

Minutes

Subject	Advisory Board Meeting	
Date and time	January 13, 11:00-15:00	mskau@tek.sdu.dk T +4565501984
Location	Miljøstyrelsen, Tolderlundsvej 5, 5000 Odense C	
Invited	Ciprian Cimpan, Head of Program, Chair, Morten Birkved (SDU), Birgitte Lilholt Sørensen (SDU), Henrik Wenzel (SDU), Mette Smølz Skau (SDU), Thomas Kristian Molbech (SDU), Jan Thrane (Odense Renovation), Simon Topholm Bruun (Fjernvarme Fyn), Mogens Michael Møller (Nyborg Kommune), Kim Balsløv Jørgensen (NFG Nature Energy), Niels Erik Grønfeldt Martiny (Miljøstyrelsen), Theis Løgstrup, (Erhvervshus Fyn), Janus Kirkeby (Rambøll), Malte Rasmus Ottesen (Odense Kommune) Dinesh Pant (Rambøll), Nikolaos Tsiakmakis (Rockfon), Cord Ruprect (Corup), Styrmir Gislason (SDU)	
Cancellation from	Birgitte Lilholt Sørensen, Kim Balsløv Jørgensen, Theis Løgstrup, Thomas Kristian Molbech	

11:00 Welcome and presentation round (Everybody)

Everybody gave a short presentation of themselves, and the new people were welcomed.

11:15 Introduction of the programme

Ciprian provided an overview of the IGT Institute and the Environmental Engineering programme, including the content of the mandatory courses and the options of in-company projects, 40 ECTS thesis etc. The competence profile was explained as well as the methods and tools, the students apply in the different courses.

Ciprian gave a short history of the development of the advisory board and what issues the programme has now which the advisory board needs to focus on. This includes the balance between generalists and specialists, high unemployment numbers, political focus on international students, regional limitations in industry/companies collaboration with students and graduate intake, limitations in resources, and lack of bachelor programme in connection to the master. It is the hope to increase the intake by focusing on non-EU students.

11:30 (changed to 13:45) **Examples of recent successful projects with companies** (Ciprian)

Ciprian provided a number of successful collaborations between students and companies and explained the benefits from In-company projects and the students getting practical experience and connections. The students are strongly encouraged to do In-company projects and Ciprian facilitates many connections between students and companies, that offer project work.

11:50 Experience from a few former students (Malte, Dinesh, Nikolaos, Cord, Styrmir)

The former students described their experience with the programme and their following career path.

Nikolaos is currently a sustainability performance and certification specialist at Rockfon. He has had many very different jobs, some he got through the job center (it was difficult during the Covid-19 period to find work). His very varied experience has taught him many different skills which has helped him to get his current position. Nikolaos said that trying to learn the Danish language while working is very challenging. He stayed in Denmark after graduation and the language has been a challenge for him. He said that the generalist competencies he learnt in the programme has helped him on his way. He believes that there is a boom in people who needs the life cycle competencies.

Styrmir did a bachelor in PDI before he took the master's in environmental engineering. He is currently doing an industrial PhD on climate friendly pig production and circular economy with SEGES Innovation. He is using LCA calculations and other competencies he has learned in the programme. Not many people in the company have LCA competencies, just Styrmir and his supervisor. These competencies allowed him to work in very different areas and go to international conferences.

Cord is currently a project manager in Vestas. He explained that the job competition in Odense is very hard, because it is a university city. This led him to find a job in Fredericia. He then got employed in Belgium but has since then moved back to Denmark where he plans to stay. He has used his business economics and management as well as the soft skills (i.e. project management) he learned in the programme a lot, since he graduated.

Malte did a master's in chemical engineering and biotechnology at the time where there was a profile called Eco-Efficient Engineering,

which means that he took most of the courses of the Environmental Engineering programme. He appreciated that the programme has a focus on applying the skills through project work, and he had the chance to use the skills in the real world throughout the programme. He is currently employed at Odense Municipality and still uses the skills and competencies he acquired in the programme. One thing that might be helpful to focus more on in the programme is the legislation on the area, as it is very dynamic.

Dinesh came to Denmark from Nepal five years ago and described the programme as having the best study environment he ever witnessed. He enjoyed the real-life case studies and the practical experiences. He graduated just as the pandemic hit which was a challenge to his job application and networking. The language gap further complicated the situation, but he took the Danish courses and learned the language started networking as soon as the country opened up again. He is currently employed as a civil engineer in Rambøll industry and building department working with LCA. He suggested that the programme had more student-company interactions and more integration with companies. He would also like a wider range of electives on the 3rd semester. He requested the companies to guide the graduates more and facilitate breaking the language barrier. He pointed out that job search is a very vulnerable period for international students since they don't know what they do/don't know.

13:00 Lunch and tour (Representative from Miljøstyrelsen)

13:45 Competence needs and future strategies (The stakeholders)

Jan hopes/expects for a more holistic approach, and the ability to integrate descriptions of positive and negative consequences for environment, climate, in all business and public projects.

Niels presentation showed that they do not only go by the educational background but also communication competencies, teamwork-minded, etc. Miljøstyrelsen do not take a lot of In-Company projects, but they often employ students in different student jobs.

Simon explained that Fjernvarme Fyn spends a lot of energy keeping up with EU legislation and tries to prepare for new rules. They are looking for specialists within inorganic chemistry, mechanical engineering, and electric engineering. They have just hired one of the environmental engineering students as a student worker, after he did an In-company project with them.

The candidates from SDU are less specialized than candidates from other universities. Thus, Fjernvarme Fyn will often be looking at candidates from for instance Aarhus.

Fjernvarme Fyn is considering if they can absorb non-fluent Danish speaking colleagues. However, at this point it is a barrier.

14:15 Discussion and future work (Everybody)

- The group discussed the importance of project management and the need for a course in that.
- Further, the legislation is constantly changing, and it is important for the students to at least have the framework for this.
- All engineers should have a basis knowledge of sustainability and circular economy, and the courses the environmental engineering programme offer to students from other programmes are very valuable.
- There is a need of both generalists and specialists. Thus, it is important to be a generalist in many areas but to specialize in at least one area as well.
- There is a need to facilitate the graduates towards their first job. They should also be reminded throughout the programme about the importance of consider their future job wishes. Perhaps there could be an alumni club where former students come and tell the current students about their jobs. Companies could come as well, so the students would have a place to meet the future employers in an unformal way and ask questions. It would be very valuable to create a kind of community for the current and former students. This should be possible, as the programme is so small.
- The university should be separated from the political organizations and thus the focus on legislation should not just be for the students to absorb the existing framework.
- The education is more relevant than ever, and there is a growing demand for the candidates who know about circular economy, sustainability, LCA etc. The programme develops very good system engineers which is the main focus. It is not and should not be the technical expertise.

14:50 Summary of the meeting and next steps (Ciprian)

- There will be a small meeting for the SDU members to discuss next step, and the companies are encouraged to send in any job listings or projects they might have, that students can collaborate on.
- There is also the LCA LinkedIn group.