

**OECD/IMHE project**

**Supporting the Contribution of Higher Education Institutions  
to Regional Development**

**Subreport:**

**The University of Aarhus**

**Jutland-Funen, Denmark**

Sanne Mikkelsen & Rebekka Sylvest  
October 2005



<b>0. INTRODUCTION .....</b>	<b>4</b>
<b>1. HOW DOES UNIVERSITY RESEARCH CONTRIBUTE TO REGIONAL DEVELOPMENT?.....</b>	<b>6</b>
1.1 FRAMEWORK CONDITIONS FOR UNIVERSITY RESEARCH.....	6
1.2 EXAMPLES OF RESEARCH THAT CONTRIBUTES TO REGIONAL DEVELOPMENT .....	6
1.2.1 <i>The Katrinebjerg IT Town</i> .....	6
1.2.2 <i>Aarhus University Hospital</i> .....	7
1.2.3 <i>New spin-off companies</i> .....	8
1.2.4 <i>Religious diversity</i> .....	9
1.2.5 <i>Evaluation of artistic quality</i> .....	10
1.2.6 <i>PhD in Business Administration</i> .....	10
1.2.7 <i>Centres</i> .....	11
<b>2. HOW DO TRAINING AND EDUCATION AT THE UNIVERSITY CONTRIBUTE TO THE REGIONAL LABOUR MARKET?.....</b>	<b>12</b>
2.1 THE REGIONAL LABOUR MARKET.....	12
2.2. NEW DEGREE PROGRAMMES AND FURTHER DEVELOPMENT OF EXISTING DEGREE PROGRAMMES .....	12
2.3 INFORMATION AND COMMUNICATION TECHNOLOGY IN TEACHING .....	14
2.4 PRACTICAL TRAINING AND TRANSFER OF CREDITS.....	14
2.5 RECRUITMENT – MARKETING .....	15
2.6 STUDENTS AS REGIONAL LABOUR.....	15
2.7 CONTINUING AND FURTHER EDUCATION .....	15
<b>3. HOW DOES THE UNIVERSITY CONTRIBUTE TO THE SOCIAL, CULTURAL AND ENVIRONMENTAL DEVELOPMENT OF THE REGION? .....</b>	<b>16</b>
3.1 SOCIAL AND SOCIO-ECONOMIC DEVELOPMENT .....	16
3.2 CULTURAL DEVELOPMENT.....	17
3.3 ENVIRONMENT AND SUSTAINABLE DEVELOPMENT.....	19
<b>4. WHAT DOES THE UNIVERSITY DO TO PROMOTE REGIONAL COOPERATION? .....</b>	<b>20</b>
4.1 FRAMEWORK CONDITIONS FOR CAPACITY INCREASE .....	20
4.2 COLLABORATION FORUMS.....	20
4.3 FINANCING.....	21
4.4 DEVELOPMENT OPPORTUNITIES .....	22
<b>APPENDICES .....</b>	<b>24</b>
APPENDIX 1: PARTICIPANTS IN THE OECD AFTER-WORK MEETING 22. SEPTEMBER 2005.....	25
APPENDIX 2: LIST OF PEOPLE INTERVIEWED DURING THE PROCESS .....	26
APPENDIX 3: SOURCE OF FUNDING .....	28

## **0. Introduction**

This self-evaluation report (SER) is the contribution of the University of Aarhus to the Jutland–Fyn OECD comparative review of the significance of higher education institutions (HEIs) for regional development. The objective is to highlight some of the mechanisms that contribute to providing a basis for the university's influence on regional development.

The relevant region for the University of Aarhus is the Jutland–Fyn area, and in particular, the geographical areas where the university's working partners are located. The mechanisms described in the report include working relationships, funds, various policies, etc. This SER does not purport to be an exhaustive description of the university's importance to regional development, as the extent of the original survey was approximately 15 pages. A series of questions prepared by the OECD created the framework for the survey, and each individual institution was able to adapt the questionnaire to its own needs, provided the SER covered the following four key subjects:

1. How does university research contribute to regional development?
2. How do training and education at the university contribute to the regional labour market?
3. How does the university contribute to the social, cultural and environmental development of the region?
4. What does the university do to promote regional collaboration?

The survey is largely based on interviews with researchers at the University of Aarhus and its working partners. The examples described in the survey thus reflect the choices made by the interviewers regarding the different subjects. (See enclosure 1 for a list of interviewers).

At a meeting on 22 September 2005, organised by the University of Aarhus and the Aarhus School of Business, the participants – mainly representatives from private companies, public authorities and other educational institutions in the region – were invited to comment on the importance of the universities for regional development. (See enclosure 2 for a list of participants).

The University of Aarhus has approximately 21,000 students and 5,000 employees. The university is divided into five faculties: the Faculty of Humanities with 7,400 students, the Faculty of Health Sciences with 3,200 students, the Faculty of Social Sciences with 5,600 students, the Faculty of Science with 3,400 students and the Faculty of Theology with approximately 1,100 students, which makes it one of the largest faculties of theology in the Nordic countries.

The University of Aarhus was established in 1928, partly on account of a regional need for doctors and economists. The university's local focus soon changed, however, and graduates are now educated with the Danish labour market in mind and not just the regional market. The University of Aarhus is therefore more than just a regional university – it is a national university and one with a very international focus. The university has achieved a high position in the international ranking lists.

The University of Aarhus operates within a certain framework, including the Danish University Act and the development contract for 2005 with the Danish Ministry of Science, Technology and Innovation. This contract defines a number of strategic objectives for the university's four core areas – research, education, communication of research results and knowledge sharing – and for its collaboration with the society at large. Among other things, the development contract states that the university wants to make an important contribution to the development of society and to strengthen its formal collaboration with both private and public institutions.

In 2004, the University of Aarhus spent DKK 949 million on research compared with DKK 706 on education. The university's research costs are increasingly covered by external finance. The costs financed

by external means were DKK 553 million in 2004 compared with DKK 38 million in 1980. In 2004, the university's total costs amounted to DKK 2,432 million.

## **1. How does university research contribute to regional development?**

This section is divided into the following sections:

- Framework conditions for university research
- Examples of research that contributes to regional development

### **1.1 Framework conditions for university research**

In its development contract for 2005, the University of Aarhus pinpointed six research areas for special attention, viz.

- Globalisation
- Molecular medicine
- Nanoscience and nanotechnology
- Religion as a normative force
- Theoretical science
- The knowledge society

The University Board selected these research areas after consultation with the entire university. The selection reflects a desire to focus on both basic and applied research within a wide range of subjects as well as increased interdisciplinary work and strengthened collaboration with society at large. The priorities of a development contract, however, only reflect a small part of the academic scope provided by the University of Aarhus.

The business action plans for the local community – both the County of Aarhus and the Municipality of Aarhus – pinpoint research at the University of Aarhus as an important element in business development. It is the vision of the Municipality of Aarhus, for example, that a strong partnership between the labour market parties, trade organisations, educational institutions and the municipality should strengthen the companies' competitiveness and ensure that Aarhus becomes a leader in the development and use of technology. In its regional development strategy for East Jutland 2005–2015, the County of Aarhus has defined innovation and exploitation of the strong research environment in the region as one of its focus areas.

