

THE ACADEMIC DEVELOPMENT PROCESS AARHUS UNIVERSITY

Report

The Aarhus University Senior Management Group

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Table of contents

1 The Aarhus University of the future.....	3
1.1 Background	3
1.2 The academic development process: 'deeper connections, greater coherence'.....	4
1.3 The changes.....	6
1.4 Result: a more valuable contribution.....	7
1.5 The process.....	8
2 Overview: decisions in the academic development process.....	10
2.1 Academic organisation	10
2.2 Management	11
2.3 Interdisciplinary centres and cross-cutting forums	14
2.4 Finances and administration	16
2.5 The next steps.....	18

1 The Aarhus University of the future

The university's ambition is to be a strong, modern European university. This is why we are working with such intense focus to exploit all of our considerable assets to the fullest. Our goal is for all fields of inquiry to experience greater freedom and a wider scope for their activities.

Aarhus University...

- ...became the Danish university with the broadest range of research fields and study programmes after the 2006 -2007 mergers
- ...has strong programmes within all significant fields of scientific and scholarly research
- ...has over 36,000 BA and MA students, 8,500 continuing education Master students and 1,800 PhD students

1.1 Background

In 2006 and 2007, Aarhus University underwent a series of mergers with smaller institutions of higher education and research. The merger enriched the university with a range of new disciplines and broadened our contacts with our society.

In 2008, the university adopted the *Aarhus University Strategy 2008-2012: Quality and Diversity*. The strategy defines a framework for the university's four core activities: research, talent development, knowledge exchange, and education. The strategy has since been supplemented by a range of specific strategies for areas such as internationalisation and talent development, as well as a vision plan for the university's physical infrastructure up to 2028. The strategy put academic reorganisation on the agenda: the mergers had created the conditions for realising a range of valuable synergies within all four core activities and significant potential for increased interdisciplinary collaboration.

The goal of the academic development process is thus the full realisation of this potential.

In 2010/2011, Aarhus University is in a stronger position than ever before. The academic development process builds on this position of strength: the university has more students, PhDs and researchers than ever before. The scope and impact of the research performed here is greater than ever before, and we attract a significant amount of research funding. Aarhus University is ranked in the top 100 by several prestigious university rankings.

Aarhus University's standing in selected university rankings

- QS World University Ranking: 84
- Leiden - Crown Indicator 95
- ARWU-Shanghai: 98
- HEEACT-Taiwan: 105
- Times Higher Education World University Ranking: 167

1.2 The academic development process: 'deeper connections, greater coherence'

'Deeper connections, greater coherence' (*dybere sammenhæng*) is both the name and the goal of the most comprehensive academic reorganisation in Aarhus University's history. The concept plots out a double course for the Aarhus University of the future: the high standard of excellence in the traditional disciplines which has always characterised the university must be maintained and developed. At the same time, we will seek out new possibilities and connections across disciplinary boundaries and in close collaboration with the world around us.

These paths are inextricable. A deep scholarly and scientific identity anchored in a strong discipline is a precondition for participating in meaningful interdisciplinary collaboration, both for students and for researchers. At the same time, interdisciplinary collaboration is increasingly a precondition for achieving significant scientific and scholarly results: both because of the diversity and complexity of the world we seek to understand more deeply, and because the societal problems to which we seek to find solutions cannot be comprehended within the intellectual boundaries of any individual discipline.

Interdisciplinary research

- Nature is complex - and so, increasingly, is our global society.
- Traditional disciplines must collaborate across their borders in order to discover new connections and develop new solutions, which requires the participation of researchers from many fields.
- To meet the global challenges we face, we must involve researchers from a range of different fields.
- Scientific breakthroughs often occur at the intersection of traditional disciplines.
- New technologies are transforming existing disciplines and generating new ones, while at the same time creating opportunities for existing fields to work together.

Making a strong university even stronger

The university's ambition is to be a strong, modern European university. In the near future, all universities, both here in Denmark and internationally, will be forced to tackle a range of external challenges which will force them to find innovative solutions. Aarhus University is already well equipped to face this future. 'Deeper connections, greater coherence' will make us even stronger. There are challenges on the horizon for all four of the university's core activities:

- Research

More and more, research funding is subject to national and international competition, often within the framework of major strategic research programmes that cut across disciplines and research areas. As a consequence, the individual university must have greater strategic freedom to act proactively and professionally in order to attract research funding in a situation of global competition.

