's understanding of university practice regarding research funding.⁶⁰⁸

The research design combined aspects of both an 'interview guide' (or semi-structured interview) and a 'standardised open-ended interview' (or structured interview).⁶⁰⁹ Whilst a set of interview questions had been established, some flexibility was allowed in conducting the interviews in order not to interrupt the flow of conversation and to adapt to the specific organisational structures of the chosen universi-

⁶⁰⁷ Quantitative research usually uses closed standardised, often closed questions. MQ Patton, *Qualitative Research & Evaluation Methods* (3rd edn, Sage, Thousand Oaks/London/New Delhi 2002) p. 348.

⁶⁰⁸ On expert interviews see B Littig, 'Interviews mit Eliten - Interviews mit ExpertInnen: Gibt es Unterschiede' (2008) 9 FQS p. 3 seq, S Mangen, 'Qualitative research methods in cross-national settings' (1999) 2 International Journal of Social Research Methodology 109, p. 110, Patton (n 607) p. 401.

⁶⁰⁹ An interview guide 'involves outlining a set of issues that are to be explored' while a standardised open-ended interview 'consists of a set of questions carefully worded and arranged with the intention of taking each respondent through [them]'. Patton (n 607) p. 342 seq, quotes on p. 342. See also RK Yin, *Case study research* (2nd edn, Sage, Thousand Oaks/London/New Delhi 1994) p. 84 seq.

ties. The questions were mainly factual while a few questions also enquired about the opinion of the experts on the current situation or future developments.⁶¹⁰ Some interviews took place as focus groups.⁶¹¹ Most, however, were conducted with a single expert.

5.2.2. Strategic sampling

Besides being limited to research in HEIs in three Member States, as explained in chapter 1 and 4, the sample for an empirical study had to be further condensed within the frame of a PhD. The sample chosen is outlined below.

5.2.2.1. Selection of universities

Only public universities are examined, as these are the traditionally publicly funded, research intensive HEIs. In England where a binary system no longer exists, HEIs which only became universities with the implementation of the FHEA after (post-1992s) have not been considered in order to maintain comparability with the other two countries which retain binary systems. Furthermore, only non-specialised universities which teach and research in all subject groups have been considered.

At least three universities have been identified for each country. In order to maintain comparability, an attempt was made to include a wide spectrum of universities. Therefore, at least one university from each country had to fall within each of three categories established according to placement in international rankings and age of the university. The categories are:

1. ‘ancient’: more than 400 years old and usually ranked within the top 25% in national comparison,
2. ‘well-established’: more than 100 years old and ranked within the top 60% in national comparison,
3. ‘new-coming’: less than 100 years old and ranked below the top 60% in national comparison, but usually presented in the important rankings.

⁶¹⁰ For more on question types see Patton (n 607) p. 348 seq.

⁶¹¹ Focus groups are ‘interviews with a small group of people [usually with a similar background] on a specific topic’ which are ‘focused, keeping responses on target’ (Patton (n 607) p. 385 seq, quotes on p. 385 and 388).

The Shanghai, Leiden, THE and QS rankings have been evaluated for the selection, as these are the most internationally recognised (though not uncriticised)⁶¹² rankings.⁶¹³ The selection of universities also attempted to represent a geographical spread of institutions within the three countries. Initially one university was contacted from each category. In two cases the universities did not think it appropriate to participate in the research (the University of Heidelberg for category 1 in Germany and the University of Cambridge for category 1 in England). In these cases, two more universities from the same category were contacted. In Germany both alternatives were willing to participate, while in England, despite a number of requests, a reply has never been received from the University of Durham. Table 1 below shows how the categories were constructed and how the chosen universities fit into them.

5.2.2.2. Selection of academic subjects

Since there might be differences regarding funding situations between academic subjects, experts from different subjects were interviewed, if the structure of the relevant research office allowed. For this purpose, a variety of subjects needed to be identified from which to recruit the experts. Academic subjects are categorised in different ways. Whilst politicians⁶¹⁴ as well as states and international organisations frequently distinguish between applied and basic research⁶¹⁵ and this distinction also

⁶¹² One of the criticisms is that they focus too much on research. However, this is an advantage for the purposes of this study, which equally focuses on research. On criticism see CHERPA-Network, *Design Phase of the Project 'Design and Testing the Feasibility of a Multi-dimensional Global University Ranking'* (U-Multirank - Interim Progress Report, 2010) p. 62 seq, R Lange, 'Benchmarkings, Rankings und Ratings' in D Simon, A Knie and S Hornbostel (eds), *Handbuch Wissenschaftspolitik* (VS Verlag, Wiesbaden 2010) p. 324 seq. See also the contributions to Erkkilä T, *Global University Rankings* (Basingstoke, Palgrave Macmillan 2013).

⁶¹³ CHERPA-Network (n 612) p. 6 seq, Lange (n 612) p. 324. Note that these publications still refer to the combined THE/QS ranking. Since 2010, however, THE and QS publish separate rankings. See P Baty, 'New data partner for World University Rankings' *THE* (30th October 2009) <http://www.timeshighereducation.co.uk/408881.article> accessed 15 May 2013

⁶¹⁴ BIS Secretary of State, Vince Cable, for example, stated that more applied subjects, especially in the category of STEM (science, technology, engineering and maths), have a particular value for the national interest and should thus enjoy differential funding based on excellence. V Cable, 'Higher Education Speech' (Oral statement to Parliament 15 July 2010, London) available on <https://www.gov.uk/government/speeches/a-new-era-for-universities>.

⁶¹⁵ See OECD definition in (n 35).

becomes more important in academic debates,⁶¹⁶ the academic discourse generally categorises disciplines in accordance with subject matter and methods. This leads to a distinction between ‘formal sciences’, based on objective laws (for example, mathematics, computer sciences) , ‘humanities’ which employ methods of critical and speculative analysis (for example, history, literature) and ‘empirical sciences’ based on empirical methods. The last category is divided further into ‘natural sciences’ studying natural phenomena (e.g. biology, chemistry) and ‘social sciences’ focussing on human society and individuals (e.g. sociology, psychology). Sometimes further subcategories are made and for certain subjects the categorisation is controversial, especially between humanities and social sciences (law, for example is mostly regarded as a humanity, while it is sometimes seen as a social science).⁶¹⁷

For this study two more and two less applied disciplines have been chosen which at the same time represent the main groups of academic subject classification: formal sciences, natural sciences, social sciences and humanities. Due to the difficulties in clearly differentiating between social sciences and humanities at times,⁶¹⁸ these groups have been merged for this study. At least one subject has then been chosen as an example for each of the three remaining categories. Computer science is envisaged to simultaneously represent an applied and a formal science. Law represents an applied and philosophy a less applied science from the group of social sciences and humanities. Finally, physics has been chosen as a natural science and stands for a less applied science (despite its evident application at times), since it is one of the more basic natural sciences. Figure 1 below graphically illustrates the sample for the empirical study.

⁶¹⁶ T Kuhn, 'Scientific Revolutions' in R Boyd, P Gasper and JD Trout (eds), *The Philosophy of Science* (MIT Press, Cambridge (Mass)/London 1991) p. 146 seq.

⁶¹⁷ On the academic classification of sciences see R Carnap, 'Logical Foundations of the Unity of Science' in R Boyd, P Gasper and JD Trout (eds), *The philosophy of science* (MIT Press, Cambridge (Mass)/London 1991) p. 394 seq, H-C Koller, *Grundbegriffe, Theorien und Methoden der Erziehungswissenschaft: Eine Einführung* (W. Kohlhammer Verlag, Stuttgart 2009) p. 179 seq, C Burschel, D Losen and A Wiendl, *Betriebswirtschaftslehre der nachhaltigen Unternehmung* (Oldenbourg Wissenschaftsverlag, München 2004) p. 194.

⁶¹⁸ See Koller (n 617) p. 180 seq.

Table 1: University categories according to age and rankings

University	Shanghai Ranking ⁶¹⁹ 2009, 2010, 2011, 2012	Leiden Ranking ⁶²⁰ 2008, 2011/2012, 2013	THE Ranking ⁶²¹ 2010-11, 2011-12, 2012-13	QS Ranking ⁶²² 2009, 2011, 2012-13
Category 1: <i>Ancient universities</i> (more than 400 years old)	<i>National rank within top 25%</i> ⁶²³ (Below the national rank and, in brackets, the international rank is provided)			
Munich (founded 1472) ⁶²⁴	1 (world rank 55) 1 (world rank 52) 2 (world rank 54) 2 (world rank 60)	7 (European rank 67) 1 (European rank 25) 4 (European rank 36)	2 (world rank 61) 1 (world rank 45) 1 (world rank 48)	4 (world rank 98) 3 (world rank 62) 3 (world rank 60)
Freiburg (founded 1457) ⁶²⁵	6-11 (world rank 101-151) 6-10 (world rank 101-150) 7-10 (world rank 101-150) 4 (world rank 99)	6 (European rank 64) 3 (European rank 32) 5 (European rank 43)	5 (world rank 132) 10 (world rank 189-190) 7 (world rank 144)	5 (world rank 122) 5 (world rank 105) 5 (world rank 106)

⁶¹⁹ Center for World-Class Universities of Shanghai Jiao Tong University, 'Academic Ranking of World Universities' (2009, 2010, 2011, 2012) <http://www.shanghairanking.com/index.html>. <http://www.arwu.org/index.jsp> accessed 6 June 2013.

⁶²⁰ CWTS, 'CWTS Leiden Ranking 2013' (Leiden University 2013) <http://www.leidenranking.com/> accessed 6 June 2013, CWTS, 'Leiden Ranking 2011/2012' (Leiden University 2012) <http://www.cwts.nl/leidenranking20112012/ranking.aspx> accessed 6 June 2013, CWTS, 'The Leiden Ranking 2008' (Leiden University 2008) <http://www.cwts.nl/ranking/LeidenRankingWebSite.html> accessed 13 August 2010 green ranking.

⁶²¹ THE, 'World University Ranking' (2010-11, 2011-12, 2012-13) <http://www.timeshighereducation.co.uk/world-university-rankings/> accessed 6 June 2013.

⁶²² QS, 'QS World University Rankings' (2009, 2011, 2012-13) <http://www.topuniversities.com/qs-world-university-rankings> accessed 7 June 2013.

⁶²³ Percentages relate to the number of universities from each country which were ranked in the individual rankings (for example, 40 German, 12 Dutch and 40 UK universities were ranked in the Shanghai 2009 ranking). If a university ranks substantially below its category in one of the rankings this is highlighted in light red, if above in light green.

⁶²⁴ Communications & Media Relations, *LMU at a glance* (Ludwig-Maximilians-Universität, Munich 2009/2010) p. 6/7.

⁶²⁵ Albert-Ludwigs-Universität Freiburg, 'Die Vergangenheit würdigen. Die Zukunft wagen' (2012) <http://www.uni-freiburg.de/universitaet/portrait/geschichte> accessed 12 December 2012.

Leiden (founded 1575) ⁶²⁶	2 (world rank 72) 2 (world rank 70) 2 (world rank 65) 2 (world rank 73)	8 (European rank 41) 7 (European rank 30) 1 (European rank 13)	2 (world rank 124) 3 (world rank 79) 1 (world rank 64)	2 (world rank 60) 3 (world rank 88) 2 (world rank 75-76)
Oxford (teaching since 1096) ⁶²⁷	1 (world rank 10) 2 (world rank 10) 2 (world rank 10) 2 (world rank 10)	1 (European rank 1) 3 (European rank 5) 2 (European rank 4)	1-2 (world rank 6) 1 (world rank 4) 1 (world rank 2-3)	3-4 (world rank 5-6) 2 (world rank 5) 3 (world rank 5)
Category 2: Well-Established universities (100-400 years)	National rank within top 60%			
HU Berlin (founded 1810) ⁶²⁸	-	15 (European rank 91) 8 (European rank 58) 12 (European rank 70)	9-10 (world rank 178) 5 (world rank 109) 4 (world rank 99)	6 (world rank 146) 6 (world rank 132) 7 (world rank 130)
Groningen (founded 1614) ⁶²⁹	3-6 (world rank 101-106) 3-6 (world rank 101-105) 3-6 (world rank 102-150) 3-7 (world rank 101-150)	10 (European rank 45) 10 (European rank 56) 11 (European rank 52)	9 (world rank 170) 7 (world rank 134) 7 (world rank 89)	8 (world rank 139) 7 (world rank 115) 7 (world rank 109)
Leeds (founded 1904) ⁶³⁰	12-15 (world rank 101-105) 12-14 (world rank 101-105) 11-15 (world rank 101-150) 15-19 (world rank 151-200)	24 (European rank 65) 28 (European rank 87) 24 (European rank 56)	26 (world rank 168) 20 (world rank 133) 20 (world rank 142)	18 (world rank 99) 16 (world rank 93) 18 (world rank 94)

⁶²⁶ Universiteit Leiden, 'About Leiden University' (2012) <http://www.about.leiden.edu/about/university-city.html> accessed 25th May 2013.

⁶²⁷ The exact foundation date for the University of Oxford is unknown. University of Oxford, 'A brief history of the University' (2009) http://www.ox.ac.uk/about_the_university/introducing_oxford/a_brief_history_of_the_university/index.html accessed 27 April 2013.

⁶²⁸ HU Berlin, 'Die Geschichte der Universität' (2010) http://www.hu-berlin.de/ueberblick/geschichte/hubdt_html accessed 13 August 2010.

⁶²⁹ Rijksuniversiteit Groningen, 'History University of Groningen' (2012) <http://www.rug.nl/science-and-society/university-museum/history/university-of-groningen/?lang=en> accessed 23 June 2013.

⁶³⁰ University of Leeds, 'Heritage' (2010) <http://www.leeds.ac.uk/info/20014/about/21/heritage> accessed 13 August 2010.

Category 3: <i>Newcomer universities</i> (younger than 100 years)	Below national top 60%			
Bremen (founded 1971) ⁶³¹	25-36 (world rank 303-401) 24-33 (world rank 301-400) 33-39 (world rank 401-500) 31-37 (world rank 401-500)	34 (European rank 156) 22 (European rank 87) 26 (European rank 112)	-	32 (world rank 399-400) 34 (world rank 367) 29 (world rank 347)
Maastricht (founded 1976) ⁶³²	10-11 (world rank 303-401) 10-11 (world rank 301-400) 10 (world rank 201-300) 9-10 (world rank 201-300)	11 (European rank 46) 12 (European rank 86) 10 (European rank 44)	- 11 (world rank 197) 9 (world rank 115)	6 (world rank 116) 6 (world rank 109) 6 (world rank 107)
Essex (founded 1962) ⁶³³	37-40 (world rank 402-501) 36-38 (world rank 36-38) 34-37 (world rank 401-500) 34-38 (world rank 401-500)	-	- 33-34 (world rank 201-225) 35 (world rank 251-275)	38 (world rank 273-276) 38 (world rank 315) 39 (world rank 321)

⁶³¹ Universität Bremen, 'Uni kurz vorgestellt -Geschichte' (2010) <http://www.portrait.uni-bremen.de/geschichte.php3> accessed 13 August 2010.

⁶³² Maastricht University, 'History' (2013) <http://www.maastrichtuniversity.nl/web/Main/AboutUM/History.htm> accessed 21 June 2013.

⁶³³ University of Essex, 'History of the University' (2013) <http://www.essex.ac.uk/about/history/> accessed 23 June 2013.

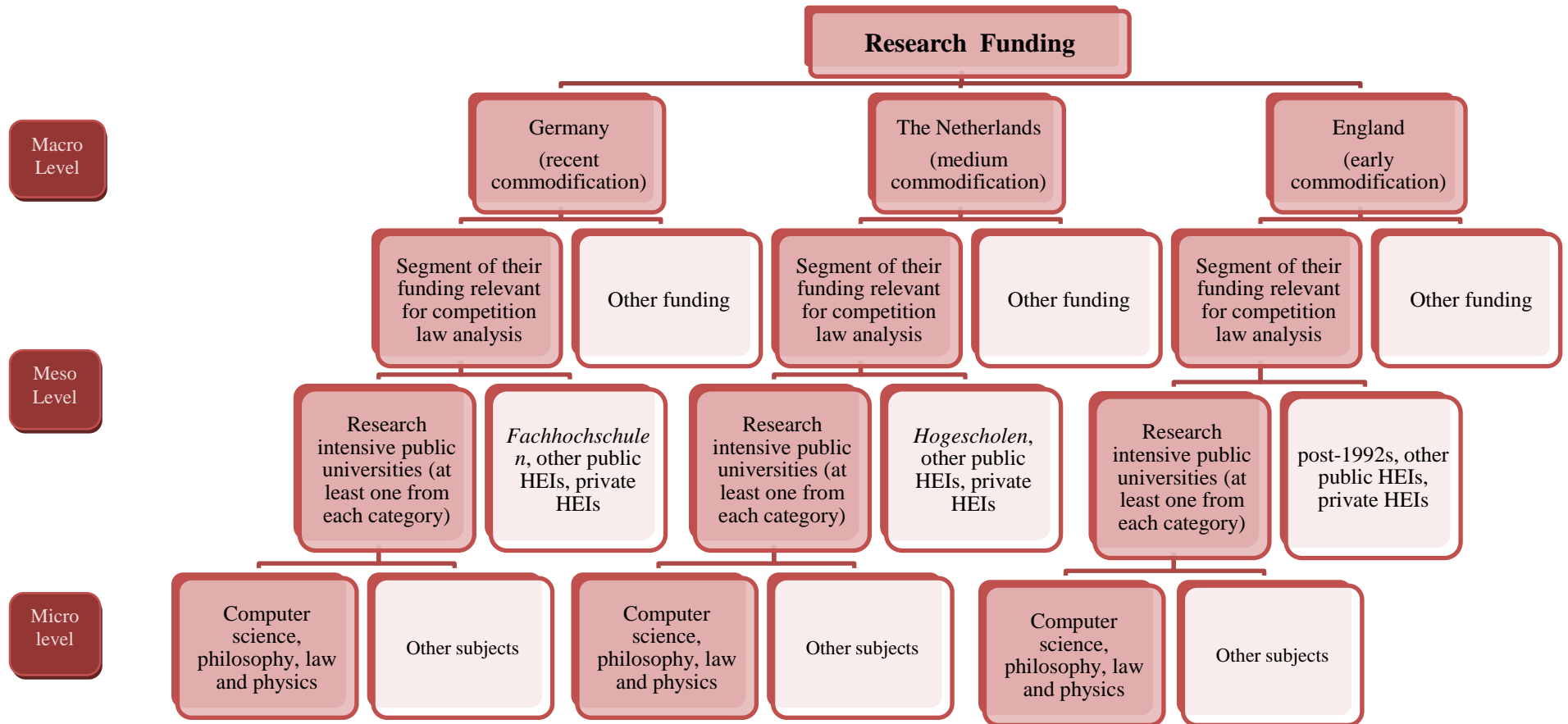


Figure 1: Sample for the empirical study

The areas relevant for the research are shaded dark.

5.2.3. Interviews

The following explains how the interview guide was established and how access to the interviewees was gained and elaborates upon the interview situation.

5.2.3.1. Interview guide

The aim of the empirical study to analyse exposure of HEI research to EU competition law as an example of exposure to economic constraints has been prepared by discussing potential competition law constraints for HEIs generally in chapter 3. In chapter 4 the HEI research systems of the countries under scrutiny have been introduced and a tentative competition law analysis has been conducted. Accordingly, potential issues which could arise under Article 101 TFEU were related to price fixing, market foreclosure (e.g. denying certain undertakings market access), market division (e.g. specialisation agreements, geographical division), anti-competitive research cooperation (e.g. limitations beyond research, close to discovery individually, limitations towards exploiting results), vertical cartels (e.g. special agreements with some research users) and limiting markets (e.g. limit on economic research or on externally financed chairs). As exemptions here depend mainly on market share it is impossible to find out about potential application of the exemptions in general questions. Article 102 TFEU could give rise to potential problems regarding non-economically justified contract conditions, output limitation, the refusal to enter into contractual relations or provide licenses, the insistence on long-term licenses, price discrimination, technical restrictions, predatory pricing or abuse of (legal) monopolies. Unlike Article 101 TFEU, Article 102 TFEU does not contain exemptions. State aid could potentially be given if full costing is not adhered to, if economic activities are not commissioned or if publicly generated knowledge is exclusively transferred to one undertaking (for example, through staff working there or licenses). Here exemptions could apply for *de minimis* aid, for transparent aid for projects exempted by the GBER or for aid of up to €15M per annum for SGEIs. In addition, certain research services might more generally be exempted as SGEIs.

The interview questions were then drafted according to the identified potential issues as outlined in Table 2 below. For example the question ‘Are there any limitations as to the amount of research, in particular privately funded research your organisation may conduct?’ aims to determine whether there might be a limitation of

outputs. Some additional general questions on economic constraints for research were asked in order to be able to contextualise potential competition law constraints. As the tentative competition law analysis in chapter 4 has shown, anti-competitive behaviour under the various provisions can partly overlap. If universities, for example, do not use a full costing system in areas of economic research, this can potentially be problematic in state aid terms. At the same time, if they agree on overhead rates, this can potentially constitute price fixing. Finally, if a dominant university asks for prices that are abusively low, this might be regarded as predatory pricing under Article 102 TFEU. Some questions, like those on full costing methodologies, thus cover a range of competition law issues.

Having developed the questions this way, the following structure initially resulted: 1. Introductory questions (questions such as name and role), 2. Economic activity (questions on how is research funded and what is expected in return), 3. Full costing, 4. Market access/special conditions (most issues under Article 101 and 102 TFEU were located here), 5. Other questions on economic research (containing questions on the remaining issues which were not related to access or special conditions) and 6. General questions on funding situation (here the experts were asked their opinion beyond issues solely related to competition law issues). This structure, however, turned out not to be ideal for the conversation flow (for example, the questions jumped between public and private funding requiring the expert to switch constantly between the different funders to answer the questions).

