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# **Crest Summary Report of Peer Learning Activity 1**

## **Reforming Institutional Structures Copenhagen, February 2010**

**By**

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**In coordination with:**

**Denmark (Leading Country)**

**European Commission**

**WARNING :**

**This PLA report is a draft that hasn't been circulated  
to the participating countries yet.  
The final version will be annexed to the final PLA report.**

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# Summary Report of Peer Learning Activity 1

## Reforming Institutional Structures

### Copenhagen, February 2010

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## 1. Introduction

### 1.1. Context and challenges

#### *Global shifts*

The role of research is shifting at a global level as universities are expected to contribute more strongly as active players to the development of the knowledge society. Developing research excellence and attracting global talent has reached strategic importance in national policies for higher education and research. In an increasingly competitive climate, policymakers are implementing reform measures that lead to the restructuring of the higher education and research system or to the development of new units with the objective of promoting research excellence, creating greater capacity in the sector and fostering innovation.

#### *European initiatives*

Calls for a stronger European contribution to the global production of knowledge through an improvement of both quality and quantity of research output in higher education and research institutions are central to the European Union policies (Modernisation Agenda for Universities, Strengthening research institutions for the achievement of ERA) and have been reaffirmed in their most recent developments and perspectives (EU 2020 Strategy)

#### *Challenges*

There are a number of factors that have been identified as preventing European universities and public research institutions from performing at a competitive level in the new environment. In general, these are summarised as lack of elite sector, lack of critical mass, lack of focus of research agenda and fragmentation through both the number and size of institutions, as well as unclear institutional governance structures.

#### *Changes*

In response to these challenges, there has been a recent shift in European policies for reform of higher education structures through approaches such as governance reform, merging of institutions, development of new collaborative inter-institutional network structures and the creation of new research units.

### 1.2. Focus

The focus of the Copenhagen Peer Learning Activity (PLA) was an examination of the different measures undertaken in institutional structure reform for the purpose of enhancing research capacity and profile. It looked in particular at how mergers have been carried out between universities as well as between universities and public research organisations, as in the case of Denmark which was the host country for the event. But other approaches, such as networks, incentive schemes and central planning models to coordinate and concentrate research capacities

were also examined via the various participant country cases. The comparisons between different contexts highlighted the need for certain preconditions and good practices in order to reach the desired results, but also drew attention to the need for further investigation and development of new models to respond to a rapidly changing global environment.

## **2. PLA structure - Working method- Participating countries**

### *Structure*

The PLA was organised as a two-day event with a networking dinner prior to the event where participants were welcomed by host country representatives and had the opportunity to become acquainted with one another.

The morning session of the first day included a keynote speech by Professor Peter Maassen from the University of Oslo on reform of institutional structure as a means to enhance research quality and on different country approaches to fostering 'organised diversity' in their research and higher education systems. This was followed by a series of presentations on the 2007 Danish merger process from both Danish government and university representatives, addressing governance reform and mergers as tools for improving the performance of the sector. The afternoon session was dedicated to short presentations from the participating countries that provided further examples of tools for reform and highlighted critical areas as well as best practices. This enabled a preliminary set of conclusions to emerge on reform types, reform objectives, benefits and drawbacks and appropriate steering instruments.

The structure of the second day was built around a number of group activities aimed at stimulating further discussion and analysis and focusing on topics that had emerged on the first day. A plenary discussion concluded the event where overall conclusions were reached and outstanding questions identified.

### *Working method*

Peer learning was the working method chosen for the entire process consisting of five separate activities on different aspects of improving research capacity and it was the first time that the methodology was employed for a CREST workshop. Peer learning is a voluntary process of co-operation whereby policymakers and practitioners from the member states can learn from one another through direct contact and sharing of experiences, interests and concerns.

In order to ensure mutual learning both through an exchange of information and networking, a range of peer learning activities were used to enable all participants to contribute actively. These included exercises such as Gallery Walk (a small group activity to brainstorm and collect ideas), Card Collection (a collection of individual ideas followed by group discussion), Working Groups (problem solving in hypothetical scenarios) and plenary discussion (open, group exchange of ideas, comments and questions).

### *Participating countries*

There were eleven countries present at the meeting: Austria, Denmark (host country), Estonia, Finland, France, Latvia, Malta, Netherlands, Norway, Poland, Romania, Slovenia and Spain. There was representation from the Nordic Council and European Commission and the three external consultants had moderator and rapporteur roles.

### **3. Reforming institutional structures**

#### **3.1. Rationales/Drivers for reform**

The different country presentations highlighted three main rationales or drivers for the reform of institutional structures in the new environment:

1. search for excellence (international impact of research, access to top research networks, interdisciplinarity and innovation, creating links between excellence, research and teaching)
2. competitiveness (critical mass, institutional branding and profiling, greater international visibility for countries as research and higher education locations, stronger external engagement and joint activities with the private sector, ability to attract funding and researchers)
3. efficiency (organisation of diversity in the higher education and research sector, reconciling institutional strategies with government policies, rationalisation and improved use of resources, sharing of expensive infrastructures and joint training centres, more effective division of labour, better links between research and teaching).

Whatever the rationales or drivers for reform, a number of tensions became apparent that were common to most countries. The various policy choices faced the challenge of balancing national and international priorities, matching both national and institutional objectives and finding the right combination of competition and co-operation. Difficult decisions had to be made on determining appropriate levels of critical mass and specialisation as well as institutional size and profile. Careful consideration had to be given to developing synergy between education and research, and funding choices had to be made for both excellence and equity. The right balance between accountability and autonomy had to be found in order to enable central steering and direction while creating the conditions for more independent and responsive institutions to emerge in a less strictly regulated environment.

#### **3.2. Typologies**

Different types of institutional reforms were described in the presentations according to the different objectives. Some countries chose reorganisation within existing institutions by opting for policies for consolidation and reallocation, while others opted for more focused investments leading to the creation of new institutions, units or segments. The different policy options highlighted were mergers, networks, strategic planning and incentives. While mixed models were common for different types of institutional reform, it is nevertheless useful to identify the different typologies in order to reflect on whether policies meet their objectives and to analyse the benefits and drawbacks of different policy options.

##### *Mergers*

Mergers were presented by Denmark as a tool for creating critical mass, stimulating innovation and strengthening institutions in order to achieve higher levels of performance and excellence. They were identified as a means to enhance synergies with the private sector, foster specialisation and interdisciplinarity as well as enhance institutional management capacity for complex projects. The possibility to foster critical mass among smaller research units and the potential for bringing formerly isolated research resources into play in university education were highlighted as major advantages.

Reasons contributing to the success of the 2007 Danish merger process were identified as the firm commitment of the government (research strategy as part of a national strategy for globalisation), reformed governance structures within the institutions, constructive dialogue between the partners and the voluntary nature of the mergers (including the bottom-up choice of the right partner by the institutions themselves), the underlying trend of growth in public funding for the sector and a swift and comprehensive process.

It was highlighted that while the mergers were considered to have been successful by both the government and a recent international evaluation and had been important drivers of change in the universities, they are nevertheless extremely resource-intensive both in terms of time and costs. Since full implementation will take several years, it was too early to determine any concrete outcomes but initial positive developments were reported.

Mergers appeared as a trend in other countries as well. Norway, Finland and the Netherlands are all introducing mergers and highlighting the importance of finding the right balance between top-down and bottom-up processes that ensure institutional commitment. Slovenia is also considering mergers as part of its planned modernisation strategy for the system as a whole.

### *Networks*

Networks (including clusters, alliances and other groupings) at both national and international levels were identified as a means to develop joint activities that could lead to excellence and critical mass without creating new institutions. The institutions themselves are not changed, but parallel, collaborative institutional structures are created, that can also involve international partners, leading to the development of a more complex system. They offer opportunity for strategic aggregation at different levels (schools, disciplines, institutes etc.) and when they develop clearly defined rules of co-operation, are well-managed and sufficiently funded, they are flexible structures that have the potential to create innovation, build relations with the socio-economic environment and enhance response capacity to societal needs. They can also be used as a tool for institutional profiling and branding provided they are operating according to international standards.

