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Strategy for

The Department of Computer Science, Aalborg University 2011-2015

Version 01032013

About this document

This document is the result of the strategy process that was initiated in 2011. The document aims to sustain the outcome of the discussions at departmental meetings and in our democratic councils and committees.

Focus areas are identified and it is intended to operationalize goals and wishes as actions under the identified headings. Not all areas are equally matured and actions range from specific items to more open ended discussions. This document is thought as a dynamic document, which will be updated throughout the period. More specific action points may result from open issues and specific tasks will be concluded. The strategy will be used to initiate tasks – big and small – in the day to day management and will be used to evaluate the overall development at the annual external meetings in January in connection with the "State of the Empire" overview.

The document is versioned by date. The date will appear on the front page and the current version will be available on the intranet.

The process

The first step in the process was a hearings round which was concluded on May 15th 2012.

In June, the management prioritized the action points and assigned actions to the relevant committees and boards.

Hereafter, the management will consider the strategy and the progress of the work on the first management meeting of every month. Status of the strategy and discussions of new issues and action points will be addressed at the annual external meetings, where all members of staff have the opportunity to comment on the strategy.

In the beginning of 2013, the strategy will be updated with an outline on the tasks completed in 2012. This affects, that some of the previous mentioned actions will be omitted as well as new actions will be added.

1. Introduction

The Department of Computer Science conducts teaching and research to the highest international level and has extensive cooperation with industry and surrounding society. Continuing independent international research evaluation has recognized the department as being among the world leaders in computer science.

The department has regularly undertaken research evaluations, where the research strategy for the following five years has been established. The latest research evaluation was conducted in the fall of 2010. The period 2006-2010 was evaluated and goals set up for the period 2011-2015.

This paper supplements the research evaluation report with strategic goals for the other activities of the department.

In previous years, the department has operated with a short term planning; with this strategy we aim at a time horizon of five years, thereby aligning the period to the institution and the faculty plans and to our own research strategy.

The strategy will be the platform for developing the department.

2. Mission

The mission of the Department of Computer Science is to contribute to and impact on society through highly qualified graduates and through research, development and dissemination of knowledge and results within the field of computer science.

3. Vision

The vision of the Department of Computer Science is to be an internationally oriented department that conducts teaching and research to the highest level and has an extensive collaboration with industry and surrounding society.

4. Values

The department adheres to the common academic virtues and the overall core values for Aalborg University. In our everyday work we try to practice the simple fundamental principle:

- Behave properly

Moreover, we aim for a positive and professional working environment:

- We acknowledge the competitive nature of an academic career, but emphasize that it shall be pursued in a friendly atmosphere.

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- Different skills, represented by different profiles of staff, are crucial to obtain the goals of the department

5. Strategic objectives and goals

This strategy is focused on four issues:

- Organization and management
- Careers
- Education and teaching
- Collaboration and dissemination

Each issue will be addressed with visions and goals and will be followed by a list of actions that contribute to overall achievement. The visions may be elaborated throughout the period and actions will be added along the way.

Thus, the following text will be a dynamic description, which reflects the current situation and understanding of each of the four issues, and therefore, it cannot be regarded as an expression of a conclusive strategy for the period as a whole.

5.1 Organization and management

5.1.1 Visions and goals for the organization and management

The Department of Computer Science will make the organisation of research, teaching and collaboration transparent. The management structure will be formalised and the decision processes will be made open and known. The organisational structure including the department's governing bodies and committees should be described and known. The management should be transparent and relevant parties should be heard before decisions are made. Decisions should be based on open policies and principles.

The department pursues a high level of motivation through active involvement and influence of all staff. It is important that all employees at the department have confidence, trust and the ability to speak and act freely.

The department aims at diversity. Different competencies are needed for different tasks and incentives should exist for all. The department will seek to establish a system where all relevant skills are being recognized and rewarded.

The department will encourage active engagement of employees through different kinds of leadership, and through membership of various councils and committees. All employees should have knowledge of the democratic processes and structures, and know who to approach and where to turn to seek influence.