- Talent development

Competition among universities to attract the most talented students and the best researchers is global, both in order to provide society with the best minds and to ensure their own academic continuity and development. It is therefore crucial for universities to offer attractive and flexible conditions for performing research.

- Knowledge exchange

When it increases research funding, society increases its demands on the university. This means that universities will be required to provide society with even more knowledge in the future; to contribute to solving problems which require an interdisciplinary approach; and to contribute actively to ensuring a high level of education in the population and creating economic growth and increased prosperity.

- Education

Universities must ensure that the educational level of society's citizens continues to increase, contribute to lifelong learning, attract an increasingly mobile student population, and educate graduates who meet the requirements of the labour market of the present and the future. This requires a more flexible education market, new interdisciplinary degree programmes, and close dialogue with employers.

Aarhus University will meet these challenges by creating a university which unifies deep competences in the traditional disciplines with interdisciplinary collaboration in a close partnership with our society.

The main themes of the Lund declaration on the Grand Challenges of our time

- We face challenges related to nature and access to the world's resources. We are already experiencing inequalities in access: the wealthier nations of the world monopolise the majority of the world's resources, including food, energy, water and minerals. As our economies grow, the strain on our resources increases, and climate changes are causing natural catastrophes and forcing millions of people to become environmental migrants.
- The fact that one-third of the world's population is undernourished affects our health and our society. Obesity is a growing challenge in wealthy countries. Changes in life expectancy put healthcare systems under additional pressure.
- Migration and urbanisation challenge security and safety. The economic growth necessary to provide the world's poor with an opportunity for a decent life is straining our social institutions and, thanks to the increasing exploitation of the oceans and space as new territories and sites of production, increasing the potential for international tensions.

1.3 The changes

The mergers of 2006 and 2007 enriched AU with a broader range of disciplines. The university's broad academic competences enable it to reach out to all sectors of society. They represent a unique opportunity to combine our academic strengths in new interdisciplinary forms of collaboration in order to create groundbreaking new research results and degree programmes.

We are now taking the final step by consolidating our strengths into a single, unified university with greater organisational, managerial and financial-administrative coherence. Fewer organisational divisions, fewer internal borders and more cross-cutting initiatives will create better opportunities for thinking and working across borders.

The change process has four dimensions, all of which are designed to strengthen the university's academic development and quality: academic organisation, interdisciplinary centres and cross-cutting initiatives, as well as finance and administration.

Academic organisation: one unified Aarhus University

Every organisational unit is defined by boundaries. With the academic development process, we are creating a single unified university and reducing these internal boundaries by reducing the number of organisational units significantly. In place of nine independent faculties and schools, Aarhus University will henceforth consist of four closely connected main academic areas: Arts, Science and Technology, Health, and Business and Social Sciences. The number of departments at the university will be reduced from fifty-five to twenty-six. An effort will be made to place each department in a single geographical location, and as far

as possible, related departments will be placed in close proximity and organised in strong research and teaching communities - both within and across main academic areas.

Management: one unified executive management

Every leader focuses on the area he or she is responsible for. We will ensure a shared focus on scientific and scholarly excellence by creating a single unified executive management with responsibility for the entire university. This unified senior management group includes the rector, the pro-rector, the university director and four deans. Each dean is responsible for the academic and financial management of one main academic area as well as for activities related to one of the university's four core activities: research, talent development, knowledge exchange, and education.

Staff will have greater influence on the university's strategic initiatives. In addition, the academy councils will be strengthened, and the structure of the boards of studies and directorships of studies will be reorganised in order to ensure student influence.

Cross-cutting centres and forums: collaboration across borders from day one

The university's organisational, managerial and financial-administrative structure will create optimal conditions for increased cooperation. To ensure that cross-cutting collaboration becomes an integral part of the future of AU from day one, we will establish a range of concrete cross-cutting initiatives: new interdisciplinary centres and cross-cutting forums for researchers and management.

Finances and administration: more coherent processes

A new agenda focussed on specialisation and service will be set for the administration. This involves the development of a new shared culture in administrative units and a new organisation of work flows and responsibilities.