After interviewing experts in the first couple of universities, the questions were, therefore, restructured into the following sections: 1. Introductory questions, 2. Publicly funded research, 3. Cooperation with the private sector, 4. Full costing, 5. Market entry, limitations of research and 6. General opinion on funding situation. Some questions which appeared to be repetitive (i.e. leading to the same answers as previous questions) were removed or merged.⁶³⁴ Aside from this, the questions remained the same for all interviews except for minor system-specific alterations (for example, adapting the terminology to the relevant systems or omitting superfluous questions on full costing in England due to TRAC fEC being compulsory).

⁶³⁴ See Annex 1 for the final interview guide.

Table 2: Analytical framework

The below table demonstrates how the potential competition law constraints on HEIs identified in chapter 3 and 4 have been turned into interview questions and how the answers will be analysed to verify potential constraints.

Issues identified in chapters 3 and 4	Interview Question	Explanation
Economic activity	4, 7, 8	These questions aim to discover when research is, or could be, offered as a service on a market and is thus an economic activity.
Market definition	-	It would go beyond the scope of this thesis to conduct market definition for all potential problems which could arise.
Price fixing (Article 101 TFEU)	20, 21	Questions 19-21 evaluate costing and pricing. Amongst them, question 20 and 21 inter alia, clarify if there might be price fixing which could be seen in cases where it is agreed on how full costing is applied or, generally, if prices are agreed upon.
Market foreclosure (Article 101 or 102 TFEU)	22	This question attempts to find out if a collusion of undertakings denies market access to other undertakings or if a legal monopoly is being abused (for example, by insisting on it despite not being able to fulfil demand). After studying the systems in chapter 4, this does, however, seem unlikely.
Refusal to enter into contractual relations with certain undertakings (Article 101 or 102 TFEU)	9, 10	These questions try to establish whether networks or any other kind of collaboration exist from which certain undertakings are excluded without justifiable cause since this could constitute a collusion hindering competition or the abuse of a dominant position, depending on the details of the case.

Non-economically justified contract conditions (Article 101 or 102 TFEU)	11	This question tries to find out if any non-economically justified contract conditions are used, as these could hinder competition. Depending on the case such conditions could be part of a collusion or be imposed on other undertakings by a dominant undertaking.
Refusal to provide licenses or unreasonably long duration (Article 101 or 102 TFEU)	17, 18	Questions 15-18 aim to establish whether intellectual property rights are used in a way that infringes competition law. Amongst them, questions 17 and 18 try to establish, if a license is not given to certain other undertakings or unreasonably long durations are attached to licenses. Depending on the case this could be an anti-competitive collusion or the abuse of a dominant position.
Anti-competitive research co-operation (Article 101 TFEU)	13	This question aims at finding out if a co-operation has been initiated shortly before the discovery would have been made individually since this could constitute an anti-competitive collusion.
Market division (Article 101 TFEU)	25, 26	Questions 25 and 26 aim to establish if any market division is taking place either by subjects (specialisation agreements) or geographically.
Limiting markets (Article 101 or 102 TFEU)	23	This question evaluates if there are limitations to the amount of economic research an HEI conducts (through legislation, collusion or by artificially limiting outputs unilaterally) since this could be seen as 'limiting markets'. Depending on the circumstances of the case this could infringe Article 101 or 102 TFEU.
Price discrimination or other discrimination (Article 102 TFEU)	12	Question 12 aims to find out if there are advantages which are given to certain research users, but not to others. If conducted by a dominant undertaking this could constitute an infringement of Article 102 TFEU.
Predatory pricing (Article 102 TFEU)	19-21	Questions 19-21 evaluate costing and pricing. Inter alia, it is aimed to find out if there might be predatory pricing. Prices are reasonable if they have been calculated transparently including all costs and reasonable profit.

Mergers	-	Due to the very high annual turnover requirement it is unlikely that HEIs will come into conflict with the Merger Regulation.
Hidden State Aid (Article 107 TFEU)	19-21	Questions 19-21 evaluate costing and pricing. Inter alia, an HEI might provide state aid if it offers services at an unreasonably low level. In economic research the costs must thus be calculated transparently including all costs and reasonable profit.
Applying the <i>Altmark</i> principles (Article 107 TFEU)	5	This question tries to establish whether calls from public funding agencies which are inherently commissioning a service (the existence of any such calls is established in question 4) are open to everybody. If not, this might infringe the <i>Altmark</i> principles.
State aid through commercial use of licenses (Article 107 TFEU)	15, 16	Questions 15-18 aim at establishing whether intellectual property rights are used in a way that infringes competition law. Amongst them, question 15 and 16 evaluate if a right is exclusively given to one undertaking without reasonable consideration, since this could be regarded as state aid.
State aid through staff knowledge (Article 107 TFEU)	14	This question is tries to discover whether there are any limitations for staff working part-time or during leave in the private sector (or third sector) regarding the use of knowledge they generated during their work in the public sector, as otherwise this could constitute state aid.
Exemptions Article 101 TFEU	-	The BERs depend on the market share an analysis of which would go beyond the scope of this research. Generally, the four conditions (efficiency gain, fair share for the consumer, necessity and no total prevention of competition) need to be fulfilled. Too much depends on each individual case to establish this in comparable questions.
Exemptions Article 107 TFEU	6	This question tries to find out whether there is room for an exemption from state aid law.

SGEI	24, 27	Article 106 (2) TFEU exempts infringements of competition law if the service in question is of general interest and has been entrusted to the undertaking in question, the application of competition law would obstruct the performance of the service and the development of trade is not affected too an extent which would be contrary to the EU's interests. These questions ask the expert's opinion as to whether the research is in the general interest and if it has been entrusted to the HEI.
	1-3	Introductory questions.
	28-32	Considering that the thesis focuses on exposure of HEI research to EU competition law as an example of exposure to economic constraints, these last questions were asked in order to gain an overall assessment from the expert of economic constraints beyond competition law constraints.

5.2.3.2. Access

The interviewees were identified through researching the universities' research offices and/or general organisational forms in order to establish who could most suitably answer the questions (i.e. questions on public funding streams, private sector collaboration, IPR, costing and overall strategy). Since research offices are quite differently organised within universities, the position of the interviewees varies. Some offices are organised into subject areas whereby one person has an overview of everything related to the subject they are responsible for. Other offices are organised according to tasks with, for example, one person being responsible for IPRs, another for external contracts and another for public funding streams. In the University of Munich the relevant persons were not even located in one research office. Instead, the expert responsible for legal questions in research funding provision was situated in the legal department and the person responsible for costing, in the finance department. These differences can be explained by the fact that these offices developed relatively recently and that there is no strict model to be followed. Instead universities have to find their own ways to establish suitable structures.⁶³⁵

In each university the persons were chosen solely on their ability to answer the questions. If offices were structured according to subject areas, the persons responsible for the subjects identified above were asked all the questions. In other cases where offices were structured according to tasks, it was usually the public funding officer, the private funding officer, the IPR officer and sometimes a legal or policy officer who were interviewed depending on exactly how the tasks were divided and who best could answer. In such cases the experts were only asked those questions which related to their responsibilities. In other offices where it was difficult to identify the relevant interviewees, interviews were conducted with the head of the research office or in a focus group containing all potentially relevant persons. The interviews were requested by e-mail. The e-mail contained a short request and had as its attachments a formal letter with a slightly longer description of the project and an abstract of the thesis. The interviews took place on the universities' premises, either in the office of the individuals or in a meeting room.

⁶³⁵ For more on this see O Locker-Grütjen, B Ehmann and G Jongmanns, 'Definition für optimales Forschungsmanagement' (2012) 18 *Wissenschaftsmanagement* 34.

5.2.3.3. Interview situation

The interviews took place in a friendly, professional atmosphere with the interviewees seeming keen to help, provide information and showing an interest in the project and its outcomes. The one exception occurred in the very first university visited where, in one focus group, one interviewee was unhappy with the information provided by the researcher and with the questions asked, since she did not feel she could relate them to the overall project even after further explanation. This interviewee withdrew her consent at the end of the interview. The other participants of the focus group, however, gave their consent, so the remainder of the interview could be used. In the review after this incident it was decided that the interview questions were appropriate and necessary, but that future interviews should adhere more closely to the guide rather than being conducted too freely which may have partly contributed to the problem. The more structured approach, as well as the increasing confidence of the researcher may have played a role in the much improved results thereafter. Nevertheless, the situation seemed rather exceptional, since the other focus group conducted on the same day but prior to the problematic group, did not present the same difficulties.

Despite using a more structured approach after the mentioned incident, the questions were not always asked in the same order, since they were split between different interviewees or the conversation flowed in different directions leading to proceeding to a different topic and returning to the other questions later. Sometimes interviewees had also already answered a question with a previous answer or less important questions needed to be skipped due to time constraints.

5.2.4. Ethics

Ethical approval was sought from the University of Leeds AREA Faculty Research Ethics Committee. Since the research consisted of expert interviews in EU countries and therefore neither contained vulnerable groups nor any potential risk for the researcher or the interviewees, there were no particular ethical concerns. The research was approved without changes on 19 June 2012.⁶³⁶ The interviewees had been informed in the e-mail requesting the interview that they would be interviewed in their capacity as experts in the field and this was reiterated before each interview.

⁶³⁶ Ethic reference: AREA 11-173

They had to sign a consent form (including a brief description of the project) in which they gave their general consent for the interview and could choose between three options regarding consent for direct quotes under their name (consent, consent if seen in context, no consent for direct quotes). Despite most interviewees choosing the second option, it was later decided not to use any names in the thesis.

5.2.5. Data analysis

The interviews were recorded (except for a couple of interviews where recording was not or only partly possible due to technical problems) and notes had to be taken which were transcribed more extensively immediately afterwards. The recordings have been transcribed either by the author herself in shortened form ('notes and quotes') or as verbatim transcripts by others which have later been checked and summarised by the author. The answers have been analysed using the framework set out in Table 2 above.

This resulted in the following structure for the results subchapters:

0. Commodification constraints faced by the universities
1. Awareness of competition law
2. Economic Activity
3. Full costing
4. Market foreclosure
5. Refusal to enter into contractual relations and preferred partners
6. Non-economically justified or discriminatory contract conditions
7. Anti-competitive use of IPRs
8. Anti-competitive research co-operation
9. Market division
10. Limiting markets
11. Applying *Altmark*
12. State aid through staff knowledge
13. Exemptions
14. SGEIs
15. Interim conclusion

As mentioned above, an attempt was made to achieve a balanced sample of universities. As regards the topic of this study, this did not, however, lead to largely different results between the individual universities. If any peculiarities have been detected this has been made clear in the results chapters.

5.2.6. Interim conclusion

The above has set out the methodology used for the empirical study. Qualitative expert interviews which employed a format between ‘interview guide’ and ‘standardised open-ended interview’ were the most appropriate design for the research. The study has been limited to a small number of universities and subject areas (if appropriate) which have been chosen in an attempt to achieve a balanced sample. The questions were designed according to the results of the competition law analyses in chapter 3 and 4 and the experts were selected based on their ability to answer these questions. Generally, the interviews took place in a professional and friendly atmosphere. As only experts in their official role have been interviewed, there were no specific ethical issues. The interviews have been recorded and transcribed and were then analysed according to the same framework which had been used to establish the questions.

It is expected that the interviews have a high level of validity, since the experts are reporting about their everyday tasks and do not have any incentive to give false answers. The only concern could be that experts might be worried that their university is engaging in anti-competitive conduct and therefore attempt to cover this up. This, however, seems unlikely, since, unlike, for example, a breach of criminal law, a potential breach of competition law is not necessarily an imminent threat. Firstly, HEIs would have to be regarded as undertakings to fall under competition law in the first place. Secondly, if competition law did apply and a breach was detected, there are a number of potential justifications. Thirdly, there have so far been no major investigations at the EU level which would lead one to think that this is currently a focal point of the enforcing authorities and that a thesis pointing to potential problems would lead to immediate action. The research thus did not try to uncover a clear breach of law which would lead to definitive action, so that interviewees should not have felt any need to disguise anything. Instead it aimed at uncovering potential problems which it would be in the interest of the HEIs to know about in order to circumvent them. The interviewees seemed to widely understand this, found it helpful and were interested in the results.

The research is also expected to have a high degree of reliability. The questions have been designed to find out about specific situations in order to gain an insight into potential problems and they will be analysed in accordance with a frame-

work set out in advance. As is general with more structured approaches, it was expected that similar results would have been obtained if the research had been conducted by another researcher and that the data gained can thus be regarded as relatively reliable. However, the research is a qualitative empirical study and as such has certain boundaries. Only a small number of universities in three Member States have been studied. Whilst the sample has been strategically selected in order to present various types of universities, it can still only give an impression. The results are therefore not necessarily representative for all HEIs in Europe.

5.3. England

In discussing university research in general, many interviewees expressed the view that there was increasingly less money available for curiosity driven basic research due to the increasing importance of non-public funding and government priorities and impact playing a role in public funding. Potentially resulting from this there was increasing emphasis on larger, collaborative, interdisciplinary research and the professionalization of researchers. Whilst the interviewees seemed to understand the reason for these policies from government and the tax payer perspectives, many also expressed the worry that this could go too far and threaten the traditional mission of a university for which basic research was still regarded as academically the most valuable. Additionally, despite competition for funding having become generally fierce, differences between subjects were detected with subjects such as medical sciences, engineering and chemistry attracting funding more easily whilst the humanities, pure mathematic and astrophysics found it more difficult. Whilst this could partly stem from government priorities and the emotive character of medicine, differences in culture between disciplines might also facilitate this divide, with researchers in the social sciences and humanities being less eager to apply. An interviewee from Essex, however, also mentioned that it depended somewhat on the university's strength making it easier for certain universities to attract funding in areas generally regarded as difficult. Within subjects, as many interviewees remarked, certain topics would always be preferred (for example, connective community, digital economy, climate change and renewable energy).

Regarding university culture, it was felt that there have been significant changes in recent years. Whilst TRAC FEC was generally regarded positively by the

interviewees, since it helped to achieve financial sustainability, one interviewee from Leeds mentioned that the application of TRAC fEC could lead to inequality between universities as costs drivers such as buildings and salaries varied significantly between universities. Additionally, full costs were not always paid requiring research offices to look out for a healthy mix of funders with at least some paying more than full cost, something which could influence the decision whether or not to apply for a grant. Equally, other funder conditions (for example, ethics, required partners and legal issues) could determine whether or not a project could take place. Researchers would also occasionally be encouraged, or even required, to find university-wide collaborations on interdisciplinary themes, since otherwise their topic might find funding difficult to obtain. On the other hand, universities also occasionally actively encouraged academics to apply for certain grants. Another pressure regarding research council funding, mentioned by many interviewees, would arise when research councils limit the number of applications universities could submit thereby making the whole process less transparent due to incoherent internal pre-selection. A few interviewees expressed their feeling that generally universities were expected to do more for less and to strict deadlines. Such deadlines would also often require the subcontracting of elements of a project not conducted by the principal investigator (PI) rather than employing another researcher due to the high administrative requirements in universities. A few interviewees mentioned that these changes were 'quite a culture change for academics' who, in particular, felt that their academic freedom would be limited.

Overall the interviewees expected public funding to decrease further in the future with impact, performance indicators and priority areas gaining in importance. Some feared this might increase the divide between institutions as well as subjects. Such concentration could narrow opportunities, as the current government had

'a very narrow view of what the universities can do in terms of helping the British economy. It's very focussed on technology and innovation and I don't think it's, even then, a particularly expansive view of what innovation is. And the danger is that in their desperation to resolve the economic crisis that they're in, they will just narrow it down more and more and more [...] [thereby weakening Britain's] position of influence and contribution, because some of the areas where we have expertise will, without appropriate funding, will just be lost.'

Many interviewees believed, therefore, that EU funding and other non-public funders, including third sector organisations and foreign funding, would gain in importance. English universities would increasingly become eligible for the latter, since funders would increasingly want to fund cutting edge research wherever it took place and foreign researchers would bring such grants with them. Such funding would, however, also increase risk and administrative difficulties due to different languages and jurisdictions. Finally, many interviewees expected open access and new media technology to gain in importance. The former would, again, be more difficult in the arts as well as being costly for universities and mainly benefit the publishers.

5.3.1. Awareness of competition law

Most interviewees were not aware that EU competition law might play a role in their job. Some said that it could indirectly influence their work as it could be relevant for contracts or tendering. One interviewee whose work concerned commercialisation activities remarked that, in such activities and with non-standard contracts, care had to be taken that the market was not distorted. Generally, however, areas of concern seem to have been implemented into university policy or would be dealt with by a separate legal/contracts team or even external solicitors who could be consulted if necessary. One interviewee mentioned that senior management made the final decision, if a problem was detected. Research offices would normally not apply competition law directly themselves and are thus often ‘not necessarily aware of what the competition rules are’.

5.3.2. Economic activity

As has been explained in chapters 3 and 4, HEIs would have to be conducting an economic activity in order to fall under the competition rules. It was concluded that this is not likely to be the case regarding generic funding provided by HEFCE despite the recent impact agenda. The interviewees explained that research council funding can generally be divided into two categories; the responsive mode whereby the academic can apply at any time with any project falling into the remit of the respective council⁶³⁷ and themed calls where a subject and a deadline for application is

⁶³⁷ Within the responsive mode there would, however, sometimes be ‘highlight notices’ giving preferential treatment to certain themes.

set. These still seem to be broad calls allowing the academic to decide about the exact project. An Oxford interviewee explained this as the aim of the research councils being to strengthen the knowledge base and, ultimately the economy, generally rather than serve a more immediate goal. The academics would therefore compete on an academic level and the research council would pick the proposal most valuable for the public good. From this description, it does not generally seem to amount to a service which could be provided under market conditions and research council funding would thus probably generally also not amount to an economic activity. One interviewee, however, mentioned that very large grants would sometimes be quite specific and come closer to a tender, something which might change this assessment.

Government departments usually have, according to the interviewees, very specific calls essentially commissioning research which would also often be classified as a tender and require declarations to be signed giving assurance that no anti-competitive behaviour is taking place. These calls, therefore, seem to be economic in nature. Other public funders might have specific as well as broader calls. With regards to third sector organisations, how specific the calls usually are would depend on the *raison d'être* of the organisation. The WELLCOME trust, for example, would 'come out with these really quite broad themes, but then the smaller charity that has been set up to look into a particular type of malignant tumour will have quite a narrow focus'. Judging from these descriptions, decisions would need to be made on a case by case basis on whether or not a call would amount to a service which could be provided under market conditions.

In relation to collaboration with the private sector, the interviewees mentioned that all forms identified in chapter 4 existed. They did not elaborate further on science parks perhaps explicable by this being a loose form of collaboration essentially amounting to a space where research takes place. As has been mentioned in chapter 4, these would, in themselves, probably not constitute an economic research activity. Many interviewees talked about other looser arrangements for 'keeping in contact' including industry days, enterprise boards and research networks. More institutionalised forms of such arrangements might also provide funding to facilitate new collaborations. Some interviewees also mentioned strategic partnerships in which work was conducted collaboratively with a company on a regular basis which might go beyond research and also include employment schemes for graduates or access arrangements for technology. Research co-operations were described as general co-

operations whereby research is conducted jointly in the longer term and the private sector contributes financially (e.g. through staff time or use of their equipment). Sometimes these would be supported by EU or national public funding sources, for example the Technology Strategy Board or the research councils. Collaborations increased through user-partners being required on 'the impact side'. Networks, strategic partnerships and research co-operations would have to be regarded as undertakings conducting an economic research activity if the research could have been conducted on a market. Judging from the descriptions, this would, again, need to be assessed on a case by case basis with the stage of the research, openness of direction and predefinition of targets playing a role in such an assessment.

The universities rely on academics to report innovations which they then exploit, often through especially established companies. Sometimes this might occur through spin-offs which, as some interviewees explained, initially will only exploit one patent, but they eventually added to their portfolio. Occasionally, venture capital firms invest in such spin-offs. In section 3.1.1. Research Framework,⁶³⁸ the Commission explains that licensing and spin-off creation are to be considered as non-economic if they are of an internal nature. The Issue Paper further determines that the knowledge must have been created in a non-economic area of research and must be exploited non-exclusively. If this is not the case the activities are of an economic nature. According to the descriptions, both non-economic and economic exploitation seem to occur. With regards to spin-offs and start-ups, whether or not their behaviour or university interaction with them amounts to an economic activity for the university, would depend on how affiliated they still are with the university and on the exact nature of their activity.

According to the interviewees, the universities would also have privately funded chairs, fellowships, post-docs or PhD researchers. The interviewees explained that the latter can be fully funded, if the company had a specific project it wanted to be conducted. They might also be co-funded with additional research council funding. As part of such a project the PhD researcher would then also sometimes be seconded to the company. Such PhD studentships would be especially common in the (natural) sciences. If staff or PhD researchers are essentially con-

⁶³⁸ Research Framework (n 8).

ducting a pre-described service for the private sector, this could amount to an economic activity. From the explanations provided by the interviewees, this might occasionally be the case, especially in some of the PhD studentships. If the private sector is simply donating money to a chair in an area of interest and the holder of the chair can still determine the direction of teaching and research, this would probably not amount to an economic activity.

Finally, the universities conduct some activities which are more obviously economic in nature. In this respect the interviewees mentioned contract research, consultancy, the leasing of research infrastructure, material transfer agreements when the university has created materials which a company is interested in (e.g. cells or compounds) as part of their research and data access agreements if companies want to access university data sets. Interviewees from two universities mentioned that such activities are mostly conducted through separate technology transfer companies owned by the universities. The universities might equally, require such activities from private sector undertakings.

