8 December 2020

White paper
Identity and profiling

TECH strategy process 2020-2021

Content

1. Introduction

1.1. About the white paper

In this white paper, a group of academic experts and other relevant representatives from TECH departments and centres and the administrative centre describe their suggestions for how the overall ambitions for TECH's focus on identity and profiling can be realised in future. The purpose of the whitepaper is to contribute academic analyses, knowledge and ideas to the development of a strategy for the faculty. This is by defining a long-term ambition and identifying specific focus areas where realisation of identity and profiling can start, and from where it can develop in the future.

The white paper was prepared in the period from November 2020 to December 2020, when it was submitted to the Dean's Office and the faculty management team, who will make the decision on implementation of initiatives for the faculty's identity and profiling.

The white paper stems from a particular context and a certain group of employees with unique academic expertise and competencies who represent the faculty in general. Ambitions, initiatives, etc. must be continuously adapted and developed as the collaborative initiative matures, and a concrete assessment, and any adjustments, must be made before major initiatives are initiated.

2. Scope and status for identity and profiling

2.1 Definition and scope of topic

The scope of the task is to shape a clear internal identity to support a clear external profile. The profile should support AU's profile, but the external profile should reflect TECH's distinctive features: who TECH is and what TECH does.

Despite differences between departments and centres, we have a common history. The faculty's departments and centres have been merged into the university over the last 10-15 years or have existed as independent units for a relatively short period of time. We have all tried to establish ourselves and become integrated, despite different backgrounds. The faculty is new to all of us. That it is new means that we have a unique opportunity to steer our faculty together in a consolidating direction.

As of 1 January 2021, TECH consists of a number of departments and centres, the Dean's Office and the joint Nat-Tech Administrative Centre. The academic areas covered by the faculty (food, agriculture, nature, the climate, the environment and engineering) are broadly relevant and are also reflected in the following overview of departments and centres:

Department of Agroecology

Department of Bioscience

Department of Biological and Chemical Engineering

Department of Civil and Architectural Engineering

Department of Electrical and Computer Engineering

Department of Food Science

Department of Animal Science

Department of Mechanical and Production Engineering

Department of Environmental Science

Center for Quantitative Genetics and Genomics (QGG)

DCA - Danish Centre for Food and Agriculture

DCE - Danish Centre for Environment and Energy

2.2 SWOT analysis

The starting point for the white paper is a SWOT analysis describing the strengths, weaknesses, opportunities and threats associated with TECH's focus on identity and profiling. The SWOT analysis therefore describes our underlying understanding of the framework conditions which form the basis for the initiatives listed below.

Strengths

- **Society places hight priority on** our work areas and our **research areas** as well as on education in general.

- We are recognised nationally and internationally for **research** in the areas of food, agriculture, nature, the climate, the environment and engineering. Broad academic profile and applied research are a strength.
- We **cover from knowledge/basic research/theory** to implementation and practice, including innovation and development of new solutions for society, not least green and sustainable solutions.
- High-quality **public sector consultancy.**
- We **produce graduates** whose competencies are relevant for society, because they can help with green and sustainable solutions and can help address the STEM challenge in collaboration with other faculties.
- We are a **central player and important partner** nationally and internationally in relation to agriculture, food, nature, the climate, the environment and engineering, as well as in producing sought-after graduates, for example engineers and agro-biologists.

Weaknesses

- There is no widespread **tradition for collaboration across** disciplines and subject areas within TECH. This will require great effort.
- TECH is the result of a **merger** of many different identities, tasks, ways of working, workplace cultures and conditions - from development-based activities over research-based public sector consultancy to classical research. There is no obvious unifying element (it will take time to build unity and a common identity). We are not a 'natural' part of the university – our tasks are relatively new for AU (public sector consultancy and an engineering degree programme).
- **The geographical distribution** makes it more difficult to build a common identity. It can be a barrier to building familiarity with the competencies at other departments and can limit the random exchange of ideas 'in the hallways'.
- Widespread notion of **'them and us'**. Differences rather than complementarity are highlighted.
- Some outsiders believe **our ties to industry are too close.**
- The TECH **website does not reflect us** and what we do. **Engineering is over-represented** – there should be more room for the rest of the faculty.