We will break down existing financial and administrative barriers to cross-cutting cooperation by implementing a single model for financial administration as well as a more uniform and efficient administration. Taken together, these changes will improve the conditions for the university's academic development.

1.4 Result: a more valuable contribution

Greater coherence and deeper connections within Aarhus University will enable us to increase the flexibility and relevance of our contributions to all parts of society across the board:

- Research

We will develop more interdisciplinary research projects and centres which combine expertise from different fields in order to address a specific social need or research question which cannot be illuminated from the perspective of a single discipline.

- Talent development

In the future, AU will offer talented young researchers the best possible conditions for interdisciplinary research and collaboration with leading researchers in relevant fields. The result will be a new generation of researchers born into an interdisciplinary philosophy and practice of research – and whose contributions spring from their own deep expertise in their particular field of knowledge.

- Knowledge exchange

The changes being introduced will give the university greater flexibility, enabling it to meet the concrete needs of external stakeholders for knowledge and solutions within particular interdisciplinary themes. Aarhus University places the entire breadth of its expertise at the disposal of government, industry and citizens, and offers its external partners clear, easily accessible forms of collaboration and points of contact.

- Education

The changes being introduced will create a more flexible inner education market: it will be easier to exchange and develop degree programmes, courses and teaching resources across main academic areas, departments and centres. By the same token, it will be easier for students to combine their core subject with perspectives from other fields. Ultimately, our graduates will enter society with the ability to think and act across disciplines and boundaries – and whose contributions will spring from their own deep expertise in their particular field of knowledge.

Our expectation is that these changes will make Aarhus University more attractive to both international and Danish students, grant givers, government, industry and organisations - as well as career academics.

1.5 The process

The academic development process has been carried out - and is being planned and implemented - in three interconnected phases.

The process is initiated, and the overall structure is approved (8 March 2010 - 17 June 2010)

The rector initiated the academic development process with his vision statement of 8 March 2010. A series of oral and written consultations of students and staff were carried out, nine interfaculty working groups were

established, four academic strategy seminars were held, and two external experts were consulted. On 17 June, the Aarhus University Board voted to organise all of the universities research and teaching activities in four new main academic areas, and the overall framework for the continuation of the process was determined.

New academic structure and strengthened coherence across borders (17 June 2010 - 9 March 2011)

In the summer of 2010, each new main academic area carried out an analysis of academic structures and requirements related to internal organisation (including departmental structure) which was followed by an open consultation process. This has now resulted in four recommendations as well as a range of initiatives aimed at strengthening coherence across the four main academic areas. At the same time, an analysis of the university's administrative structures and requirements has been carried out to determine how best to organise administrative functions to support the new academic structure.

Final decision and implementation (9 March 2011-2012)

This document sets forth the decision taken by the Aarhus University Board on 8 March 2011 on the future organisation of Aarhus University. A phase of detailed planning and implementation will follow.

For more information on the above and for further information on the academic development process in general, please consult the Aarhus University website at www.fremtidens.au.dk.

2 Overview: decisions in the academic development process

2.1 Academic organisation

Four main academic areas and twenty-six strong departments

On 1 January 2011, the number of main academic areas at AU was reduced from nine to four, and by 1 July 2011, all research and teaching activities will be organised in twenty-six academically strong departments.

This organisational and physical concentration of related activities will create a foundation both for the realisation of potential synergies and for increased academic specialisation, which will strengthen the university's research communities and its activities in general. The university's research and teaching activities have been organised into fifty-five different departments, and individual research and teaching communities have been geographically divided. As far as possible, the new departments will be geographically unified, and related departments will be located as close together as possible.