The department will, within reason, provide resources to ease and assist employees to fulfill their tasks.

5.1.2   Actions

5.1.2.1 Organization and decision-making
   o   The decision-making process at the department is not clear and well known for all employees.
       In order to address this, a description of all councils and committees at the department will be produced. For each council and committee, there will be a description of the following:
       - How is the council/committee founded? (e.g. by law, by university regulation, by departmental policy)
       - What is the (main) purpose(s) of the council/committee?
       - How does work in this council/committee influence other councils/committees at the department? Who is to be heard and who is to make the final decision?
       - How are members appointed? (e.g. by election, by nomination, by entrustment, by position)

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- For how long are members of the council/committee elected or appointed?

In 2012, the following was implemented:
The descriptions of all the councils and committees have been produced and will by April 1st be posted on the intranet.

5.1.2.2 Support units (the secretariat and the IT-support unit)

o Organization, location and tasks of the support units (the secretariat and the IT-support unit) have been unclear and inconvenient for some employees at the department.
In order to address this, an evaluation of the support units will be completed. The evaluation will address the following:

- organization
- tasks
- location

In 2012, the following was implemented:
A service survey has been conducted and completed. The management will in the beginning of 2013 analyze the results and decide on the forthcoming actions.

5.1.2.3 Resources

o Rules and principles for distribution of resources (e.g. IT-resources, hours, and means for travelling) are not described and, therefore, not clear to all staff members.
In order to address this, the principles for distribution will be up-dated and published at the department's intranet.

In 2012, the following was implemented:
Procedures for workstations at work and at home have been updated and approved by SAMU. Principles for hour accounts have been described and will be addressed in SAMU and The Department Council in 2013. Furthermore a webpage, describing travel procedures has been launched.

5.1.2.4 Information and knowledge sharing

o There is an ongoing discussion at the department regarding the level of information and knowledge sharing. Several initiatives have been launched in order to direct the information to where it is needed, but still, we find that many members are not content with the level of information.
In order to address this, action must be taken on different levels at the department

- At research unit level:
  - Regular meetings for information purposes

- At departmental level:
  - Annual revision of leaflets for new employees.
  - Rethink new ways to coordinate/mutually inform on project proposals – preferably cross-unit information.
  - Rethink the structure and/or content of the departmental lunch meetings.
  - Give more information on what has been decided at council/committee meetings. Agenda and minutes will be online, when possible.
  - Annual evaluation on how the members of staff are content with the level of information.

In 2012, the following was implemented:
The need for information has been discussed and the current procedure (e.g. meetings, emails, websites) is sustained.

5.1.2.5 Physical surroundings

- The department is expanding and the current physical surroundings will be insufficient in the near future.
  In order to address this, plans for future expansions is to be developed.

In 2012, the following was implemented:
The need for office space has been identified for the year 13/14. As expected, the need will increase compared to 12/13. The increase for office space is being solved, as the department will acquire the fifth cluster at Cassiopeia in 2013.
Furthermore, the planning of 14/15 is scheduled, in order to respond to the further expansion at the department.

5.1.2.6 Decisions should be based on open policies and principles.

- The compilation of principles and policies should be published on the intranet.

5.2 Careers

5.2.1 Visions and goals for careers

Human resources are essential in order to obtain good research, teaching and collaboration. In order to maintain a goal of the highest possible standard, a reputation as a good workplace is required. Elements that contribute to this include good working conditions, highly skilled colleagues, access to continued education and personal development and valuable career opportunities.

An informative and transparent description of career opportunities inside and outside the department should be developed, particularly for younger members of staff. The typical career directions should be described along with points of particular importance for taking advantage of the opportunities.

Career opportunities should be broadened to extend the traditional academic path with other options for continued employment at the university, e.g. by focusing on industrial collaboration and development.