Opportunities

- Create a **common academic profile where we deliver solutions to societal challenges, including green solutions**, based on research along the entire scale from basic science to implementable solutions.
- Dissemination of the external profile by employees **requires internal involvement**, e.g. a green profile requires that we are green.
- **The breadth of types of tasks and topics.** Opportunity to create solutions and collaborate across disciplines, research, education, public sector consultancy, business collaboration and dissemination (e.g. the future centre for the green transition in agriculture can embrace all of TECH).
- Come across as a strong technical-scientific faculty - a shared profile by being the green engineering area and developing a green project portfolio.
- **New** (and smaller) **faculty + engineering organisation** makes it possible to start afresh with new collaborations internally and externally – a new identity.
- A new engineering organisation provides opportunities for research, collaboration and a clear academic profile.

- Engineers can play a role in all faculty areas.
- Interdisciplinary research collaborations across the faculty.
- Relate **programmes** to holistically oriented and solution-oriented research and public sector consultancy with regard to topics, application in society and job opportunities (research, consultancy, education) and attract students to more locations.
- Exploit that we have a clear **application-oriented profile.**
- Synergies can create great opportunities for the development of solutions to societal problems as well as education of even better and more sought-after graduates.
- Incorporate related subject areas in projects (applications); expand projects with a new aspect.
- Provide **research-based public sector consultancy** that supports society in its ambition to produce knowledge-based, durable green and sustainable solutions.
- Many different nationalities at the faculty, PhD students from all over the world, can act as ambassadors.

Threats

- **Technical** is included in the faculty's name and not everyone feels included.
- **Lack of and decreasing** funding for public sector consultancy and research.
- **Strong individual academic identities** (and lack of willingness to unite) may be an obstacle to looking beyond one's own academic standards and developing a shared academic identity.
- Problematic if there are several **overlapping subject areas** and if alignment is not ensured or if reasons for differences are not successfully communicated (externally).
- **Lack of recognition from AU,** 'unsuccessful merger', including the public sector area, which has been trying to build an AU identity since 2007.
- **TECH is acting out of sync** (the engineering area and research-based public sector consultancy) and the lack of exploitation of synergies leaves room for other players/competitors.
- Not good at incorporating other colleagues' competencies due to heavy workload.
- **Profiling not reaching all levels** (nationally/internationally, research, government agencies and institutions, education, business and society in general). It is important to determine an identity embracing all these levels.
- **Impairment/loss of brand** if renewal or retention fails.
- It might be difficult to create an identity identifying us as those who develop green and sustainable solutions, because so do our competitors.
- Division if it is not possible to create a common identity/internal understanding at the faculty.
- That the academic environments **keep their current identity** because research at the faculty is not being recognised internally by AU as being of the same high, university standard as international rankings say it is.
- **Public sector consultancy activities** are affected negatively by controversial cases and are affected by political agendas.
- **Difficult to meet the goals for the engineering initiative.** The demand for engineers turns out to be lower than anticipated/many are recruiting.
- **Lower priority to frameworks for physical encounters** between subject areas, so that it becomes more difficult to build a common academic identity.

- There is an inherent paradox in the agendas of DCA and the DCE (agriculture > < nature and the environment).
- **Long-term recruitment processes** can result in academic gaps.
- **Not enough students.**

2.3 Key dilemmas

Based on the SWOT analysis, a number of dilemmas have been identified, and these should be considered in connection with establishing an ambition. These dilemmas are described below in random order with proposed solutions for each dilemma. Many of the dilemmas are related to a lack of cohesion and solidarity, which stresses the need for TECH to develop a common identity.

Dilemma 1: Subject-area-oriented vs topic-oriented: The new engineering departments are divided according to subject area, while the remaining TECH departments are divided according to topics. VIPs at the individual departments represent different subject areas, which means that the same research area can be placed at different departments and internal competition for employees and research funding may occur.

