



Position paper: The Future of European Research, Innovation and Higher Education

Preamble

Research, research-based higher education and research-based innovation must be seen as long-term investments. No one knows the exact outcome of research from the start – in that case it would not be research. What we do know is that blue sky research is the key to developing the knowledge and jobs of tomorrow and in ten years.

The coming ten years pose daunting challenges for Europe in the transformation into an innovation-based knowledge economy. The Europe 2020 strategy sets ambitious targets for Europe to become a world leader in this new economy. Education, research and innovation are the main avenues described in this strategy towards these goals. As primary providers of higher education, research-based knowledge and innovation universities play an important role in the realisation of this strategy. The political choices of Europe during the coming years will be crucial in making the most of the potentials of European universities for the benefit of the European societies.

Participating in partnerships across Europe connects Danish universities, researchers and students with leading international actors, thus promoting Danish knowledge and skills and bringing cutting-edge knowledge to Denmark. Furthermore, the EU-funded programmes within research, innovation and higher education play an increasingly important role in supporting Danish research environments and the mobility of students.

The knowledge triangle of research, higher education and innovation gives universities a crucial role in transforming Europe. This position paper presents the hopes and suggestions of Universities Denmark with respect to the future political agenda for European research, innovation and higher education.

Universities Denmark

Universities Denmark is the association of the eight universities in Denmark and works to promote the Danish university sector nationally, regionally and internationally.

Universities Denmark cooperates with other national university associations and is an active member of the European University Association and Nordisk UniversitetsSamarbejde, a forum for Nordic universities.

The Danish university sector

- Public R&D spending in 2010 reached 1 percent of Denmark's GDP
- 55 percent of all publically funded research in Denmark in 2008 was conducted at the Danish universities
- Universities offer bachelor, master and Ph.D.-programmes whereas the vast majority of vocational programmes are offered outside the university sector
- 27 percent of all Danish tertiary graduates in 2008 graduated from a Danish university

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30 suggestions for the future of European Research, Innovation and Higher Education

European Research Area

1. Universities Denmark supports the suggestion of the European Research Area Board to increase investments in research from 3 percent to 5 percent of GDP.
2. The key driver for European research should remain the promotion of research excellence.
3. The advice of Universities Denmark is to promote research based higher education as such university graduates are important disseminators of knowledge throughout society.

European Research Council

4. ERC should be given more administrative autonomy and more financial means of supporting the very best researchers.
5. Universities Denmark suggests that the ERC develops a programme to support and build excellence in PhD Schools. Such a programme should be established on the basis of new funding for the ERC.

Framework programmes

6. Universities Denmark recommends a stronger focus on the quality of research in existing and future programmes.
7. The basis of administrative procedures should be trust.
8. Universities Denmark calls on the Commission to streamline the various research programmes across Directorate Generals.
9. Universities Denmark suggests that structural funds should be allocated to capacity building within research and higher education.

Joint Programming and Grand Challenges

10. Universities Denmark recognises the need to address Grand Challenges. Universities Denmark advises that diversity and quality become the main elements in the programmes aimed at addressing these Grand Challenges.
11. Universities Denmark is concerned that Joint Programming Initiatives risk diluting already well-established national research environments. The success of these new politically high profile initiatives therefore requires a critical eye on the governance structure and financial models behind the Joint Programming Initiatives.
12. Universities Denmark hopes that framework programme funds will be used to support Joint Programming Initiatives or other Grand Challenge programmes.

Researcher mobility

13. Universities Denmark supports the continued development of the so-called fifth freedom of mobility of researchers, ideas and students.
14. Universities Denmark hopes that Marie Curie will enjoy continued support in years to come.
15. Universities Denmark supports the promotion of transparent and compatible career paths across Europe.

Research-based innovation

16. New and revised EU programmes to support innovation should be as open to international collaboration as possible.
17. The strategic headline target on innovation suggested in the Europe 2020 strategy should encompass diversity.
18. The administrative framework for public-private partnerships should be comparable to the general administrative procedures of other EU-programmes.
19. Universities Denmark supports a harmonisation of national rules regulating commercialisation of university IPR as well as the establishment of an EU Patent and a patent court in the EU.