### **1.2 Examples of research that contributes to regional development**

#### **1.2.1 The Katrinebjerg IT Town**

The Katrinebjerg IT Town is an example of a competence cluster that is a result of close collaboration in the Aarhus Region IT Council between regional players such as the county, the municipality, private companies and the university. Within a very short time, the Katrinebjerg IT Town has gained a reputation both nationally and internationally, and has helped place business in the region in a strong position compared with other parts of Denmark, in terms of IT.

The Katrinebjerg IT Town includes the university's IT and media departments: the Department of Computer Science and the Institute of Information and Media Studies, the Alexandra Institute, including ISIS Katrinebjerg, a project hotel, the Centre for Advanced Visualisation and Interaction (CAVI) and a number of IT companies. The IT-Huset science park, extending over 10,000 square metres, will open in mid-2006, as an extension to the IT Ramp, currently located in the IT Town.

### **The Aarhus Region IT Council**

The Municipality of Aarhus and the County of Aarhus took the initiative to establish the Aarhus Region IT Council to facilitate maximum use of IT opportunities in the region. The IT Council consists of members from the municipality and the county, the University of Aarhus and other educational institutions, as well as professional organisations and a number of regional IT companies. The current focus areas of the IT Council are:

- The Katrinebjerg IT Town
- Creating a profile and awareness
- IT, nanotechnology and biotechnology
- Digital art and culture

The municipality and the county decided on these focus areas after studying similar projects abroad. Interdisciplinary working groups (think tanks) have been set up to develop the four focus areas. Previous focus areas of the IT Council were pervasive computing in schools; libraries and the health sector; and interactive buildings and public places.

### **ISIS Katrinebjerg and the Alexandra Institute**

ISIS Katrinebjerg was established in 2002 for a period of four years to create new knowledge and solutions via close research cooperation between the public sector and private companies in the following areas: interactive spaces, health sector IT and software.

A project fund of approximately DKK 100 million has been established under ISIS Katrinebjerg, of which public funds from the government, the county and the municipality amount to DKK 44.5 million and the funds contributed by private companies to DKK 43 million, which far exceeds expectations. These funds have been allocated to pervasive computing projects. The fund has facilitated the rapid establishment of research cooperation between public research institutions and private companies compared with traditional research funds that are often allocated after extensive application periods. A number of research projects have thus been established within the health and library fields, e.g. the hybrid library of the future.

ISIS Katrinebjerg comes under the auspices of the Alexandra Institute, a public research company that builds bridges between IT research and the business community. A project hotel was established under the Alexandra Institute in 2003, in which companies can work in close proximity to their research partners. A consultancy service has also been established where companies can purchase researcher expertise even if the subject is not actually research-related. In addition, the Alexandra Institute focuses on advertising and awareness, as well as researcher education. In its annual report for 2005, the Danish Innovation Council recommends that the Alexandra model be copied in four to seven similar centres within technology areas where Danish research is strong.

The 4-year funding of ISIS Katrinebjerg by the government, the county and the municipality will expire at the end of 2006. The current activities will be continued and developed during this period, and will continue after the current public funding ceases.

### **1.2.2 Aarhus University Hospital**

In the health science sector, the Aarhus University Hospital is at the centre of close cooperation between the regional authorities and the university, with the County of Aarhus responsible for the hospitals and the university responsible for education and research. The incorporation of Aalborg Hospital and Aalborg Psychiatric Hospital into the Aarhus University Hospital means that cooperation now also includes the County of North Jutland.

Extensive research takes place at the University Hospital, with total annual research funding amounting to approximately DKK 500 million, mainly from external sources. The extensive research at the University Hospital means that patients all over Jutland benefit from the expertise and specialisation available there.

An example of the external financing of university research in the health sector is the research fund of DKK 10 million created by the County of Aarhus, which is mainly administered by doctors associated with different research projects. In addition to the DKK 10 million, the county at times allocates extra funds to projects such as cancer research, etc.

In 1995, the Danish Ministry of Health took the initiative to establish the West Danish Research Forum for Health Science. In this forum, the regional hospitals and county representatives discuss and initiate regional health research such as disease prevention, clinical patient follow-up and occupational medicine. Over the last six years, a special programme for regional health research has distributed a total of DKK 20 million, matched by a corresponding amount in county finance.

The local Danish business community, represented by companies that include Arla and Danisco, is gradually becoming interested in cooperating with researchers at the University Hospital. The pharmaceutical industry is mainly located in and around Copenhagen, which of course facilitates cooperation with research institutions in that area. There is nevertheless close collaboration with other Danish and international pharmaceutical companies in several clinical and basic research areas. The major pharmaceutical companies spend a considerable amount of money on research in both Aarhus and Copenhagen.

The research by the university's Professor Jens Christian Djurhuus into children's involuntary bed-wetting is an example of a project that turned out to have commercial relevance. Professor Djurhuus contacted a firm in Copenhagen and proposed collaboration on this project, which resulted in a doubling of the company's turnover.

### **1.2.3 New spin-off companies**

In recent years, research at the University of Aarhus, especially in the health and science fields, has resulted in a number of spin-off companies. Many of these companies were established under the auspices of the University Hospital and/or one of the three science parks that provide access to highly sophisticated machinery and equipment. This set-up enables the companies to operate in a kind of incubator state until they are ready to establish a solid footing or be sold.

The idea of a science park in Aarhus arose in 1984. After two years of work on the project, the Aarhus Business Contact Committee and a number of interested companies, institutions and organisations established a limited liability company called Forskerpark Aarhus A/S in 1986, and this currently has three departments:

- Science Park Aarhus located at Gustav Wieds Vej, near the university, was built between 1986 and 1997. It is an interdisciplinary science park with companies and research departments covering subjects that range from IT and electronics to biotechnology and medicine.
- Science Park Skejby is associated with Skejby Hospital and Aarhus University Hospital. It opened in 2004 and is the first Danish science park dedicated to biomedical research.
- The IT Ramp at the Katrinebjerg IT Town opened in 2000 and is dedicated to IT companies. The IT Ramp is a precursor of the IT-Huset science park, scheduled to open in mid-2006.

The Aarhus University Research Foundation has been a main contributor to all three science parks.

Forskerpark Aarhus A/S is a shareholder in Forskerpark Foulum A/S. The latter is responsible for the daily running of the Agro Business Park that provides knowledge and advice on matters involving agriculture and

foodstuffs. Forskerpark Aarhus A/S also contributes in the capacity of shareholder for the construction of the IT “greenhouse” at the IT University of Copenhagen (ITU) in the suburb of Ørestad.

The university has taken different measures of a financial and advisory nature to help the spin-off companies get off their feet. These include the Patent and Contract Unit at the University of Aarhus, which is responsible for the preliminary processing of patentable research findings at the university, including findings that could potentially form the basis for new spin-offs.

The Aarhus University Research Foundation is able to finance research projects with commercial potential at a very early stage. Østjysk Innovation A/S has the capacity, also in the very early stages of the commercialisation of a research project, to offer both finance and guidance to some of the most promising ideas. The purpose of Østjysk Innovation A/S is to invest risk capital in new, innovative and primarily research-related businesses and to make knowledge, expertise and administrative services available to the companies in which it invests. Østjysk Innovation was established in 1998 with the help of funds provided by regional and local authorities and later also with state funding after having been approved by the government as an innovation environment.