Dilemma 2: Education vs public sector services: There is a general perception that the university's task is to educate students, but several of our departments have more emphasis on public sector consultancy services than on education, and employees who spend a lot of time on public sector consultancy do not always feel that they belong to the classic university.

Dilemma 3: Papers vs reports: How do we address the fact that we publish both reports and scientific papers, but that our performance is measured only on basis of our scientific, peer-reviewed papers? This means, for example, that reports that focus on solving a specific societal challenge are not recognised in a classical academic sense. As a result, employers may feel divided into an A team and a B team. We must ensure there is unison between assistant professor/associate professor and researcher/senior researcher.

Dilemma 4: The engineering area vs. 'everyone else': The engineering area takes up a lot of space due to the strategic initiatives Engineering 2025 and New organisation for the engineering area at AU. In addition, the engineering area has its own brand, *AU Engineering,* and the faculty name reflects the engineering area to a greater extent than it reflects the other departments. This means that employees feel left out, and someone whose work is within the life science area, for example, may feel alienated.

Dilemma 5: Research-based vs. development-based: The classical-university approach is research-based activities. However, the engineering area also works with a development-based approach that supports the Bachelor of Engineering programmes. Employees who work with development-based activities may feel overlooked.

Summary

In its work with the SWOT analysis as well as in its work with the dilemmas, the focus group came to the realization that what at first is perceived as weaknesses or dilemmas in most cases is actually a strength. We embrace more differences than the other faculties at AU. According to the focus group's assessment, a majority of the dilemmas can be addressed if we can embrace the faculty's breadth in our work with our identity and our profile. Below are the working group's proposals for an ambition and indicators.

3. Ambition for identity and profiling

3.1 Wording of ambitions and indicators

The following section presents the group's proposal for the wording of a shared profile and a common identity. In order to achieve the ambitions below, the focus group has set up four indicators: two relating to internal collaboration and two relating to external collaboration. The group is of the opinion that the first two indicators must be fulfilled before the final two can be realised and both ambitions fulfilled.

The headline for our ambitions is: ***We collaborate to solve societal challenges.*** On this basis, the group proposes the following wording of ambitions:

Wording of ambition for a **common identity**
Through increased collaboration we will make sure we realise our synergies and deliver the breadth between basic research and practice-based activities. This means that we can respond to entirely new challenges, deliver better solutions, achieve a major societal impact and achieve motivation and job satisfaction by contributing to solving the challenges facing society.

Wording of ambition for a **shared profile**
The Faculty of Technical Sciences provides a knowledge foundation, in the form of research, development, education and research-based public sector consultancy, and creates solutions and technologies in response to a number of relevant societal challenges. We deliver throughout the chain from new knowledge to the necessary technological development or the basis for political action.

The indicators below show the direction which the focus group believes is necessary for us to achieve a common identity and a shared profile. Work should begin with focus on internal aspects. Indicators 1 and 2 therefore focus on these internal aspects. Efforts should aim at implementing initiatives that support these indicators first. Indicators 3 and 4 have a more long-term focus.

Indicator 1: That there has been focus on the organisation, and that this has led to broad interdisciplinary networking and collaboration across all TECH departments on research/development, education and public sector consultancy.

Indicator 2: That everyone feels included, and that all employees at the faculty feel a real sense of cohesion and solidarity, i.e. that everyone can see themselves in the profile and can contribute to a clear and united profile externally.

Indicator 3: That we are known for being able to deliver along the entire chain, from basic research to a technological basis for political action to solve societal challenges, and that there is a high degree of visibility about our impact.

Indicator 4: That we are a preferred partner for business and industry, government agencies and knowledge institutions within the faculty's subject areas. In this connection, we must increase our focus on strategic and research-related international collaboration.