European Higher Education Area (EHEA)

20. A diversified higher education sector is essential to maintaining the attractiveness and dynamic of the EHEA. The EU institutions and other European-level actors should recognize diversity as a unique strength of the European university sector.
21. A particular strength of the Bologna Process has been the high degree of stakeholder involvement. Europe's policy-makers should continue to involve and consult universities, students and other stakeholders when they develop new initiatives and instruments for the purpose of promoting the EHEA.
22. A strong link between research and higher education is essential to Europe's competitiveness in the era of knowledge. Therefore, all university education should be research-based, and all research should contribute to higher education.
23. Even though noticeable progress has been made, many students and scholars are still not benefitting from internationalisation. Therefore, the promotion of mobility should remain a core theme for the EHEA.

The future of Erasmus

24. Erasmus should support cooperation between European universities that focus on innovative learning methods, including novel use of ICT in higher education and development of innovative study programmes. The link between innovation and higher education has not yet been explored to the same extent as the relation between research and innovation. Erasmus could strengthen the links between research, innovation and higher education by supporting European universities in their efforts to modernize and renew curricula, teaching methods, use of Information and Communication Technologies etc.
25. Erasmus should, to a larger extent, support cooperation and exchange between the university sector and other parts of society. Erasmus grants for students going on placement and students on Erasmus Multilateral Projects are steps in the right direction. However, much more could be done to facilitate collaboration and balance mobility between European universities and the rest of society, e.g. Europe's industrial and health sectors and civil society.

Multidimensional transparency tools

26. Universities Denmark supports the development of new and more advanced models of classification, but finds that new systems should take into account the diversity of the European university sector.

Quality assurance

27. Universities Denmark finds it important that a European dimension to quality assurance does not at any time lead to bureaucracy or standardisation of academic content or learning methods.

Lifelong learning

28. Universities Denmark supports the European Qualification Framework for Lifelong Learning.

Employability

29. Universities Denmark finds that employability should be assessed in a long-term perspective and that trust in the European university sector must be displayed in order to ensure coherence between learning outcomes and the future demand of the labour market.

Public financing

30. Universities Denmark sees public financing of higher education as a necessary investment in the future. Public financing should therefore be at a level that enables the universities to maintain a high quality level in the execution of the multiple tasks that society expects of them.

Research

Research, innovation and education combine key means in meeting the challenges described in the Europe 2020 strategy. This knowledge triangle is crucial for Europe's long-term wealth and sustainability. The core of this triangle is research of the highest quality. The increase in EU's budget for research, and the aim of investing 3 percent of member state GDP in research and development in 2010 are examples of how the EU increasingly see research as an important part of the solution. Looking towards 2020, 3 percent is however not enough.

Research is a driving force behind the continuous development of European economy. Investments in research provide significant returns, both financially and culturally. Therefore, Universities Denmark supports the European Research Area Board's proposal to increase investments in research from 3 percent to 5 percent of GDP. Likewise, the EU budget for research should also be markedly increased. Concerning EU's budget for research, the increase should encompass an increased framework programme budget and an increased use of EU's other budget headings to support research and development.

The key driver for European research should always be the promotion of research excellence. European researchers and research institutions have a primary responsibility to promote and support excellent researchers and research environments, and the main objective of European research policies should underpin this endeavour. Universities Denmark recognises the aim of promoting growth and social development through strategic research programmes. Building on the quality of research, these strategic programmes are important drivers of the development of the knowledge base of Europe and of the knowledge based societies of tomorrow.

Through excellence, European research can provide the answers to the Grand Challenges we face in Europe and on the global scene; and also pose the questions we have not yet learned to ask. Excellent research is a main criterion for building a competitive European economy.

Graduates from universities with research based higher education are important disseminators of knowledge throughout society. Excellent and relevant research, also disseminated through graduates, is therefore a vital means of strengthening the knowledge base of the European societies and economy.

European research programmes, be they strategically targeted or researcher driven, should be directed primarily at promoting excellence, and excellence should decide the selection of individual projects.

European Research Council

Universities Denmark considers the European Research Council (ERC) to be of particular significance, due to its importance to date in promoting research excellence and development.