INCUBA can be described as the third step in the commercialisation of the university’s research. The purpose of this company is to coordinate and strengthen initiatives for the commercial use of research findings and the development and growth of small and medium-sized enterprises (SMEs) in East Jutland. This is achieved in collaboration with state and regional authorities, research and cultural institutions, as well as the business community. INCUBA’s investment activities include the supply of seed funds and venture capital to innovative companies. INCUBA A/S is a shareholder in Østjysk Innovation, Forskerpark Aarhus A/S and the forthcoming IT science park, Katrinebjerg A/S. INCUBA participates in government-approved innovation environments, development companies and funds, as well as in science and development parks. In 2002, INCUBA Venture was established as an investment fund for new research-oriented and commercially based companies. Contributors to the fund were INCUBA A/S, Business Development Finance, Danske Bank and Nordea and, at a later stage, Industriens Pensionsforsikring A/S and the Danish Labour Market Supplementary Pension. The investment activities of INCUBA A/S are channelled through this fund, which focuses on IT/communication, biotechnology/medical technology and foodstuffs. In addition to providing finance for potential companies, INCUBA monitors the growing companies very closely by being represented on the boards, for example.

#### 1.2.4 Religious diversity

In the area of theology and religious science, a research project resulted in a dialogue between the Municipality of Aarhus and different religious groups in the city. In this context, the university functioned as a neutral platform on which a dialogue could take place. In the long run, this may have an impact on the integration process in Aarhus.

Professor Viggo Mortensen from the Faculty of Theology is director of the Danish Pluralism Project, an academic research project that aims at documenting the increasing religious diversity in Denmark. The book *Religiøs mangfoldighed. En kortlægning af religion og spiritualitet i Århus* (Religious Diversity. The Mapping of Religion and Spirituality in Aarhus) was published in May 2004. The mayor of the Municipality of Aarhus and different religious groups in the city were invited to the launch of the book. This meeting between religious groups and the political system, which took place on the initiative of the university, became the start of a dialogue between the city’s politicians and religious groups.

The Pluralism Project continues to carry out its mapping of the religious development of Danish society. So far, books have been published about Buddhism in Denmark (Jørn Borup: *Dansk Dharma 2005*) and about Christianity (Viggo Mortensen: *Kristendommen under forvandling 2005*). Staff working on the project are available for lectures or as consultants for groups and congregations in the region that are affected by the increasing religious diversity. In addition, the project has resulted in an approach by a college in the region that would like to be involved in a similar survey.

It is expected that the project from now on will lead to sharing knowledge about religious diversity with upper secondary schools and colleges, and the university also has an ongoing dialogue with the Municipality of Aarhus, 3rd department, about boosting the collection of knowledge about this subject and teaching it to municipal staff working in the social and health sectors.

The inspiration for the project comes from abroad, including Harvard University in the USA, where multireligious studies were carried out many years ago. It has turned out that there is also a need in Denmark to assess the importance of this demographic change, a fact that raises questions about the monopoly position of the Church of Denmark.

### **1.2.5 Evaluation of artistic quality**

Another example of the impact university research can have on regional development is the university's planning of a model for evaluating artistic quality at the city's cultural institutions. In this case, the Municipality of Aarhus has entered into an agreement with the Danish Ministry of Culture, and one of the purposes of the agreement is the evaluation of the cultural institutions. The university has developed an evaluation model for the municipality.

Professor Jørn Langsted is known for his participation in debates on cultural issues. Following the publication of the municipality's cultural agreement with the ministry, he contacted the Municipality of Aarhus on his own initiative, offering to develop a model for the evaluation of artistic quality. The project was to a large extent financed by the municipality and the state, as funds had been allocated for this purpose in the municipality's cultural agreement. This type of collaboration is unusual in the sense that it was the university that took the initiative.

*Ønskekvistmodellen* (the divining rod model), as the evaluation model is called, is now ready for use by the municipality's arts councils. It is likely to have an impact on how funds are allocated to the different cultural institutions and indirectly on the quality of the city's cultural activities. The evaluation model was published at a conference hosted by the university, and on other occasions. The project has also resulted in two books, including a handbook about the model and a web site that publishes information about practical experience with the model.

### **1.2.6 PhD in Business Administration**

There is a growing need for highly qualified staff with specialised knowledge in both large private companies and government organisations. In recent years, the Faculty of Social Sciences has therefore introduced the first specialised PhD business projects in collaboration with external business partners from both the private and the public sectors, which have also contributed to the funding.

An example of an actual business-oriented PhD project is the employment by Bang & Olufsen of a PhD student who will work for a period of four years alternately at the company's development department in Struer and at the university's Department of Psychology. This research project involves the use of advanced technology sound, image and communication equipment. This is a brand new approach to the issue of how to operate a piece of equipment – intuitive operation, where the operation of even highly sophisticated equipment becomes easy, convenient, effective and part of the aesthetics. The project therefore involves a mix of technology, design and psychology.

Students doing a PhD in Business Administration are not a phenomenon restricted to the social sciences field – it is a model that has frequently been used, especially in the fields of science and health science. It is stated in the development contract that the University of Aarhus wishes to increase the number of students doing a PhD in Business Administration.

### **1.2.7 Centres**

The University of Aarhus has a number of centres. Research is increasingly based on collaboration – regional, national and international. At the same time, there is an increasing need to attract more attention to certain research areas. This is mainly due to the fact that in the last two to three decades, grants for university research have increasingly been allocated via the inbox in the different ministries – based on applications from individual researchers or groups of researchers. It has therefore been logical and necessary to establish units that concentrate on the type of research for which funding is being sought or granted, and often for a limited period.

Centres similar to departments exist at the Faculty of Science, the Faculty of Humanities and the Faculty of Social Sciences. An example is the Danish Centre for Studies in Research and Research Policy at the Faculty of Social Sciences. One of the themes being studied at this centre is the importance of research and development in business. On 1 January 2004, the Danish Institute for Studies in Research merged with the Danish Centre for Studies in Research and Research Policy.

All five faculties have centres with the status of department, project and/or collaboration forums.

## **2. How do training and education at the university contribute to the regional labour market?**

This section contains a description of the following subjects:

- The regional labour market
- New degree programmes and further development of existing degree programmes
- Information and communication technology in teaching
- Practical training and transfer of credits
- Recruitment – marketing
- Students as regional labour
- Continuing and further education

### **2.1 The regional labour market**

According to the University of Aarhus development contract for 2005, the university intends to work systematically to adapt the degree programmes to suit the current and future needs of the labour market. This also applies to the regional labour market.

The university has an ongoing dialogue with its traditional target market: mainly upper secondary schools and hospitals in the public sector. The market is changing, however, and more graduates from the science and arts faculties, for instance, now find employment in the private sector, which does not have the same tradition for dialogue with the university about the content and quality of the degree programmes. On the initiative of the University of Aarhus, advisory panels will be established at all faculties and within all disciplines in the near future to ensure communication with the labour market about the content and quality of the degree programmes.