5.3.3. Full costing

As has been explained in chapter 4, English universities are using TRAC as a costing methodology and this seems to be unproblematic from a competition law perspective. Nevertheless, pricing could be anti-competitive if, in areas of economic activity, full costs and reasonable profit are not applied. The interviewees explained that the full cost methodology is always used, but that there are very few sponsors paying full costs and the universities would need to underwrite many projects. Research councils would pay 80%, charities only direct costs and with the private sector and other public funders (government departments, local government and quangos) it would be a matter of negotiation. The problem would then, as emerged from a focus group, be that they have, in advance, set aside a sum they are willing to pay for a certain piece of research. Therefore, the universities would have to go backwards to see how they could fit the project into the price. Especially with the private sector, the universities would attempt to receive 100% fEC and, when an activity is classified as contract research or consultancy (which some interviewees mentioned was a 'commercial activity') or less beneficial research, an attempt would be made to generate an additional profit. This would be reinvested into activities which are not funded at 100%. If 100% fEC could not be achieved, universities would be more

restrictive with other terms of the agreement, in particular, the partners would have to share IPRs. Generally, the question of whether or not less than 100% fEC is acceptable for the universities would also depend on the strategic importance of the project and the partner in question. One interviewee working in the area of formal sciences mentioned that universities would not like to go below 90% with these funders. This would be hard to explain to academics who believed that the 80% the research councils were paying was a generally acceptable level. Some interviewees expressed that negotiations would be made more difficult by academics promising to do more than is possible for the price. This is especially facilitated by government departments and local authorities constantly expecting more for less and other universities accommodating this tendency by undercutting prices.

Some interviewees mentioned the ‘public benefit test’⁶³⁹ which is applicable to all charities in the UK, an organisational form often taken by UK universities including the ones under scrutiny. Accordingly, universities would not be allowed to trade and work for profit, but would have to further their charitable goals by conducting tasks for the public benefit. The test would establish if a certain activity serves the public benefit. If this was not the case for a certain research activity it could still be conducted, but usually as part of a university trading company. However, as an interviewee from the area of social sciences expressed it:

‘It’s still actually then delivered by the same academics, but that work would attract the VAT and there’s an extra charge for doing it, and we would have to make sure that we were covering all our costs, so there’s no way we’d be able to subsidise it in any way. It’s quite rare for things not to pass, and usually we’d try and renegotiate the terms to make sure that things did pass.’

The public benefit test under national law does not necessarily seem to be congruent with the question of whether an economic activity is taking place. As has been explained above and more extensively in chapter 3, an economic activity is tak-

⁶³⁹ The test entails that there must be clear benefits and that these ‘must be to the public’. Whilst this excludes organisations that are run for profit, it does not mean that organisations cannot charge fees. Organisations must pass the test to be registered as a charity and registered charities have to make sure that their activities fall within the test. See JE Martin, *Hanbury & Martin Modern equity* (19th edn Sweet & Maxwell / Thomson Reuters, London 2012) p. 458. R Edwards and N Stockwell, *Trusts and equity* (10th edn Pearson Education, Harlow 2011) p. 205 seq. According to the latter, this means for research that it should be ‘useful’ and that ‘some provision for the information gained to be disseminated and made available for study’ should be made (ibid p. 211). It is thus a rather wide definition capable of capturing most research conducted by HEIs.

ing place if goods and services are or could potentially be offered on a market. It is irrelevant whether or not they are in the public interest. The latter might only play a role when it comes to exempting certain activities as SGEIs. Research which constitutes an economic activity has to be provided at market prices or for full costs and reasonable profit. The impression gained from the interviewees leads to the conclusion that currently this might not always be the case. Instead it appears that there might be instances of potential state aid. The fact that some universities are (consciously) undercutting prices could be regarded as predatory pricing if they were dominant and could be challenged by competitors.

5.3.4. Market foreclosure

Market foreclosure takes place if a collusion of undertakings, national legislation or a dominant undertaking denies market access to other undertakings. No signs of this could be detected for research in England.

5.3.5. Refusal to enter into contractual relations

Whilst particular factors might facilitate certain collaborations,⁶⁴⁰ partners are, according to the interviewees, usually chosen by the academics, occasionally assisted by research offices and driven by research interests. In this respect, future prospects of collaboration or the question of whether the collaboration was in an area of research strength or in a niche area in a currently relevant topic might play a role in deciding which partners to approach. Whether additional funding was available for certain forms of collaboration or if a certain call required a certain kind of partner are also factors. In so far government priorities might be taken into consideration. However, the interviewees seemed to agree that the main point was whether or not there was a ‘good match’ and the universities under scrutiny would not change their research strategies around government priorities⁶⁴¹ or apply for calls where the cooperation was not genuine even if partners could be added ‘on paper’. Equally, an interviewee from Essex mentioned that if they were approached by private sector entities to do work in an area that was simply not conducted by any of

⁶⁴⁰ Larger enterprises might more often attend conferences making it easy to establish relations. Common events or fieldwork could be easier conducted with local companies. Contractual negotiations were facilitated by existing relationships.

⁶⁴¹ One interviewee mentioned that she knew about a university other than those under scrutiny which had a very strong ‘working locally’ policy.

the academics and had no relation with anything they would do, they would not become involved solely for the purpose of catering for the market.

The only reason for exclusion of partners, aside from reasons intrinsic in the research, would, according to the interviewees, be that a partner does not fulfil certain standards. Before a collaboration is begun, certain checks (e.g. credit and ethics) would be conducted and/or the external funder might have certain requirements regarding project management, auditing, quality assurance or the experience of the PI. Many interviewees mentioned, for example, that they would not work with tobacco companies due to ethical considerations and, as a Leeds interviewee pointed out, this could potentially lead to the withdrawal of funding from charitable organisations. With regards to financial requirements, however, usually companies would not necessarily be excluded, but payment for their contribution might only be made after the contribution was received. Another Leeds interviewee spoke of cases where a university requires research work to be conducted by another party. Here the work would be commissioned under normal purchasing rules which, depending on the value of the work, would entail comparing prices, tendering or even Europe wide procurement. However, the commissioning of external research would be rare.

Given that the universities do not appear to exclude partners, there does not generally appear to be a general problem from a competition law perspective. The exclusion of partners due to ethical considerations might potentially be regarded as anti-competitive behaviour, while the exclusion or the imposition of additional conditions upon certain companies for economic reasons would probably have to be seen as reasonable commercial practice. One interviewee mentioned that there are also policies in place to avoid anti-competitive behaviour at the level of the individual academic. The behaviour could be anti-competitive through constantly working with or subcontracting work to the same company. This would be especially problematic if the academic held shares in that company or had any personal ties. Pre-project questionnaires and annual reviews attempted to detect such links which were prohibited if applicable.⁶⁴²

⁶⁴² The interviewee did, however, state that at one occasion an otherwise prohibited constellation 'was managed in a way that we set a price that was being payable to this company and it was a lot lower than had we gone somewhere else'. If this was the best price for that piece of research, the practice not a recurring constellation and the company not a dominant undertaking, this

5.3.6. Non-economically justified or discriminatory contract conditions

The interviewees suggested that difficulties in contractual negotiations with private sector entities arose if the company desired to keep certain information secret whilst the mission of a university is to disseminate research results. Another issue in the more open forms of collaboration was that companies often wished to agree upon milestones and deadlines which could be difficult in academic research where the outcome of the research and the timing of any results were not known in advance. Furthermore, issues would often arise as regards liabilities as well as IPR ownership and access. Universities would also oppose contractual terms that prevented them from working with other companies in the sector. Finally, universities had a variety of terms and conditions (e.g. financial regulations on travel, ethics etc.). Usually any issues arising could be resolved in the negotiations. Conditions might also be imposed by the funder regarding ownership and backflow of IPRs or whether or not subcontracting is permissible. Some funders would also make provision for the results of a collaboration to be made publicly available if they were interesting to other companies as well. A Leeds interviewee explained this as institutions being ‘increasingly conscious about state aid rules and not using public money to support just one company’s development’. She expressed that public funding rules would be welcomed since they would make certain terms clear before starting negotiations.

As mentioned above, the exclusion of certain companies might be regarded as anti-competitive. Opposing conditions requiring universities to do so would thus be in line with competition law and universities might be able to utilise competition law in this respect. That publication requirements avoid state aid accusations, as mentioned by an interviewee, might be occasionally the case. In other circumstances it might, however, constitute anti-competitive conditions if an economic activity is taking place, such requirements are not reasonable commercial practice, full costs are charged and such publication requirements are dictated upon an undertaking. This, as with most of the other conditions required by universities that are regarded as anti-competitive in the first place, could, however, probably be exempted as SGEIs. Only the occasional condition that subcontracting was not permissible im-

would probably not be problematic from a competition law perspective. The question whether or not this would be consistent with other areas of law would go beyond the scope of this thesis.

posed by funders might cause concern if an economic activity is taking place, since this could be seen as excluding other undertakings.

5.3.7. Anti-competitive use of IPRs

As has been discussed in chapter 4, the employer owns the inventions made by its employees. The interviewees explained that the academic therefore informs the university or the exploitation company respectively about a potential invention. The academics would be motivated to do so, since they might get generous returns from licensing in addition to their salary, since exploited IPRs created impact and since it was regarded as prestigious to have a patent on one's CV. Patent searches and market evaluation would then be conducted to see if the innovation is exploitable. The registration and licensing or sale is often conducted by an exploitation company or an external agent, but the universities (and academics) received revenues. If the potential market is considered large enough a spin-off might be created which, as an Essex interviewee mentioned, was often the academics' preferred choice. The university and the academic would hold equity in the spin-off and sometimes venture capital firms would be taken onboard diluting the equity shares. The latter would sometimes be complicated, according to an interviewee working in the area of commercialisation, due to the value of the company being difficult to estimate. He also mentioned that there are preferred investors whereby the equity split is known in advance.

According to this interviewee, there are a variety of special conditions universities might impose when exploiting IPRs. Generally, unlike private companies who might hold back a patent in order not to dilute their market, universities would have to ensure that patented innovations are being used. In this respect it would also occasionally be discussed whether certain innovations (e.g. cancer therapeutics) should be 'open source'. However, considering the expense required to bring initial results to a marketable product (for example through clinical trials), commercialisation would mostly be the best route because companies would not be willing to make these investments if 'other companies can just come in and take the market from them'. It would therefore always be necessary to consider the best way to achieve the desired impact from an IPR. Unlike private sector companies, universities would also only give limited warranties on licenses (i.e. ownership and that no other commercial arrangements in relation to that IPR are known, but no guarantee that no-

body else's IPRs are infringed), as any further warranties would require more market research than a university can reasonably conduct. Furthermore, sublicense partners need to be disclosed with universities retaining the right to object to inappropriate partners (e.g. the tobacco industry or military applications in certain countries). Since university research is often not complete when the IPR is created, partners could also benefit from IPR improvements for reasonable commercial terms, in particular as universities would not be free to exploit improvements with another party anyway. Finally, as it is often beneficial for partners, especially SMEs, to use a university's name when exploiting an IPR, universities would require knowledge about and, if applicable, object to the usage of their name.

With regards to externally funded research, some interviewees mentioned that charities would increasingly oblige universities to exploit in their funding conditions in order for the research to get 'out there'. External funders (charities and, especially, the private sector) would also increasingly require royalties. In private sector collaborations, who acquires ownership of IPRs would be contractually agreed. Since private sector companies might sometimes be better placed 'to take it through to the marketplace', the company might patent and thence provide the university with an academic license and royalty returns. Alternatively, if a higher rate is paid, the company might own the patent. Such routes could be desirable for the universities because the company would then take over the high costs associated with patenting. In other situations, where the research is mainly publicly funded, the university patents and provides the company with an option right and, if applicable, a license for reasonable commercial rates. In both cases, the universities would require the IPR to be exploited to its full potential and if a partner does not commit to this, the partner might only acquire the right in particular fields or the university might 'take back rights in particular fields [...] [to] exploit the IP with other interested parties'. In determining which route to go, the stage of the innovation might also play a role, since certain results are too early to be interesting for private sector partners. One interviewee additionally mentioned that universities needed to retain the right to publish, either independently or with the funder, and therefore needed to be cautious about restrictions to this (delays or complete denial) in prior negotiations.

If internally managed, knowledge transfer in the form of IPR exploitation has to be regarded as a non-economic activity according to the Research Framework. This means the rules around direct exploitation efforts by universities will mostly

not create competition law concerns. IPR exploitation could be classified as economic if venture capital firms have co-invested, if the IPRs arise from economic research or if the transfer is exclusive. If IPR exploitation is of an economic nature, special conditions granted to certain undertakings, be it to make innovation accessible, could be regarded as state aid. Contractual conditions, such as the limitation of sublicensing, thrust upon undertakings could equally be regarded as anti-competitive. In both cases, however, the possibility of exemption according to Article 106 (2) TFEU remains. In collaborations universities would have to demand market prices for any rights the partner obtains unless all the costs for the research have been taken over by the partner or any returns are granted under economically justified conditions respectively in order for IPR transfer not be regarded as state aid. Furthermore, any economically unjustified contractual conditions could be regarded as anti-competitive. The latter could potentially be identified in the requirement to exploit to the full potential of the IPR.

5.3.8. Anti-competitive research co-operation

According to some interviewees, collaborations can start at any stage from the initial idea up to further development of already created IPRs. Inter alia that would depend on if there were existing relationships leading to the partner being involved early on or whether relationships needed to be constructed at a later stage where involvement of a partner seemed indicated or if it was the company which approached the university. Attempts to involve partners would generally be made as early as possible and, if the project was externally funded, the partner had to be already established at the application stage. Taking these explanations into consideration, there thus does not seem to be any indication that research was begun at an unreasonably late stage which could be in breach of Article 101 (1) TFEU, as discussed in chapter 3.

One might also wonder if the topic of the collaboration itself could be anti-competitive in nature. One interviewee mentioned that they were involved in a research council funded collaboration where the university was working with a company ‘to help increase their market share of a product and looking at the social aspects of what that product’s about’. While the latter part seems to be unproblematic from a competition law perspective, a university helping to increase a certain company’s market share appears questionable.

5.3.9. Market division

The Oxford interviewees suggested that their university prefers to have everything ‘in house’. An Essex interviewee explained that occasionally national archives are hosted by a university, an example being the UK data archive for socio-economic data sets managed by her university. However, she also did not mention any specialisation or facility sharing agreements beyond this. Likewise, most interviewees in Leeds were unaware of this and only two Leeds interviewees mentioned that this was a new endeavour in which their university was ‘leading the way’, since it had established an equipment database which was being linked to the N8 (eight universities in the North of England). These universities could then share equipment something that was encouraged by the research councils. As stated in chapter 4, the latter could potentially cause competition law concerns if other universities who would be willing to be involved are excluded and if market prices for the use of infrastructure are not paid. One interviewee mentioned that they currently feared that VAT might become applicable to such activities⁶⁴³ which might discourage universities from collaborating. This might indicate that, so far, market prices (including taxes and profits) have not been charged for such activities.

5.3.10. Limiting Markets

Generally, there do not appear to be any artificial restrictions in place as regards the amount of research, although some interviewees mentioned natural limitations (a member of staff can only commit to a maximum of 100% fte and schools equally need to assure the necessary teaching capacity). However, thresholds where this would cause concerns are not normally reached and, instead, an increase in externally funded research projects is generally attempted. However, the interviewees in two universities mentioned the importance of the public benefit test in this respect. Research which passed the test could be conducted with no restrictions. Research which did not pass could still go ahead, but this had to be accounted for separately. One interviewee stated that only 10% of such research could go through the

⁶⁴³ The Commission had made HMRC aware that the VAT exemption for research was not in line with Directive EEC/77/388 on the harmonization of the laws of the Member States relating to turnover taxes - Common system of value added tax: uniform basis of assessment OJ [1977] L 145/1 as interpreted by the Court in case C-287/00 *Commission v Germany*. HMRC has thus withdrawn the exception since 1 August 2013 making VAT applicable on ‘business research’ while ‘non-business research’ remains to be outside the scope of VAT. See further HMRC, ‘VAT: supplies of research between eligible bodies’ (2013) 11 VAT Info Sheet.

university books. The interviewees from the other university explained that such research could not be classified as research income. The interviewees from both universities mentioned that such research could instead go through the universities' trading companies. However, they all also mentioned that such research was very rare since the academics would not be interested in doing research which had no academic or broader interest. Additionally, as this would be a purely commercial transaction, they would also not be able to use any of the results thus reducing the output of high quality publications, in turn causing constraints regarding the REF. Despite inherent limitations, the necessity to account differently for non-public-benefit research and academic interest potentially leading to less research of a solely commercial character, there do not appear to be any artificial limitations on output which could be regarded as limiting markets from a competition law perspective.

5.3.11. Applying *Altmark*

The funding agencies determine who can apply for a call which, according to the interviewees, varies between calls. Some interviewees mentioned that regarding the research councils, it is mostly only UK publicly funded universities and pre-recognised research centres that are eligible to apply. Sometimes they would be encouraged or required to have other partners which would, however, usually not be directly sponsored. Other funders would generally have broader eligibility requirements regarding the lead institution and would also partly fund other partners. In addition to defining the eligibility of organisations to apply, the funder rules often stipulate requirements as to the person of the PI (for example, regarding length of employment in the applying institution), the number of applications from one institution and the total value of the application. Government departments and local authorities would issue a request to tender. In these scenarios tendering organisations would need to sign declarations that they will not behave anti-competitively by exchanging information or deterring others from bidding. To an extent it would be possible to tender to become a preferred provider in which case, calls would then occasionally only be issued to the preferred providers. According to an interviewee working in social sciences, the conditions for contracts with the latter group of funders would become increasingly hard. She even mentioned one example where a local council contractually required the contract price to be decreased during the duration of the project, even though that had never been invoked.

If public calls can be classified as economic activities, they would need to be commissioned according to the *Altmark* criteria which stipulate that calls need to be open to any willing provider, including foreign providers, and either market prices or full costs and reasonable profit need to be charged for it not to be state aid. As has been mentioned above, the majority of research council funding might not be of an economic nature. If it or funding from other public sources would have to be classified as such, the limitations in eligibility would probably need to be regarded as state aid. Furthermore, whilst government departments and local authorities would usually tender, the fact that they often do not pay 'full costs plus' in the end and that they employ contract conditions forcing the contract price to decrease during a project, might potentially be regarded as anti-competitive.

5.3.12. State aid through staff knowledge

According to the interviewees, staff members, especially post-docs, would occasionally be seconded to the private sector during a leave of absence or on a part time basis. Such practices had become more common in recent years. The interviewees elaborated in this respect about the previously mentioned fully privately funded PhD studentships and those which involved secondment to the private sector as well as about industrial fellowships for academics in which the funder (for example, the Royal Society) would pay the salary for the fellow for a period of time allowing them to work in industry. One interviewee even mentioned that her university used to have a formal secondment programme with a private sector company. According to the interviewees, the advantages and disadvantages of such a secondment would first need to be weighed. Some interviewees mentioned that this would take place at school level. Then research offices would need to cooperate with personnel, legal services and other university departments to negotiate the secondment agreements in order, inter alia, to protect the individual, the university and deal with IPR issues and confidentiality questions. In particular the latter, two issues would be problematic, since it would be difficult for researchers to 'forget' something they have learned especially if it was vital to their research. An interviewee in a focus group thus mentioned that, in her opinion, companies should not share highly confidential knowledge during such an exchange, as requiring that the researcher kept this information confidential would reduce the benefits of the exchange.

From a competition law perspective, problems could occur if advantages are given to companies through staff knowledge, particularly through IPR creation or public funding paying for an employee in a company. Also, PhD studentships could amount to state aid where a company essentially defines a research task to be undertaken by the student because, even if the researcher is fully funded by the company, the researcher will still receive academic support and be registered as student with all the associated benefits rather than being a fully paid company employee.

5.3.13. Exemptions

Potential exemptions for anti-competitive behaviour under Article 101 TFEU must be assessed on an individual basis, in particular the exemptions provided for in BERs, as they often involve market shares. Regarding state aid, as mentioned in chapter 3, the *De Minimis* Regulation⁶⁴⁴ excludes aid below €200,000 and the *De Minimis* SGEIs Regulation⁶⁴⁵ aid below €500,000 respectively over three fiscal years to any one undertaking from the ambit of Article 107 (1) TFEU. The GBER⁶⁴⁶ exempts transparent aid for basic research of up to €20M per project with 100% aid intensity, applied research of up to €10M per project with 50% aid intensity and experimental development of up to €7.5M with 25% aid intensity and Decision 2012/21/EU⁶⁴⁷ provides an exemption for aid below €15M per annum for SGEIS provision. Outside of these exemptions, aid would need to be notified and could potentially be exempted according to Article 107 (3) TFEU for which the Research Framework provides some guidance in sections 4 and 5. The latter, in particular, removes the ceilings of the GBER for research and development if the aid intensities are adhered to, the other conditions of that section are fulfilled and the aid has an incentive effect (section 6).

According to the interviewees, the amount of funding provided through public calls varies significantly. Whilst the smaller grants (for example, for travel) might only be a few hundred pounds, the highest calls could be up to £10M for the research councils' centres of excellence and networks of excellence calls which are

⁶⁴⁴ *De Minimis* Regulation (n 327).

⁶⁴⁵ *De Minimis* SGEIs Regulation (n 343).

⁶⁴⁶ GBER (n 347).

⁶⁴⁷ Decision 2012/21/EU (n 199).

often collaborative. Some interviewees also mentioned, however, that with certain grants, researchers could ask for as much as they needed to do the project which could technically be any value. A few interviewees remarked that recently there was a tendency towards calls for larger and longer projects. Smaller projects, if qualifying as economic in nature, might, due to the *de minimis* rules, not fall under Article 107 (1) TFEU in the first place. Many projects which would need to be considered as infringing state aid law might be able to benefit from the exemptions in the GBER provided that it is transparent aid and that the aid intensities are adhered to. If projects can be classified as providing an SGEI, they are also likely to fall under the €15M threshold in the SGEI Decision, since there rarely seem to be projects with a higher value in England. Individual cases need to be evaluated to determine whether these conditions are fulfilled or, alternatively, the measure could utilise Article 107 (3) TFEU as an exemption.