Networks can be encouraged as a top-down initiative and supported by government funds. However it is essential that these are properly co-ordinated and managed to ensure such loose frameworks are able to produce results. Projects managed by networks require a clear plan with funding linked to specific milestones and an efficient but flexible monitoring system if goals are to be reached and unpredictable events are to be dealt with.

Examples provided in the presentations included a Dutch project for a federation between three technical universities that is supported by government subsidies to attract top academics to five joint research centres of excellence. The Federation was created in response to pressures to

merge technical universities and while initial targets were met further integration is dependent on external subsidies and there appears to be little support within the universities. France has allocated specific funds for the development of excellence clusters (campuses and laboratories of excellence) as well as a number of thematic projects in areas such as biotechnology and health. Finland plans four to five strategic alliances between universities and polytechnics with a special focus on joint R & D with regional impact.

Structured co-operation between institutions can also be seen as a way to test possible merger opportunities. Currently, there are a number of co-operations between universities and *hogescholen* in the Netherlands that may lead to mergers in the future.

### *Strategic Planning*

Strategic planning to reform institutional structures was identified as a tool to achieve system-wide improvement, organise system diversity and create strong centres of excellence. Structures could be affected in different ways: the number of institutions could vary through the creation of completely new institutions targeted at research excellence or the relative size of institutions could change if specific units with outstanding research performance are selectively promoted.

The integration of strategic planning of education and research into the national strategy for development was noted as a key element for success. It requires strong strategic planning processes at national level. On the one hand, there must be clear vision and direction as well as clear roles for the different actors, but success also depends on the top down and bottom up process of co-ordinating national and institutional strategies. Lack of ownership at institutional level will jeopardise successful outcomes.

Strong core funding was highlighted as essential to secure long-term strategic focus at institutional level although it may also run the risk of becoming a driver for homogeneity as institutions align strategic direction with the areas where most funding is available.

A number of countries, such as Austria, France, Latvia, Malta, Poland, Romania and Slovenia have recently introduced or are in the process of designing major strategic reforms to upgrade the entire higher education system and raise levels of competitiveness, although some also highlighted the challenges of budgetary restrictions. Measures to enhance institutional autonomy, encourage private sector collaboration and align with international standards and practices were highlighted. A shift towards more results-based funding and performance contracts was also apparent.

In general, research strategies tend to focus on concentration of resources in a smaller number of institutions, as mentioned by Latvia, or on the selection of leading research centres that will receive additional funding, as in the case of Poland. Austria has set up a new research institution as a centre of excellence with the goal of increasing national visibility as a research location. Malta, with only one university, seeks to create critical mass in those areas identified as strategically important for the economy.

### *Incentives*

Incentives are a special policy type to reform institutional structures. Governments do not prescribe a specific form of institutional reform but offer financial rewards for creating competitive research institutions. This form is open for all types of institutional changes and

therefore leaves high autonomy to the institutions, promoting both creativity and diversity. It provides a stimulus to address the issue of institutional change with the specific purpose of promoting research excellence and has the potential to improve strategic capacity at institutional level.

In Norway, most research is carried out in three major universities and it has opted for a policy of building on its existing research centres rather than creating new “lighthouse” institutions while also inviting universities to seek partners for mergers.

While diversity of funding sources may encourage diversity of responses and act as a driver for institutional diversity, a model based on incentives raises the question of sustainability and how long-term capacity of universities to meet societal needs are secured in such a system. Incentives are probably more effective in the long term when linked to other typologies.

Finland has opted for a mixed model approach, combining mergers, strategic planning and incentives for the purpose of enhance innovation and competitiveness as well as regionalisation and internationalisation. It has changed the legal status of universities to make them legal entities that are separate from the state while retaining state responsibility for funding. Mergers have led to the creation of new universities and polytechnics. Regional impact is being enhanced by steering public research institutions towards research that addresses societal needs and by strategic alliances between universities and polytechnics.

*Policy choices and challenges*

It emerged in the presentations that policy choices are very much context-driven and that there is no standard recipe for successful reform that could be applied across the different systems or that could guarantee a certain outcome. It also became clear that the reform of institutional structures were at different stages and took different forms in the countries represented at the PLA. For instance, in some countries instruments to enhance competitive and output-oriented steering models are the focus of reforms and institutional structures are only starting to change, whereas in other countries fundamental restructuring is taking place. Countries were starting out from a variety of different positions in terms of efficiency of higher education systems and levels of research capacity. Whichever reform tool or combination of reform tools was chosen, they identified a set of potential benefits and drawbacks. The following table gives an overview of some of the arguments mentioned by the participants during the PLA interactive sessions, especially the Gallery Walk. This table provides illustrations of the debates but does not necessary reflect the conclusions of the discussions.

	<b>BENEFITS</b>	<b>DRAWBACKS</b>
	<ul style="list-style-type: none"> <li>● Greater international visibility and branding</li> <li>● Opportunities for excellence</li> <li>● Potential to develop new interdisciplinary/innovative units and programmes</li> <li>● On the long term,</li> </ul>	<ul style="list-style-type: none"> <li>● Large units may lose flexibility</li> <li>● Implementation is crucial (potential insecurity in the transition phase ; issue of successfully matching institutional cultures)</li> <li>● Challenge of cultural differences</li> </ul>



<b>MERGERS</b>	<p>rationalisation helps cost reduction</p> <ul style="list-style-type: none"> <li>• Less fragmentation and duplication</li> <li>• Potential to reduce competition and increase co-operation among similar institutions</li> </ul>	<p>between institutions</p> <ul style="list-style-type: none"> <li>• Legal and financial complications</li> <li>• Costly process (time and resource)</li> <li>• Risk of loss in equity and access</li> </ul>
<b>NETWORKS</b>	<ul style="list-style-type: none"> <li>• Opportunity for strategic aggregation at an appropriate level (schools, disciplines, institutes etc)</li> <li>• Fosters international co-operation</li> <li>• Tool for institutional profiling/branding</li> <li>• Can help to build relations with socio-economic environment (industry, government etc)</li> <li>• Improves capacity to respond to regional/global needs</li> <li>• Provides flexibility of structure</li> <li>• Improved division of labour if clear rules are in place</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of formalization can lead to unclear roles /inefficient division of labour</li> <li>• Over-formalization can lead to increased organisation costs</li> <li>• Unclear planning compromises realisation of objectives</li> <li>• Co-ordination can be time consuming for lead institution</li> <li>• Can lead to closed “clubs”</li> <li>• Creates a more complex HE landscape</li> </ul>
<b>STRATEGIC PLANNING</b>	<ul style="list-style-type: none"> <li>• National strategy provides clear direction</li> <li>• Sets objectives at macro-level and provides stronger steering</li> <li>• Creates specific targets for institutions</li> <li>• Can be linked to incentives</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of lack of ownership/commitment at institutional level</li> <li>• Risk of over-regulation and micromanagement</li> <li>• May be seen as threat to autonomy/diversity</li> <li>• Requires strategic planning competences at national level</li> </ul>
<b>INCENTIVES</b>	<ul style="list-style-type: none"> <li>• Creates push factor without need for central planning</li> <li>• Aligns institutional strategies with national policies/priorities</li> <li>• Promotes creativity and diversity</li> </ul>	<ul style="list-style-type: none"> <li>• May generate artificial reforms</li> <li>• Uncertainty of outcomes</li> <li>• Risk of institutions following short-term incentives without longer-term planning</li> <li>• Risk of creating dependency</li> </ul>

	<ul style="list-style-type: none"> <li>• Market driven responses</li> <li>• Fosters institutional motivation</li> <li>• Can promote/consolidate institutional strategy</li> </ul>	
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### 3.3. Suggested key conditions for success

When engaging in a process of reforming institutional structures, the general principles of strategic management and clear governance structures are key to the successful achievement of the expected outcomes. This requires capacity to understand the environment, develop clear priorities and define a long-term vision that is supported by a well-articulated strategy and underpinned by a sustainable funding model. Alongside steering instruments and incentives, there should also be appropriate accountability measures and quality assurance mechanisms that do not inhibit initiative and innovation.