Four main academic areas and twenty-six strong departments			
Arts	Science and Technology	Health	Business and Social Sciences
Three departments and a department-like centre	Twelve departments	Five departments	Six departments and HIH
1. Department of Society and Culture 2. Department of Art and Communication 3. Department of Education and Learning 4. Higher Education Research and Development Centre	1. Department of Animal Science 2. Department of Bioscience 3. Department of Environmental Science 4. Department of Geoscience 5. Department of Engineering 6. Department of Agroecology 7. Department of Food Science 8. Department of Molecular Biology and Genetics 9. Department of Physics and Astronomy 10. Department of Mathematics 11. Department of Chemistry 12. Department of Computer Science	1. Department of Biomedicine 2. Department of Clinical Medicine 3. Department of Public Health 4. Department of Dentistry 5. Department of Forensic Medicine	1. Department of Business Communication 2. Department of Law and Administration 3. Department of Public Policy and Administration 4. Department of Psychology and Human Relations 5. Department of Business Administration 6. Department of Economics and Business 7. AU Herning

The Department of Sport Science will be transferred from Science and Technology to Health, and staff will be affiliated with the Department of Public Health, where they will continue to be responsible for the sport science degree programme.

The degree programmes in health sciences engineering (Master's degree programmes in biomedical engineering and biosystems engineering) will be transferred from Health to Science and Technology, and the electronic design engineering programme at AU Herring will be transferred from Business and Social Sciences to Science and Technology. The new Department of Engineering should be viewed in connection with plans to merge with the Engineering College of Aarhus.

These organisational changes will not lead to changes in geographical location or degree programmes currently on offer.

Geographical location of academic units

A number of the changes to be made in departmental structure and administrative organisation will involve physical relocations. Not all physical relocations will take place according to the same timetable, as they depend on such issues as changes in lease arrangements, renovations, and the use of facilities, or will require new construction.

2.2 Management

New managerial structure: unified executive management and new cross-cutting responsibilities

The senior management group

On 1 January 2011, the university gained a new unified senior management group consisting of the rector, the pro-rector, the university director and the deans of the four main academic areas. The senior management group's role is to execute the university's overall strategy and goals. Only in special circumstances involving extremely significant, fundamental issues will the senior management group become involved in day-to-day administration.

The deans have three functions in this new structure.

- Each dean is a member of the senior management group, both because the main academic areas are to be administered in accordance with the university's strategic decisions, and because input from the university's teaching and research programmes must be taken into account in the decisions of the senior management group. At the same time, this structure will ensure that the activities of the four main academic areas are coordinated more effectively and that cooperation across main academic areas increases.
- Each dean is the manager of a main academic area and has overall responsibility for its academic and financial administration.
- Each dean is also responsible for the cross-cutting activities and initiatives taking place under the aegis of one of the university's core activities: research, talent development, knowledge exchange or education.

The deans' cross-cutting functions

As head of one of the four cross-cutting functions named above, the dean's role is to ensure that strategic initiatives and innovation occur in his or her area, as well as to make strategic decisions necessary to the day-to-day management and development of the area in question.

The four strategic functions have the same high priority. Therefore, the senior management group has decided that the deans will take turns heading the cross-cutting functions for one year at a time. The dean will be assisted by the vice-deans of the four main academic areas (and heads of graduate schools where relevant) for the area in question.

Aarhus University academic management: vice-deans, department heads and heads of graduate schools

At each main academic area, three or four vice-deans of research, talent development, knowledge exchange and education are to be appointed. The vice-deans are responsible for administering a number of the dean's responsibilities at main academic area level and are members of the dean's office. The increase in the number of vice-deans reflects a desire to strengthen strategic management at the university and the importance of anchoring the cross-cutting functions in the university's teaching and research communities.

The department heads are authorised by the rector and the dean to manage departmental academic, financial and personnel-related matters, including planning and allocation of job responsibilities. The department head positions will be advertised.

The senior management group has appointed four heads of graduate schools to administer the university's four new graduate schools. The role of the head of a graduate school is to plan and evaluate the degree programmes it offers.

At the same time, the responsibility of the director of studies for the day-to-day management of the degree programmes will be strengthened.

The academy councils

The academy councils will have a close relationship with the deans' offices and advise the management of each main academic area on strategy and matters of principle. The councils will include members elected by academic staff, students, and technical-administrative staff. In all probability, the University Act will be amended so that deans no longer automatically chair the academy councils. This must be taken into account in the coming structure: it is important that deans and vice-deans continue to participate in academy council meetings, both to ensure genuine dialogue between the councils and the senior management group and on account of the councils' actual significance.

New forum for each of the university's core activities

Four new forums will ensure that the senior management group receives advice and inspiration from the university's best researchers, teachers, and other staff. The members of the forums will be highly qualified individuals who are particularly active in the area in question.