5.3.14. SGEIs

For potentially anti-competitive activities by the universities to be exempted as SGEIs they would need to be in the general interest, be entrusted to the university, the application of the competition rules would have to obstruct the service in question and the development of trade must not be affected in such a way that it would be contrary to the EU's interests. When asked whether they believed the research in their institution to be in the public interest, many interviewees mentioned high impact research on topics regarded to be of societal importance in answer to this question which seems to indicate that research based purely on the researchers' curiosity is less seen as being in the general interest. Interestingly, it could, however, be argued that the English impact agenda is geared more towards creating any impact on anyone which could favour particular interests, while one might argue that curiosity driven research for the development of science, as such, is in the interest of everyone. Nevertheless, the interviewees also emphasised that the research had to pass the public benefit test. Such research would then involve some sort of public interest and, as previously mentioned, this encompasses the majority of the research conducted by the universities. In line with what has been discussed in chapter 4, the interviewees did not believe research to be a statutory task of HEIs, but a task they could conduct and could receive funding for. However, as one interviewee pointed out, if universities did not conduct research they would have significantly less income due to lack of external grants as well as less generic funding which is partly

based on research quality and contains a bonus for externally generated research income.

Except for research which has not passed the public benefit test, a general interest might thus be assumed. However, the concept of SGEI seems, in addition to the general interest, to require a 'uniform' and 'binding nature' which might not always be applicable. At the same time, Member States have a fair amount of discretion in this respect. As for the question of whether the SGEI is entrusted to the universities, research, unlike in the other two countries, does not appear to be a statutory task. However, grant agreements might be regarded as acts that entrust universities with the specific task in question. To achieve more clarity on the question as to how far potentially anti-competitive research could utilise the exemption of Article 106 (2) TFEU, the interpretation of the Court would have to be awaited. Whether the application of competition law would obstruct a potential SGEI, proportionality and effects on trade would have to be evaluated on an individual case basis.

5.3.15 Interim conclusion

Overall, the funding situation was viewed critically by the interviewees, as public funding was conceived both shrinking in general and increasingly concentrated on research with impact and research in certain areas. It was mentioned that, in particular, academics perceived this as creating unnecessary administrative hurdles and causing tensions with academic freedom. The interviewees expected further concentration of funding in certain areas and on certain institutions making it necessary to look for alternative funding sources. Additionally, the interviewees saw the importance of open access publishing and new media technologies as becoming increasingly relevant for research in the future.

The interviewees overall were not particularly aware of competition law themselves, as this would have been implemented into university policy and they would just follow the policy as such. If any problem would come to their attention they would consult separate units or external solicitors rather than dealing with the issue themselves. They thus would also not themselves make a distinction between economic and non-economic activities.

In areas of economic activity, full costs plus profit would need to be charged which, in reality, despite the use of TRAC fEC to calculate the costs, does not always seem to be the case. Therefore, there might be instances of state aid or preda-

tory pricing, if HEIs were dominant. Furthermore, the exclusion of partners for ethical reasons, the imposition of publication requirements and the prohibition of subcontracting by funders might potentially be regarded as anti-competitive. If IPR exploitation is of an economic nature, any economically unjustified advantageous conditions for undertakings, be it to make innovation in the public interest accessible, could be regarded as state aid. Also, contract conditions dictated upon undertakings such as the limitation of sublicensing could be regarded as anti-competitive and universities would have to demand market prices for any rights the partner obtains or exploits. Another issue which came up in an interview is the question of whether the topic of a certain piece of research could, in itself, be anti-competitive. Generally market division seemed not to be present in England, however, envisaged facility sharing endeavours might be regarded as anti-competitive if certain partners were excluded and/or market prices were not paid. Problems might also occur if public calls are classified as economic activities and have not been commissioned according to the *Altmark* criteria. Finally, if advantages are bestowed upon companies through staff knowledge, in particular IPR creation or PhD students essentially conducting a study for the private sector, this could potentially be regarded as state aid.

Depending on the individual case, there might be exemption possibilities under Article 101 (3) TFEU or Article 107 (3) TFEU respectively and smaller projects may not fall under Article 107 (1) in the first place due to the *de minimis* rule. If projects infringing the state aid rules could be classified as providing SGEIs, they could mostly benefit from the SGEI Decision, as projects seem to be (almost) always under the €15M threshold. More generally, it might be possible to exempt some potential breaches of competition law as SGEIs under Article 106 (2) TFEU.

5.4. The Netherlands

In the Netherlands, many interviewees expressed the view that overall public funding, especially generic funding, was decreasing, which made the other funding streams more important. The interviewees generally described that, while basic research (especially research funded through the *Vernieuwingsimpuls*) is academically most prestigious, government policy (especially top sector policy) increasingly steers towards impact oriented and applied research. As regards academic disciplines, the interviewees expressed that generally the natural sciences, life sciences

and medicine are more easily funded and arts, humanities, law and social sciences have more difficulties. However, there are exceptions such as astronomy, for which it is harder to find funding, and archaeology and economics which are relatively successful. Whilst all subjects can still be funded in the *Vernieuwingsimpuls*, other funding options for certain subjects are declining which increases competition in the *Vernieuwingsimpuls*. An interviewee working in the field of business collaboration expressed his belief that certain subjects might ultimately die out or would only be offered in a few universities in the country, in Europe or even worldwide. The tendency in government policy, but (influenced by this policy) also within universities themselves to focus on certain research areas, would, according to the interviewees, also influence research priorities within subjects. Many interviewees were critical of this as basic and curiosity driven research was needed ‘to get these really big changes that you need as knowledge economy’, to maintain a high academic standard and to provide high quality, research informed teaching. However, while many academics would thus attempt to utilise the open funding streams as much as possible and, as an interviewee in Leiden mentioned, even private sector voices were calling for retaining sufficient space for basic research in universities, there would not be any real resistance. Instead universities would just adapt to the changes in research funding.

Commodification tendencies have thus led to certain changes in university culture. The feeling that a lot of pressure is created, when universities always have to compete for everything, was expressed in a focus group. A few interviewees mentioned that due to the increasing importance of the *tweede* and *derde geldstroom* and of impact and performance indicators generally, universities had begun to focus on non-generic funding providing internal incentives for this and to work on their visibility to justify to the public their receiving of funding. This required a careful balancing act between following official policy, attracting sufficient funding and providing sufficient freedom to researcher to do their work. EU funding, especially, was seen by many as increasing in importance, but a few interviewees also mentioned the need to utilise the *vierde geldstroom* further to achieve a certain independence. In the course of these developments, research support offices became increasingly important in helping to attract and administer research funding, including its legal aspects. One interviewee working on the legal aspects specifically mentioned competition law in this context and expressed that he finds certain STW schemes question-

able from that perspective. Many also mentioned the importance of attracting funding at full cost levels to achieve financial sustainability which would not always be the case in many of the collaborative schemes. Another concern expressed was the fear to be losing talent. Since the open talent funding schemes like *Vernieuwingsimpuls*, but also ERC funding, often require certain career stages for researcher eligibility, researchers, especially early career researchers, from a subject area in which not many funding alternatives are present, may, according to a focus group, find it too hard to find funding and decide against an academic career.

When asked about their expectations for the future, a few interviewees expressed that they believed that these developments will continue and universities would become more commercial. A few mentioned that they believed that the Netherlands are following the same path as the UK but are about ten years behind. Additionally, some interviewees flagged up as a likely future development an increase in cooperation with emerging economies (e.g. China, Brazil) as funders and partners in research as well as the establishment of subsidiaries in these countries. At the same time, increasing local clustering of research specialities was something that a Leiden interviewee saw as likely. Another interviewee from the same university suggested universities might need to get more creative as regards accessing or generating funding. For example, they could offer fee-based continuing education courses to pensioners to generate income which could then be used for research projects. A Groningen interviewee even speculated that research funding might, in the future, be provided as loans rather than grants, to be paid back with interest.

5.4.1. Awareness of competition law

All interviewees seemed aware of competition law and most stated that competition law plays a role in their job to a varying extent depending on their exact position. It was frequently stated that they would obtain advice from legal officers if needed. The legal officer in Leiden described EU competition law and the Research Framework as paramount. Whilst the university would sometimes have a vertical relationship with companies (and hardly ever a horizontal one), it was more common that it would act as the state, making state aid law particularly important. This view was shared by many interviewees who saw state aid law as the main concern, as it would inter alia assert influences on access conditions (exclusivity, option periods, price) for IPR generated in publicly funded research and the levels of financial

participation in PPPs. It was also stated that competition law would prohibit discriminatory contract conditions. Generally, it would appear that the awareness for EU competition law amongst research office staff in the Netherlands is quite advanced and comprehensive in comparison to England.

5.4.2. Economic activity

As in England, research conducted freely with generic funding is not likely to be regarded as an economic activity. With regards to funding provided through the *tweede geldstroom*, the interviewees confirmed that the *Vernieuwingsimpuls* in NWO funding is a completely open talent funding scheme given mainly for basic research. It would therefore, probably also not amount to an economic activity. Another part of NWO funding would go towards bottom up ideas provided by senior researchers for projects of varying kinds and sizes. Open calls like this where researchers enjoy a large amount of freedom to conduct independent research and which, according to the interviewees, also existed in other intermediary agencies like ZonMW and STW, would probably also not have to be regarded as an economic activity. An increasing amount of public funding, however, is themed. Two interviewees considered that themed calls would represent more than half of the non-generic public funding overall, especially since the introduction of the top sector policy. Themed calls are, according to the interviewees, sometimes very detailed with exact descriptions to be followed, especially the public funding provided for bigger co-operations or public-private funding for PhD projects. Similar to what has been discussed for England, this might be considered as an economic service that could be commissioned on a market. Within the top sector funding, as an interviewee explained, the private sector and academia must come up with a research agenda within the field of the top sectors and then receive public funding to set up the co-operation as well as most of the academic funding. The classification as an economic activity, would therefore depend on the research agenda as will be discussed further below for public-private co-operations.

As mentioned in chapter 4, the *derde geldstroom* consists of funding from a variety of providers. Firstly, there is contract research for the government which will have to be regarded as an economic activity. Secondly, there is EU and international funding which will not be looked at in this study. Thirdly, there is funding provided by charities. According to the interviewees, funding from charities would usually

only set out a subject area within which researchers freely apply with any kind of projects. As this is difficult to replicate under market conditions, it seems unlikely that this amounts to an economic activity. Finally, collaborations with the private sector fall under the *derde geldstroom*. Here a variety of collaborative forms have been identified in chapter 4 which all seem to be present in the universities under scrutiny. The interviewees described contract research as delivering certain results with little or no freedom for researchers. As in England, this form of collaboration is clearly an economic activity.

Also like in England, the interviewees did not elaborate further about science parks (or *innovatiecampussen*) which could equally be explained by the loose form of the collaboration which in itself will probably also not have to be regarded as an undertaking. In PPPs, the universities would, according to the interviewees, look for companies to collaborate with which would then pay cash or contribute in kind, while additional public funding is often also available from the government or the EU. In such co-operations work packages are agreed and the main point is joint research and mutual learning. The parties in the co-operation share intellectual property with each other in order to do further research (not to exploit). Commonly generated IPRs will be allocated according to previously agreed contracts which also set out the other terms of the co-operation. There are standardised templates, but especially the negotiation of IPR issues could be lengthy. This form of collaboration would currently be pushed by both the government, especially through the top sector policy, and by the EU. It is difficult to make a general statement about the economic nature of this collaborative form. If the research takes place freely with the aim of generating knowledge and disseminating it at a pre-competitive stage and the universities have sufficient influence on the directions of research, the collaboration might be non-economic in nature. If the cooperative project essentially amounts to conducting a research service for the private sector partner or the partners are, in essence, cooperatively conducting a research service for the government, as the description of the calls for some collaborative projects given by some interviewees indicate, this could amount to an economic activity.

IPR exploitation was regarded as very important by interviewees. Firstly, the commercial interest and exploitability of the research would be assessed and then there would be a search for partners to develop the research further and exploit the results. The exact deals in this context would be negotiated. These could either be

with existing companies or a spin-off would be created specifically for the exploitation. The latter is preferred if the potential IPR is 'disruptive' technology significantly different from what companies are currently doing and there is little synergy to integrate it into an existing company. Start-ups beyond spin-offs were not mentioned by interviewees. As, discussed above, IPR exploitation has to be regarded as non-economic activity if, according to the Research Framework, it has an internal character. The Issue Paper specified this by also requiring that the research arose from non-economic activities and is non-exclusive. As regards newly founded companies, whether or not they constitute an economic activity for the university depends on the activity and on how affiliated they still are.

The *vierde geldstroom* contains purely charitable donations without any consideration. An interviewee responsible for charitable donations explained how in his university a charity as a separate legal entity is established to collect donations and then pass them on to the university thereby allowing for the donations to be tax deductible. The charity is also utilised if calls in the *tweede* or *derde geldstroom* require a charity to be involved. The interviewee gave the example of the Coca-Cola Foundation which would only accept applications from charities and wherein the university fund would then submit the application for the researchers. The money generated by the fund would mainly go to research projects, but also to educational activities and community projects. The persons or institutions providing the funding can choose between general donations or donations for a specific fund dedicated to scholarships or chairs. Higher donations can also be named funds which can be dedicated to specific kinds of research. Generally a committee in the university fund chooses which project is to be funded, but occasionally donors would want to be involved. This can even go as far as donors prescribing a very specific project, although this would be exceptional. The interviewee mentioned the example of a donor demanding a project be undertaken on rehabilitative medicine for musicians with physical problems resulting from playing their instrument. Sometimes the university fund also approaches philanthropists who are known to be interested in a specific topic with an already existing project requiring additional funding. A donor may also approach the fund wanting to donate to a specific project. Generally, the described situations where money is provided in a purely charitable fashion to the university in general or even for research in specific areas could not be regarded as buying a market service. However, in the exceptional cases where a very specific project is de-

manded, this could probably be seen as being able to take place under market conditions. The fact that the commissioners of such research are neither using the results themselves nor making an economic profit from them, does not change the possibility that such studies could be commissioned on a market from private providers. It might therefore be regarded as an economic activity.

5.4.3. Full costs

While, as explained in chapter 4, all Dutch universities have an individual full costing system, a financial officer interviewed explained that most of the systems ended up being relatively similar. He further explained that in his university a ‘profit and loss account’ was in place. They would therefore know the income and the costs from their annual report. From the total costs specific education related costs would be deducted and the remainder would then be divided by the number of fte and then by 1600 hours per year. This would result in the cost rate per fte per year. On this basis the university had created 70 categories of salaries with the equivalent full cost rates. Researchers could simply look up their salary in the list to know their full cost rate. The project costs are then calculated by the full cost rates of the hours of the staff members working on it which already includes all the hidden costs (e.g. for infrastructure or electricity). Common rules for universities would not exist, as universities had not been able to agree on them.

According to the interviewees, the funder usually determines the rules (in public funding).⁶⁴⁸ NWO would only pay direct costs with occasionally a small overhead, as it had been agreed between government, NWO and universities that a part of the *eerste geldstroom* is intended to match NWO funding. There are, therefore, incentive payments for every fte created from NWO funding.⁶⁴⁹ Some funders have fixed hourly rates which do not always cover full costs. Others allow for full-cost calculation. For the EU a simplified full cost method is used. Things could get particularly complicated, as a few interviewees mentioned, if a number of funders contributed to a project, as then the funding rules would have to be made compatible. The big PPPs especially were described as administratively complicated regarding

⁶⁴⁸ It is assumed that this is also true for charity calls. However this was not explicitly mentioned.

⁶⁴⁹ It was not entirely clear whether these incentives are provided through internal funding allocation or directly through the *eerste geldstroom*, as the statements of the interviewees differed in this respect.

costing. Interviewees from one university mentioned that partly universities even created a private sector entity to avoid risk and make cost calculation easier as well as fulfilling the requirement of some calls to have a private sector partner. One interviewee also talked about the danger of providing state aid through PPPs and pointed out that intellectual property is, therefore, only made accessible for partners in PPPs for the duration for the project rather than being transferred. Beyond that, universities would only grant an option right to negotiate commercial access and potentially a discount equal to the company's contribution to the overall project. Furthermore, the universities seemed very aware that publicly funded projects are often costing them money. Whether or not to utilise this funding, would therefore be a strategic decision which depended on their matching capacity, the importance of the project and also on whether 'in kind' or 'in cash' matching would be required, wherein the former would be preferable. It was often mentioned how prestigious NWO funding is and a few interviewees pointed out that this funding would always be matched in their universities.

Companies are usually, particularly in contract research, asked for full costs and a surplus for profit, risk and capital investment (the rates for this varied between universities). An interviewee in Maastricht mentioned that if clear market prices were accessible, these would be applied as a reference point. Interviewees seemed very aware that this could otherwise infringe competition law. However, according to the interviewees, strategic decisions for lower prices could be made for strategically important partners or based on past agreements. One interviewee explained: 'It can be worth to put your own money in that project. That is also what companies do in general.' However, there would be guidelines in this respect and full costs at least should be covered. He also pointed out that, to retain financial sustainability, this cannot be done too extensively. Furthermore, the faculty board or board of directors would have to co-sign the contracts and would not do so if pricing was completely disproportionate. Simultaneously, a few other interviewees explained that due to the public funding rules being limited to direct costs or certain hourly rates, researchers would often think those were the actual costs or that full cost plus prices would be too high and thus offer arrangements below full cost prices to companies. They would then thereby sell themselves under-price and companies would also, despite being aware of that, try to negotiate prices as low as possible. The assumption that matching might thus still occur was therefore expressed.

IPR exploitation follows different rules entirely. Here the universities operate on a risk sharing basis with the private sector, since it would be very difficult to assess the value of an IPR and companies would also not be keen on making huge investments up-front for an uncertain development trajectory where the technology could simply fail. Given this, the agreements would provide for the university to share some of the success through royalties on sales and milestone payments (e.g. for a successful clinical trial or drug approval). The royalties and milestone payments are calculated based on the plans of the company and the market forecast regarding revenue as well as comparable deals (i.e. a fair market rate). Regarding charitable donations, research could only be supported with what has been provided. There is, therefore, no full costing. Potentially, matching has to take place or additional funders have to be found.

The full costing methodologies generally seem to comply with competition law as they are based on actual costs and there do not appear to be fixed profit rates or other anti-competitive agreements. Competition law problems could thus only occur if, in an economic activity, full costing plus profit is not applied. The greatest risk here could be public calls not using full costing despite being an economic activity, given that, as discussed in the last section, some of these calls might potentially be considered as an economic activity. The rules regarding PPPs seem in line with competition law requirements and risks in this area seem low. The rules described for contract research or IPR seem generally unproblematic from a competition law perspective since they charge full costs and are oriented along market prices. However, if incidents occur where full costs plus profit is not applied this could constitute state aid or predatory pricing (if the HEI is a dominant undertaking). Finally, charitable donations are, as explained in the last section generally unlikely to be an economic activity and therefore full costing would not be required. In the exceptional cases where a study on a subject is essentially commissioned, this might be regarded as state aid.

5.4.4. Market foreclosure

As in England, no signs of market foreclosure could be detected for research in the Netherlands.

5.4.5. Refusal to enter into contractual relations

All the interviewees stated that the universities, as such, do not exclude partners. An interviewee working on business collaborations mentioned this would amount to anti-competitive discrimination. He explained they would like to ‘collaborate with as many parties as we can’, as that would be beneficial for the university. Even collaboration in one project with companies which are competitors would, from the university’s point of view, be welcome. Essentially, as many interviewees stated, it would depend on the researchers and the research question. Nevertheless, some interviewees stated that they might have preferred partners for certain subjects due to existing relationships, geographical proximity, a company being the producer of high-end equipment and therefore the natural choice or, when it comes to other HEIs, due to the fact that they are in an association or strategic partnership. One interviewee, for example, stated that in the area of food and agricultural research they would often look for local partners, since in their area many companies are working in this field. Funding agencies would, on the other hand, sometimes insist on certain partners; regional agencies are aimed at economic prosperity in the region and thus require regional partners, national funding is partly for national partners only,⁶⁵⁰ other programmes might require the involvement of SME and the Coca-Cola foundation would only fund charities. A few interviewees mentioned, however, that fulfilling these conditions is not always possible or appropriate, especially in basic research, and might lead to the university not applying for a call. As the universities do not appear to exclude willing partners, there does not seem to be a problem from a competition law perspective. Only the public funding rules might potentially be regarded as anti-competitive, something which will be discussed further below.

5.4.6. Non-economically justified or discriminatory contract conditions

The interviewees saw the major contractual problem which needed to be solved to be the desire of some companies for secrecy versus the aim of the university to disseminate knowledge through publication, further exploration of results and informing teaching through research. Additionally, as an interviewee working on business collaborations mentioned, it was a concern for the university that research

⁶⁵⁰ An interviewee mentioned that this is not the case in top sector funding where international cooperation is possible and even foreign partners can receive the subsidy.

needed to be ‘result-open’ rather than geared towards making a specific invention. An invention should always be an added bonus that occurred in ‘result-open’ research. Another interviewee mentioned that universities, in his opinion, should exclude ethically questionable research. He mentioned that he had heard that companies had specifically come to Dutch universities to undertake animal testing as animal protection laws in other countries would be stricter. He found this especially controversial if the testing is merely standard not containing any scientific interest. Beyond that, interviewees did not know of any particular conditions for partners. Generally, however, as the business collaboration officer stated, it is important for universities to establish strategic long-term relationships due to the benefit gained from increasingly substantial knowledge which is created in a line of common projects. Therefore, it was an aim in contract negotiations to find solutions both sides can benefit from.