A considerable number of graduates in the Aarhus region – compared with other regions in Denmark – find employment in the public health sector. Many graduates from the Faculty of Health Sciences find work at regional hospitals, not just the Aarhus University Hospital, but all the hospitals around Denmark, due to the rota system. The Faculty of Social Sciences also provides many graduates for administrative and management jobs in the public sector and large private companies, and many therefore end up in Greater Copenhagen. In the IT industry, on the other hand, there are numerous job opportunities in Aarhus, and many IT graduates therefore remain in the area.

### **2.2. New degree programmes and further development of existing degree programmes**

The university's development contract for 2005 states that the university will endeavour to ensure that the offered degree programmes provide the students with relevant, up-to-date and far-sighted skills profiles. The university will also endeavour to make these skills profiles more recognisable by both the graduates and the labour market. The skills profiles will be updated on a regular basis.

In addition to working on skills profiles, the university has cooperated with other educational institutions in the region to create a number of new degree programmes.

#### **Graduate engineers**

The graduate engineer programmes are examples of degree programmes that have been established in response to a regional need.

Graduate engineers have had a positive impact on business development and employment in the region. The regional business community as well as public authorities have therefore been calling for regional graduate engineering degree programmes for years. This led to the Centre for Applied Sciences being established in 2002 by the University of Aarhus and the University College of Aarhus. A new development is representatives on the board from both the county and the municipality, as well as private companies, which ensures that the degree programmes match regional needs.

Together with the Herning Institute of Business Administration and Technology (HIBAT), the University of Aarhus has applied to the Danish Ministry of Science, Technology and Innovation and the Ministry of Education for HIBAT to be incorporated into the University of Aarhus with effect from 1 January 2006. The main purpose of this merger is to contribute to regional development in Central and West Jutland. This will be achieved by consolidating and further developing HIBAT's experience with business-oriented studies and collaboration with private companies, and by combining this tradition with the university's research and academic degree programmes at a high international standard.

### **Physical Education and Sport**

The university's degree programme in Physical Education and Sport was also created in response to a regional request. As previously mentioned, there is a long-standing tradition for collaboration with upper secondary schools in the region, partly due to the fact that teachers at these schools are often former students of the University of Aarhus. The degree programme in Physical Education and Sport, which was established in 1997, was a result of this dialogue between the university and the upper secondary schools.

### **Nanotechnology**

A number of interdisciplinary degree programmes such as nanoscience and nanotechnology have been established at the university. The Interdisciplinary Nanoscience Centre, iNANO, was established in 2002. iNANO is based on collaboration between researchers in physics, chemistry, molecular biology and medicine. Within a short period of time, the centre has established a complete degree programme in nanotechnology at both Master's and PhD level. Nanotechnology research is carried out jointly by the University of Aarhus and Aalborg University. The government's action plan for nanotechnology mentions the creation of two power centres. The iNANO centre at the University of Aarhus has the potential to become one of these Danish power centres.

### **Arabic**

The university's Faculty of Theology and the Aarhus School of Business plan to offer a joint Bachelor degree programme in Modern Arabic and Business Communication to meet the obvious need in the Jutland area for education in one of the most widely used immigrant languages in Denmark.

### **Entrepreneurship**

The business community and public authorities in the region are calling for more entrepreneurs. Several years ago, the County of Aarhus therefore took the initiative to offer courses in entrepreneurship to university students. The Centre for Entrepreneurship was subsequently established as an interdisciplinary initiative between a number of HEIs in Aarhus, the County of Aarhus and the Municipality of Aarhus. The objective of this centre is to support and develop an entrepreneurship culture at the institutions. Since 2004, the centre has formally been a part of the University of Aarhus, but it is still dependent on financial support from the County of Aarhus, the Municipality of Aarhus and other local educational institutions that take advantage of the courses offered by the centre.

The University of Aarhus is a member of IDEA (International Danish Entrepreneurship Academy), a nationwide academy with a focus on entrepreneurship.

### **IT University West**

IT University West is an education and research collaboration scheme between the University of Aarhus, the Aarhus School of Business, the University of Southern Denmark and Aalborg University. The IT University West scheme was established in 1999 to increase the range of IT courses available in Denmark. IT University West offers courses within a wide range of IT-related areas from system analysis, design and construction to organisation, finance, teaching and management. IT University West can be likened to a virtual university that coordinates IT courses at the universities.

### **2.3 Information and communication technology in teaching**

The University of Aarhus wishes to promote information and communication technology (ICT) and ensure the availability of sufficient ICT skills to meet the education and training needs of scientific and technico-administrative staff. The university has established a central e-learning unit for that purpose, where university staff can get guidance and inspiration to include ICT in their teaching programmes. The aim is to maximise the use of ICT to support, streamline and enrich the learning process. E-learning in this context is interpreted as any IT support to teaching and learning. The e-learning unit offers access to a shared e-learning platform for the entire university, where teachers can create web pages for use in their course programmes.

### **2.4 Practical training and transfer of credits**

A number of initiatives have been taken to increase the amount of contact the students have with the business community and to make the business community aware of the skills the students possess. These initiatives were taken by both the university itself and local and regional authorities.

In the development contract for 2005, the university has stated as a goal that all curricula must allow the transfer of credits. This option and the extent to which it is currently practised varies considerably from one degree programme to another.

Practical experience/clinical training has been incorporated into the study of medicine as early as the third year, and with 365 students per year, this means a considerable number of students who have to undergo clinical training in the course of their studies. It is therefore not possible to carry out all the clinical training at Aarhus University Hospital. The students therefore receive training at hospitals all over Jutland to the great satisfaction of the hospitals, which are short of staff. The Faculty of Health Sciences has even approached the Faeroe Islands and Greenland to organise clinical training.

Projektzone.dk was established on the initiative of the University of Aarhus and the Aarhus School of Business, and financed by the County of Aarhus and the Danish Ministry of Science, Technology and Innovation. Projektzone.dk facilitates practical work experience or project collaboration between students at the university and the school of business and private companies. Two staff members have been attached to Projektzone.dk, and their contracts will continue until 1 April 2006 at least. They develop the digital dialogue and contact companies and students to promote collaboration and assist with working out a framework for that collaboration, including quality assurance.

Both local and regional authorities work on strategies to strengthen regional business via closer collaboration between students and private companies. This is one of the stated goals in the municipality's action plan. Within the framework of the Jutland-Fyn Business Cooperation Scheme, the regional authorities have initiated a pilot project to increase the ratio of staff with tertiary education in companies in the Jutland-Fyn business community to improve the competitive strength and growth potential of these companies. The pilot project was launched in 2004 and will be completed in 2005. Business Contact and the Faculty of Humanities participate as representatives of the University of Aarhus.

Many students are already very career-focused at an early stage of their studies and would like to be involved in planning them, preferably with the option of obtaining credits for practical training and transfer of credits from examinations in other subjects and studies at other educational institutions. The university is experiencing an increasing demand for credit transfers. The students, however, experience varying conditions for approval of courses taken at other faculties.

The students are becoming increasingly focused on the kind of job their studies will eventually lead to. A growing number of students in science degree programmes thus join research groups that cooperate with private businesses, and their emphasis is on applied research.

## **2.5 Recruitment – marketing**

The faculties use both centralised and decentralised means to recruit new students.

The team of student counsellors was created in 2000 and mainly consists of specially trained counsellors who participate in trade fairs and make themselves available for open house events. These counsellors are trained and employed by a planning group consisting of representatives from the faculties and the University Studies Office. In the last five years, the university has participated in an increasing number of trade fairs and similar events.