ERC has proven to be a significant contributor to research excellence in Europe. Universities Denmark therefore hopes that the coming years will see increased

funding and autonomy to ERC. As ERC was launched during the Danish EU presidency in 2002; it is our aim that the 10-year anniversary of ERC during the Danish presidency in 2012 will see a political will to support the role of ERC in the European Research Area. Thus ERC should be given more administrative autonomy and more financial means of supporting the very best researchers.

As ERC currently supports upcoming as well as established leading researchers, the aims of ERC could be promoted through the development of an ERC programme to support and build excellence in PhD Schools. Such a programme should be established on the basis of new funding for the ERC. Likewise new ERC-funding could be used to support scientific excellence through collaboration between the most excellent European researchers.

Framework programmes

The framework programme on research is EU's primary tool for development of the European research area. Universities Denmark recommends a stronger focus on the quality of research in existing and future programmes. Also, the criteria for allocation and evaluation of the funds within the programmes should primarily be limited to meeting this central criterion.

Instead of regionalisation of framework programme funds, Universities Denmark suggests that structural funds should be allocated to capacity building within research and higher education. This could strengthen the overall capacities of the European Research Area without diluting the pre-eminence of research excellence.

Reduce administrative burdens

Universities Denmark recognises the recent attempts to simplify administrative procedures in terms of applications and administration of programme funds. Further, Universities Denmark recognises the Commission's wish to continuously simplify these.

Universities Denmark hopes that the midterm evaluation of FP7 and the future framework programmes will result in substantial simplification of bureaucratic rules and procedures for applying and administering EU research funding. Therefore Universities Denmark suggests that across all EU programmes procedures will become transparent and comparable, aiming at drastically reducing administrative burdens. Resources for research should fund new knowledge and new co-operation; not application forms. The basis of administrative procedures should be trust.

Universities Denmark encourages the continuous dialogue between relevant actors within research when designing administrative procedures. In the development of these new tools it is vital that excellence remains the primary criterion of relevance.

Research is being supported from many parts of the European Commission. This strong support is welcomed, but the numerous programmes across Directorate Generals have resulted in a fragmentation of administration and interpretation of rules. Universities Denmark calls on the Commission to streamline the various research programmes.

Joint Programming and Grand Challenges

The strength of the European Research Area is the combination of diversity and quality. Through a rich and varied research profile European researchers and research institutions draw strength and inspiration from each other to develop outstanding research across all fields. To merge the rich variation of research profiles and research programmes towards common solutions can be a strong outcome. On the other hand, synergy and common goals must not undermine the diversity, which is a unique strength of European research.

Europe's researchers and universities are a central part of the answer to the challenges that European countries face collectively. Through identification of common challenges, i.e. the 'Grand Challenges', research resources across Europe can be gathered to meet these challenges. This especially applies when researchers, universities and other actors have the freedom to find solutions and to cooperate across disciplines. Hence, openness, freedom and quality are the primary criteria for these Grand Challenges to be met.

It is important that programmes do not overlap across national, regional and European levels. Therefore, it is decisive that for instance Joint Programming Initiatives maintain a focus on quality rather than induce duplications and Red Tape or dilute existing research areas.

Universities Denmark welcomes increased coordination of research funding across Europe to bring together European resources to solve Grand Challenges. Universities Denmark is nevertheless concerned that Joint Programming Initiatives run the risk of diluting national research environments that are already well established. The success of these new politically high profile initiatives therefore requires a critical eye on the governance structure and financial models behind the Joint Programming Initiatives.

In order to attain real critical mass and to create incentives to join initiatives such as Joint Programming Initiatives, Universities Denmark hopes that framework programme funds will also be used to support these initiatives. Without Commission funding, it is our fear that the Joint Programming Initiatives will not become the success envisioned.

Researcher mobility

Universities Denmark supports the development of the so-called fifth freedom, whereby researchers, ideas and students move freely across national borders. Due to the borderless nature of knowledge, the fifth freedom should not only be seen in a narrow European context. Universities Denmark therefore encourages national and European barriers to the mobility of students and researchers to be broken down and Europe and individual member states to become more open towards the world outside of Europe.

For the Danish universities, the Marie Curie programme has been of great importance, and it is the hope of Universities Denmark that the continued development of this programme will enjoy continued support in years to come.

European universities and research institutions should support the mobility of researchers by promoting transparent and compatible career paths.