Secondly, the involvement of the different actors in the merging process plays a fundamental role in ensuring successful outcomes. Dialogue and consultation with stakeholders should be utilised to the full to ensure shared commitment and co-operation. A balance of central government control and institutional autonomy further ensures higher likelihood of successful outcomes and can lead to cross-fertilization of governmental and institutional strategies.

Leadership plays a fundamental role in driving the process and maintaining the momentum to reach the goals but should also have the awareness of the many reform challenges, either in terms of length of time required to reach reform objectives, resource constraints or resistance to change.

A more complete list of best practices for structural reform that emerged during the peer learning activity of “Card Collection” are presented in the table below.

	<b>Examples of Best Practice for Structural Reform</b>
<b>Strategic basis at national level</b>	<ul style="list-style-type: none"> <li>• Sound environmental awareness and analysis</li> <li>• Clear vision</li> <li>• Clearly defined strategy, goals and expected outcomes</li> <li>• Awareness of the challenges and risks associated</li> <li>• Strong national commitment</li> <li>• Clear responsibilities of all reform actors</li> <li>• Shared understanding and open dialogue with the stakeholders</li> <li>• Broad understanding of potential stakeholders</li> <li>• Promotion of reforms leading to strategic aggregation, specialization, critical mass, internationalization</li> <li>• Realistic deadlines and deliverables (balance between driving process forward and time required for results)</li> </ul>

	<ul style="list-style-type: none"> <li>• Efficient monitoring of results</li> <li>• Strong communication of reform intentions, benefits and expected outcomes</li> </ul>
	<ul style="list-style-type: none"> <li>• Stable framework conditions</li> <li>• Strong political momentum</li> </ul>
<b>National Framework Conditions</b>	<ul style="list-style-type: none"> <li>• Appropriate funding and investments at least for the duration of the reform</li> <li>• Clearly defined incentives</li> <li>• Sufficient support at all levels (legal, financial, strategic)</li> <li>• Streamlined administration and minimum bureaucracy</li> <li>• Genuine institutional autonomy (legal and financial) for flexible responses</li> <li>• System-wide quality assurance</li> <li>• Avoidance of reform for reform's sake, or for purely financial reasons</li> </ul>
<b>Governance</b>	<p>National level:</p> <ul style="list-style-type: none"> <li>• Stakeholder consultation and involvement throughout the reform process</li> <li>• Reform process based on co-operation with visible advantages for all players</li> <li>• Balance between accountability and autonomy</li> <li>• Balance between top down and bottom up (avoid forcing reform on stakeholders or relying on reforms developing spontaneously at institutional level)</li> </ul> <p>Institutional level:</p> <ul style="list-style-type: none"> <li>• Clear mechanisms for collective action and co-ordination</li> <li>• Strong leadership with clear mandates</li> <li>• Identification of change agents within institutions</li> <li>• Creation and maintenance of legitimacy for actors of reform</li> <li>• Visibility for role models</li> <li>• Promotion of positive attitude and cultural change</li> </ul>
<b>General considerations</b>	<ul style="list-style-type: none"> <li>• Reform measures that can be realistically achieved by the Higher Education institutions (strategic capability, governance arrangements, funding availability, institutional cultures)</li> <li>• Consideration of best practice models (but adapted to local context)</li> <li>• Diversity of measures for different educational levels</li> <li>• Connections between teaching and research</li> <li>• Promotion of wider function of universities</li> <li>• Promotion of institutional diversity</li> <li>• Definition and diversity of excellence</li> <li>• Consideration of European and international context</li> </ul>

### 3.4. Outcomes and lessons learnt

A number of lessons were learnt from the different country experiences in introducing reforms of institutional structures to enhance research capacity and quality.

1. The first lesson concerned the search for an effective balance between the system level need for order and the institutional need for autonomy. The various reform measures sought to reach or readjust the balance between the two according to the different national contexts, but the degree of central government control and institutional autonomy remained a principal underlying issue. National policies seek ways to strengthen global competitiveness by granting sufficient autonomy to enable institutions to set their own strategic priorities, while seeking at the same time to ensure adequate accountability that does not inhibit initiative or thwart innovation and guarantee a degree of organised diversity between university missions and profiles.

An appropriate balance of top-down measures is important to ensure diversity of institutional types as well as the necessary contribution to teaching and innovation by research institutions. The existence of autonomous institutions will not necessarily lead to the creation of a diverse institutional landscape. The valorization of diverse relevant approaches towards excellence is also essential.

It is not yet clear whether research quality is most effectively stimulated through central control or through institutional autonomy, or whether responsibility for research quality lies with the institution or at central level. What does emerge as important is an open dialogue and co-operation between the two players to ensure that both are working in the direction of creating a system that is flexible enough to respond to new challenges. This was highlighted in the Danish case where the government tool provided the clear direction of institutional mergers but left ample scope to the institutions themselves to determine the choice of partners and the scope of action. They also identified an important balance between a swift implementation process and sufficient time for results to be achieved.

2. The second lesson drew attention to the need to ensure a concentration of strengths in research and research training in order to create the critical mass. This was related both to a need for stronger relationships between research and teaching, the need to develop centres of excellence and elite institutions ('lighthouses'), build up an appropriate workforce and exploit opportunities for interdisciplinarity. Concentration of strengths implies concentration of funds in a small number of institutions and priority areas. This raises the question of the relationship between top universities and the other universities in the system, since there can be no elite system unless it is supported by mass higher education, and no adequate mass higher education can emerge without the development of an elite structure, not only in research and innovation but also in all university functions such as teaching, lifelong learning, community outreach and so on. Finding the right balance is key to the success of the reform and will depend essentially on the needs and capacities of the local context.

3. The third lesson highlighted the importance of the international dimension in the reform strategy in terms of setting of targets for profiling based on the international impact of research, achieving international visibility as a research location, attracting global talent, gaining access to

international networks and funding, as well as aligning with international standards and performance measurements. However, the question was also raised as to how international commitment and collaboration can be balanced with the regional focus.

An apparent lack of urgency in the participating countries to establish mergers or close institutional collaboration across national borders also emerged at the PLA. The establishment of competitive institutional structures seems to be understood mostly in a national context, which may hinder dialogue on the development of competitive structures in a wider European context.

4. The fourth lesson pointed to external engagement with the private sector to stimulate joint structures, develop synergies, encourage innovation, build up critical mass and diversify income sources. External engagement was highlighted as key if European research were to be internationally competitive but also to ensure that the universities were able to respond to societal needs.

5. The fifth lesson showed the importance of adequate long-term funding to underpin the policies, invest in infrastructure and build up appropriate capacity in human resources. In the new state-university relations, there is an increasing tendency towards more contractual and performance-based allocation of resources, but this must also be understood in a long-term perspective given the time required to develop world class research units. Such funding structures should also take into consideration the considerable time lag between allocation of funding and achievement of structural reform.

#### *Critical factors*

As in any change process, there are risks of resistance to change, change fatigue, cultural clashes and disagreements. Moreover, mergers can lead to the creation of large institutions that might foster exaggerated competition. Such critical factors should be taken into consideration when introducing long-term, far-reaching reforms that will significantly alter the institutional landscape. It should also be remembered that while choices may be made for the development of new modes and models of institutional structure, it is also essential to ensure improvement of existing structures. Critical and complex issues can be managed through open and frequent dialogue with stakeholders, regular feedback and monitoring (both reporting and discussion-based), transparent evaluation, and adequate follow-up measures.

#### *Outstanding questions*

The PLA raised some questions that did not find adequate responses in the interactions between peer learners. The first one concerned the longer-term effects of major reform policies, such as mergers. Since all of the reform measures discussed have been implemented only recently (and in some cases are only in the design stage), there has not yet been sufficient time to assess outcomes and level of impact on the system. Another question concerned international mergers and all the major legal and possibly cultural implications that such projects carry. In general, while co-operation was identified as a key reform instrument, it is not clear which type of co-operation, with which partners and under which conditions will produce the best outcomes or in the case of mergers, what is the optimal size of a university to achieve the desired results.