A more proactive individual career planning based on each person's interests and wishes, virtues and capabilities should be initiated. This could be included in the staff development interviews (medarbejderudviklingssamtaler (MUS)). Staff development interviews are an important instrument for the department to ensure that all members of staff are developing - and developing in ways to support both individual desires, as well as the department's plans and the development strategy as a whole. Clearly, different strategies for conducting MUS will be relevant for different staff categories. For scientific staff it could include various combinations of research, teaching and industrial collaboration.

5.2.2 Actions
5.2.2.1 Further development of staff development interviews (MUS)
- o MUS have for some years been optional and there has been a need for further development of this.
  In order to address this, a local agreement will be produced. So far, the following has been suggested:
    - The staff development interviews (MUS) are offered in the period from May 1st to August 31st every year.
    - The head of department offers all permanent scientific staff an annual MUS.
    - The unit leaders offer annual MUS to non-permanent scientific staff.
    - The head of secretariat offers annual MUS the administrative staff in the secretariat.
    - The head of IT-support offers annual MUS to the IT-support staff.

- All staff can, at any given time, ask for a MUS with the head of the department.
- Summing up on the annual MUS, the head of department could produce a report to the Committee for Cooperation and the Working Environment (Samarbejds- og ArbejdsMiljøUdvalget (SAMU)) meeting in September The report could address the main issues of the MUS and be a supplement to the workplace assessment (arbejdspladsvurdering (APV)) studies.
- It could be considered if the head of department should conduct a mandatory interview when staff resigns from the department.

In 2012, the following was implemented:
In September 2012, the head of department presented for SAMU, a summary of the MUS conducted in 2012. The management will discuss the MUS in the spring of 2013.

5.2.2.2 Career development planning

o It is of high importance to the department that both permanent and non-permanent staff has focus on career development.
In order to address this, the following will be considered:
- Annual career development plans for non-permanent scientific staff.
- Career development planning will by default be a part of the MUS.
- Career development planning must be ensured as a possibility for all technical/administrative staff.

5.2.2.3 Flexible work planning

o External funds have an increasing role at departmental economy. The structural conditions at the department have been quite incomprehensible to a larger part of the staff. Especially the economic conditions have been very difficult to understand.
In order to address this, the department will:
- Identify instruments at our disposal in order to reward all aspects of the scientific work and consider introduction of new instruments and/or aspects that are not covered today.
- Ensure collaboration between the internal economy and the external funds.
- Be able to meet demands for alternative career models and –structures.
- Facilitate more flexible work planning. Hence, focus and financing can change over time.
- Finance ordinary positions (departmental positions) with external funds e.g. by permanent staff redeeming their work from external grants.

5.3 Education and teaching

5.3.1 Visions and goals for education and teaching

The structure of the studies introduced by the study regulation with 5 ECTS course modules generates a need for new teaching methods and for sharing experiences. A portfolio of ideas of how to organize courses has been called for.

Teacher's engagement and commitment are core values that have to be supported, e.g.by developing new ways of teaching.

Pedagogical inspiration should be provided continuously, e.g. through a revival of the pedagogic day. Practical tips & tricks and a catalog of good practices and course models have been suggested.

New structures for cooperation should be considered on semesters and/or educations.

New ways of allocating teaching resources should be considered. This could contribute to long term development and support cross departmental student projects.

Internationalization should be contemplated, both recruitment of foreign students and studies abroad for our own students.

5.3.2   Actions

5.3.2.1 Semester planning
  o Coherent planning and common understanding of means and methods for semester planning is of great importance. In order to address this, the department strategy is:
    - To have regular semester coordination meetings, where issues such as practical advice, guidelines, best practices on teaching, supervision and course organization are discussed.
    - Perhaps a teaching leader or semester organizer – who is more than the traditional semester coordinator, should be introduced. A more formalized and broader leadership will also be helpful for the new - and indeed the foreign – members of staff.
    - It should be considered if external lecturers – especially representatives from the industry - could be attractive in various courses. Support and help on this task might be needed.
    - Ensure that new teachers are introduced to the semesters.