Research-based innovation

A strong European research area is a precondition for Europe to remain in a central position in the world economy and culture. It is also a precondition for European researchers, research institutions and the business world to interact with partners on a global level.

For centuries the cooperation between European researchers, research institutions and the business world has been of decisive importance for the development of European societies. Globalisation enhances the possibilities and needs for cooperation. Europe's continuous development towards becoming a strong knowledge economy demands well-functioning cooperation between universities and the business world. This dynamic presupposes strong, free universities, a well-educated international labour force and a strong innovation-ready business community.

The increasing competition between the industrialised and emerging regions of the world, coupled with the economic downturn in the European economy, may promote a closed Eurocentric approach to innovation. Universities Denmark strongly advises against such developments. To truly compete and grow in the new global economy, European innovators and companies need to be members of global networks. New and revised EU programmes to support innovation should therefore be as open to international collaboration as possible.

Based on autonomy and sufficient funding, universities could become vital actors in European innovation as innovation hubs.

Strong and independent universities support innovative societies, just like universities contribute to innovation through their cooperation with business partners. Europe can become the world's most innovative economy if society, research institutions and the business world can focus their resources on creating new knowledge and use this actively. The strategic headline target on innovation suggested in the Europe 2020 strategy should therefore encompass diversity as a means to promote innovation. One unifying goal may imply the risk of overlooking the important aspects of innovation and thereby moving the focus away from central development possibilities.

Public-private partnerships

The focus of the EU on public-private partnerships within research, e.g. Joint Technology Initiatives, can strengthen the cooperation between universities and research. Bringing public and private funding into mutual research collaboration will be an important aspect of lifting European research and bringing ideas to market, provided it is borne in mind that universities are not development departments. The optimal use of the gathered resources for these partnerships presupposes transparency and foreseeable administrative procedures. Therefore, the administrative framework for such partnerships should be comparable to the general administrative procedures of other EU-programmes.

IPR

Knowledge cooperation between universities and the business world should build on clear agreements on Intellectual Property Rights (IPR). Universities Denmark therefore supports a harmonisation of national rules regulating commercialisation of university IPR based on the Commissions recommendation on the management of intellectual property in knowledge transfer activities and code of practice for universities and other public research institutes, as well as the establishment of an EU Patent and a patent court in the EU. Clear IPR-agreements founded in a free space for negotiations ensure that ideas can emerge and be developed for the benefit of both research and growth. To ensure long term use of knowledge, the way in which partners in research cooperation choose to distribute the rights to the knowledge should be based on individual negotiations. This principle should be part of all research programmes, which should therefore have the same basic principles for dealing with IPR, publication, access, etc.

Higher Education

Although education is more central to the Lisbon treaty than to previous treaties, the EU continues to have no formal power as regards higher education. Still, the EU is a key player with respect to the development of the European Higher Education Area (EHEA). The EU influences the development of EHEA by funding programmes, by sponsoring development projects and by setting targets for the modernization of European higher education. Furthermore, the European Commission and the European Council prepare statements and policy papers on the future of European higher education.

Taking the current recession and its consequences for the European labour market into consideration, higher education is as important as ever before. Therefore, Universities Denmark strongly supports the development of the EHEA and regards a coherent and transparent European sector of higher education as a prerequisite for maintaining a competitive European economy and a thriving European culture. Nevertheless, Universities Denmark recommends the following:

- A strong link between research and higher education is essential to Europe's competitiveness in the era of knowledge. Therefore, all university education should be *research-based*, and all research should contribute to higher education.
- A diversified higher education sector is essential to maintaining the attractiveness and dynamic of the EHEA. The EU institutions and other European-level actors should recognize *diversity* as a unique strength of the European university sector.
- Even though noticeable progress has been made, many students and scholars are still not benefitting from internationalisation. Therefore, the *promotion of mobility* should remain a core theme for the EHEA.
- A particular strength of the Bologna Process has been the high degree of stakeholder involvement. Europe's policy-makers should continue to *involve and consult* universities, students and other stakeholders when they develop new initiatives and instruments that are to promote the EHEA.

- The Bologna Process should address the issue of the recognition of joint degrees more proactively. Unfortunately, recognition problems are common within the EHEA, even though Erasmus Mundus and other EU-funded programmes promote joint degrees.