The issue of internal measures during and after the merger processes was also raised: how to ensure people work together successfully and how to identify the most effective synergies between research units to ensure a positive outcome and sustainable operation. While a merger begins as a formal act, it is the institutional policies and people that have to bring it to life. Ways

to overcome cultural differences between former separate institutions have to be identified and implemented or success of the merger may be jeopardised.

Questions were also raised about funding priorities not only at institutional level but also in terms of the different disciplines; in particular the issue of defining the role of humanities and social sciences in promoting research excellence. It was also questioned whether all types of research necessarily benefit from large units or clusters and what the implications were for individual research funding. Diversity was a recurrent theme and it was affirmed that diversity within the institutional landscape is a fundamental requirement. Consequently, profiling of universities should be both vertical (diverse levels of excellence) and horizontal (different typologies and missions). However, the means to achieve dual profiling remains an open question.

Lastly, the need for the development of competitive structures at European or cross-national level was not addressed in depth. Most reform initiatives address the national context, but a discussion of institutional reform in a wider European context may be necessary to address competition between Europe and other world regions more effectively.

#### **4. Evaluation of the PLA methods**

Peer learning as a method for learning and mutual exchange of information was evaluated positively by the participants. Participants judged the information provided as relevant and transferable to their own professional context and felt they had been given access to information that otherwise would not have been available.

Participants considered that there had been a climate of open exchange and that the size and composition of the peer group had provided opportunities for fruitful and informative discussions. Overall, they felt that a two-day meeting was an appropriate length, that the event was well organised and the content of high quality.

A few areas for improvement were identified. Participants felt they required more information prior to the event in order to prepare more successfully (more guidance on presentations to provide clearer focus) as well as more time for discussion and interactive exchange during the event. It was suggested that interactive exercises could be introduced at an earlier stage to enable participants to engage more directly with one another and create stronger cohesion.

#### **5. Conclusions and perspectives**

The first PLA on Reforming Institutional Structures confirmed the need for strong action to enable European universities to overcome current shortcomings in the higher education systems and to ensure greater competitiveness in European research at a global level. It highlighted the diversity of responses across the participating countries according to local contexts in terms of capacity and ambition. But it showed that all converged on the need to modernise the higher education and research system in order to enhance capacity and improve responsiveness to a rapidly changing global environment. It further pointed to the need to achieve some form of organised institutional diversity, while the means to both define and achieve diversity need development.

The different tools examined – mergers, networks, strategic planning and incentives – had both advantages and disadvantages and needed to be carefully chosen according to the specific objectives of each country. There was no single recipe that guaranteed success and given that all countries are in the early stages of reform, there were not yet any definite conclusions that could be presented. However, it was also for this reason that the PLA had provided a timely moment for reflection.

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# ANNEXES



# **“PLA on Reform of the Institutional Structure” in Copenhagen, Denmark February 8-10, 2010**

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## **Monday, February 8**

- 19.00- **Welcome-buffet and registration**  
Welcome by permanent secretary, Uffe Toudal Pedersen, Danish Ministry of Science, Technology and Innovation [TBC]  
*Venue: Restaurant SALT, Copenhagen Admiral Hotel*
- Suggested accommodation:  
Copenhagen Admiral Hotel, Toldbodgade 24-28, 1253 Copenhagen K [www.admiral-hotel-copenhagen.com](http://www.admiral-hotel-copenhagen.com)  
Special rate: 895 DKK incl. breakfast. Please use attached file when booking.  
From the airport: Taxi (approx. 25 minutes) or metro to ‘Kgs. Nytorv’ (10 minutes walk to the hotel from the metro station)

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## **Tuesday, February 9**

**Venue: University of Copenhagen, Faculty of Life Sciences**

Address: [room TBC ] Bülowsvej 17, 1870 Frederiksberg

*Chair: DK*

*Rapporteurs: Frank Ziegele, Diane Carr and Fiona Hunter*

- 08.30-9.00 **Transport by bus from Copenhagen Admiral Hotel**
- 9.00-9.15 **Welcome**  
General Director Jens Peter Jacobsen the Danish Ministry of Science, Technology and Innovation
- 9.15-9.30 **Introduction to PLA**  
Special Adviser, Anita Damsgaard Jensen and Head of Section, Jakob Williams Ørberg introduce PLA and the process: Purpose, focus and expected outcome
- 9.30-10.15 **Keynote: Prof. Peter Maassen, University of Oslo**  
Member of the **international** panel of experts, which conducted the Danish University Evaluation 2009  
*“Reform of institutional structure as a means to enhance research quality” [title TBC]*
- 10.15-10.45 **Coffee break**
- 10.45-11.45 **Reform of the Institutional Structure – the Danish Case**

1. *“Purpose, process and expected outcome of the Danish university mergers from the perspective of the Danish Ministry of Science”* by Head of Division, Jacob Fuchs, the Danish Ministry of Science, Technology and Innovation
2. *“The merger process from a university perspective: The consolidation of life sciences at University of Copenhagen” [title TBC]* by Per Holten Andersen, Dean of Life Sciences, University of Copenhagen and former Vice-Chancellor at the Royal Veterinary and Agricultural University
3. *“The merger process as seen from a government research institution”[title TBC]* by Nils Axel Nielsen, Dean with responsibility for Dissemination to the Private and Public Sector, Technical University of Denmark - former Director of Danish Institute for Fisheries Research

11.45-12.00 Questions and answers

12.00-13.00 **Lunch**

13.00-15.30 **Country cases**

Austria, Finland, France, Holland, Latvia, Malta, Norway, Poland, Romania and Slovenia.

15.30-16.00 **Coffee break**

16.00-16.30 **Sum up by Frank Ziegele**

16.30- 17.00 **Transport by bus from the University of Copenhagen**

17.00-18.00 **Christiansborg Palace**

Guided tour in the The Great Hall with the tapestries – The History of Denmark and the World the last 1000 years

18.00-18.15: Walk from Christiansborg Palace to The Black Diamond

18.15 - **Dinner at restaurant Søren K**

*The Black Diamond, The Royal Library, Søren Kirkegaards Plads 1, 1221 Copenhagen*

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**Wednesday, February 10**

**Venue: Ministry of Science, Technology and Innovation**

Address: Meeting room A+B, Bredgade 43, 1260 Copenhagen

*Copenhagen Admiral Hotel is 10 minutes walking distance from the Ministry of Science, Technology and Innovation. You can bring your luggage to the ministry.*

*Moderator: Frank Ziegele*

*Rapporteurs: Diane Carr and Fiona Hunter*

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09.00-09.15 **Short presentation of the themes / workshops of the day**

09.15-10.30 **Workshop 1 or thematic discussion in plenum**

10.30-11.00 **Coffee break**

11.00-12.30 **Workshop 2 or thematic discussion in plenum**

12.30-14.00 **Lunch**

14.00-15.30 **Workshop 3 or thematic discussion in plenum**

15.30-16.00 **Coffee break**

16.00-16.45 **Wrap-up and goodbye**



## Purpose, process and outcome of the Danish University Mergers

**PLA on Reform of the Institutional Structure**  
Copenhagen, 8-10 February 2010

**Jacob Fuchs, Head of Division**  
Ministry of Science, Technology and Innovation

## What I'll touch upon

- The Danish university sector – an overview
- The University Act of 2003
- The Globalisation Strategy of 2006
- The Danish merger process: Why, how, the result
- The evaluation in 2009

## The Danish university sector (2008)

- 14,200 scientific personnel year equivalents
- 120,000 enrolled students
  - Humanities: 39,000
  - Social sciences: 41,000
  - Science and technology: 29,000
  - Health sciences: 11,000
- 6,300 PhD-students
- Before the mergers (2006): 12 universities, 13 government research institutions

## University Funding (2009)

	M C	Per cent
Basic grants	918	33 per cent
Education performance funding	703	25 per cent
Competitive research grants	605	22 per cent
Government commissioned research	118	4 per cent
Other (various income and special initiatives like museums)	432	16 per cent
<b>Total</b>	<b>2,776</b>	<b>100 per cent</b>