U-days are an example of a joint marketing initiative directed at potential students. In 2005, 24 HEIs in Aarhus got together for the first time to organise an open house programme that lasted three days. The individual institutions had their own open house arrangements, and joint interdisciplinary presentations for potential students were held at the sTUDENTERHUS ÅRHUS student house.

The extent of decentralised recruitment by the faculties varies according to need. The health science degree programmes are in great demand and there is therefore not much need for marketing. On the other hand, considerable effort is being made to draw attention to the science degree programmes. A number of different offers are available to upper secondary school students, including visits and work experience. The IT Town has received DKK 250,000 from state gambling funds to recruit more female students to IT studies.

## **2.6 Students as regional labour**

There are many students in the city of Aarhus, and a large proportion of them have some kind of job during their studies. Student labour is therefore important to the regional labour market.

This is equally true of the highly structured labour market for medical students at regional hospitals and for students doing casual jobs as cleaners or municipal home care workers during the summer holidays. Almost all computer science students have IT-related jobs during their studies. Humanities students increasingly set up their own consultancy businesses, and theology students work as assistants to clergymen, etc.

## **2.7 Continuing and further education**

In the early 1980s – in the middle of Denmark's economic crisis – the University of Aarhus made its first attempt at establishing an open university course called Jysk Aabent Universitet (Jutland Open University) along the lines of the British Open University. The idea originated in the Department of Comparative Literature and was based on collaboration between the Faculty of Humanities at the University of Aarhus, the Faculty of Humanities at the Aalborg University Centre (AUC) – now Aalborg University, and the South Jutland University Centre (SUC) – now the University of Southern Denmark. This initiative aimed at addressing geographical and social imbalances in obtaining access to further education.

The university now offers continuing and further education in the form of a number of diploma courses at all faculties, comprising Master's and diploma degree programmes as well as single subjects on a part-time basis.

The labour market's increasing demand for staff with tertiary qualifications has created a need for more Master's Degree programmes. This applies to the CVU (Danish Centre for Higher Education) area, for example, where health professionals request more qualifications. For a number of years, both the Faculty of Humanities and the Faculty of Health Sciences have offered Master's degree programmes for health professionals (Master of Humanities and Health Studies, Master of Rhetoric and Communication, Master of Health Anthropology, Master of Clinical Nursing, Master of Public Health).

The University offers a Master's degree in Ethics and Value in Organisations, which is currently very much in demand due to the changes taking place in the amalgamation of local government in Denmark. This amalgamation, on the other hand, is the reason that a Master's degree in Cultural Heritage and Landscape Analysis for environmental staff in the counties was not implemented as planned.

The Faculty of Health Sciences offers a Master's degree in Social Integration, an interdisciplinary field that spans psychology, sociology, pedagogy, anthropology and social theory.

There is an ongoing dialogue with the upper secondary schools about the upper secondary school reform and other matters. As a result, the university offers upper secondary school teachers a number of continuing education courses in science subjects as well as humanities, including the history of religion. In IT, the Alexandra Institute has offered a number of courses for the business community, but IT companies do not have a habit of supporting continuing and further education for their staff. For the first time, the courses are advertised in the Danish Technical Institute course catalogue, which is distributed to 8,000 potential IT course participants. In general, there are many courses in the region at which university researchers act as lecturers.

Many people have expressed the opinion that within continuing and further education, there is considerable potential not yet being fully used.

### **3. How does the university contribute to the social, cultural and environmental development of the region?**

This section contains a description of the following subjects:

- Social and socio-economic development
- Cultural development
- Environment and sustainable development

#### **3.1 Social and socio-economic development**

Aarhus is a city for young people and has more than 40,000 students, about 50% of whom study at the University of Aarhus. Aarhus has a rich educational environment and a vibrant student community. The city has more than 25 educational institutions offering in excess of 130 different programmes of higher education. Each year, a new group of young people arrives full of energy, initiative and drive. The many students in the city have a positive influence on the local atmosphere and contribute to making Aarhus a dynamic urban society.

The city has the highest student concentration per cent of any Danish city. About 12% of all residents are students attending courses of further education. In addition, more young people aged 17–24 have chosen to settle in Aarhus than in any other city in Denmark.

The city's strong education sector attracts an increasing number of foreign students and researchers, and thus contributes to its international profile. In 2004, 405 students from the University of Aarhus went abroad to study at a foreign university, whereas 511 foreign students studied at the University of Aarhus.

The International Student Centre (ISC) receives support from bodies including the University of Aarhus, and endeavours to provide good conditions for foreign students during their stay in Denmark. The centre arranges outings, parties, study-related events, etc., and assists with advice when the foreign students arrive in Denmark. “Staff & Postgrad Network” offers PhD students and visiting researchers an opportunity to meet like-minded people at cultural and social events. ISC has been located at the University of Aarhus since 1975.

In 1989, the University of Aarhus established the International Secretariat, which currently handles a wide range of tasks in connection with the university’s increasing international involvement.

In 2004, the sTUDENTERHUS ÅRHUS was opened in the old customs building in the port of Aarhus. This student house organises social and cultural events for and by students. These include music events such as live concerts and dances, lectures and debates, educational and work events such as u-days, company dating and poetry slam – to mention but a few.

sTUDENTERHUS ÅRHUS is also home to the ErhvervsCentrum business centre, the Aarhus Hall of Residence Office, the Congress Bureau, Vækstværk, Projektzone.dk, Moment, the Student Radio and students writing their thesis. This one building is therefore a centre for Danish and international students as well as business and culture. The sTUDENTERHUS ÅRHUS is a place where students can meet regardless of nationality and degree programme, and make contact with the business community.

It has become easier for students to find accommodation in Aarhus in recent years. The municipality guarantees accommodation for new students who move to Aarhus to start a programme of higher education. There are approximately 8,500 youth residences – rooms in halls of residence and housing subsidised by the municipality.

Students in Aarhus qualify for a number of special discounts. The individual degree programmes enter into special agreements with retailers in the city. For further tips, see the new education portal at [www.uddanaarhus.dk](http://www.uddanaarhus.dk). sTUDENTERHUS ÅRHUS gives high priority to cultural arrangements for students, and collaborates with several of the city’s cultural institutions within the fields of music, theatre, film and sport.

Students in Aarhus have the opportunity to both give and receive advice and guidance in various contexts. The university has an affiliated student clergyman, psychology students offer assistance at reduced rates, law students are associated with the city’s legal aid service and have recently opened their own office with free legal aid, and students from the University of Aarhus assist refugees and immigrants in the suburb of Gellerup with their homework, free of charge.

The university and the city’s other educational institutions attract many students and also provide numerous workplaces in the region. The business community in the city of Aarhus and the surrounding areas also benefits from the wide range of educational programmes available, as they produce an abundance of skilled labour in many different fields.

The University of Aarhus has a prominent position close to the city centre, and the campus with the University Park provides a recreational area for city residents.

The university also has an impact on local planning and urban renewal in the area – in recent years, the university has expanded with the construction of the Nobel Park and the Katrinebjerg IT Town.