This would sometimes be difficult, according to a legal officer due to the expectations which companies have and which would differ between companies. As an example he mentioned the general culture of ‘BV Nederland’, namely the view of the Netherlands as a trading nation where the assumption is commonly held that if one supports Dutch industry the whole nation will prosper. Due to this mindset Dutch companies expected to gain advantages. This would be especially true with regards to publicly funded universities as the companies, as tax payers, expected returns. According to him this mindset had led to many incidents of anti-competitive behaviour in the past in other sectors. With other company types there might potentially be other issues that needed to be resolved in the negotiations.

As explained for England, requirements on dissemination, leaving research ‘result-open’ and, perhaps, ethics might potentially be regarded as anti-competitive conditions if dictated upon undertakings in the area of economic research. However, it seems likely that they could be exempted as SGEIs. If companies, due to a specific corporate culture in a country or sector, try to impose anti-competitive conditions on HEIs, they could potentially also use competition law to their advantage.

5.4.7. Anti-competitive use of IPRs

As mentioned in chapter 4, IPRs created by employees are usually owned by the employer. The interviewees explained that, as with the procedure in England, employees report their inventions. They are then reviewed to determine how far the

university is free to exploit them (i.e. potential rights of other parties are scrutinised) and the potential for exploitation is evaluated. If applicable, rights are registered which are often managed by a university holding. The universities do not exploit IPRs themselves, but look for partners for exploitation or found spin-offs. If a spin-off is created the holding might hold equity in it or assist with other IPR related activities. The preference would be towards conferring licenses rather than the assignment of IPRs. As has been mentioned above, royalties and milestone payments at market rates are received for licenses. Next to compensation, another important factor for universities is the limitation of restrictions regarding future research based on the IPR. In particular, if PhD researchers are involved in the creation of the IPRs, they are eventually required to publish their theses. Additionally, as universities aim at making knowledge publicly accessible (be it through a product created by a company), the agreements would contain an anti-shelving clause. If no partner willing to exploit the IPR could be found, the application would, according to a legal officer, usually be dropped after 30 months. He mentioned that there used to be patent targets in some Dutch universities which had led to unexploited patents, but such policies have been abandoned.

As it is sometimes difficult to find partners for exploitation (for example the invention might still be at too early a stage to be attractive to private sector partners (knowledge gap)), another interviewee explained that his university would sometimes lend money from a fund established for this purpose to companies in order to jointly bring the invention to a prototype stage which can then be further developed. At that stage, except for receiving royalties from the license, the university would leave the collaboration. The company would also need to invest during the common phase and sometimes additional public funding is available. The interviewees explained that, in PPPs, the agreements would contain rules concerning sharing IPRs and future income. According to an interviewee working on business collaborations, the rule 'ownership follows inventorship' would apply in his university. Thereby, jointly made inventions would be jointly owned, those made by the company are owned by the company and if university staff made the invention, it is owned by the university. Another interviewee mentioned that his university would try to negotiate that the IPRs would generally belong to the university as far as possible. If the university has the rights, the procedure as outlined above is followed. Companies might additionally want a first option clause, so 'they can be sure that if they want they can

get access to the technology', but reasonable commercial rates would still need to be paid.

From a competition law perspective, the rules seem generally unproblematic. If anything, demanding anti-shelving clauses might be regarded as anti-competitive if imposed on undertakings, but they could probably be exempted as SGEIs. A legal officer explicitly mentioned the potential of IPR assignment or licensing agreements to constitute state aid. Interestingly, he mentioned that companies would be equally aware of this, but would nevertheless try to negotiate advantages, as they would assume that the amount would usually be below the *de minimis* threshold and that interstate trade would, in most cases, be unaffected. Even if that was the case, the university would, however, nevertheless not agree to anti-competitive arrangements because Dutch competition rules would still apply. The subsidies/loans provided through public funding or through the university, mentioned by one interviewee, might, however, qualify as state aid if they are received without consideration.

5.4.8. Anti-competitive research co-operation

There did not seem to be any indication that research was begun at an unreasonably late stage which could be in breach of Article 101 (1) TFEU, as discussed in chapter 3.

5.4.9. Market division

The interviewees explained that in national (NWO, national infrastructure roadmap) and European (European Strategy Forum on Research Infrastructure) funding policy strong attempts are made not to duplicate expensive research equipment. Thus if such equipment already exists it is often not funded again in another university, unless there is a particular reason for it. The universities would also be discussing to share facilities beyond that; amongst each other as well as with the private sector (which also sometimes contributes to the equipment). Furthermore, a Leiden interviewee explained that universities would be expected to give start-ups (not just their own) access to costly equipment as it would be too expensive for the start-ups to maintain themselves. Specialisation would also occur, to some extent, mainly regarding patient care due to reimbursement issues, since health insurers determine what and where is acceptable treatment. From a competition law perspective, one might wonder if the placement of infrastructure into only one or a few universities could be regarded as anti-competitive. Firstly, this might amount to state

aid as it provided one institution with an advantage over others particularly if it can then charge others rent for use of the infrastructure. Secondly, it might place the organisation into a dominant position in a certain research market which it could abuse should it not provide (equal) access. If voluntary facility sharing between HEIs or between HEIs and other parties makes economic sense, no party is discriminatorily excluded from it and, if the equipment is co-financed, all parties receive reasonable economic rates when letting the infrastructure out, this would, however, probably not constitute anti-competitive behaviour. Access to equipment for start-ups would probably only amount to anti-competitive behaviour if no consideration was paid. Other areas of specialisation like the example of health insurers deciding about specialities in universities and university hospitals might cause constraints because it could be regarded as a vertical cartel.

While institutions need no accreditation to research and the research market, as such, is thus open, the public HEI market is widely foreclosed by government. Interviewees in Maastricht described the difficulties their university had to establish itself as a university because the government was of the opinion that the public HEI market was sufficiently saturated and did not want a new public university to be established. Maastricht University was only able to be founded, because it argued that it was focussing on the international market rather than the local one and would have a different, problem-based teaching philosophy. The other interviewees confirmed that it is almost impossible to establish a new university and receive public funding. An interviewee in Groningen described how Friesland recently failed in its endeavour to establish a publicly funded university, despite having argued that they would cater only for the local market where need had apparently increased. The same would be true for new courses or research areas within a university. Indeed, all the interviewees pointed out that the government now expects universities to pick focus areas and to concentrate on them which are then also supported through extra funding. Some interviewees were rather critical of that, as they saw their university as a comprehensive research university which carries a certain prestige. Attempts would thus be made to attract non-public funding in order to continue to excel in all areas. One interviewee mentioned that he believed it would make interdisciplinary research more complicated, if not every area was researched intensively in-house. Aside from these concerns, it also seems possible that, if and in so far as universities can be regarded as undertakings, these government policies would amount to market division and

state aid for existing universities to the detriment of those trying to establish themselves or establish a new area.

The universities would, according to some interviewees, also often collaborate more extensively with each other in an inner state region (Twente, Nijmegen, Groningen and Wageningen or Leiden, Delft and Rotterdam), across borders (Northern Netherlands and North Germany) or Europe wide (Gent, Groningen, Göttingen and Upsalla) in strategic partnerships. Particularly in these partnerships, but also beyond, partners, according to one interviewee working on policy aspects, tried not to double-up in research specialisation or duplicate equipment. Thus if one of the partners has a chair in a certain area the other partner would not employ a professor with the same speciality. This would enhance cooperation. Even if universities retained all subject areas, concentration would take place within specialities. Another interview described an internal research policy in his university which provides that they would not compete with local companies. Investment was therefore only supposed to go to such spin-offs and start-ups deriving from unique research in the university. In particular, infrastructure was not to be exploited if it would lead to competition with local companies. He also described a scheme between his universities, the local *Hogeschool* and one in a different location. In this scheme, the two HEIs in the first location would stick to one area of research, while the other HEI would investigate, together with private sector entities, whether the waste from the former could be utilised to make certain products. The former HEIs refrained from investigating what could be done with the waste. Depending on the exact details of the cases, (particularly on the question as to whether it is normal market behaviour to offer a slightly different product or if behaviour amounts to actual collusion) all these policy examples risk being regarded as market division.

5.4.10. Limiting Markets

The interviewees stated that there were no quantitative restrictions on the amount of research generally and on privately funded research in particular. On the contrary, as public generic funding decreased there would be a strong desire to attract more privately funded research, in particular private funding for full costs. However, as two interviewees pointed out, there might be reservations as to the content. If a project has little academic value or it excessively limits academic freedom, universities might refrain from conducting it. However, in a focus group the concern

was expressed that the decreasing public funding might, in the future, also lower the threshold with regards to content. Only such content restrictions could possibly be regarded as limiting markets. However, if that was the case, these could probably be exempted as SGEIs.

5.4.11. Applying *Altmark*

The funding agencies determine who can apply for a specific call which, according to the interviewees, varies. An interviewee working on public funding streams mentioned that most calls are for universities and, depending on the call, partners. Only few schemes have a reverse approach. If partners are allowed or even required, there are, as has been mentioned above, occasionally limitations/requirements as to which kind of partner organisations need to be involved. As mentioned above, if public calls can be classified as economic activities, they would need to be commissioned according to the *Altmark* criteria which contain that calls need to be open to any willing provider, in particular also foreign providers, and that market prices or full costs and reasonable profit need to be charged for it not to constitute state aid.

5.4.12. State aid through staff knowledge

In the Netherlands, according to the interviewees, university staff do sometimes work in the private sector. In these cases academics would still have to follow the national code on academic integrity which researchers needed to sign and which require them inter alia to behave ethical, trustworthy and carefully. Sometimes, staff work in their own companies spun out of the university. This would be a preferred situation, as staff can retain their employment within the university whilst experimenting with the setting up and running of a company. It was mentioned by some interviewees, that such constellations became problematic if staff were in managerial positions and able to sign contracts for both sides. This would be a concern because the university could not be certain that these members of staff represented the university to its best interest. One interviewee working on legal aspects specifically mentioned, as an area for concern, the potential of favours given to spin-offs led/owned by employees because this could constitute state aid. He said that this is difficult for the research office to scrutinise since academics are managed by line management not by the research offices and the former are not involved in the spin-offs activities. However, such constellations would be rare, as most companies

would quickly spin out properly and very close ties are only maintained with few. Generally, the interviewees also mentioned IPR issues which needed to be negotiated as regards ownership and publication of results as a concern in cases where staff worked in the private sector. Beyond these issues, as one interviewee working on policy pointed out, there is not much concern as regards staff knowledge being used in the private sector. Instead, the exchange would be regarded as mutually beneficial. From a competition law perspective problems could occur, if advantages are bestowed on companies through staff knowledge, in particular IPR creation or favourable contract conditions given to staff owned companies.

5.4.13. Exemptions

As has been mentioned in the subchapter on England above, it is impossible to make a general determination of the potential for exemption under Article 101 TFEU, as this would depend too much on the individual cases and, in the case of BERs, on market shares. As in England, the amount of funding provided through public calls differs, according to the interviewees, significantly from a few thousand Euros to up to €30M per collaborative project or even €40M for institutional funding through the gravitation programme. As regards state aid, smaller projects could thus equally benefit from the *de minimis* rules, the exemptions in the GBER and, if projects can be classified as providing an SGEI, from the €15M threshold in the SGEI Decision. The amounts of funding provided through public calls are much higher than in England, though. Therefore there is more room for potential aid falling outside of the exemptions. The measures, if classified as infringing the state aid provisions, might then still be able to utilise Article 107 (3) TFEU as an exemption generally, which would need to be evaluated in the individual case according to the guidelines in the Research Framework.

5.4.14. SGEIs

In addition to the exemptions mentioned in the last section, potential infringements might be exempted as SGEIs under the conditions mentioned above in the relevant section on England. In the Netherlands, the interviewees generally believed that the research conducted in their university was in the general interest. A few interviewees mentioned that academics were divided into those who believed impact-focussed and applied research would be more in the general interest, while others believed that curiosity driven, basic research would, in the long term, serve the gen-

eral interest better and had more academic integrity. It was noted that a scientific interest was needed in both cases, though. A few interviewees, however, pointed out that occasionally there might be an economic necessity for conducting research for particular interests even without a scientific interest (e.g. contract research for a company for full costs) even though currently that was seldom the case. One interviewee in Leiden mentioned that if research seemed too far removed from the universities conception of what it should be doing or was unethical or illegal, they would not conduct it.

From these statements, it seems as if the universities would only pursue research if there is a scientific interest, unless they felt economically required to do other research to attract income. Except for the latter cases a general interest (i.e. the advancement of science) might thus be assumed. As with England, more than just such an interest might be required for research to be an SGEI, however, and clarity can only be achieved through a ruling by the Court. As regards the question of whether the SGEI is entrusted to the universities, the interviewees named the WHW as an act entrusting universities with the task of research. While this tasks them with research in general, this might not be precise enough to fulfil the conditions on entrustments acts in the post *Altmark* legislation.⁶⁵¹ Grant agreements might, in that case, be regarded as acts entrusting universities with the specific task in question. If the application of competition law would obstruct a potential SGEI, proportionality and effects on trade would have to be evaluated on a case by case basis.

5.4.15 Interim conclusion

Overall the funding situation was viewed critically since public funding was conceived as shrinking and increasingly concentrated only on certain areas and for research with impact. This was regarded as being potentially limiting to academic freedom and basic research. Despite the widespread criticism, the interviewees expected this development to continue and for the Netherlands to follow the path taken in England. Unlike in England, all interviewees were aware of competition law and seemed to have a relatively comprehensive knowledge of it. In government policy there seemed to be detailed rules for publicly funded PPPs which seem to indicate that there is awareness that these might be economic activities. The main areas

⁶⁵¹ See chapter 3 text surrounding n 339-343.

which might be erroneously classified as non-economic could be themed public calls and charitable donations which amount to commissioning a service.

If areas are erroneously identified as non-economic and no full costs are applied, this could amount to state aid or be regarded as predatory pricing. Furthermore, public funding rules excluding or requiring certain partners in collaborative projects might potentially be regarded as anti-competitive if they apply in areas of economic activity. The rules on IPRs seem to be generally unproblematic. Only anti-shelving clauses or subsidies to companies willing to exploit university IPRs might potentially be regarded as anti-competitive, but at least the former could probably be exempted as SGEIs. Unlike in England there seemed to be rather strong indications for potential market division. The placement of infrastructure in only one or a few universities, health insurers determining specialisation in university health research, limitations on the establishment of new universities, division of research specialisation and no competition policies or agreements might perhaps be regarded as problematic from a competition law perspective. Problems might also occur if public calls are economic activities and have not been commissioned according to the *Altmark* criteria. Finally, if advantages are given to companies through staff knowledge, in particular IPR creation or favourable contract conditions given to staff owning companies, this could potentially be regarded as anti-competitive.

As in England, depending on the individual case, there might be possibilities of exemption. However, the sums provided for public research are much higher than in England and thus there is more potential for certain potentially anti-competitive public calls to fall outside the scope of the *de minimis*, GBER and SGEI legislation. It might, more generally, be possible to exempt potential breaches of competition law as SGEIs under Article 106 (2) TFEU. Whilst the WHW might not be precise enough to serve as entrustment act, individual grant agreements might.

5.5. Germany

As has been mentioned in chapter 4, the overall climate for investment in research is good in Germany, something which benefits universities. One interviewee expressed this by saying: 'Academic research is prospering, quite unlike France, Italy or Great Britain... That's a catastrophe [there].' Generic funding and DFG funding under which researchers are free to pursue any direction of research comprises

the majority of research funding. Interviewees also felt less pressure from performance indicators implemented into generic funding distribution. Most interviewees, therefore, felt that there was still significant academic freedom in Germany. In thematic calls some interviewees felt that there was a push towards applied, collaborative and economically impactful research. These programmes would also be influenced by, and merge with, the aims of Bologna and Lisbon/Europe2020. This was viewed critically by interviewees from two universities since they felt that big collaborations can be suffocated by administrative requirements and communication problems, can require too much to be achieved by a single project and nobody ever seemed to research whether the assumed added value is actually achieved. Most interviewees felt that there was more funding for subjects such as engineering and IT and less for the humanities. It was also mentioned that inter-disciplinary research sometimes found funding hard to come by as experts from one subject when evaluating a study from another employing their methodology might easily find it lacking. However, a couple of interviewees mentioned that the preferential situation of some subjects could also be explained by different needs (e.g. humanities and social sciences inherently needing lesser resources than human medicine), less of a culture of applying for *Drittmittel* in certain subjects or simply due to a lack of interest in the topics of the calls. It might thus not (entirely) be the result of intentional governmental steering. Most interviewees mentioned that, within subjects, calls are often issued in particular fashionable areas (for example, climate change, electronic cars) which might be explained by the accessibility of certain subjects to the public (for example, curing cancer or preventing climate change is more obviously desirable than studying the Merovingians).

Despite the mentioned criticism, economic constraints and culture changes did not appear to be seen as significant as they were in the other two countries. In particular, it was felt that the situation did not (yet) require researchers to apply for *Drittmittel*, that through creative proposal writing one could draft applications in a way to fit one's agenda into a variety of only loosely related calls and that academics had the chance to influence the thematic areas. The latter was viewed critically by one interviewee because the researchers may have personal motives (for example, trying to continue their research area until retirement). It was also mentioned that young researchers particularly might be influenced by extrinsic pulls of thematic calls. Despite being encouraged to collaborate more with the private sector,

private funding was still regarded as playing a small role in German universities. An interviewee from a South German university, however, mentioned that universities are not at an eye to eye level with private sector partners in contract negotiations. In particular, companies would still try not to pay full costs and, especially if the researcher negotiates and signs agreements without the involvement of the relevant research offices, they may succeed in this. More generally it was feared that relying strongly on *Drittmittel*, particularly if not provided at full cost levels, might be financially unhealthy for universities. Especially in a traditional university, it was felt that success in attracting *Drittmittel* was, in this way, being punished. At the same time, it was for certain situations seen as bizarre to ask for full costs. An example given as a funder providing full costs for a visiting researcher, as this would amount to the visitor (or the funder on the visitor's behalf) paying to come and work at the university. This seemed to collide with the general self-perception and university culture of universities in Germany.

When asked for an opinion on how research and research funding will develop, an interviewee from a South German university expressed that generally too much is expected from universities. They were required to do basic research leading to new ideas in all subject areas, innovate, excel in topical subjects, identify a unique focus, provide research informed teaching which also focussed on employability and student satisfaction, engage internationally, attract external funding and perform well in rankings with a variety of parameters. This would lead to a mission overload. Universities would currently have to find their place in all this, also considering their own understanding of their role. The same interviewee said that, despite the generally positive research funding situation in Germany, he believed public funding would continue to be underfunded. Especially there was insufficient generic funding which, combined with the fact that non-generic funding is not provided at full cost levels, might lead to insufficient infrastructure. Another problem identified was that the programmatic calls, even though they are supposed to encourage innovation, would often lag behind 'real cutting edge' research since once an idea is through the administrative process and a call is issued, research has already developed beyond that. Therefore, innovation can actually be hindered by increasing competitive programmatic calls and, for an institution which invested highly in an area which is discontinued after one call, this may also have significant financial consequences. A focus group expressed their fear of certain subjects being destroyed and that teach-

ing and research could be increasingly separated, something which collides with the traditional German understanding of university education.

5.5.1. Awareness of competition law

Concerning the relevance of competition law for research, all interviewees were aware of the Research Framework and its requirement to distinguish between economic and non-economic activities as well as to apply full costs to the former. Beyond that most interviewees were not generally aware of competition law problems or had not yet come across competition law in their everyday tasks respectively. Only two interviewees mentioned IPRs and one interviewee mentioned procurement as areas where competition law becomes relevant. This does not necessarily mean the other interviewees are not aware of competition law beyond that if prompted further, but it was very clear that the Research Framework and full costs were the first things that came to mind for all interviewees.

5.5.2. Economic activity

As in the other two countries, research conducted independently with generic funding will probably be a non-economic activity. As regards public competitive funding the interviewees pointed out that DFG funding is mostly open subject-wise and provided for basic research. BMBF funding (and other ministerial funding) would implement research policy in areas which are 'fashionable'. Here universities/researchers could lobby in advance for their subjects, but, once the calls are out, they have to apply within set limits which differ between calls. The majority of the interviewees stated that calls can be very specific. Sometimes the creation of a prototype in a certain area is required or a specific study commissioned whereas, on other occasions, programmes just generally encourage entrepreneurship, cooperation or offer institutional funding. Some of the larger programmes were offered for collaborations between companies, HEIs and others which were then supposed to work together and utilise synergies from basic research up to the final product stage. Situations where the funders are essentially commissioning a prototype or a study would probably have to be regarded as economic in nature, as they could be provided under market conditions. The responses from the interviewees seem to indicate that such calls exist. The universities under scrutiny, however, seemed to regard any public funding as non-economic in nature. Only the interviewees in Munich made a specific point of declaring that they do assess public funding for its eco-

conomic nature. That assessment would usually lead to the result that they considered it non-economic.

All the universities under scrutiny seemed to be involved in (almost) all the co-operation forms of non-public funding described in chapter 4. A cluster was described as an area where many public and private sector research organisations are located which all work on a few subject areas. They do not collaborate in an institutionalised way, but instead create synergies and can lead to smaller co-operation on project basis. Sometimes there are also shared laboratories in a cluster. With the exception of renting out infrastructure or when common projects are agreed upon, which could be economic activities, clusters themselves, as has been discussed for the other two countries (there referred to as science parks), would probably not be regarded as undertakings because they are essentially just a space in which separate entities are located. Also, privately funded chairs are probably mostly not an economic activity. The interviewees explained that these are often not entirely privately funded. Instead, it was in their experience, more common that private or third sector partners only contribute to existing chairs in a subject area. Even if they do help create a new chair, the academic is free to decide how to proceed within this area. This kind of institutional funding appears to enable independent research for better knowledge rather than being a service which could be commissioned on a market. It therefore seems likely to be non-economic in nature.