## Better Institutions Through Improved Governance: The University Act of 2003

- Public, but self-governing institutions
- Boards with external majority (board selects new board members (co-opting process))
- Rector appointed by the board, other management also appointed

## The Strategy for Denmark in the Global Economy (2006)

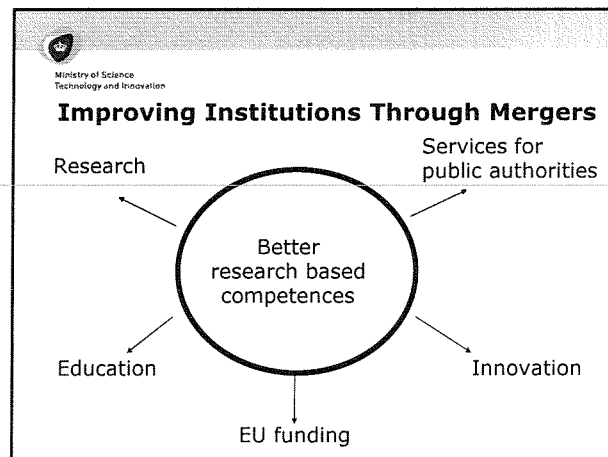
- Utilizing a healthy Danish economy as a launching pad
- For a strategy to adapt Denmark and the Danes to the challenge of globalization
- By investing in research and education
- And optimizing the map of research and education institutions




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### Investing in research and education


- Public research expenses to equal 1 percent of GNP in 2010
- Total Danish research expenses to meet Barcelona target of 3 percent of GNP in 2010
- By 2015, 50 percent of Danish youth to complete a tertiary education, and their average age at graduation must be reduced




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### Improving Institutions by Integrating Government Research Institutions into Universities

- To create critical mass and research synergies
- To inspire better university contact with the private sector/industry
- To integrate the government research institution competences into study programmes


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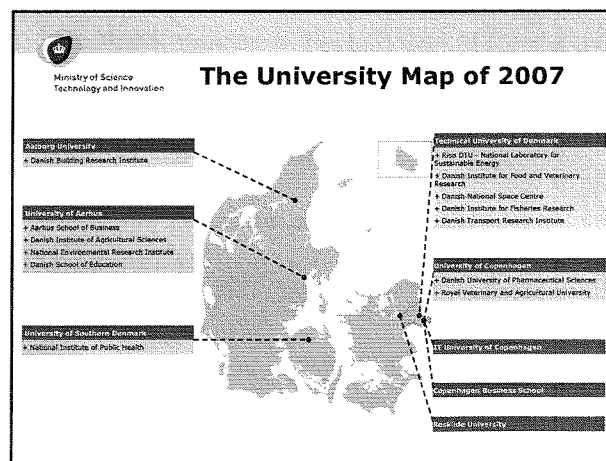
### Mergers – the process

- Universities merged on a voluntary basis, each on individual grounds
- A priori Government decision to merge government research institutions into universities
- Constructive dialogue with the boards of the universities and the government research institutions to reach result
- Swift!** Opening: February 2006 / Decision: October 2006


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### Mergers - the result

- Before the mergers Denmark had:
  - 12 universities and 13 government research institutions
- As a result of the mergers Denmark now has:
  - 8 universities and 4 government research institutions





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### **The 2009 International Panel Evaluation: Main Conclusions on Mergers**

- Too early to call result, but
- Several positive developments may be seen as a result of mergers
- Mergers have triggered a positive proces of improvement of already good institutions
- How should "The University Map" be developed from here on – more diversity and individuality of institutions?



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### **The Danish Mergers – How Did They Come About?**

- Because research and university policy were brought to the top the political agenda
- Because important institutions were ready
- Because the merger process was comprehensive and swift

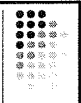


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Thank you!

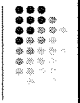






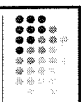
## “Reform of institutional structure as a means to enhance research quality”

Peter Maassen  
“PLA on Reform of the Institutional Structure”  
Copenhagen, 9 February 2010



What do we know about effects of reforms on research quality?

What kind of reforms work well (and what kind do not work well)?



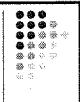
### National Higher Education Structure

Balance between system level need for order (integration) and institutional need for autonomy (diversity)

Clark (1983):  
> Forces that keep HE systems together (coordination)  
> Forces that pull HE systems in different directions (diversity)

Olsen (2007)  
“Europe in Search of New Political Order”  
> System level need for order  
> Need for institutional autonomy (diversity/disorder)

4

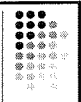


### How to create/maintain balance between order and autonomy?

Creating order in European HE systems traditionally national issue, i.e. reform aimed at creating more effective (or politically/ideologically more fitting) balance between government control and inst. autonomy

Emergence of:  
European Higher Education Area / European Research Area

Creating balance no longer solely a national issue; there is also a need to create a balance between a European order in HE and European HEIs’ autonomy (‘European Carnegie classification’)



### Main underlying issue:

Is research quality most effectively stimulated through central government control, incl. control over institutional structures, or through institutional autonomy?

Should the responsibility with respect to how research quality will be stimulated lie in the first place at the system level or at the institutional level?



### Examples wrt University Research Quality: Successful Public University Systems

Europe:  
UK, Switzerland, Netherlands, Sweden, Denmark, Finland

USA:  
California (UCBerkeley, UCLA, UC San Diego, UCSF); Michigan (Ann Arbor); Wisconsin (Madison)

Is success result of government control or institutional autonomy? What kind of institutional structure reforms have been undertaken in last 20-30 years?



**Table 1: Scientific publication in 2006/08 in selected countries**

Country	Number of articles 2006	% of World production		Nr of articles per 1000 inhabitants	average annual change in nr of articles 02-06 (06/08) in %
		2006	2008		
USA	293 254	25,8	24,3	0,99	3,8
UK	77 056	6,8	6,5	1,28	3,4
Germany	72 236	6,4	6,1	0,88	3,0
Japan	71 143	6,3	5,8	0,56	0,8
China	69 664	6,1	7,3	0,05	19,9
France	51 691	4,5	4,4	0,83	3,1
Canada	44 119	3,9	3,7	1,37	7,2
Italy	39 622	3,5	3,5	0,68	5,4
Spain	30 785	2,7	2,6	0,71	7,1
Australia	27 616	2,4	2,4	1,35	6,3
India	25 672	2,3	2,4	0,02	10,1
Netherlands	23 417	2,1	2,0	1,44	5,4
Switzerland	16 947	1,5	1,5	2,26	6,2
Sweden	16 672	1,5	1,4	1,84	2,7 (2,1)
Denmark	8 886	0,8	0,8	1,64	4,1(4,6)
Austria	8 357	0,7	0,7	1,02	3,8
Finland	8 321	0,7	0,7	1,50	3,4 (3,9)
Norway	6 751	0,6	0,6	1,46	7,9 (9,2)

Source: Inspec Science Citation Index, Scopus, ISI/ISI/ISI

**Table 2: Relative citation index for selected countries, total numbers for five-year period 2002-2006 (world average = 100)**

Country	Index	Country	Index
Switzerland	145	Japan	81
USA	135	China	73
Denmark	135	Brazil	87
The Netherlands	132	India	60
UK	125	World average	100
Sweden	123	OECD average	109
Belgium	122	EU average	108
Finland	120		
Germany	119		
Norway	118		
Austria	117		
Canada	110		
France	110		
Australia	108		
Italy	107		
Spain	101		

Note: Based on publications in the period 2002-2006 and citations of these publications in the same period. Index for each country is weighed on the basis of the country's relative field distribution of articles.

**Explanation for successful university research systems in Europe:**

- Role of government policies / reforms?
- Role of national funding model?
- Role of national Research Council?
- National development strategy?
- University research strategies?
- Concentration of publicly funded research in universities?
- System diversity based on agreed upon institutional hierarchy (cf. USA)?