### **3.2 Cultural development**

Within creative circles, the students play an active part in promoting art and culture. The high turnover of young people who are active within art and culture is one of the characteristic features of Aarhus. The many students ensure dynamic creativity, as both active contributors and consumers in the city’s cultural life, and thus help to keep it alive.

The Faculty of Humanities offers degrees in Aesthetics and Culture, Dramaturgy, Art History, Comparative Literature and Music Studies, the first two of which are only available in Aarhus.

The students also play important roles in sport and physical education, both as active players at all levels and as instructors in different local sports associations.

The university has a sports club called Aarhus Universitets-Sport (AUS), which offers a wide range of sports and activities, including a fitness centre for students. The University of Aarhus also has its own fitness centre for its employees.

A considerable number of student organisations are associated with the University of Aarhus, and the university offers a number of cultural activities such as the Aarhus University Choir, the Aarhus Students' Film Club, and more. The Student Council works with social issues and student policy issues applying to all the faculties. AIESEC works with exchange students in 90 countries, and other student organisations associated with specific subjects or fields also organise activities of a professional or social nature.

A number of museums in Aarhus have a special connection with the University of Aarhus. These include the Moesgaard Museum with 132,816 visitors to the museum and its events (72,896 of whom to the museum); the Museum of Ancient Art with 2,907 visitors; the Steno Museum with 35,317 visitors; and the Natural History Museum with 52,597 visitors in 2003. These museums carry out research in close collaboration with the university and communicate about research results on an ongoing basis. The current *Viking Aros* exhibition at Moesgaard Museum is an example of such research, and led to the discovery that Aarhus is 200 years older than previously believed.

The university's greenhouses in the Botanical Gardens are among the city's many sights. In 2003, the number of visitors was approximately 70,000. Some of the plants are research collections that researchers and students at the Department of Biological Sciences use in connection with the mapping of tropical flora.

The Orion Planetarium at Jels in South Jutland is run in close collaboration with the Faculty of Science and the Steno Museum. The University of Aarhus intends to use the Orion Planetarium as a venue for communication about science-related topics with an emphasis on South Jutland, in cooperation with cultural and educational institutions as well as cultural associations in that area.

University of Aarhus graduates and staff are represented on many company boards and in many associations of importance to the development of Danish society, at local, regional and national level. The university is thus represented on the boards of most of the cultural institutions in Aarhus, including ARoS Aarhus Kunstmuseum and the Old Town (the Danish national open-air museum of urban history and culture).

Researchers and lecturers from the university also contribute with their special knowledge to different cultural events. A theology professor thus spoke before the performance of *The Legend about the Three Rings* in Maarslet Church, and a PhD student of Art History is making a presentation about modern Chinese art in connection with the current *Fairy Tales Forever* exhibition at ARoS Aarhus Kunstmuseum.

University staff also participate in and contribute to debates on current topics in the media.

An example of a staff member who has been active in the public debate about the Danish economy is Professor Torben M. Andersen at the School of Economics and Management, former senior economic adviser and currently chairman of the Danish Welfare Commission.

The People's University in Aarhus also collaborates with the University of Aarhus. The People's University organises special courses and lecture series that give everybody – regardless of educational background – an opportunity to get a glimpse of the world of research, and information about the current status of the different branches of science. In 2003, there were 266 classes with a total of 9,191 participants. The tendency is for

more and more people to become personally responsible for their continuing and further education, and in future, the people's universities can play an important role by offering relevant courses.

The University of Aarhus also collaborates with the People's University at Skærum Mølle in West Jutland.

Research publications and journals play an important role in disseminating research results. The Aarhus University Press also publishes material including books that help bridge the gap between the research environment and the public. *Univers* is an example of a book series that disseminates difficult material in an accessible and entertaining way, making the material suitable for the general public. The Aarhus University Press publishes approximately 60–70 new books every year.

*Forskningens Døgn* (Research Day and Night) took place for the first time on 1 May 2005, and is another example of disseminating research to the public. This was a nationwide event and the University of Aarhus participated with a large number of activities for children and adults.

In connection with the Aarhus Festival Week, the Steno Museum organises "Nature in a Tent" comprising experiments, games, talks and shows for children and young people.

### **3.3 Environment and sustainable development**

The university plays a role in the region's environmental development in many different ways. One example is the close collaboration over a number of years between the County of Aarhus and the Department of Earth Sciences, Geophysics at the University of Aarhus. This collaboration is a result of personal relations and has been very important to geophysics research at the university. It has even influenced legislation about groundwater protection.

A network has been established that includes representatives from all Danish counties and their consulting engineers. In the context of this network, the university organises courses for environmental staff in the counties as well as the consulting engineers to ensure correct implementation of agreed methods. As a result of the amalgamation of local government currently taking place in Denmark, the university expects that future environmental staff will also have to attend the courses it organises.

In the mid-1990s, when the Municipality of Aarhus expected problems with the water supply in one part of the city, the County of Aarhus recommended that the municipality cooperate with the university to develop a method for mapping the drinking water areas. The municipality granted the university DKK 18 million for this purpose. Over the years, the mapping method has been perfected, and the university has recently been inspired by the USA to develop measuring equipment for a helicopter – Skytem – which is used to map groundwater resources from the air.

The mapping method developed by the university has created about 200–250 regional jobs. The local engineering companies have extended their environmental departments to cope with county demand for consultancy services along the lines recommended by the university. Several Danish companies have been established in that field, e.g. Dansk Geofysik, now incorporated into Hedeselskabet. A company has also been established around Skytem, which is considered to have great potential.

Via the county, the university was also involved in a water problem on the island of Samsø. The result is an excellent system for dividing water consumption between drinking water and water for commercial use, taking the island's limited water supply into consideration.

## **4. What does the university do to promote regional cooperation?**

The purpose of this section is to identify ways and means to ensure collaboration between the university and the region.

The section is divided into four parts with the following headings:

- Framework conditions for capacity increase
- Collaboration forums
- Financing
- Development opportunities

### **4.1 Framework conditions for capacity increase**

Innovation and knowledge are important prerequisites for the development of a region, which is apparent from the regional development strategies of both the Municipality of Aarhus and the County of Aarhus. These strategies support the work of the university.

### **4.2 Collaboration forums**

Researchers and other staff at the university participate in extensive dialogue with society at large and thus also with the region at both formal and informal levels.

At a formal level, the university participates in Aarhus University Hospital, a scheme that involves collaboration between the Faculty of Health Sciences and six hospitals in Aarhus and counties in North Jutland. The University of Aarhus also participates in the Jutland–Fyn Business Cooperation Scheme and in the Aarhus Region IT Council. This scheme contributed to making the Katrinebjerg IT Town a reality. At the formal level, there is also a dialogue between the university and upper secondary schools, partly as a result of the university's presence on the upper secondary school boards. In general, many university researchers work as board members in many different contexts, including cultural organisations where the university participates as a member of different museum and theatre boards in the region. There is also a considerable amount of informal dialogue with the upper secondary schools and private companies, partly through contact with former students.

The University of Aarhus collaborates with other education and research institutions in the region including the Foulum Research Centre under the auspices of the Danish Institute of Agricultural Sciences, the Danish Centres for Higher Education (CVUs), etc. In future, collaboration between educational institutions at all levels will be essential to ensure a coherent education system in the region.