Research co-operations have been described as 'eye to eye' co-operations in which outcomes are shared fairly by providing the private partner with know-how and the researchers with publications. The project theme is decided upon between partners and researchers from both parties working together, often in the facilities of the universities. The details of such co-operations are agreed upon in contracts, in particular, who has ownership of which results. Sometimes co-operations are co-financed through additional public funding. An interviewee from a South German university expressed that he is doubtful if it really is always a 'win-win' situation, as the private partners are sometimes overly influential in deciding the direction of research due to their financial investments and the involvement of their staff. They would also profit significantly from use of the infrastructure and from receiving the results. It is for this reason, as well as because the companies do not want their competitors to know with whom they cooperate, that these co-operations are sometimes kept at a low profile. He considered this as being potentially at odds with the mis-

sion of a university which involved disseminating research results and sharing research experiences with students. PPPs are, according to the interviewees, co-operations with the private sector for a longer term. They have been described as forums for intellectual exchange, common projects, reciprocal support and advancement to new areas. Such collaborations have framework agreements in place. Equally, they often receive additional public funding. UIFZ were described as innovation centres with common infrastructure. Accordingly, they seem to be something in between PPPs and a cluster, sometimes with a special focus on entrepreneurs.

All these forms of collaborations need to be assessed on a case by case basis as to the question of whether an economic activity is taking place. If the research is taking place freely with the aim of generating knowledge and disseminating it at a pre-competitive stage and the universities have sufficient influence on the directions of research, the collaboration might be non-economic in nature. If essentially the cooperative project is conducting a research service for the private sector partner, if the partner gets to use the university infrastructure beyond the level necessary for the projects or receives all the IPRs, it might be of an economic nature. This did not necessarily seem to be clear to the interviewees. Whilst a few interviewees pointed out that a differentiation between economic and non-economic activities needs to be made and that it can be difficult, many interviewees seemed to assume that co-operations are usually non-economic in nature (with which they also seemed to be more comfortable) and that in particular the involvement of additional public funding would automatically take the co-operation out of competition law. One interviewee also said he assumed that the fact that one institution is particularly chosen because it might be the only university conducting a certain type of research, and therefore had no competitors, would mean that any involvement with them would not take place on a market. The interviewees in Munich seemed to be the most clear on the fact that this needs to be assessed for every individual activity. They pointed out that, in cases of doubt, they would assume it was an economic activity. In accordance with the Research Framework they would only assume a non-economic co-operation if both partners contributed equal amounts of work and when success and risks are shared and every partner owns their results. If one party retains all the results this would be an indicator of an economic activity and they would then apply full costs. However, while the Commission indeed declares in section 3.2.2. Research Framework that under such conditions it does not consider a collaborative

project to constitute hidden state aid for the private sector partner, this does not necessarily mean that in such a case no economic activity is taking place and that other provisions of competition law cannot apply.

An-institut have been described by the interviewees as small entities which are independent, but with which the university keeps a close relationship and partly does cooperative research with. Often they are led by university academic staff, but without the university having supervisory powers over the staff in their managerial capacity in the *An-institut*. Sometimes they were described as service sector companies, sometimes as public entities. Spin-offs and other start-ups were also described as independent companies in which the universities might have shares but in which private partners are also involved. Often they are led by, or employ, university staff and they also often receive additional public funding. It was recognised by the interviewees that such entities need to differentiate between economic and non-economic activities. However, as they are independent entities, this was not necessarily regarded as a problem for the university. The universities could, however, conduct an economic activity, provided the external entity is doing so, through holding shares in them, through common projects as outlined above and by transferring IPRs to them.

As has been previously mentioned, contract research is clearly an economic activity of which the interviewees were also very aware. According to the interviewees, companies prefer this way of co-operation because it allows them to keep all the research results and it is therefore most common among the various collaboration forms.

5.5.3. Full costs

The interviewees realised that full costing needed to be used in areas of economic activity. The interviewees were also aware that the implementation period for full costs of the Research Framework has expired. As some of the interviewees explained, to enable a real full costing method, the universities would need to change from governmental accountancy (*kameralistische Buchführung*) to double entry book keeping (*Doppelte Buchführung*) which would allow them to simulate an economic accounting system. This would, however, be both very difficult to achieve and a significant change for public accounting in universities in Germany. The universities were currently working on financially simulating a private sector company for the areas identified as economic in nature, using full costs for them and adding

VAT. However, none of the universities under scrutiny had, at the time of the interviews, implemented a real full costing methodology. Instead they were using overhead rates in addition to direct costs which usually differed between subjects. Partly they were already able to prove the full costs for some of their activities the results of which had informed the overhead rates and they generally aimed at having real full costing systems in the future. Many stated that they often needed to sign a clause in agreements stating that they comply with state aid law.

Full costing is, according to the interviewees, not defined by a common approach or guidelines at the federal level, in Bremen, Baden-Württemberg or Berlin. Bavaria seems to be the exception since a state working group has agreed a framework of how to separate accounts and calculate costs which formed the basis for the individual models. Some interviewees stated that they exchange information about their methodologies/rates with other organisations and that the approach used needed to be approved by a certified accountant. The accountants would generally approve the approach/rate rather than the price for every individual contract. The information exchange and the approval required may, according to some interviewees, have led to similar approaches and rates because the accountants usually approved systems for a number of universities and it was easier to suggest using the same scheme. Also accountants may be worried that it could look 'suspicious' if they approved rates which varied extensively between universities.

Conflicts with competition law in this respect could mainly occur if an area is erroneously classified as non-economic and full costs are not used. This could amount to hidden state aid or competitors could challenge unreasonably low prices as being predatory pricing. Also, publicly funded research might potentially be economic in nature and it would then not be sufficient that the public funder only covers the direct costs. Additionally, as many interviewees stated, the costing systems might not be completely sound yet. While the universities are currently working on this, it could in the meantime lead to unreasonable prices. Finally, if overhead rates are agreed upon between universities or are discussed to an extent beyond discussing which factors need to be included, this might potentially be regarded as anti-competitive in itself.

5.5.4. Market foreclosure

As in the other two countries, no signs of market foreclosure could be detected for research in Germany.

5.5.5. Refusal to enter into contractual relations

The interviewees stated that partners are usually found through relationships of the researchers and that it is also topic dependent (i.e. who works on the subject at all). Generally the universities would not have particular preferred partners nor exclude certain entities as potential partners. Some interviewees talked about the knowledge transfer chain whereby a researcher has an invention, for which the university gets an IPR, which then turns into a business idea and a spin-off in the region, ideally even in their own cluster. This would then be supported by receiving a preferential start-up license. Once it has grown, it offers internship opportunities, part time jobs for students and later employs graduates and gives research contracts to the university. Such a regional focus appears to be something that is theoretically aspired towards. However, this ideal chain would, according to the interviewees, rarely occur in practice because all sides will look globally for the best partners, especially in cutting-edge areas. In a focus group the issue was raised as whether cooperation with two or more competitors would be possible. Although interviewees were themselves unsure, as they were yet to experience the situation, they assumed if a certain amount of secrecy was adhered to this should still be possible. However, this would need to be carefully considered with an eye to the public mission of the university to disseminate knowledge. The only situation interviewees described in which the choice of partners may be limited or certain partners (regional or SMEs) compulsory were collaborations receiving additional funding, since this may be required by the funding rules. The only influence the universities have in this respect is pre-call lobbying. An interviewee working on aspects of knowledge transfer stated that this, to a degree, influences their co-operations because they like to cooperate with partners with whom they will receive additional public funding since this makes co-operation more attractive for the private partners.

The universities do not generally appear to anti-competitively exclude partners. Limitations seem to only derive from the public funding rules which will be discussed below. Public regulations might also potentially be regarded as anti-competitive if they are based on a recommendation by a committee of experts from

within the sector, unless the experts acted independently from interested undertakings and suitable governmental review took place.⁶⁵² The lobbying of, or advice for, the government regarding which areas to have calls in might potentially be viewed critically in this respect. Whilst it might also appear somewhat controversial that many co-operations are apparently based on personal relationships, this would probably not constitute a competition law infringement if no other potential partners are excluded, no preferential conditions are provided and full costing is adhered to. As one interviewee reported, the actual extent of relationships is also partly tested through questionnaires in order to avoid the impression of corruption or collusion.

5.5.6. Non-economically justified or discriminatory contract conditions

The interviewees explained that the universities try, as far as possible, to negotiate the right to publish results and to use experiences to inform teaching. Furthermore, they would insist on the right of the researchers not to be obliged ‘to do anything they do not want to do’ which according to some interviewees is also foreseen by statute. Otherwise they do not generally have any conditions. The private sector, on the other hand, might prefer to keep certain things secret and to retain IPRs. The exact details are then always negotiated in agreements which can vary. An interviewee from Bremen stated that he would find it helpful if they had standardised conditions or legislation prescribing details of university-private sector collaboration because the negotiations can prove very difficult and certain universities might give in more easily to private sector requests which provide them with a competitive advantage. Some interviewees mentioned that the rules of public funders might sometimes dictate conditions, for example, it might be required that the outcomes of a project will be brought to the market in the end and that this is done by an SME involved in the co-operation. There might also be different funding rates depending on whether the SME wants to retain the IPR. Other programmes may be tailored to regional co-operations. The universities themselves, in attempting to provide a good climate for entrepreneurs might offer special conditions in this respect, for example for spin-offs.

⁶⁵² See C-185/91 *Reiff* para 14 seq on the question of when expert committees can be regarded as an anti-competitive collusion under Article 101 TFEU. See also case C-35/99 *Arduino* para 34-37. For more see also chapter 3 above.

From a competition law perspective, the condition that results should usually be made publicly accessible through publication or in teaching might technically qualify as ‘supplementary obligations’ imposed by a collusion of HEIs or a dominant HEI upon other undertakings, especially if they would be required in fixed conditions or legislation. Such conditions, however, are likely to be exempted as SGEIs. Perhaps HEIs may also be able to use competition law against the private sector if it attempts to impose secrecy or other conditions upon them. Public funding rules might be more problematic. If the funded activity can be classified as economic in nature, rules providing advantages for certain undertakings or excluding certain undertakings from a collaboration could be regarded as anticompetitive behaviour or as state aid. The same might be true for advantages provided by HEIs to start-ups if this happens selectively.

5.5.7. Anti-competitive use of IPRs

As mentioned in chapter 4 inventions belong, according to the *Arbeitnehmererfindungsgesetz* which now also applies to HEIs, to the employer. The process in the universities is, according to the description of the interviewees, similar to the processes in the other two countries; researchers need to report inventions even if made in their spare time or while working in the private sector. The latter would, of course, be difficult to control, but such scenarios would also not occur that frequently. Some interviewees said that this may have occurred more often in the past before *Arbeitnehmererfindungsgesetz* applied to HEIs. Inventions are then assessed as to their suitability for exploitation and an IPR (usually a patent) registered if applicable. The IPR is then sold or licensed to partners by contract which can take various forms from a patent pool and geographic licenses to having very small non-exclusive patents. Occasionally funding rules, specific laws or ethical considerations would lead the universities to give licenses for free to certain organisations or to everyone who wants it. In this respect an interviewee from a South German university described a project funded by a charity where the funding rules required that a license for a special food related invention would go to all third sector organisations who wanted it free of charge. The universities assign the right or licence it rather than exploiting it directly, except perhaps through a spin-off. They receive an income of which the inventor and the relevant school get a share or they might hold equity in spin-offs which are often founded by the relevant researchers. Some of the universities under scrutiny use an exploitation company to transact IPRs. Generally,

IPR exploitation would still not be very common and could mostly be found in the natural and life sciences. Copyrights would, as mentioned in chapter 4, always remain with the author, although certain exploitation rights might be with the employer.

In collaborations, universities have to negotiate IPR ownership and conditions which can, according to some interviewees, become rather tedious. It emerged from a focus group that large companies often want to receive all IPRs, register them themselves and keep them with related ones in 'patent families'. SMEs, on the other hand, are very keen to obtain the intellectual property without necessarily registering the right and they like to keep their research quite secretive until they have an actual product. Excepting contract research, where it is accepted that the partner gets the IPRs, the universities generally try to negotiate ownership of all the rights in order to be able to publish, use the knowledge in teaching, for financial benefits and to avoid state aid accusations. The latter aspects are more important in negotiations than the durations of licenses. Finally, funders may also have rules on the use of IPR.

As explained above, the procedures of IPR exploitation in the universities as such would partly be of a non-economic and partly an economic nature. If the latter is the case, competition law problems might arise should universities offer special conditions or advantages to certain undertakings. However, there was no general indication for this, except for the afore-mentioned cases based on charitable considerations. These could perhaps be regarded as non-economic in nature in the first place or, if considered as problematic from a competition law perspective, these cases are likely to be exempted as SGEIs. With regards to IPRs generated in collaborations, any economically unjustified limitations as to the use of generated IPRs could fall under competition law if an economic activity takes place. The universities insistence on being able to publicise the results may potentially be regarded as such but, again, might be exempted as an SGEI. When it comes to state aid law, whether or not the conditions of the Research Framework are fulfilled will have to be assessed on a case to case basis. In particular, universities may not transfer IPRs without receiving appropriate consideration. While some of the interviewees mentioned that they are aware of this provision and negotiate accordingly, there might still be a risk that this is not always assessed correctly by referring to public funding rules and the assumption by some universities that additional public funding automatically makes a collaboration a non-economic activity.

5.5.8. Anti-competitive research co-operation

As in the Netherlands, there did not seem to be any indication that research was begun at an unreasonably late stage which could be in breach of Article 101 (1) TFEU, as discussed in chapter 3.

5.5.9. Market division

Some interviewees mentioned that the universities do coordinate to an extent regarding rare subjects. Accordingly, one university might continue to teach and research in one rare subject which another ceases to offer. The second might instead focus on another rare subject that the first university ceases to offer. This would be an economically more efficient use of decreasing resources. If there are economic activities within such a subject division and the ‘coordination’ amounts to an agreement or concerted practice this might constitute market division.

5.5.10. Limiting Markets

All interviewees stated that there are no quantitative restrictions to the amount of economic research their universities can conduct. Many interviewees expressed they would be concerned if too much economic research would be conducted because they did not regard this as the role of a university. They also pointed to the restriction inherent in the HRG, discussed in chapter 4, which states that there must still be sufficient capacity for research and teaching in the public interest. However, they also believed that the universities are still far removed from a stage where this would become a problem because universities have only started to generate private sector income and it does not yet account for a large percentage of all research. Limitation of markets, therefore, does not seem to be a problem in the universities under scrutiny and if, as some interviewees suggested, this should become necessary in the future to protect the capacity of public research and teaching as required by the HRG, this would probably be covered by the exemption in Article 106 (2) TFEU.

5.5.11. Applying *Altmark*

The interviewees explained that there is much variation between calls from public funders as to who can apply. Sometimes they are limited to universities and sometimes a consortium of partners is required and they may even stipulate what kinds of partners need to be involved. Within a call, the rules applicable to the indi-

vidual partners might also vary. Universities might only be allowed to apply for direct costs for their share of the research, while private partners apply with full cost, but do not get 100% of them funded. Non-HEI research organisations can only apply under limited conditions. Some calls would also be clearly marked as commissioning research, are open to industry and those who tender are specifically alerted to the state aid rules.

If public calls constitute economic activities, they would need to be commissioned according to the *Altmark* criteria which require them to be open to any willing provider, including particularly foreign providers, and market rates or 'full cost plus' need to be charged. While this is apparently the case with some calls which are also clearly marked as contract research, other calls could potentially also be classified as economic in nature. An interviewee working on legal aspects also pointed out that the university is sometimes just given research contracts and that they would not examine whether this should have been commissioned as they assume this to be the responsibility of the public authority. As the university would potentially have to pay back illegally obtained aid, this could, however, also put universities at risk.

5.5.12. State aid through staff knowledge

While, according to the interviewees, there are staff working in the private sector during research leave or a sabbatical and there are funding programmes for such staff transfers between the universities and the economic sector for a limited period of time, this is rather rare because, inter alia, a public interest in doing this has to be proven and that is difficult. It is more common, though not frequent, that members of staff have a side job in the private sector or work as entrepreneurs having established their own companies out of the universities, often with the help of the university or public funding initiatives. One interviewee, for example, mentioned state funding which pays half the salary of the member of academic staff to allow them to work part time in the start-up. Some interviewees mentioned that the universities may help through initially providing infrastructure or giving contracts to the start-ups or spin-offs, but with a view to the companies eventually becoming economically self-sustainable. Often such support would be regarded as starting help without returns being required, but if the investments are more significant, the universities attempt to agree some kind of payback to be received in due course. The spin-offs/start-ups could also be beneficial for the university because they may later in-

volve them in common projects. Finally, PhD researchers would sometimes write their theses in co-operation with a company. In the latter case the companies would often pay a scholarship and direct costs which, according to one interviewee, allows them very cheap access to research results.

The interviewees explained that if staff work in the private sector they have to notify the universities of the private sector role and its extent. For civil servants, approval must be sought which may be denied if there is a conflict of interest (i.e. if the work for the private sector is something which should be done in their main activity). According to an interviewee working on business collaboration, this assessment has been more relaxed in the past and has recently become more strict. Since the employers own any inventions, companies may try to argue that they own an IPR if it was made during the researcher's working time at the company. As mentioned above, the universities will, however, always argue that any invention should belong to them as the invention could not have been made without the experience made during staff's public sector work. In some universities this is contractually agreed and the *Arbeitnehmererfindungsgesetz* also supports this assessment. The private sector company may, however, get an option right towards receiving a license for the usual fee. As regards general experience and knowledge, staff can bring this freely into their private sector work without any further obstacles because the main focus here is the transfer of knowledge and the bringing of academic results to the market as actual products.

Universities try to protect themselves from private sector exploitation of IPRs which could only be generated through the knowledge by seconded staff acquired in the universities. This would, however, obviously, require the universities being notified about IPRs which might not always be the case, since the universities rely on inventions being reported by employees. Furthermore, knowledge is being transferred beyond actual inventions leading to IPRs through staff or PhD students working in the private sector and, additionally, there are even public initiatives supporting this. While the creation of a spin-off by the universities itself and with the sole aim of reinvesting all income into the primary activities is regarded as a non-economic activity by the Commission, this might end if the spin-off becomes privately owned. Additionally, all knowledge transfer beyond this may potentially be regarded as state aid because the private sector company in question exclusively benefits from the researchers knowledge and potentially from additional funding.

5.5.13. Exemptions

As has been mentioned in the previous subchapters, it is impossible to make a general determination of the potential for exemption under Article 101 TFEU, because it depends too much on the individual cases and, with regards to BERs, on market shares. As in the other two countries, the amount of funding provided through public calls differs, according to the interviewees, significantly from a few thousand Euros to up to €8M per annum or even €20M per annum for institutional funding through the Excellence Initiative. As regards state aid, smaller projects could equally benefit from the *de minimis* rules, the exemptions in the GBER and the SGEI Decision. As in the Netherlands, the amounts of funding provided are higher than in England and, therefore, there is more scope for potential aid falling outside of the exemptions. However, such measures, if classified as infringing the state aid provisions, might then still be able to utilise Article 107 (3) TFEU as an exemption generally, which would need to be evaluated in the individual case according to the guidelines in the Research Framework.

5.5.14. SGEIs

In addition to the exemptions mentioned in the last section, potential infringements might be exempted as SGEIs under the conditions mentioned above in the relevant section on England. The general opinion in the universities seemed to be that if the public funder decides to fund a project it is therefore in the general interest. This would be particularly so since the main outline of the programmes would need to be agreed on by parliament and could be lobbied by researchers, even though a few interviewees said that they did not necessarily always agree with the funders' assessment of what was in the public interest. Research funded by the private and third sectors was regarded by some as being in the funders' interest, even though this could simultaneously also be in the public interest. From these statements, it thus seems as if the universities would pursue research in the public interest as well as in particular interests. As has been mentioned above, it might require more than just such an interest, however, and clarity can only be achieved through a ruling by the Court. As regards the question of whether the SGEI is entrusted to the universities, the interviewees named the HRG, the respective state laws, the constitution (with the academic freedom) and EU law, especially the Research Framework, as acts entrusting universities with the task of research. However, they only

entrust them with research in general rather than with specific tasks which they might conduct as part of a research project. Potentially the grant agreements could be seen as such acts, though. Whether the application of competition law would obstruct a potential SGEI, whether this would be proportional and whether the development of trade would be unduly effected, would depend on the individual case.

5.5.15. Interim conclusion

Since investments are high in Germany, the research funding situation was generally seen more positively compared to other countries. However, whilst generic and DFG funding remain the most important sources and these allow researchers to unfold their academic freedom, the increasing importance of steering calls was regarded as somewhat problematic. It was felt that universities suffer from a mission overload and that the current problems may lead to less innovation, the extinction of certain subjects and teaching and research separation. All interviewees were aware of competition law, however, the focus here was mainly the Research Framework and its requirements of full costs for economic activities. The interviewees all explained that their universities differentiated between economic and non-economic activities. However, this determination might potentially not always be in accordance with competition law particularly since the involvement of public funding seemed to be regarded as automatically making an activity non-economic in nature.