   In 2012, the following was implemented:

The School of Information and Communication Technology (SICT) have developed a guidebook for semester coordination (semesterstyringshåndbog).

A databank for external lectures and project proposals, have been established on the intranet.

An internal pedagogical course has been developed in order to ensure, that the new teachers at the department are introduced to the semester.

5.3.2.2 Developing and renewal of the education portfolio

o Needs for strengthening the organization of the educations have been addressed.
- A longer time frame for the teaching planning committee (UndervisningsPlanlægningsUdvalg (UPU)) might be considered.
- It should be considered to make the study revision groups more permanent.
- There could be an organizational structure connected to the education – corresponding to the research units.

In 2012, the following was implemented:

A longer time frame for education planning has been discussed in UPU, who will strive for this.

The two study revision groups have been transformed into advisory groups - one for computer science and software engineering and one for informatics and information technology.

No need for new educational structures has been detected.

5.3.2.3 Distribution of teaching resources

o Currently, distribution of teaching resources is typically for one year at a time and it is typically tasks such as semester coordination, lecturers and supervision. Evaluation is not accounted for.
- A strategy for teaching assignments for Ph.D.-student is needed. It should be possible early on to get an outline of the possible teaching assignments as Ph.D. student.
- Allocation of internal censors as a part of the teaching planning.
- It could be considered to elaborate the semester association for supervisors and coordinators as it is the case for lecturers.

In 2012, the following was implemented:

UPU is aware, that the ph.d student's teaching should be as cohesive as possible. This can also be taken into account in the study plans.

UPU have discussed the allocation of internal censors, with the outcome, that the current praxis is sustained.

5.3.2.4 Teaching load
- o With cut backs on teaching, more variable tasks is needed to reach the number of teaching hours each semester. In order to address this, the department will initiate:
  - A strategy for decreasing the permanent staff's surplus of teaching.
  - Consider the balance of teaching-load between junior and senior staff.
  - Access to an up-dated hour-bank.

5.3.2.5 Internationalization
- A higher number of international students at the department will have positive effects on the study environment as well as the departmental economy.
- A higher number of Danish students abroad have both organizational and individual benefits. It provides a valuable input to the study environment at the department. And an international stay gives the student more experience and a broader perspective.
- It could be considered to establish agreements with selected institutions on exchanging of students.

In 2012, the following was implemented:
An international council has been established

5.3.2.6 New initiatives
- o Lately, the department has experienced an increase in the numbers of students. In order to continue to do well in the competition with the other computer science educations in Denmark, we must be proactive and respond to the possibilities/challenges we meet.
  - The new Aalborg University campus in Copenhagen could provide an opportunity for the department and it will be considered to establish a new education here.
  - Cross disciplinary activities should be considered.

In 2012, the following was implemented:
The department has proposed to offer the education in software engineering at AAU in Copenhagen. The application was rejected.
A new education in interaction design was applied for – and rejected. The application will be resubmitted in 2013.

5.4 Collaboration and dissemination

5.4.1 Visions and goals for collaboration and dissemination

The department has a long tradition for collaboration with the ICT industry. The setting for this collaboration should be maintained and further developed with carrier opportunities and other incentives.

The department will consider new staff categories in order to facilitate hiring permanent staff for these activities.

The issue of a centralized versus a decentralized organization of collaboration and dissemination should be considered.

5.4.2 Actions

5.4.2.1 Revised strategy for collaboration and dissemination

- A revised strategy for collaboration and dissemination will be completed. The strategy will address the issue of centralizing and decentralizing as well as entrepreneurship.

In 2012, the following was implemented:
A revised strategy for collaboration and dissemination states that general activities will mainly be conducted through BrainsBusiness. Specific activities will be conducted within the research groups.

5.4.2.2 Development and maintenance of open source software and web

- o A valuable product from the department is software systems, which are put to the disposal of the surroundings.
  - A mapping of the needs for development and maintenance of software and data repositories etc. will be conducted.

5.4.2.3 Alternative career options

- A high degree of collaboration calls for alternative staff categories cf. the above-mentioned.