As far as the individual degree programmes are concerned, the university has established a number of advisory panels to facilitate a dialogue with the labour market about the content of the programmes. A representative of a large company in the region has expressed satisfaction at being a member of the advisory panel for the Faculty of Humanities. This leads to meaningful debates and greater understanding on both sides. These advisory panels are still in their infancy, however. In the science area, representatives of the regional labour market are members of the boards of the Centre for Applied Sciences and the iNANO Centre engineering degree programmes.

In recent years, there has been a considerable increase in the number of students undertaking work experience in private companies. The university's development contract states as one of its objectives the incorporation of the principle of credits for work practice into more degree programmes. In cooperation with

the Aarhus School of Business and with the help of funds from the county, the university has established Projektzone.dk with a view to providing an interface between students and the business community.

The Alexandra Institute at Katrinebjerg has contributed in several ways to a dialogue between university researchers and the regional business community. Most of the board members are representatives of private companies. In addition to its facilities for joint projects between researchers and companies, the Alexandra Institute has established a project hotel where companies and researchers can meet for short periods of time to develop joint projects. A number of research environments are using the idea of project hotels. A consultancy service has also been established under the auspices of the Alexandra Institute, where companies can purchase advice.

The dialogue between researchers and companies in the region is largely based on personal relations and networks, and mainly consists of contact with large companies with their own research departments. Within the framework of the Jutland–Fyn Business Cooperation Scheme, the university participates with other universities in the Jutland–Fyn area in the “Researcher Contact” scheme that primarily aims at facilitating contact between the university and SMEs in the region. It is expected that the university’s formal collaboration with the University College of Aarhus and the Herning Institute of Business Administration and Technology (HIBAT) will contribute to further contact with SMEs in the region.

The rector of the University of Aarhus is represented in the newly established Growth Forum for the future Central Jutland Region, and the university hopes that this will lead to dialogue with the authorities and influence regarding future business development in the region.

### **4.3 Financing**

The Aarhus University Research Foundation is a very important contributor to university research and the construction of new buildings such as three science parks attached to the university and the IT Town. The IT-Huset science park at Katrinebjerg will open in mid-2006. This science park has been financed by the university’s own research foundation as well as the County of Aarhus and the Municipality of Aarhus.

The Aarhus University Research Foundation subsidises research at the University of Aarhus. Østjysk Innovation A/S and the INCUBA venture company provide financial and other advice regarding research projects in the process of commercialisation, and they both keep a close eye on aspiring companies. Combined with the science parks, they contribute to strengthening the potential for spin-off companies in the region.

The municipality and/or the county have helped finance a number of projects that provide an opportunity for building up the capacity for collaboration between the university and society at large. Business Contact at the University of Aarhus is an example of such a project. It was established in the summer of 2003 with the help of considerable finance from the County of Aarhus for a four-year period. The main purpose of Business Contact was to provide one single means of access to the university for those parts of the business community that are not already in contact with the university or familiar with its structure. Business Contact thus acts as a supplement to existing contacts. Business Contact organises a number of activities to utilise the university’s knowledge, including meetings, network activities, conferences and introductory meetings with companies, the business promotion system and other “ambassadors”. Business Contact is also responsible for any contact made under the “Researcher Contact” scheme within the framework of the Jutland–Fyn Business Cooperation Scheme. In accordance with the aims of the Researcher Contact scheme, Business Contact is involved in applications and is active within the network.

The Jutland–Fyn Business Cooperation Scheme has also provided a number of IT skills centres in the Jutland–Fyn area, including ISIS Katrinebjerg, by granting funds for research projects involving collaboration between private companies and researchers. This fund of approximately DKK 100 million, of which 50% is funded by the private business community, has made it possible to establish collaborative research projects much faster than normal.

In general, the university's external financing has increased considerably in recent years. This is true for both educational activities and research. Jointly financed grants are thus expected to become much more common in the future. The extent of external financing varies greatly between faculties, however. The Faculty of Science and the Faculty of Health Sciences in particular rely heavily on external finance.

#### **4.4 Development opportunities**

Denmark's first science park was established at the University of Aarhus in the 1980s, and since then, collaboration between the university, private companies and regional/local authorities has increased, especially in the fields of science and health science. Interdisciplinary collaboration and joint projects with the business community have since become more acceptable in terms of both legislation and content. The view among university researchers is that collaboration between the university and the region is still in its infancy in many areas and will develop over time. The business community also carries a responsibility in this context to ensure it is open to using new knowledge and commercialising research results. Research collaboration is highly dependent on personal relations in the form of participation in various networks or contact with former students. In some areas, this collaboration is the result of a conscious effort by the university.

It is primarily the Faculty of Science and the Faculty of Health Sciences that cooperate directly with private companies and public authorities. The Faculty of Humanities does not have the same opportunities and traditions, but has nevertheless recently started collaborating with a consultancy firm about disseminating knowledge to companies via short tailor-made courses. The County of Aarhus finances the scheme, so there is hope that with time, the humanities disciplines will also take part increasingly in a dialogue with the business community and public authorities in the region.

In the field of social sciences, the opportunities for dialogue will increase as a result of the government's decision to establish a municipal evaluation institute under the auspices of the University of Aarhus in connection with the forthcoming amalgamation of local government.

Initiatives such as the Centre for Entrepreneurship and Business Contact are often subsidised by the municipality or the county and reflect the way in which public authorities mainly allocate funds. Funding is typically allocated for a number of years at a time and often in support of sustainable new projects to help them survive until they can function independently. The problems arise when this support runs out, and the projects must either become self-supporting or be integrated into the organisation.

It can be difficult to distinguish many of the projects from each other, including those initiated by the Jutland-Fyn Business Cooperation Scheme. Many parties have expressed the wish that projects with similar content should instead be combined to enable a concentration of the funds.

An interdisciplinary approach is one of the key terms in the university's development contract with the ministry for 2005. New degree programmes will be established in the coming years, including a Bachelor of Modern Arabic and Business Communication, which will be a joint effort by the university and the Aarhus School of Business. In some places, financial issues and organisational structure are barriers to an interdisciplinary approach. This approach is nevertheless becoming increasingly common and has resulted in several new degree programmes.

The division of the education system into Bachelor's and Master's degree levels gives the university some new opportunities and challenges. The university can work with the business community to increase the demand for graduates with a Bachelor's degree who go back to university to complete a Master's degree targeting labour market needs after working for several years. This will result in an exchange of knowledge between the university and the business community. There is a general awareness that students who complete a Bachelor's degree at the University of Aarhus often go to Copenhagen or abroad to complete their Master's degree if other universities offer better conditions.

It is the interplay between the university and society at large that fosters renewal and innovation. It is important to bridge the gap between the university and society to ensure increased mutual exchange of

knowledge. This can be done in many ways, such as work experience for students, increased employment opportunities for graduates with Bachelor's degrees and Master's degrees who think of becoming entrepreneurs rather than employees. It is important in this context that companies become less hesitant to employ highly educated people with an unusual profile. With a labour market in which creativity, flexibility and collaboration are becoming increasingly important, strong professional skills need to be matched by strong personal skills.