EU-funded programmes

Without a doubt, EU-funded programmes such as the Lifelong Learning Programme and the Erasmus Mundus Programme have had a positive effect on the mobility of students and teachers – not only within the EU, but also between Europe and other parts of the world.

Considering the success of the programmes until now and given that Europe is currently facing an economic crisis as well as growing unemployment numbers, Universities Denmark proposes to invest more ambitiously in the EU's higher education programmes.

Furthermore, EU's higher education programmes should be open to all qualified universities within the EU, regardless of the national legislation that these universities are subject to. If the programmes are to facilitate the exchange of knowledge, promote academic excellence and foster intercultural understanding across all of Europe, broad participation is essential.

Lastly, uncomplicated and unbureaucratic procedures for application, participation and reporting are indispensable if programme participation is to remain attractive to European universities.

The future of Erasmus

Erasmus is a sub-programme within the overarching Lifelong Learning Programme and is the EU's flagship programme for mobility within higher education. Erasmus has existed since 1987, and Danish universities have participated since its beginning.

Universities Denmark recognizes the significant impact that Erasmus has had on the mobility of European students and scholars. Promotion of mobility should remain a principal aim for the programme. However, Universities Denmark finds that the time has come to introduce new purposes for Erasmus. This would help ensure that the programme continues to support the modernisation of European higher education in the years to come. Therefore, Universities Denmark proposes to add the following two new dimensions to Erasmus:

- Erasmus should support cooperation between European universities that focus on *innovative learning methods, including novel use of ICT in higher education, and on the development of innovative study programmes*. The link between innovation and higher education has not yet been explored to the same extent as the relation between research and innovation. Erasmus could strengthen the links between research, innovation and higher education by supporting European universities in their efforts to modernise and renew curricula, teaching methods, the use of ICT etc.
- Erasmus should, to a larger extent, support *cooperation and exchange between the university sector and other parts of society*. Erasmus grants

for students going on placement and Erasmus Multilateral Projects are steps in the right direction. However, much more could be done to facilitate collaboration and balance mobility between European universities and the rest of society, e.g. Europe's industry, health sector and civil society.

Multidimensional transparency tools

The European Commission has commenced several projects concerning classification and ranking, as several problems were identified in the existing models of ranking. An example is the high degree of focus on popularity, as well as the comparison between entire institutions rather than single study programmes.

The two models, U-map and U-multirank, have been developed with support from the Commission. Each tries to compare universities in a new and more nuanced way. These differ from the current models of ranking by not only looking at an aggregated level but also allowing the user to compare individual study programmes of her own choice. U-map makes it possible to compare institutions on six different dimensions but does not aim at a ranking of individual institutions. U-multirank makes it possible to compare individual study programmes on six different dimensions.

Universities Denmark supports the development of new and more advanced models of classification, but finds that new systems should take into account the diversity of the European university sector. New European models of classification should reflect the full spectrum of strengths of European universities. Further, classification models should fulfil the criteria proposed in the *Berlin principles*, particularly that such systems should have clear purposes and well-defined target groups. Classification may lead to more transparency in the European university sector, but Universities Denmark remains critical as to whether classification and ranking may lead to more quality in higher education.

Quality assurance

Universities Denmark supports the European standards and guidelines for quality assurance. If European universities are to cooperate across borders it is vital to have a common understanding of quality assurance. This should not only concern the cooperating universities but also the national agencies for quality assurance.

Universities Denmark finds it important that a European dimension on quality assurance does not at any time lead to bureaucracy or standardisation of academic content or learning methods. The autonomy of the individual higher education institution and the diversity of the European university sector should be respected.

Lifelong learning

Universities Denmark supports the European Qualification Framework for Lifelong Learning and has contributed actively to the formulation and certification of the Danish qualification framework. There is no doubt that the promotion of lifelong learning is important, especially at times with high unemployment levels.

Employability

The Europe 2020 strategy suggests that learning outcomes should be geared to match labour market needs better. Universities Denmark agrees that higher education should qualify students for the labour market and will continue the constructive dialogue on the future educational needs with other parts of society.

Learning outcomes should not solely be based on the current needs of the labour market but should also consider the needs for highly skilled labour in 5 to 10 years' time. It is the experience of Universities Denmark that it is difficult for both employers and politicians to predict which competencies are needed in the future.