- AU Forum for Research will advise on research strategy and major research initiatives.
- AU Forum for Talent Development will advise on talent development.
- AU Forum for Knowledge Exchange will advise on business-oriented knowledge exchange and consultancy services for government, industry and different sectors of society.
- AU Forum for Education will advise on the inner and external education market, among other themes.

No decisions have yet been taken regarding size, composition, or appointment procedures. The dean responsible for each forum will initiate a process which will clarify these issues. The intention is for the new academy councils to play a central role in appointments to the forums, and for students to be represented on the AU Forum for Education.

Advisory boards and employer panels

A number of relevant advisory boards will be established at main academic area level. A significant proportion of the boards' members should have degrees from other institutions, and possess an international perspective on research, education, and communication and outreach. As required under the University Act, employer panels representing prospective employers of AU graduates will be established at main academic area level, in order to ensure close dialogue between our degree programmes and the professions and industries in which they prepare our graduates for employment.

Boards of studies

A new structure for the boards of studies has been determined. In principle, the structure is the same for all main academic areas, which will create greater coherence in Aarhus University's strategic management of its degree programmes. In the new structure, each main academic area has one forum for education (with the exception of Business and Social Sciences, which will have a board of studies at main academic area level) in addition to boards of studies at subject level. Interdisciplinary and cross-cutting strategic work on degree programmes will take place at main academic area level.

Liaison committees

Independently of the academic development process, AU HR and the Main Liaison Committee are working to reorganise the liaison committee structure in order to guarantee employee influence in the new structure. The negotiation committee has established a group of members representing management and the unions. The group's conclusions will be presented in the spring of 2011, and a new liaison committee structure may be in place before the summer of 2011.

2.3 Interdisciplinary centres and cross-cutting forums

Interdisciplinary centres will strengthen research and other core functions

The senior management group has decided to establish a number of interdisciplinary centres which will create new, ground-breaking results by bringing academic disciplines and expertise into play in innovative ways. On the background of recommendations from the university's researchers, the group has decided to establish centres in six areas at the outset. A process involving a thorough description of each centre will be set in motion, in the form of an international peer review. If the resulting evaluation is positive, the centre will subsequently be established.

New interdisciplinary centres

- Centre for Food, Nutrition and Health
- Centre for Global Change and Development
- Centre for iSequencing
- Neurocampus
- Centre for Integrated Register-based Research
- Centre for Arctic Research

The centres are listed above in random order.

In addition, the senior management group, in collaboration with the Aarhus University Research Foundation (AUFF), has decided to establish AU IDEAS, which will help develop visionary project ideas through a Research Seed Programme. The initiative will receive DKK 50 million in funding over the next three to five years.

Four graduate schools and Aarhus Institute of Advanced Studies

One graduate school will be established at each main academic area. In addition, Aarhus Institute of Advanced Studies (AIAS) will be established in cooperation with AUFF: AIAS will provide improved support for talented young researchers, for example in the form of better opportunities to do research in an international, interdisciplinary environment. The initiative will receive DKK 50 million in funding over the next three to five years.

Four new graduate schools

- Graduate School of Arts
- Graduate School of Science and Technology
- Graduate School of Health
- Graduate School of Business and Social Sciences

New structures will improve knowledge exchange with our society

Aarhus University has a strong desire to strengthen outreach to and knowledge exchange with industry, government, political decision-makers and the general public.

Technology Transfer Office in new strategic partnership

The senior management group has decided to strengthen commercialisation activities significantly. The Technology Transfer Office (TTO) has therefore formed a strategic partnership with MedTech Innovation Center (MTIC), which is part of the major Central Denmark Region initiative *Erhverv og Sundhed* ('Business and Health'). The goal of the partnership is to create one of Europe's strongest innovation and growth centres by exploiting and extending the extensive commercial and legal competences of the two organisations.

New national centre with special responsibilities in the area of knowledge exchange

The university has decided to establish three national centres with a special focus on advisory services for government, industry and political decision-makers.

- The National Centre for Environment and Energy (NERI)
- The National Centre for Environment and Energy (NERI)
- The National Centre for Culture and Learning

The first two centres will belong under Science and Technology, while the third will belong under Arts.