**Nordic Region**

- Small Region in population: 25 million inhabitants, large in size
- Integrated Region: politically, economically (incl. labour market), socially, culturally/scientifically (incl. HE & Research)
- Successful Region:
  - Combined GDP: 6-8th in the world
  - Leading major global rankings/indexes: Innovation; Globalisation; Social inclusion; Living conditions; Environmental sustainability, etc.
  - Effective HE & Research systems: Participation rates; Research output, Research impact; Rankings; FP7/ERC, NSF/NIH

**Nordic HEIs and their Performance**

**HEIs:**  
 7 (No) + 8 (DK) + 20 (Fi) + 16 (Swe) = 51 universities  
 8 (DK) + 5 (Swe) + 28 (Swe) + 31 (Fi) + 23 (No) + 8 (No) = 102 colleges

"Shanghai ranking":  
 7 Nordic universities in top 100; (24 in top 500)

European Research Council (ERC), first three rounds:  
 Nordic researchers: 80 Grants (= 9%)

FP7 Cooperation:  
 At least 1 Nordic partner in 47% of all selected projects

Research Production/Impact:  
 all Nordic countries among most productive and highest impact countries

**Essence of Recent HE reforms; White Papers; Commissions**

**Denmark:**

Two Ministries responsible for HE:  
 Ministry of Science, Technology & Innovation (responsible for universities);  
 Ministry of Education (responsible for colleges)

2003: Strengthening University Autonomy (new Law)  
 > Adaptation of legal status  
 > Executive university governance structure

2007: University mergers ("voluntary"; incentives related to Globalisation strategy)  
 > Improving research performance of universities  
 > Integrating public sector research institutes into universities

Strict separation of university and college sectors (binary system)

## Essence of Recent HE reforms; White Papers; Commissions

### Finland:

- 2009/2010: University Reform (new Law)
- > Extend university autonomy (Decoupling of university budget from state budget)
  - > From earmarked strategic budget items to strategic lump sums
  - > Adaptation of legal status (foundation or public corporation)
  - > University governance structure changed
  - > University employed by universities (no longer civil servants)
- Major reform of polytechnic sector announced, but continued binary structure
- Voluntary, incentive driven mergers

20

## Essence of Recent HE reforms; White Papers; Commissions

### Norway:

- 2003: Quality Reform (new Law)
- > Educational reform (Bologna implementation)
  - > Change in university governance structure
  - > Introduction of performance elements in state HE budget (40%)
  - > Opening up of HE structure: høyskoler allowed to offer PhD & Master programmes; høyskoler can apply for university status
- 2003: Ryssdal Commission (Green paper on legal status of universities)
- > Proposal rejected, universities still part of state structure
- 2008: Stjerna Commission (Green paper on future development of Norwegian HE)
- > Overall reform proposal rejected
  - > Most 'Repair' proposals accepted and implemented separately

Voluntary mergers; 'fading away' of binary structure  
 Concerns about institutional autonomy: national working group  
 Concern about impact of research: national working group

21

## Essence of Recent HE reforms; White Papers; Commissions

### Sweden

- 2008: Green Paper on university funding
- Proposed separation of education and research funding
  - Proposed concentration of research funding in few top universities (Still under discussion)
- 2008: Green Paper on university status
- Proposed change of legal status of HEIs into public corporations
  - System diversity through institutional profiles
  - Strengthening of institutional leadership and management
  - Institutional staff no longer civil servants
  - University Board with external majority
  - Institutions responsible for quality control (Still under discussion)
- Voluntary mergers

22

## Targets for universities

**Education:** development/adaptation of new & closure of existing study programmes  
**Research:** research priority areas

### Denmark:

Education: a priori accreditation of new study programmes (**limiting** autonomy)  
 Research: concentration of public research funds in universities; earmarked budget component for research (**high** level of institutional autonomy)

### Finland:

Education: institutional autonomy in development and closure of study programmes (**autonomy high**)  
 Research: from targeted area funding to lump sum strategic funding (**increasing** autonomy)  
 Centres of excellence determined by Academy of Science and Ministry of Education (**limiting** autonomy)

### Norway:

Education: institutional autonomy in development and closure of study programmes (**autonomy high**)  
 Research: centres of excellence funded/determined by Research Council (**limited** institutional autonomy)

### Sweden:

Education: institutional autonomy in development and closure of study programmes (**autonomy high**)  
 Research: Powerful Research Council; no national system for centres of excellence; high level of public research funding (**moderate** institutional autonomy)

23

## Conclusions wrt Nordic region

Nordic region: integrated in many ways, but diverse university (college) autonomy approach and practice.

### Overall picture:

University autonomy higher than college autonomy  
 Institutional autonomy wrt education high (Denmark exception)  
 Institutional autonomy wrt research varies (DK high to NO limited)

National HE governance through contract negotiations (DK, FI, SW) or goal/indicator steering (NO). Overall assumption that HE system development in education is responsibility of the HEIs.  
 Ministries are monitoring instead of steering education development.

24

## Conclusions wrt Nordic region

2. National research planning through high level of public investments in university research, consisting of a large stable basic component, and growing competitive and targeted components.

**High** level of university autonomy wrt research prioritising in Denmark  
**Growing** level of university autonomy wrt research prioritising in Finland  
**Moderate** level of university autonomy wrt research prioritising in Sweden (intention to increase autonomy)  
**Limited** level of university autonomy wrt research prioritising in Norway

25

### Conclusions wrt Nordic region (cont.)

3. Legal framework less important in government – HE governance relationship than negotiations, consultations, contracts/agreements, targets and trust.
4. Amongst other things, because of high level of national funding, relatively limited influence of European context (FP7/ERC) on national research prioritising.

26

### Danmark: good practice in institutional structure reform?

Evaluation (2009):

Starting point:

2003 Reform: Change balance between system level control and institutional autonomy

2004-07 Reform: strengthen competitiveness of Danish universities through mergers

Terms of reference:

"The aim of the two reforms was to provide universities with an enhanced capacity for strategic prioritisation across their core areas of activity: education, research, and knowledge transfer, as well as with an enhanced ability to meet demands of society."

27

### Danmark: good practice in institutional structure reform?

Evaluation areas:

#### A. Fulfillment of the purpose of university mergers

1. More education
2. Greater international impact of research
3. More innovation and collaboration with industry
4. Attraction of more EU-funding
5. Continued competence in commissioned services to government

#### B. Codetermination for employees and students

#### C. The free academic debate

#### D. Research freedom

#### E. Degrees of freedom

28

### Evaluation perspectives

Key question

- How to strengthen the universities' overall global competitiveness by enabling them to develop their own strategic priorities, while ensuring adequate accountability?

29

### Evaluation Area Research

#### Conclusions

- > Strong starting position
- > Need for debate on governmental expectations, institutional profiles and university diversity
- > Danish research interests need to be promoted in Brussels

#### Recommendations

- > More emphasis on institutional profiles and university diversity
- > Stimulate participation in EU funded research
  - > Explicit national and institutional targets
  - > Proactive stimulation
  - > Promoting ERC participation

30

### Evaluation Area Innovation

#### Conclusions

- > The business sector funding of Danish university research is remarkably lower than in comparable countries

#### Recommendations

- > Develop a strategy for intensified university-industry relations
  - > Universities should intensify relations with business sector
  - > Danish business should treat outcome of university research not just as a public good

31

## Final reflections

How can university research quality be stimulated?