Universities Denmark finds that employability should be assessed in a long-term perspective and that the European university sector must be trusted to ensure coherence between learning outcomes and the future demand of the labour market.

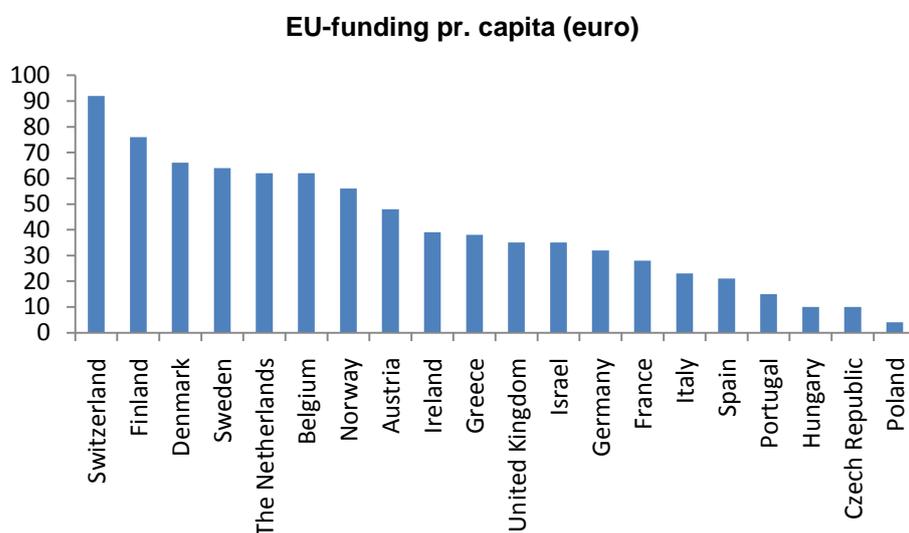
Public financing

On several occasions, the Commission has emphasised that diversification of income source is important to ensure a stable economic foundation for a higher education institution.

Universities Denmark sees public financing of higher education as a necessary investment in the future. Public financing should therefore be at a level that enables the universities to maintain a high quality level in the execution of the multiple tasks that society expects of them. New sources of income must not become an excuse for a reduction in public funds for higher education.

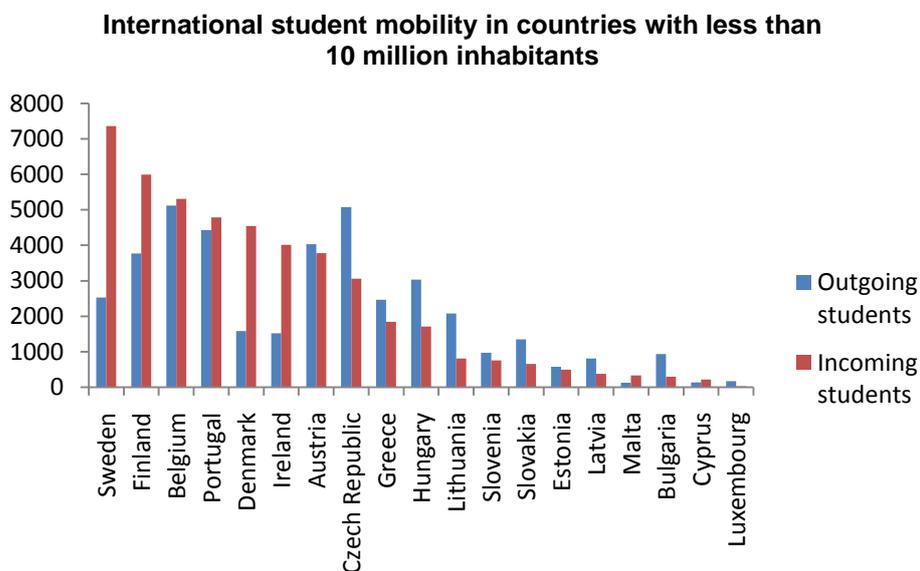
Participation in the 7th Framework Programme

Denmark is the third-most active EU member state when it comes to participation in the 7th Framework Programme (measured in funding per capita).



Incoming Erasmus students

Denmark receives the 5th most Erasmus students when compared to other European countries with a population below 10 million.



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