The Katrinebjerg IT Town is one example of the many initiatives that resulted from collaboration between the Municipality of Aarhus and the County of Aarhus about a development strategy for the region. As a result of the amalgamation of local government, the University of Aarhus will in future cover a larger geographical area, which will more clearly regard the university as its own, and thus become more involved in its work. The amalgamation of local government may also result in county finance being spread over a larger area and regional development being concentrated in outlying areas.

The future Central Jutland Region will thus present a number of new challenges and opportunities for the university, especially due to the education and business structures of the new region, characterised by a high level of education at HEIs available mainly in the eastern part of the region. On the other hand, the western part has many entrepreneurial SMEs. The university and other regional bodies will be responsible for regional coherence. Some of the future roles of the university may involve supplying qualified labour, determining the development agenda, defining the region's image and contributing to collaboration between the private and public sectors about innovation. It is very important that the university continues to be active internationally to ensure a high standard of research and education, also in the future. This international perspective will also have a knock-on effect within the region.

The dialogue between the university and the society at large must be extended and made more distinctive via mutual openness, branding of the university environments and storytelling – using good stories as examples. This could help the university make better use of its strengths and niches in the future.

## Appendices

## **Appendix 1: Participants in the OECD after-work meeting 22. september 2005**

**Lisbeth Katborg Bjerre** "Det Midtjyske Bysamarbejde", The City of Aarhus

**Jørgen Christiansen** Hadsten Upper Secondary School

**Erik Jantzen** Sciences Park Aarhus A/S

**Erik Krarup** TIC Viborg County

**Ernst Max Nielsen** MaxInno

**Jørgen Rasmussen** The Aarhus School of Architecture

**Lars Stigel** Østjysk Innovation A/S

**Sten Tiedemann** The Aarhus university extension

**Jens Bigum**, Arla Foods amba, Chairman, The University of Aarhus

**Annette Kruhøffer**, external board member – The University of Aarhus

**Børge Obel**, rector – the Aarhus School of Business

**Lauritz B. Holm-Nielsen**, rector – The University of Aarhus

**Kathrine Richardson**, Pro-rector – The University of Aarhus

**Stig Møller**, managing director – The University of Aarhus

**Ingeborg Christensen** – The University of Aarhus

**Pernille Kallehave** – The Aarhus School of Business

**Kirsten Knoth** – The Aarhus School of Business

**Karen Margrethe Lauridsen** – The Aarhus School of Business

## **Appendix 2: List of People interviewed during the process**

### **External**

**Jørgen Andersen**, The University of Aarhus Research Foundation  
**Anders Dahlstrup**, The Student House  
**Mads Ellegaard** Projektzone.dk  
**Bente Hornbæk**, Head of Office, Aarhus County  
**Rasmus Jakobsen** Projektzone.dk  
**Erik Jantzen** Sciences Park Aarhus  
**Jan Beyer Schmidt-Sørensen** Head of department – Aarhus County  
**Lars Stigel** Østjysk Innovation A/S  
**Elinor Bæk Thomsen** Head of Office, Aarhus County  
**Torben Vilsgaard** Incuba

### **Internal**

#### **The Management of the University of Aarhus**

**Stig Møller** Managing Director  
**Katherine Richardson** Pro-Rector  
**Niels Chr. Sidenius** Rector

#### **The Faculty of Humanities**

**Bodil Due**, Dean  
**Uffe Juul Jensen**, Professor  
**Arne Kjær**, Vice- Dean  
**Marie Lund Klujeff**, Associated Professor  
**Britta Timm Knudsen**, Associated Professor  
**Morten Kyndrup**, Professor  
**Jørn Langsted**, Professor  
**Kim Halskov Madsen**, Associated Professor  
**Anne Marie Olesen** Project Manager  
**Jytte Ringtved** Associated Professor  
**Jakob Steensig** Associated Professor  
**Lisanne Wilken** Director of Studies and Associated Professor

#### **The Faculty of Health Sciences**

**Jens Chr. Djurhuus** Professor  
**Søren Mogensen** Dean  
**Birte Poulsen** Former head of Secretariat  
**Anders Roed** Head of Secretariat

#### **The Faculty of Social Sciences**

**Per Henriksen** Head of Secretariat  
**Tom Latrup-Pedersen** Dean

#### **The Faculty of Theology**

**Lene Kühle** Associated Professor  
**Viggo Mortensen** Professor  
**Carsten Riis** Dean  
**Jette Schønemann** Head of Secretariat

**The Faculty of Sciences**

**Flemming Besenbacher** Professor

**Søren Rud Keiding** Professor

**Morten Kyng** Professor

**Ole Lehrmann Madsen** Director

**Erik Meineche Schmidt** Dean

**Kurt Sørensen** Associated Professor

**Secretariat for Continuing Education**

**Kirsten Andersen** Head of Secretariat

**Jørgen Bang** Associated Professor

**Registry Department**

**Eva Teilmann** Head of Office

**Business Liaison Office**

**Bo Bjerre Jakobsen** Chief Consultant

**The Technology Transfer Office**

**Merete Raahauge** Special Consultant

**Centre for Entrepreneurship**

**Birgitte Simonsen** Manager

**The Student Council**

**Freja Boe Hansen** Stud.theol.

**Simon Krøyer** Stud.scient.pol.

**AISEEC**

**Anders Jensen** Stud.mag.

**Informations- og medievidenskab**

**Ole Rahbek** Stud.mag.

### Appendix 3: Source of Funding

<b>2001 – UK 95</b>	<b>HUM</b>	<b>SUN</b>	<b>SAM</b>	<b>TEO</b>	<b>NAT</b>	<b>FÆL</b>	<b>AU Total</b>
Government Subsidies	18	59	27	2	144	3	253
EU and Other International	1	6	1	0	17	0	25
Other	7	99	7	4	55	-1	170
Total	25	164	34	6	217	2	448
<b>2002 - UK 95</b>	<b>HUM</b>	<b>SUN</b>	<b>SAM</b>	<b>TEO</b>	<b>NAT</b>	<b>FÆL</b>	<b>AU Total</b>
Government Subsidies	24	58	23	3	136	-4	240
EU and Other International	2	18	5	0	32	0	58
Other	7	78	5	3	43	4	140
Total	33	155	34	6	211	0	439
<b>2003 - UK 95</b>	<b>HUM</b>	<b>SUN</b>	<b>SAM</b>	<b>TEO</b>	<b>NAT</b>	<b>FÆL</b>	<b>AU Total</b>
Government Subsidies	22	55	25	5	139	-1	245
EU and Other International	1	17	5	0	26	0	49
Other	7	78	5	4	62	3	159
Total	30	150	35	9	227	2	453
<b>2004 - UK 95</b>	<b>HUM</b>	<b>SUN</b>	<b>SAM</b>	<b>TEO</b>	<b>NAT</b>	<b>FÆL</b>	<b>AU Total</b>
Government Subsidies	22	61	24	4	116	28	256
EU and Other International	2	19	6	0	26	0	52
Other	7	74	7	5	68	4	165
Total	31	154	37	9	210	32	473

#### Abbreviation

HUM: The Faculty of Humanities  
 SUN: The Faculty of Health Sciences  
 SAM: The Faculty of Social Sciences  
 TEO: The Faculty of Theology  
 NAT: The Faculty of Sciences  
 AU: The University of Aarhus  
 FÆL: The Central Administration