One organisation with several service centres

The university's library services resources will be gathered into a single organisation under the name Aarhus University Library. The new library will offer numerous service centres and study centres to service AU locations all over the country. The goal is a coherent, cost efficient and strong library service.

Improved, more flexible degree programmes

Aarhus University's many excellent degree programmes will be retained. The university will continue to develop the quality of existing degree programmes, design new degree programmes, and continue to take the initiative in improving the study environment.

The inner education market

No matter how our graduates end up applying their knowledge and competences, cooperation will be central. For this reason, an inner education market will be established which will give students the opportunity to experience cooperation and academic development across existing study programmes and disciplines. Increasing the flexibility of our degree programmes must not take place at the expense of quality and high academic standards. At the same time, our goal is to improve the quality of our degree programmes - and thereby improve our graduates' job prospects.

Educational IT

Aarhus University's goal is to be a modern university which helps set international standards for quality teaching. Therefore, the latest technology should be available to our teaching staff and students. A new common technological platform to support IT-based teaching will be acquired, and on a regular basis, teaching staff will receive training to develop technological competences to ensure that they are in a position to apply the latest and most relevant technological developments in the classroom.

Educational IT has the potential to help attract the best students, educate graduates who are attractive candidates on the public and private job markets, and support the smooth development of the inner education market at AU.

Interdisciplinary Centre for Entrepreneurship and Innovation

The Interdisciplinary Centre for Entrepreneurship and Innovation (ICEI) is to guarantee the development of research-based training in entrepreneurship as well as develop new models for collaboration between research institutions and public and private organisations. ICEI will be a centre serving the university's academic programmes. The centre will serve both students and teaching staff in the academic programmes which will participate in entrepreneurship-related teaching activities.

2.4 Finances and administration

Funding for strategic academic initiatives

On 17 June 2010, the Board established a strategic financial management fund of DKK 200 million annually, or DKK 1,150 million for the period 2011-2016, approximately three percent of the university's turnover.

The fund will be used to support long-term strategic initiatives at main academic area and pan-university level as well as to launch new initiatives. Such initiatives include the establishment of promising new interdisciplinary research centres and initiatives aimed at promoting academic integrating in connection with the university's core activities.

More specifically, DKK 380 million will be allocated to finance academic development plans at the four new main academic areas; DKK 330 million will be allocated to the management pool; and DKK 440 million will

be allocated to a range of concrete interdisciplinary and integration-oriented initiatives aimed at strengthening the university's long-term strategic development.

The Aarhus University Research Foundation (AUFF) will allocate DKK 100 million to support research at Aarhus University over the next three to five years. Two initiatives, each of which will receive DKK 50 million, will give the university's strong research communities a qualitative and creative boost:

- AU IDEAS, for project development and the development of pilot centres
- Aarhus Institute of Advanced Studies (AIAS)

New administrative structure

The reorganisation of the university's academic structure will be accompanied by significant changes in the administration. The university's administration is a service organisation. Every aspect of this organisation must be ready and able to help our students and to support the university's core activities by providing guidance, help and service to the staff members and units engaged in research, teaching, outreach, and related functions. The nature of the administration's support of the rest of the organisation will be fundamentally altered: from now on, it will be based on specialised functions and staff.

Guiding principles for the new administration

- Professionalism in performing duties and responsibilities with a focus on the needs and wishes of users
- Cases must be handled at a maximum of two administrative levels
- Standardised solutions and specialisation
- Digitalisation

The administrative structure will contain two levels:

- AU Administration: an integrated, unified administration headed by the university director. It will support the senior management group, including the deans in their capacity as heads of their main academic areas. AU Administration will consist of a central administration and four decentralised administrative centres, each of which will support one dean in addition to departments and centres.
- Local administration: at department/centre level. Local administrative staff will report to their department head/centre director.

2.5 The next steps

In the near future, a wide range of these decisions must be worked out in greater detail and prepared before we can begin to implement them.

In general, 2011 will be a year of transition and change. According to plan, the remaining five vice-deans and the new department heads will be appointed before 1 June 2011, and the new departments will be established by 1 July 2001. The budget for 2012 will reflect the new structure, and the new budget model will come into effect starting in 2012.

The remainder of the report (available in Danish only) contains a more detailed account of the decisions described in this overview.