3.2 Possible focus areas

This section presents focus areas that will help us meet the indicators and, thus, our ambitions. The internal initiatives should be initiated quickly. The time frame should not be too long, as the initiatives may lose their relevance. In addition, it is considered necessary that the initiatives be implemented while TECH is still new, so as to, hopefully, stimulate employee engagement and curiosity as to what the other academic environments comprise. The following is an attempt to outline a possible chronology of initiatives with an internal and an external focus, respectively.

Initiatives with an internal purpose:

The internal initiatives support indicators 1 and 2 presented above.

1. Carry out cross-disciplinary and joint activities that build up knowledge about and inspire cross-disciplinary collaboration and projects between faculty subject areas, researchers and teaching staff (e.g. faculty congresses, conferences, 'advertising' visits between departments, department workshops).
2. The faculty should support interdisciplinary networks that can create a basis for communication across subject areas, which can then lead to a common identity and thus create a strong academic profile and a common understanding of the technology concept and our tasks in relation to political consultancy. This includes ensuring the faculty's research committee receives funding to support cross-disciplinary projects (pool funding, PhD and innovation/development projects), so as to create incentives and opportunities for increased collaboration between departments at project level.
3. That the faculty's research committee receives more concrete knowledge about the research taking place at the faculty and through this process contributes to ensuring common knowledge about each other's research areas and competencies.
4. That the faculty's research committee, with the help of the local research committee and the academic coordinators, draws up a dynamic catalogue presenting the various departments' current and potential research, development and innovation areas.
5. Ensure that it is easier for faculty employees to identify relevant partners at the faculty.

Initiatives with an external purpose:

The external initiatives support indicators 3 and 4 presented above.

1. Draw up an actual profile on the basis of the recommendations in the white paper (wordings for ambitions and indicators in particular).
2. Communicate the good, relevant (and cross-disciplinary) projects – based on the thematic centres. Exploit that many of our topics are relevant and can be communicated at both research level and more popular levels.
3. Make/update communication (standard presentation, website) to ensure that the profile is communicated, including what we want to be known for.

4. Initiate a strategic external environment analysis (e.g. a PEST analysis), which is updated continuously, and ensures that we can continuously adapt the brand, profile and organisation.
5. Prepare the wording for the faculty's central external missions for society.
6. Unfold the faculty's role and ambition to ensure readiness, proactivity and relevance for partners, government agencies and institutions, and the business community (nationally and internationally). This should be through coordination with the departments.

3.3 Special focus areas for realising the ambition.

The most important special focus area is that the faculty's differences have **several inherent contradictions in relation to shaping an identity and profile.** This presents challenges in relation to flexibility, but at the same time there are only few historical ties. On the one hand, some employees cannot identify themselves with the academic profiles of colleagues at other departments, with headlines on the faculty website or with the faculty's name. None of the faculty's departments existed in a university context just twenty years ago, and many of the departments have changed faculty several times in the short period of time they have existed. This leaves some leeway and flexibility in relation to the profile/identity. With all these considerations in mind, it is important to have an identity that everyone can see themselves in. It also makes it important to ensure that we are as inclusive as possible in our communication of "who we are".

We should make sure not to divide the faculty into two in our narrative. It should be made clear that the majority of our departments contribute to all the three elements: research/development, public sector consultancy and education.

4. Composition of the focus group

1. The chairmanship: Hanne Bach, DCE, and Lars Ditlev M. Ottosen, Department of Engineering

2. Sabine Ravnskov, Department of Agroecology

3. Aksel Bo Madsen, Department of Bioscience

4. Margrethe Therkildsen, Department of Food Science

5. Ole Højberg. Department of Animal Science

6. Jesper Bruun, Department of Engineering

7. Marlene Schmidt Plejdrup, Department of Environmental Science

8. Morten Kargo, QGG

9. Kim Harel, Aarhus University School of Engineering

10. Kirsten Bang, DCE

11. Klaus Horsted, DCA

12. Anne Mette Siem, Nat-Tech Administrative Centre

Facilitator: Bo Bukh Linneberg, Dean's Office

Secretary: Ida Marie Gerdes, Dean's Office