Important lessons from Denmark and other successful cases

**Balance state control – institutional autonomy:**

- > Combination of national development strategy (national vision) and strategic capacity at institutional level (strategic research focus, incl. priorities, profiles and down-prioritising)
- > Concentration of research funds, if necessary through mergers; alternatives are voluntary cooperation and division of labour; development of 'lighthouses' (elite institutions); or the use of incentives.
- > Centres of excellence important, preferably with a strong input of institutional leadership
- > Allow for enough time to develop world class research units

32

## Final reflections

**Balance state control – institutional autonomy (cont.):**


- > Accountability important: monitoring of developments; regular evaluations, etc. BUT: prevent bureaucratization and separation of top research organisation and funding at universities
- > Relationship with private sector important; stimulate joint structures (with fitting ownership structures)
- > Relationship between top universities and other HEIs important: no elite without mass HE, no adequate mass HE without elite

33

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Faculty of Life Sciences

**Experiences from the merger of KVL and the University of Copenhagen**

Per Holten-Andersen  
Dean  
Faculty of Life Sciences  
University of Copenhagen



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1

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**Agenda**

1. The mergers 2007
  - 1.1 The New UC
  - 1.2 Why merge?
2. Pros and Cons of the merger
  - 2.1 Successes
  - 2.2 Worries
3. Lessons learnt

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2

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**1.1 The New University of Copenhagen**

**BEFORE**

The Royal Veterinary and Agricultural University  
The Pharmaceutical University  
The University of Copenhagen

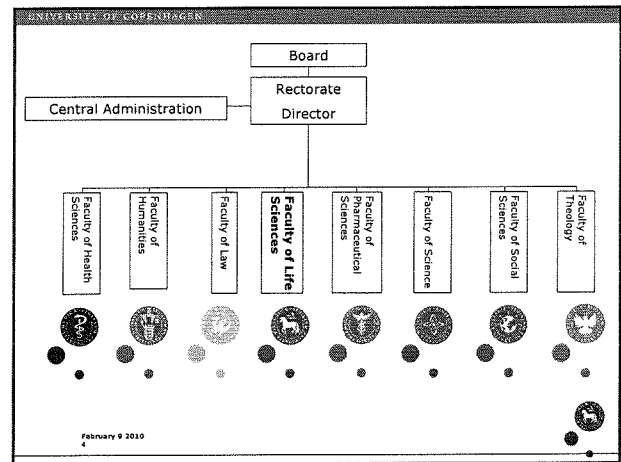
**THE NEW UNIVERSITY OF COPENHAGEN**

8 faculties

The **largest university in Scandinavia** in number of researchers with app. 5,500 researchers (incl. PhD) and 37,000 students

One of Europe's **largest university clusters within Health and Life Sciences**

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**1.2 Why merge?**

1. Level of Scientific Cooperation
2. Geographical Proximity
3. The International Elite University of Denmark

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**1.2 Why merge?**  
**Level of Scientific Cooperation**

1. "From farm to fork to health and welfare"
2. LIFE will carry out life science research in the whole chain from basic research to production, product and consumers
3. Synthetic Biology  
Department of Plant Biology and Biotechnology in collaboration with SCIENCE and HEALTH  
Grant: DKK 120 mio. from the UNIK-initiative (Ministry of Science, Technology and Innovation)
4. Food Fitness & Pharma  
Department of Human Nutrition and Department of Food Science in collaboration with HEALTH, SCIENCE, PHARMA, LAW and SOCIAL SCIENCES  
Grant: DKK 120 mio. from the UNIK-initiative (Ministry of Science, Technology and Innovation)

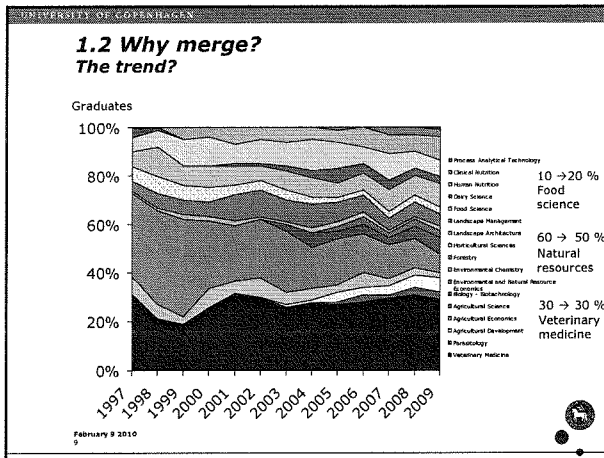
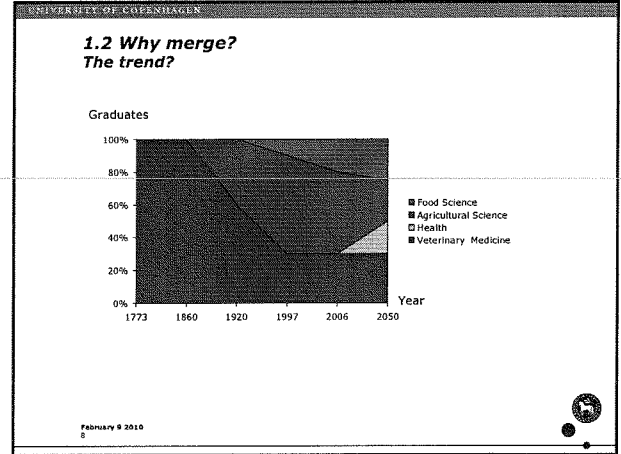
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### 1.2 Why merge? LIFE M.Sc. programmes – spot the trend?

Veterinary medicine	1773
Agricultural sciences	1858
Horticultural Sciences	1863
Forestry	1863
Dairy science	1921
Landscape Architecture	1960
Food Science	1971
Food Economics	1992
Environmental Chemistry	1995
Human Nutrition	1996
Landscape Management	2000
Biology - Biotechnology	2002
Parasitology	2002
Agricultural Development	2002
Envir. and Natural Resource Economics	2003
Clinical Nutrition	2004
Process Analytical Technology (PAT)	2006
Sustainable Development in Agriculture (EM)	2006
Sustainable Tropical Forestry (EM)	2006
Sustainable Forest and Nature Management (EM)	2006
Gastronomy and Health	2007
Soil, Water and Biodiversity	2007

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7



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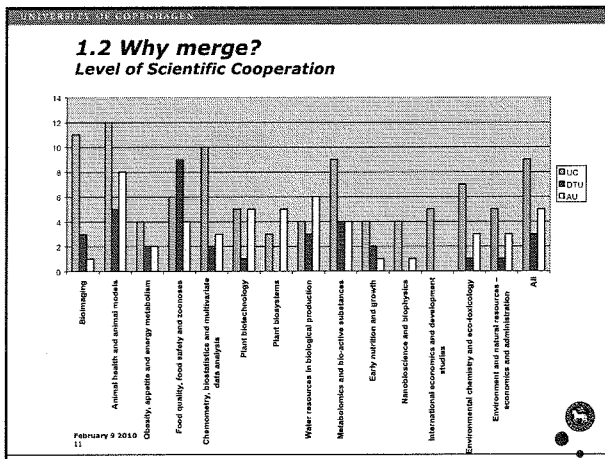
### 1.2 Why merge? The trend

**Food science**  
Production efficiency → food safety  
human nutrition and health  
gastronomy

**Natural resources**  
Focus on primary production → multifunctional land use  
biosystems services  
recreation and lifestyle  
raw materials for bio-refinery

**Veterinary medicine**  
Production animal health → pet animal health  
animal models  
human health and medicine

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10



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### 2.2 Large external grants to LIFE in 2009

**OPUS**  
Leader: Arne Astrup, Department of Human Nutrition  
Grant: DKK 100 mio. from Nordea-Fonden

**Synthetic Biology**  
Department of Plant Biology and Biotechnology in collaboration with SCIENCE and HEALTH  
Grant: DKK 120 mio. from the UNIK-initiative (Ministry of Science, Technology and Innovation)

**Food Fitness & Pharma**  
Department of Human Nutrition and Department of Food Science in collaboration with HEALTH, SCIENCE, PHARMA, LAW and SOCIAL SCIENCES  
Grant: DKK 120 mio. from the UNIK-initiative (Ministry of Science, Technology and Innovation)

**Bio4Bio – research center at LIFE**  
Leader: Claus Felby, Forest and Landscape  
Grant: DKK 22 mio. from the Strategic Research Council

**Sino-Danish Breast Cancer Research Centre**  
Leader: Nils Brüner, Department of Veterinary Disease Biology  
Grant: DKK 16 mio. from the Danish National Research Foundation

**VK Centre of Excellence Proactive Plants (Pro-Plant)**  
Leader: Birger Lindberg Møller, Department of Plantbiology and Biotechnology  
Grant: DKK 5 mio. /yr in 5 years from Villum Kann Rasmussen Foundation