If areas are erroneously identified as non-economic and no full costs are applied, this could amount to state aid or be regarded as predatory pricing. Exchange about costing systems, depending on what kind of information is exchanged, could also be anti-competitive. Universities do not seem to prefer partners in an anti-competitive way, even though public calls seem to sometimes require certain partners. In addition to this, lobbying attempts for certain calls might potentially be regarded as anti-competitive. The universities under scrutiny also do not seem to impose special duties, except, usually, a requirement to make results publicly accessible which, if regarded as anti-competitive, is likely to be exempted as an SGEI. If other undertakings require universities to act in a way they do not wish to act, they may also be able to use competition law to their advantage. Public funding rules as well as universities providing advantages for certain undertakings or excluding certain undertakings from a collaboration, could potentially be regarded as anticompetitive behaviour or as state aid. The procedures of IPR exploitation in the universities

as such do not seem problematic from a competition law perspective. With regards to IPRs generated in collaborations, any economically unjustified limitations as to the use of generated IPRs could fall under competition law if an economic activity takes place. When it comes to state aid law, the conditions of section 3.2.2. Research Framework need to be adhered to in order to avoid state aid accusations. Problems with competition law could also occur, if universities divide workload along subject lines (some indication of which was found), if this amounts to an agreement or concerted practice in the area of an economic activity. Furthermore, if public calls are economic activities, they would need to be commissioned according to the *Altmark* criteria also allowing foreign and private providers to tender. Finally, special support for certain privately owned spin-offs or knowledge being transferred exclusively to one entity through staff working in the private sector, might potentially be regarded as state aid.

As in the other two countries, there might be exemption possibilities depending on the individual case. However, the sums provided for public research are higher than in England and thus there is more potential for certain, potentially anti-competitive, public calls to fall outside the scope of the *de minimis*, GBER and SGEI legislation. As in the other two countries, it might also more generally be possible to exempt potential breaches of competition law as SGEIs under Article 106 (2) TFEU. As in the Netherlands, research is a statutory task, but the legislation establishing this might, in itself, not be precise enough to be regarded as an entrustment act. This might, however, be achieved by the grant agreements.

5.6. Conclusion

The chapter has shown that when it comes to the overall estimation of the research systems, the opinions of the interviewees differed. However, there were some common tendencies. In Germany there was a generally positive opinion of research funding, although the increasing importance of steering calls was regarded as somewhat problematic and it was felt that universities are suffering under a mission overload which could ultimately lead to less innovation, the extinction of certain subjects and a separation between teaching and research. The interviewees in the Netherlands, were more pessimistic as it was felt that public funding was shrinking and increasingly concentrated on certain areas and for research with impact. This was seen

as causing tensions with academic freedom and as unduly limiting basic research. The problem of shrinking public funding, a strong focus on impact and concentration on certain institutions and areas, was expressed even more strongly in England. Whilst the interviewees in the latter country seemed to be understanding of the government's approach in general, it was said that it might be taken too far and that, academics especially, perceived this as creating unnecessary administrative hurdles and causing tensions with regards to academic freedom. In all three countries it was expected that the tendency towards more economically based approaches in research funding would continue.

The awareness of competition law also differed in the three countries under scrutiny. Whilst the interviewees in Germany were very aware of the necessity to implement full costing methodologies according to the Research Framework, the Dutch interviewees and the relevant legislation presented a broader awareness of potential competition issues. The English interviewees, on the other hand seemed less aware of competition law themselves, but the policies followed seemed to have taken many aspects of potential issues into consideration. This seems to correspond with the fact that England has a more commercialised top-down system which might have required certain adaptations to happen early on whilst not necessarily communicating the reasons to employees at every level. The Netherlands, being a consociational system with a medium degree of commodification, are increasingly considering competition law and involving these legal aspects into the research offices. Germany, which has only taken the first steps towards commercialisation of HEI research, is only just coming to grasp with competition law implications. Thus far this is limited to the most pressing concern of full cost calculation of which the research officers were, however, very aware drawing the distinction between economic and non-economic activities independently.

Generic public funding and most calls from public funders would probably be non-economic in all three systems. However, public funding which essentially is paid for a commissioned service, irrespectively of whether it is classified as a call or as the commissioning of a service, would be economic in nature. While contract research, consultancy and similar activities are of an economic nature, the differentiation between economic and non-economic activities would need to be made on an individual case basis in other collaborative forms with the private or third sector. These forms were relatively similar in the three countries. Whilst England and the

Netherlands have advanced costing methodologies which in themselves do not pose competition law issues, German universities appear to mainly still use overhead rates. Nevertheless, in all three countries it appeared as if there were cases which would need to be classified as economic in nature and where full costs plus profit were not charged which could potentially be regarded as state aid or predatory pricing.

Other potential constraints also seemed to be similar in the three countries. Universities do not seem to exclude partners unless, perhaps, due to ethical considerations or the rules of funders which might be regarded as anti-competitive if applied in area of economic activity. In Germany one might also wonder if governmental consultation of stakeholder when it comes to determining research agendas could be anti-competitive. Whilst it was also occasionally mentioned that lobbying took place in the other two countries, this appeared to take a less organised form. The universities in all three countries do not seem to impose any uneconomically justified contract conditions on partners, except perhaps for the requirement to allow them to publish. The latter if regarded as anti-competitive, could possibly be exempted as an SGEI. If other undertakings require universities to act in a way they do not wish to act, they may also be able to use competition law to their advantage here. Generally, the procedures for IPR exploitation in the three countries seem to be unproblematic from a competition law perspective. Only anti-shelving clauses, the limitation of sublicensing or subsidies to companies willing to exploit university IPRs might be regarded as anti-competitive, but at least the former could probably be exempted as SGEIs. In collaborations, universities would have to demand market prices for any rights the partner obtains or exploits and neither side may impose economically unjustified limitations as to the use of generated IPRs. An issue that only came up in England was the question of whether the topic of a research project as such might amount to an anti-competitive collaboration.

There were also different degrees of potential market division. While this does not appear to be present in England, there was some division in Germany, even though this might not actually amount to collusion captured by Article 101 (1) TFEU. In the Netherlands, however, there seems to be a high degree of government supported concentration. Problems might occur in all three systems if public calls would need to be classified as economic in nature, but do not fulfil the *Altmark* criteria. Finally, if advantages are conveyed to companies through staff knowledge (in

particular IPR creation), favourable contract conditions are given to staff owning companies or PhD students are essentially conducting a study for the private sector, this could potentially be regarded as anti-competitive.

The assessment of the potential of exemptions would have to be made on an individual case basis. Regarding state aid, generally, many smaller projects in Germany and the Netherlands and most projects in England (as the funding levels are lower), might be able to benefit from the *de minimis* rules, the GBER, if the corresponding aid intensities are adhered to, or the SGEI Decision, if the projects could be classified as providing SGEIs. More generally, it might be possible to exempt some potential breaches as SGEIs under Article 106 (2) TFEU. The next and final chapter will connect these results to the overall situation of HEIs in Europe.

Chapter 6

Conclusion: European HEIs under EU law constraints

6.1. Introduction

This thesis has investigated EU law constraints on European HEIs. This was undertaken by firstly, explaining the traditional mission of European HEIs and situating European HEI policy within the context of European integration theories. The second chapter investigated the position of HEIs in European policy and the potential of spill-over from other provisions of EU law in overview. It has been shown that there is a tendency towards commodification of HEIs, inter alia, influenced by research and education policies at the European level. Nevertheless, despite increasing EU level activity in these policy areas, the main competences for research and education remain with the Member States. At the same time, however, their policy choices have to comply with directly applicable EU law which might cause constraints potentially leading to further commodification. In order to illuminate this further the following chapters were dedicated to studying this more specifically for the area of competition law. As a first step in this endeavour chapter 3 investigated potential EU competition law constraints on HEIs from a legal doctrinal perspective. Chapter 4 then prepared the empirical study by outlining the research systems in three countries selected on the basis of their different degrees of HEI commodification. This was followed by chapter 5 where the methodology of the empirical study was explained and the results reported. This last chapter will integrate the results from all previous chapters highlighting potential consequences and setting these into the wider context.

6.2. The comparative socio-legal project

The contribution of this thesis lies in its unique combination of legal doctrinal and empirical research. The interdisciplinary approach chosen related the discussion of EU law constraints from potential spill-over of constitutionalised provisions of EU law to European integration theory explaining the theoretical foundations of such potential spill-over. Furthermore, it linked the discussion of EU law constraints

on HEIs to the discussion on the position of HEIs in Europe which takes place more widely in other disciplines such as political science and education studies,⁶⁵³ but had received only limited attention from a legal studies perspective. One of its most important contributions, however, is the in-depth legal doctrinal analysis of potential EU competition law constraints on HEIs in chapter 3, a thus-far largely unexplored area.

Furthermore, the project included a comparative empirical study to test the findings of the legal doctrinal analysis on the systems of HEI research in three Member States chosen on the basis of their varying degree of commodification. As part of this study the research systems of England, the Netherlands and Germany have been detailed and doctrinally tested for their vulnerability to EU competition law in chapter 4. This has then been complemented by an empirical phase in which the potential problems were tested against realities described by experts in research offices in a variety of universities chosen from three categories established on the basis of age and international ranking positions. To test the potential problems a novel framework had been developed based on the results of the general competition law analysis in chapter 3 as well as on the results of the tentative competition analysis for the three countries in chapter 4. Additionally, the interviewees were also questioned as to their awareness of competition law and on other constraints they might experience or foresee. The developed methodology of the empirical study and the results are presented in chapter 5.

The results of the thesis which are brought together in the following sections are thus not only drawn from legal doctrinal analysis, but are also based on the realities of research funding in the institutions studied. Therefore, although the qualitative study was not representative, it does provide some insight into the problems universities face in the three countries. This is not only interesting from an academic point of view, but might also make policy makers and professionals in HEIs in the three countries aware of the potential consequences of the current developments. Additionally, the results and, in particular good practices, could be utilised by policy makers in other countries and at the EU level in order to circumvent potential prob-

⁶⁵³ See those cited in chapter 1 and 2, for example, Allen (n 9), Clark (n 14), McKelvey and Holem (n 5), Enders and de Weert (n 5), Palfreyman and Tapper (n 5), Corbett (n 100).

lems in future policy settings. As such the findings have relevance beyond the universities under scrutiny.

6.3. European HEIs and EU law

As shown in chapter 1 and 2, European HEIs were first established in the Middle Ages as centres of learning and teaching which were later nationalised and, in the Humboldtian era, succumbed to a strong research mission. In recent decades HEIs have, again, undergone changes due to the introduction of mass higher education, increasing commodification and a stronger focus on internationalisation. The latter two trends have not gone unnoticed by policy makers at the EU level who originally had not concerned themselves with HEIs as the European project had started as an economic integration endeavour and the economic value of HEIs had not been initially apparent. At the same time, potentially due to the important value of HEIs in national culture and them being maintained by public funding, the Member States seemed reluctant to provide far reaching competences to the EU level and only equipped them with a supplementary competence in education and a shared competence in research, the latter only having been extended recently with the Treaty of Lisbon. These limited consequences did not lead to, and in the case of education, indeed, explicitly prohibited, harmonisation. As this, nevertheless, appeared to have been desired (to a certain extent), the Member States in cooperation with European third countries agreed on the Bologna Process for the harmonisation of higher education systems. Research and the role of HEIs for the ‘knowledge based economy’ has become increasingly important in the framework of the Lisbon/Europe 2020 Strategy with which the FPs will soon be streamlined as Horizon 2020. These soft law mechanisms have attracted a variety of criticisms including the legal and democratic concerns of the Bologna Process pointed out by Garben.⁶⁵⁴

At the same time, HEIs need to comply with other seemingly unrelated directly applicable provisions of EU law such as those on Union citizenship, the fundamental freedoms, competition and state aid. These, as neo-functionalism explains, may spill-over and influence national policy concepts on HEIs. This assumption seems to have already been proven true by the citizenship cases of Austria and Belgium, dis-

⁶⁵⁴ Garben (n 6).

cussed in chapter 2, despite the Court having accepted concerns about the health care system as a justification in *Bressol*.⁶⁵⁵ The possibility of HEIs coming within the ambit of the more economic free movement provisions or competition and state aid law increases with ongoing commodification and might in turn require even further commodification. In the cases *Schwarz*, *Jundt* and *Neri*⁶⁵⁶ the fundamental freedoms have already been applied to educational activities and required tax changes in national policy in the former two and a change in diploma recognition policy in the latter.

As regards EU competition and state aid law, there have yet to be any EU level cases regarding HEIs. As explained in chapter 3, for these provisions to be applicable to HEIs the latter would need to conduct an economic activity.⁶⁵⁷ The Commission recognised in Decision 2006/225/EC⁶⁵⁸ and in the Communication on state aid and SGEI⁶⁵⁹ that ‘public institutions can also offer educational services which, due to their nature, financing structure and the existence of competing private organisations, are to be regarded as economic’.⁶⁶⁰ In the Research Framework⁶⁶¹ the Commission provided guidance as to when research amounts to an economic activity. Accordingly, in particular, ‘independent R&D for more knowledge and better understanding’ is a non-economic activity, while, in particular, ‘supplying services to business undertakings or performing contract research’ are activities of an economic nature.

Whilst the application of the competition rules might occasionally aid ‘consumers’ (students) or HEIs themselves, there are situations where they might have a detrimental effect. The scholarship scheme which was challenged as price fixing in an US American case⁶⁶² might be such an example, even though a compromise was found in the end and the case settled. It might also be conceivable that competition

⁶⁵⁵ Cases C-147/03 *Commission vs Austria*, C-65/03 *Commission vs Belgium* and C-73/08 *Bressol*.

⁶⁵⁶ Cases C-76/05 *Schwarz*, C-281/06 *Jundt* and C-153/02 *Neri*.

⁶⁵⁷ C-41/90 *Höfner* para 21.

⁶⁵⁸ Decision 2006/225/EC (n 210).

⁶⁵⁹ Communication on state aid and SGEIs (n 210).

⁶⁶⁰ *Ibid* para 28.

⁶⁶¹ See above n 8.

⁶⁶² *United States v. Brown Univ.*, No. 91-CV-3274.

law will require national bodies distributing study places to be opened to institutions from other Member States of which the systems might not be capable. As regards research HEIs must, in particular, demand full costs in areas of economic activity to avoid state aid accusations. Furthermore, accounts must be strictly separated and public funders might have to commission research if it had to be regarded as economic in nature.

While some⁶⁶³ have argued that the General Court's approach in *BUPA*⁶⁶⁴ might indicate some leniency of the EU institutions towards areas of primary responsibility of the Member States, it is the NCAs who are now investigating most competition law cases and the national cases on educational institutions discussed in chapter 3 seem to indicate that they are not reluctant to open proceedings. If HEIs would have to pay fines for the infringement of competition law, the question would also arise how or by whom these would be paid. On the other hand, strict compliance with the competition rules might commercialise the activities of HEIs even further. For example, if HEIs cannot fix tuitions fees at a low level, less well-off students might not be able to get into certain universities and if HEIs have to compete on a full cost level, those located in parts of the country with higher salary levels or those owning antique buildings would have a competitive disadvantage which they could not rationalise in a way private companies could whilst at the same time retaining their heritage and traditions. There are, of course, still exemption possibilities for infringements of competition law under Article 101 (3), 107 (2) and (3) and under Article 106 (2) TFEU. These might, however, not capture every situation and, in any case, it might make the conduct of HEIs increasingly complicated from a legal/administrative perspective.

6.4. Competition law constraints on research in Germany, the Netherlands and England

The research systems of Germany, the Netherlands and the UK differ in a variety of ways. The UK is a devolved state with four separate countries. England, which has been the focus of attention, is organised in a centralised and top-down

⁶⁶³ Hatzopoulos (n 179) p. 236 seq.

⁶⁶⁴ T-289/03 *BUPA*.

fashion with strong elements of a liberal market economy. The UK's research spending has been relatively stable and below 2% of its GDP over the last ten years. The private sector provides less than 50% of all research funding which, nevertheless, makes the sector the largest funder. Whilst the public sector is the second largest funder, as in the other two systems, the UK relies to a larger extent on foreign funding. HEIs are by far the most important public research organisations in regards to which England is, in comparison with the other two countries, most progressed on the path towards commercialisation.

The Netherlands are a centrally governed, yet consociational system. Research spending has fluctuated, but has now reached its highest level over the last ten years with 2.16% of its GDP. The private sector is the largest research funder and conductor, followed by the public sector which contributes slightly more than a third of all research funding. Foreign and third sector spending plays a smaller role than in England. While publicly funded research is mainly conducted by the 14 universities, there are also a variety of other research organisations including many collaborative organisations. The Netherlands have equally begun to introduce steps towards a more commercial system, but, as some interviewees expressed, they are some years behind England in this endeavour.

Germany is characterised by a strong constitutional protection of academic freedom. As a federal republic, the states as well as the federal level play a role in devising research policies and providing research funding. Research spending is comparably high and has increased consistently over the last decade nearly meeting the 3% target of the Europe2020 Strategy. The private sector is by far the biggest contributor of funding most of which is, however, also used for research conducted by the private sector. Publicly funded research is undertaken in four major non-HEI research organisations with clearly defined tasks and in HEIs. While these are still significantly publicly funded, first steps towards commodification have recently been introduced.

In Germany and the Netherlands, a large amount of public funding for HEIs is still provided generically without recourse to competitive factors such as performance or focus on government priorities. As generic HEI funding is a state competence in the former it differs between states if performance indicators are used at all and, if yes, to what extent. In the Netherlands, consecutive governments have tried

to make generic funding allocation more reliant on performance indicators which, however, has continually been prevented by the universities. In England the RAE systematically involved research quality and soon the REF will also measure impact. In all three systems non-generic funding (public as well as non-public) has increasingly gained in importance. While all three countries offer open public competitive funding, themed calls and priority areas have started to play a significant role and non-public funding is dependent on the intentions of the funder. The increase of such funding methods might thus pose a threat for purely curiosity driven research and academic freedom. Due to increasing non public funding and EU requirements, all three countries have begun to introduce full costing methods. While this is well developed in England where TRAC fEC has been systematically introduced, the introduction has taken place later in the Netherlands and every university has found its own system. In Germany many universities still do not have real full cost methodologies and are using overhead rates instead. Despite the differences regarding the introduction of full cost methods, universities in all three systems seem to struggle to actually receive funding at full cost levels from many funders.

While the interviewees in England generally seemed to understand the idea that publicly funded research needs to be justified as to its use for society, it was expressed that current policy with shrinking public funding, its focus on impact and priority areas and concentration of funding might be taking this too far and that especially academics perceived this as creating unnecessary administrative hurdles and causing tensions with academic freedom. The interviewees in the Netherlands equally felt that public funding was shrinking and increasingly concentrated on certain areas and research with impact. This was regarded as causing tensions with academic freedom and limit basic research unduly. Interviewees in Germany generally saw the research funding situation more positively, as investments are high. However, some regarded the increasing importance of steering calls as problematic when it comes to academic freedom and it was felt that universities are suffering from a mission overload which could ultimately lead to less innovation, the extinction of certain subjects and a separation between teaching and research. Many also felt that the growing importance of non-generic funding combined with the fact that such funding is mostly not provided at full costs levels, financially punishes successful institutions. In all three countries it was expected that the tendency towards more economic approaches in research funding would continue.

The awareness of competition law as a potential constraint for HEIs differed in the three countries under scrutiny. While the awareness of the interviewees in Germany seemed to focus on the necessity to implement full costing methodologies according to the Research Framework, the Dutch interviewees and the relevant legislation presented a broader awareness of potential competition law issues. The English interviewees, on the other hand, seemed less aware of competition law themselves, but the policies followed seemed to have taken many aspects of potential issues into consideration. This seems to correspond with the fact that England has a more commercialised top down system which might have required certain adaptations earlier while not necessarily communicating the reasons to staff in research offices. The Netherlands, being a consociational system with a medium degree of commodification, are increasingly considering competition law involving these legal aspects into the research offices. Germany, which only took first steps towards commercialisation of HEI research, is only coming to grips with the competition law implications. Thus far this is limited to the most pressing concern of full cost calculation of which the research officers were, however, very aware, drawing the distinction between economic and non-economic activities independently.

From a competition law perspective research conducted freely financed from generic public funding in all three systems would probably not fall under EU competition law as it constitutes ‘independent R&D for more knowledge and better understanding’⁶⁶⁵ and it is difficult to imagine how this could be replicated under market conditions. Competitive public calls equally would probably not amount to an economic activity if they are completely open or just establishing a broad area of research. According to the interviewees, this appears to be the case for most public calls. There also appear to be calls in all systems which are very specific, essentially prescribing a service for which a provider is sought and which could be commissioned under market conditions. The latter could amount to economic activity and partly such research is also officially procured. A similar distinction would need to be drawn for third sector funding or private philanthropical contributions. The forms of private sector collaboration are quite similar in the three systems. Some research funded by the private sector, such as contract research, consultancy or renting out infrastructures would have to be regarded as economic in nature. With other forms

⁶⁶⁵ Research Framework section 3.1.1.

of private sector collaboration such as research co-operations, private funding of academic staff or PhD researchers the lines are less clear cut and the distinction would have to be made on a case by case basis by asking if the research is amounting to a service which could be conducted under market conditions. The Issue Paper⁶⁶⁶ seems to confirm the latter by pointing out that mere labelling of an activity as collaborative research does not necessarily make this non-economic in nature. As regards the exploitation of IPRs, the Commission in the Research Framework and the Issue Paper determines that this is of a non-economic nature if the exploitation is managed internally, the IPR arose from a non-economic area of research and the knowledge transfer is non-exclusive. One could thus assume that if venture capital firms are brought on-board in spin-offs, this might become economic. Furthermore, IPR generated as part of economic research activities and exclusive arrangements could amount to an economic activity.

Whilst the advanced full costing systems in England and the Netherlands themselves do not pose competition law issues, the overhead rates used in Germany could potentially cause constraints, if they did not capture the actual full costs and thus left room for state aid and predatory pricing. Furthermore, exchange about costing systems, depending on what information is being exchanged or commonly set rates, might be regarded as price fixing. More importantly, universities in all three systems do not necessarily appear to be charging full costs plus profit in areas of economic activity which could constitute state aid. Additionally, it was often mentioned that companies (supported by academics which are not necessarily aware of the implications), seem to try to agree on prices below full cost plus profit levels. Finally, it has been mentioned in England that some universities would consciously try to undercut prices to gain research contracts to the detriment of others (universities or other research providers) which are unable or unwilling to do so. The latter could be regarded as predatory pricing.