**PUMPKIN**  
Department of Plantbiology and Biotechnology (Michael Gjedde Palmgren) in collaboration with University of Århus.  
Grant: DKK 2,5 mio. /yr in 5 years from Danish National Research Foundation

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12



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## 2.2 Large external research council grants to LIFE in 2009


**Project:** "The merger of plant primary and secondary metabolism: Recruitment of ancient plant defense compounds for new functions"  
**Leader:** Birger Lindberg Møller, Department of Plant Biology and Biotechnology  
**Grant:** DKK 18 mio. from the Danish Council for Independent Research - Technology and Production Sciences

**Project:** "Development of bacterial tolerance to antibiotics - a bottleneck in current and future anti-microbial therapy"  
**Leader:** Hanne Ingmer, Department of Veterinary Disease Biology  
**Grant:** DKK 13 mio. from the Danish Council for Independent Research - Technology and Production Sciences

**Project:** "Sustainable rubber with biotechnology"  
**Leader:** Naomi Geshi, Department of Plant Biology and Biotechnology  
**Grant:** DKK 4,5 mio. from the Danish Council for Independent Research

**Project:** "Plants with stress grow better"  
**Leader:** Nina Cedergreen, Department of Basic Sciences and Environment  
**Grant:** DKK 4,5 mio. from the Danish Council for Independent Research

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13




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## 1.2 Why merge?

### Geographical Proximity

- 1 university and not 8 universities
- The internal market:
  - common semester and timetable structure
  - joint course database
  - common financial guidelines
- Research networking

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14




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## 1.2 Why merge?

### 12 Thematic Packages

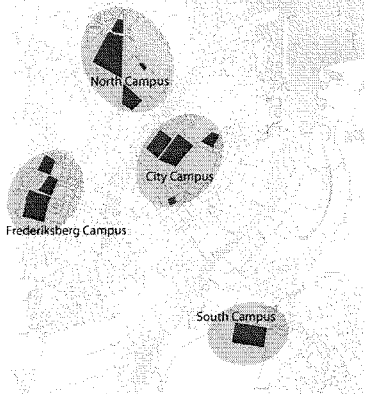
1. Living Conditions, Environment and Health in Developing Countries
2. E research
3. Natural Resources and the Environment
4. Science, Ethics and Communication
5. The Universe of the Cell
6. Identities
7. Food, Fitness and Pharma for Health and Disease
8. Migration - Movement of People and the Development of Societies
9. Future Technologies for Life
10. Global Challenges: Spaces, Powers and Cultures
11. Welfare and Democracy
12. Brain, Mind and Medicines

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15




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## Campi of University of Copenhagen



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16




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## 1.2 Why merge?

### The International Elite University of Denmark

- THE International University of Denmark
- LIFE's Internationalisation strategy
  - Language
  - International students
  - International Programmes
- IARU

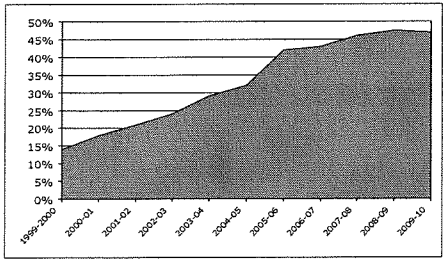
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17



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## 1.2 Why merge?

### Language - Courses in English



Year	Percentage of Courses in English
1989-2000	15%
2000-01	18%
2001-02	22%
2002-03	25%
2003-04	28%
2004-05	32%
2005-06	38%
2006-07	42%
2007-08	45%
2008-09	47%
2009-10	48%

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18




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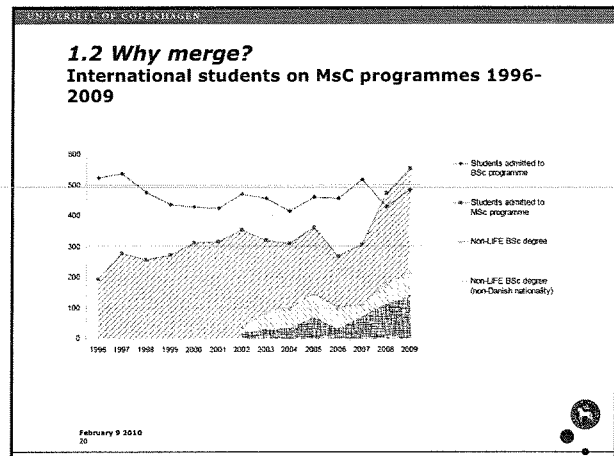
## 1.2 Why merge? Language – MSc Programmes in English

17 MSc programmes:

1. Agricultural Development	9. Horticulture
2. Agriculture	10. Human Nutrition
3. Biology-biotechnology	11. Agricultural Economics
4. Clinical Nutrition	12. Landscape Architecture
5. Environmental and Natural Resource Economics	13. Landscape Management
6. Environmental Chemistry and Health	14. Parasitology
7. Food Science	15. Process Analytical Technology
8. Gastronomy and Health	16. Forest and Nature Management
	17. Veterinary Science



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19



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## 1.2 Why merge? The International Alliance of Research Universities (IARU)

1. Australian National University
2. ETH Zurich
3. National University of Singapore
4. Peking University
5. University of California, Berkeley
6. University of Cambridge
7. University of Copenhagen
8. University of Oxford
9. The University of Tokyo
10. Yale University

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21

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## Agenda

1. The mergers 2007
  - 1.1 The New UC
  - 1.2 Why merge?
2. Pros and Cons of the merger
  - 2.1 Successes
  - 2.2 Worries
3. Lessons learnt

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22

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## 2. Pros and Cons of the Merger

### 2.1 Successes!

- Process in relation to Thematic Packages (SLIDE)
- New core facilities: campus stables, bioimaging, supercomputing
- KUFUR – new strategic committee on PhD matters
- KUUR – new strategic committee on educational matters
- The internal market for education
- 3 new cross faculty education programmes (SLIDE)
- Copenhagen master of excellence
- International Alliance of Research Universities (IARU) (SLIDE)
- KU 8 on THES Europe's Top 10 (13 in 2006 pre KVL-merger)
- KU 42 on Shanghai Jiao Tong (56 in 2006 pre KVL-merger)
- Stable operations during transition, maintaining core IT-systems staff

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23

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## 2. Pros and Cons of the Merger

### 3 new cross faculty education programmes

- MSc in Environmental Chemistry and Health
- BSc in (Natural)Science and IT
- MSc in Climate Change

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24


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## 2. Pros and Cons of the Merger

### 2.2 Worries!

- DK: Diminishing core funding/increased competitive funding
- DK: Political interference IN DETAIL is increasing
- DK: National competition is heavier (education)
- DK: Critical mass in education (food science, agriculture)
- UC: Tempo eg. internationalisation
- UC: Change fatigue
- UC: Cultural gaps (eg. bottom-up versus top-down)
- UC: A service minded central administration
- UC: "Rector has decided"
- UC: Standardisation (don't over-do-it)

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25




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26



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## 3. Lessons learnt


### I Science (research & teaching)

- 1 BENEFITS: Focus rapidly on cross faculty (departmental) synergies
  - research
  - teaching
- 2 COSTS: Keep administrative problems/systems/discussions to a small group
- 3 Allocate funds to (1)

### II Leadership

- 4 Form a tight leadership group for the whole university ("8 universities versus 1")
- 5 Clear leadership and clear mandates are more important than in "steady state"
- 6 Design teambuilding activities/joint leadership programme
- 7 Force yourself to be positive – or leave the boat

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27



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## 3. Lessons learnt (cont.)


### III Culture

- 8 Celebrate successes (small & fast) = proud employees are content employees
- 9 High focus on precise information/dialogue = from immediate leader + top leader

### IV Process

- 10 Speed versus discussions
- 11 Do it – admit & amend mistakes
- 12 Initiate a common strategy process = creating "one" institution
- 13 "Expansion" versus "reduction"

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28



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# THANK YOU!

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29