While the exclusion of partners from economic forms of collaboration might be regarded as anti-competitive, there were generally no signs of this in the three systems except for ethical considerations or funders rules. In Germany, one might also wonder if governmental consultation of stakeholders when it comes to deter-

⁶⁶⁶ See above n 215.

mining research agendas could be anti-competitive. In the other two countries lobbying research funders or policy makers also seemed to take place, but to a less organised extent which might thus be less likely to cause constraints. The universities in all three countries do not seem to impose any economically unjustified contract conditions on partners, except perhaps for the requirement to allow publication. The latter is unlikely to be regarded as anti-competitive in the first place and if so could probably be exempted as SGEI. As regards IPR exploitation the universities in all three systems generally do not seem to act anti-competitively. Occasionally, conditions such as anti-shelving clauses or the limitation of sublicensing could be regarded as unduly limiting the companies behaviour and thus as anti-competitive or subsidies to companies willing to exploit university IPRs might be regarded as state aid. However, it might be assumed that at least the former could potentially be exempted as SGEI. When it comes to the exploitation of IPRs generated as part of a co-operation, the Research Framework determines that market prices have to be paid for those which are retained by the private sector partner which generally seems to be the case in the universities under scrutiny.

In England one interviewee mentioned that the topic of an envisaged co-operation was to increase the market share of a certain company. In this respect one might wonder if the topic as such makes this co-operation anti-competitive, as it could be regarded as state aid. In Germany and the Netherlands, on the other hand, there were signs for potential market division. While division of the subject market in Germany might not actually amount to an agreement or concerted practice under Article 101 (1) TFEU, market division seems rather common in the Netherlands and is officially supported by the government which might become problematic. Problems might occur in all systems if the *Altmark* criteria are not adhered to when the state is commissioning economic research. As the eligibility criteria appear to differ between calls and funder, this would need to be assessed on a case by case basis. Finally, if advantages are being given to companies through staff knowledge, in particular IPR creation, favourable contract conditions given to staff owning companies or PhD students essentially conducting a study for the private sector, this could potentially be regarded as anti-competitive. In Germany protection against this appeared to be highest by, in particular, prescribing that any IPRs created in such a relationship would belong to the universities, whilst in England especially certain externally funded PhD studies seemed questionable.

The assessment of potential exemptions would have to be made on a case by case basis. As regards state aid, generally, many smaller projects in Germany and the Netherlands and most projects in England (as the funding levels are lower), might be able to benefit from the *de minimis* rule, the GBER, if the corresponding aid intensities are adhered to, or the SGEI Decision, if the projects could be classified as providing SGEIs. More generally, it might be possible to exempt some potential breaches as SGEIs under Article 106 (2) TFEU. However, for this there would need to be an entrustment act. While there is legislation making research a statutory task in Germany and the Netherlands, this legislation might be too general to fulfil the requirements for entrustment acts set out by the Commission.⁶⁶⁷ In that case, entrustment acts might be seen in the actual call or agreement.

6.5. Constraints faced by the HEI sector

Whilst the results of the empirical study, of course, just give an impression (as, being a qualitative study of a small number of universities, the study cannot be representative for all HEIs in Europe), the observation of the interviewees mentioned earlier do match the general tendency towards commodification regarding HEIs examined generally in chapter 1 and for the three systems in chapter 4. This tendency has been reinforced through EU policy on HEIs,⁶⁶⁸ especially regarding research policy which will be even more strongly pronounced in Horizon 2020.⁶⁶⁹ The consequences (beyond potential legal consequences) have been analysed and been regarded critically by many, often in line with what the interviewees expressed. Enders, for example, assumes an increase in productivity (measured in publications and patents). At the same time, he also assumes that the relative homogeneity of (in his analysis German) universities will change towards more differentiation and that there will be a stronger divide or even competition between research and teaching.⁶⁷⁰ Jansen also sees the differentiation amongst HEIs, especially the concentration of resources in already strong HEIs as problematic, as these strong HEIs make it in-

⁶⁶⁷ See the secondary legislation in n 340-343.

⁶⁶⁸ See also Garben (n 101) p. 6, 20 seq.

⁶⁶⁹ See further DJ Beech, 'The European Research Area: Beyond Market Politics' *Europe of Knowledge* (5 October 2013) <http://era.ideasononeurope.eu/2013/10/05/the-european-research-area-beyond-market-politics/> accessed 7 October 2013.

⁶⁷⁰ Enders (n 365) p. 27 with further references.

creasingly difficult for others to survive and for newcomers to enter the ‘market’. Furthermore, Jansen points to the fact that certain areas of research are more favoured than others and that this will affect the directions of research traditionally decided autonomously by the researchers.⁶⁷¹ Schubert and Schmoch as well as Albrecht fear that while research might become more economically efficient, the market-like structures could lead to subjects regarded as less relevant dying out and a strong tendency towards applied research, which might restrict future long term innovation.⁶⁷²

This tendency might actually go so far that basic curiosity driven research becomes a luxury that needs to be earned as advocated by De Fraja⁶⁷³ who develops a model where HEIs are to receive a governmental block grant for which they need to conduct a certain amount of applied research. Only if funding remains after having done so, they may use the surplus for basic research. If the ‘social value of applied research is sufficiently high’⁶⁷⁴ HEIs can receive more funding for additional applied research which will, however, always be provided below full-cost levels and thus require HEIs to match. The latter is to encourage HEIs to also use their ‘savings’ for applied research as that would be co-funded whilst basic research would not. This model seems precarious not only because of the overwhelming limitation of basic research, but also from a competition law perspective as it is generally advocating to “‘co-fund” [...] in contrast to the “cost-plus” approach’⁶⁷⁵ without differentiating between economic and non-economic activities.

Another worrying aspect is the increasing use of targeted calls imposing certain research themes currently deemed relevant, as this seems to infringe the academic freedom. In Germany, where academic freedom is even to be found in the human rights catalogue, one might wonder if such developments might at some point become unconstitutional. Furthermore, one might wonder more generally if such steering policies are steering in the right direction and if short term political

⁶⁷¹ Jansen (n 372) p. 45 seq.

⁶⁷² Schubert and Schmoch (n 533) p. 252 seq and Albrecht (n 536) p. 8 seq.

⁶⁷³ G De Fraja, 'A Theoretical Analysis of Public Funding for Research' (2011) 31 University of Leicester Department of Economics Working Paper.

⁶⁷⁴ *Ibid* p. 4.

⁶⁷⁵ *Ibid* p. 4.

goals should be imposed upon academic research which develops over decades rather than until the next election, as this might, again, hinder innovation long-term. After all, as Beech phrases it, 'scientists throughout European history have traditionally been driven in their work by curiosity [...] [and] it is this blind and often serendipitous pursuit of knowledge that has been behind many of the greatest scientific breakthroughs of the modern world'.⁶⁷⁶ Additionally, the research by Leisyte, Enders and De Boer might question the effectiveness of steering policies, as their empirical research suggests that creative proposal writing allows researchers to do the research they would have done anyway just with a much higher administrative effort.⁶⁷⁷

Some interviewees had also pointed to the negative effects on employment situations and opportunities for early career researchers. Accordingly, it was often easier to hire external companies than employing a research assistant for short term assistance and funding opportunities for post-docs are rare which leads young researchers to leave academia. These concerns link to a general divide between management and academic staff as mentioned in an interview by Sally Hunt.⁶⁷⁸ This is problematic as HEIs as institutions are fundamentally different in nature to businesses. It is difficult for them to rationalise in the same way private companies could and to remain true to their mission and history. Increasingly commercialised research might also be questionable as it might hinder free, unbiased innovation. An example would be the increasing focus on generating intellectual property when the use of patent law as an incentive to innovate has generally been questioned.⁶⁷⁹ As regards non-public funding there is, additionally, the concern about conflict of interest. Friedman and Richter,⁶⁸⁰ for example, found a strong correlation between con-

⁶⁷⁶ Beech (n 669).

⁶⁷⁷ Leisyte, Enders and De Boer (n 456).

⁶⁷⁸ K Catcheside, 'The growing divide between academic, administrative and management staff' *guardian.co.uk* (23 June 2011) <http://www.theguardian.com/higher-education-network/higher-education-network-blog/2011/jun/23/ucu-sally-hunt-academic-admin-divide> accessed 11 July 2011.

⁶⁷⁹ S Thambisetty, 'Why Patent Law Doesn't Do Innovation Policy' (2013) 20 LSE Law, Society and Economy Working Papers.

⁶⁸⁰ LS Friedmann and ED Richter, 'Relationship Between Conflict of Interest and Research Results' (2004) 19 JGIM 51.

flict of interest (i.e. financial relationships with companies)⁶⁸¹ and publication of findings in favour of said companies in their study on medical research and Lemmens and Dupont have pointed to the questionability of commercial cooperation in the alcohol or illegal drug business.⁶⁸²

Whilst the above was focussed on constraints regarding research in HEIs, as this aspect was the focus of this thesis, there are also questionable points in the commercialisation of the education aspect of HEIs, some of which have been discussed in chapter 1.⁶⁸³ The legal constraint arising from EU law discussed previously which both aspects might face might reinforce the commodification tendencies. This might get to the point where HEIs even have to comply with international trade laws such as the General Agreement on Tariffs and Trade which, again, might have unforeseen consequences and could further commodification.

6.6. Towards an EU level HEI policy beyond economic integration

As mentioned in chapter 1, European integration began as an economic integration project, as it was assumed that this would automatically also lead to ‘an increase in stability, an accelerated raising of the standard of living and closer relations between the states belonging to it’ (Article 2 EEC). If, however, economic integration was seen as a means to an end in that sense, there is no necessity to limit EU law to economic competences.⁶⁸⁴ Additionally, even when insisting on narrow boundaries for integration, these are hard to be contained, as integrated areas tend to spill-over with unforeseeable and possibly undesirable consequences. Having analysed 244 cases as to their challenges for economic and social integration from a period of seven years, Schiek observes that ‘a slight bias in favour of economic freedoms emerges in the frequency with which economic freedoms prevail over either

⁶⁸¹ For the exact definition used see *ibid* p. 52.

⁶⁸² P Lemmens and H Dupont, "Onder invloed": is samenwerking met commerciële partijen te verantwoorden?' (2012) 3 *Verslaving* 66.

⁶⁸³ In the English discourse where the student is now ‘at the heart of the system’ the effects of such a customer-provider relationship have also been raised in the popular debate. See, for example, S Coughlan, 'Is the student customer always right?' *BBC News* (28 June 2011) <http://www.bbc.co.uk/news/education-13942401> accessed 11 July 2011.

⁶⁸⁴ Schiek (n 45) in particular chapter 1 (p. 13-52) and 5 (p. 216 seq).

national policy or social policy'.⁶⁸⁵ She thus concludes that it becomes increasingly impractical to limit the social to the national level while the economic is being efficiently integrated.⁶⁸⁶

From what has been set out above, this seems particularly true in the area of HEIs. Not only might the application of directly applicable EU law deconstruct national policy concepts, but also the concerns about the Bologna Process and the Lisbon/Europe 2020 Strategy set out in chapter 2 would advocate for a coherent policy at the supranational level.⁶⁸⁷ Furthermore, as the attempts of the Commission to combine the aims of competition law and the increasing commodification of research policies encouraged by the Lisbon/Europe 2020 Strategy in the Research Framework⁶⁸⁸ show, the balancing between letting activities fall under EU law and exempting them if regarded necessary (as many of them have previously been encouraged by the EU's own policy), makes the whole area immensely complicated and uncertain. Finally, there is some indication that the European citizens are unhappy with the current developments towards ever more commodification of public services in general and of HEIs in particular. Regarding the former, the first European citizen initiative to ever succeed in collecting the necessary number of signatures which requires halting privatisation of water supply and sanitation⁶⁸⁹ can be seen as an example. As regards the latter, the protests against Bologna style reforms and the critical voices in academic writing mentioned in chapter 2 as well as what many interviewees expressed indicates that stakeholders are equally unhappy with the current development of European policies on HEIs.⁶⁹⁰ In addition, the abolishment of tuition fees by the state government in Bavaria after a successful citizen ini-

⁶⁸⁵ Ibid p. 213.

⁶⁸⁶ Ibid p. 242.

⁶⁸⁷ Similar Garben (n 101). See also Prosser 2005 (n 147) who generally points to the problem of hard law integration in more economic areas (there competition law) versus soft law integration in the area of public services.

⁶⁸⁸ The Research Framework provides extensive and complicated guidance as to where the line between desired more commercial activities and state aid needs to be drawn, as the measures in question such as cooperation with the private sector, a focus on SME and exploitation of results have often been encouraged by the EU's own policy. Currently, the Research Framework is being redrafted assessing these guidelines and some aspects in the Research Framework are found in the revised drafts of the GBER.

⁶⁸⁹ Tagesschau.de, 'Eine Million Bürger gegen private Wasserversorgung' *Tagesschau.de* (11 February 2013) <http://www.tagesschau.de/ausland/wassernetze100.html> 12 February 2013.

⁶⁹⁰ Similar as regards the future of the European Research Area Beech (n 669).

tiative on the matter at state level⁶⁹¹ can be named as an example of public discontent with the commodification of HEIs.

Even though, as mentioned in chapter 1, a currently negative attitude towards the EU might make this difficult, an alternative more coherent policy for HEIs at the supranational level thus might seem timely. Garben⁶⁹² has, for example, explored various options and, while remaining doubtful that a stronger primary law competence can be achieved, suggested alternative measures for ‘a stronger base in EU law’ for education. In the area of competition law Swennen has raised the question as to whether competition law as a whole should be differently drafted, as currently it conceivably favours a specific kind of undertaking. In a completely different competition law the problems arising from application on public services might become irrelevant.⁶⁹³ Currently, the Research Framework is, as has been mentioned in chapter 3, being redrafted and some aspects contained in the current Research Framework can be found in the draft of the revised GBER. Considering that, as set out in chapter 3, the Commission in various documents indicates that HEIs might for part of their activity fall under EU competition law; one might more generally wonder if there would also be scope for a BER specifically for HEIs.

While it would go beyond the scope of this thesis to offer a solution as to how to legislate HEIs at the supranational level and therefore this question will have to be left to future research, a few points to be taken into consideration can be made. In developing stronger EU policies the question of in how far these could be regarded as *lex specialis* to other areas of EU law would need to be addressed to avoid strategies, laws and policies to conflict. Given the problems identified as regards commodification of HEIs and the mentioned critical voices, an alternative direction might be considered consulting stakeholders and allowing public debate. Additionally, it might be desirable to decrease the administrative efforts involved in applying for EU research funding if truly efficient research is envisaged, as currently, as some interviewees mentioned, these have deterred researchers from applying. Whilst it has

⁶⁹¹ BR.de, 'Langtag schafft Studiengebühren ab' *BR.de* (24 April 2013) <http://www.br.de/nachrichten/studiengebuehr-landtag-100.html> accessed 25 April 2013.

⁶⁹² Garben (n 70) p. 184 seq, Garben (n 101) p. 24 seq.

⁶⁹³ Swennen (n 3) p. 279.

already been planned to increase the budget for Horizon 2020⁶⁹⁴ and research and innovation in contrast to the EU budget in general seem to be an area for which there is a willingness to invest,⁶⁹⁵ there might be the necessity for even further research funding, as, if the impression gained from the interviewees is more widely true, many HEIs are increasingly looking towards Europe for research funding.⁶⁹⁶

6.7. Final conclusion

This work has assessed EU law constraints on HEIs. It has used a socio-legal approach including an empirical study by, first, placing the legal assessment in the wider context of the historical mission of HEIs and of European integration theory. It has then assessed the political and legal situation of HEIs in Europe before conducting a comprehensive competition law analysis, a thus far largely unexplored area. The research systems of Germany, the Netherlands and England have then been explored and analysed as to their potential for tensions with EU competition law. These potential tensions as well as the awareness of experts in research offices for competition law and their overall estimation of the research situation have then been empirically examined. Due to the differences in the systems the awareness and potential conflicts with competition law differed, but in all systems a vulnerability has been detected. Additionally, the systems all seem to face economic constraints beyond competition law which mirror critical voices in literature.

This thesis thus concludes that constraints from the more constitutionalised provisions of EU law can indeed arise for HEIs, especially with further commodification, and can indeed require even further commodification potentially endangering the traditional non-economic mission of European HEIs. It might thus be time to implement a more coherent EU level policy on HEIs which moves away from the current tendency towards commodification. However, the details on how this can be

⁶⁹⁴ Beech (n 669).

⁶⁹⁵ Tagesschau.de, 'EU kürzt sich den Haushalt' Tagesschau.de (12 November 2013) <http://www.tagesschau.de/wirtschaft/eu-haushalt130.html> accessed 22 November 2013.

⁶⁹⁶ This seems counterintuitive in England with the government's eurosceptic rhetoric. Indeed, the president of the Royal Society raised the importance of EU funding for the UK's research base in an open letter to the Prime Minister during the negotiations for the UK budget. The letter is available on http://royalsociety.org/uploadedFiles/Royal_Society_Content/policy/publications/2012/2012-11-15-MFF.pdf.

achieved will need to be left to future research. In the meantime the thesis offers a comprehensive discussion of the topics and constraints. As such it can be utilised by policy makers and staff in research offices to become aware of potential constraints in order to circumvent these and instead chose the best practises. The thesis thus has relevance beyond the three countries studied.

Annex: Interview questions

Section 1: Introductory Questions

1. Could you please first state your name and task within the university?
2. Does EU competition and state aid law play a role in your everyday tasks?
3. Which measures, if any, have been undertaken to adhere to legal requirements and what consequences has this had on research funding?

Section 2: Publicly funded research

4. This question concerns funding awarded from public budgets and not-for-profit organisations for which your organisation competes with other organisations. Is such funding awarded to any type of research or any type of research in a specific field? Or are the calls very detailed and you have to adjust the research very much according to what is wanted in your application? Can you give examples of the latter?
5. Are you aware of any limitations as to who can apply in any of these calls? In particular, can the private sector and the third sector also apply for such calls? Can you give examples of cases which are limited to certain organisations?
6. Subject to confidentiality, what is the highest amount of funding you received from public sources in a competitive way?

Section 3: Cooperation with the private sector

7. In addition to contract research, what kind of collaborations/knowledge exchange/interaction with the private sector is your organisation involved in (e.g. research co-operations, patenting and spin-offs, setting up new companies, individuals working in undertakings next to their HEI task, privately financed chairs, science parks/clusters, etc)?
8. Subject to confidentiality, can you give some details of the named collaborations? In particular, who contributes in which way (financially)? Who decides what will be researched?
9. How is it decided in these forms of collaboration with the private sector (or third sector) who can join such a collaboration/apply? Can anyone join who wants to?
10. Are there any kind of undertakings (e.g. SME or local undertakings) whom your organisations prefers to cooperate with? If yes, what are the reasons for this?

11. Are there any networks/collaborations with special conditions/duties for participating parties? Please specify any conditions which are imposed upon your organisation or which you require from others (e.g. limitations beyond the research, limitations towards using the results)?
12. Are there any advantages in such networks/collaborations in terms of prices or contract conditions for any undertakings? Do you give advantages to any research users? Examples in both cases could be advantages for SMEs or local undertakings.
13. If you are planning to enter into a research co-operation, what conditions your decision? Is this usually something that is done at the beginning of a project/an idea or at a later stage? Are research co-operations also entered into, if the research is almost finished (shortly before a breakthrough)?
14. If you have staff partly working for the private sector or who can take leave to work in the private sector, what are the conditions? Is it a concern to share publicly generated knowledge or to make sure not to do so?
15. What arrangements are made in respect of intellectual property rights? How are these used (directly, in spin-offs, leave it for the public)?
16. Do the arrangements regarding IPRs differ according to who is funding the research (public funding, private sector funding, third sector funding)?
17. Do you have a practice of giving licenses for IPRs? If yes, how does this work? Do you give licenses for the use of IPRs (e.g. patents) to anyone who wishes to use them?
18. Are there any limitations or conditions regarding licenses? What is the usual duration of a license? Is that what is the common duration in the sector?

Section 4: Full economic costing

19. Has your organisation adopted full economic costing?
20. How are the full economic costs calculated? Are there any agreements/guidelines which apply to universities in this respect?
21. How are costs calculated in cases where full economic costing does not apply?

Section 5: Market entry, limitations of research

22. Having studied the research systems, I do not think this is the case, but for the sake of completeness; are there any limitations as to who can conduct research (e.g. through national legislation or due to having to be accredited in any way)?

23. Are there any limitations as to the amount of research, in particular privately funded research your organisation may conduct?
24. Are you aware of any legislation or other act entrusting your organisation with the task of research?
25. Do you have any specialisation agreements with the private sector or other HEIs? A specialisation agreement is an agreement between two or more entities which contains that rather than both/all conducting a variety of tasks/services, one undertaking is conducting one task/service and the other another. They then receive the task/service which they stopped conducting from each other.
26. Now, again, having studied the systems, I do not believe there is anything of the kind, but for the sake of completeness; do you have any arrangements for geographical division of workload with other parties?
27. In your opinion, is the research your institution is conducting in the general (public) interest? Can you think of examples of research which was mainly for the benefit of particular interests? If yes, how is such research funded?

Section 6: General opinion on funding situation

28. Do you think that your organisation is expected to increase specific kinds of research (e.g. applied research, research that generates impact, basic research)?
29. Are there any differences between subjects (i.e. is it easier to generate funding for certain subjects rather than for others)? If yes, which subjects are easily funded and for which is funding more difficult to be obtained?
30. What consequences have the general developments in regards to funding streams over the last decades had in your institution?
31. Do you think legal requirements and your responses to them, if applicable, have resulted in limitations on academic freedom?
32. What do you expect to be the trends in research funding and research policy in the next 10 years?

Thank you for your time

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