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# DEAN'S DIGEST

## Action points driving BEWISE into 2022

*"The most valuable resource teachers have is each other. Without collaboration our growth is limited to our own perspectives"*

**Robert John Meehan**

*Whether we like it or not, education quality work is entangled in strategic processes and bureaucratic paperwork to measure and document our efforts. Sometimes it may be hard to keep an overview of all this reporting, goalsetting, and following-up activities at the different organization levels. 2022 encourages us to calm down and find a steady rhythm, so we will strive to master the discipline of keeping things as simple as possible and focus on few, but important matters. Instead of lowering our ambitions, we hone our focus and slow down tempos to avoid rush. We will execute on five action points that align with the BEWISE drivers to improve the education quality. The actions derive from the 2021 Study Programme Reports collected in the Education Portfolio Report. Fulfillment of these action points contributes to the implementation of goal 2.3 on creating and maintaining 'an attractive and inclusive study environment' in the ITU strategy (2022-2025) and should be seen in the context of the BEWISE drivers (Balanced Learning; Empowerment; Well-being; Inclusion; Support; Engagement).*

### Action 1: Teaching resources among BSc and MSc programmes

There seems to be an uneven distribution of VIP (vs. D-VIP) and large differences in the number of participants per class when comparing BSc and MSc level on several programmes. We will therefore investigate whether there is an uneven distribution, and if, how it affects teaching quality and find ways to establish a better balance, if necessary. It might be the case that bachelor students are more often receiving "mass-lectures" (onsite as well as online) whereas master students at some specializations and electives enjoy more "quality time" with their teachers. This may affect the degree to which students are actively involved, for instance it is often easier to involve the students actively and pay attention to their individual learning needs in a class of 8 than with 100 students in an auditorium. It may also affect the intensity of individual feedback and ability to motivate and retain the students. Moreover, the interaction format defines what types of research-based learning is

possible to conduct. With fewer students, you can more easily involve them in research experiments and projects or make exercises in the labs.

The VIP-D-VIP ratio is used as a simplified term for measuring whether teaching is research-based or practice-based, although most external lecturers to some extent deliver research-based teaching and many faculty members involve practice perspectives, for instance in exercise classes. This action point therefore relates to all the six dimensions in BEWISE, but particularly

- #Balanced Learning (teacher-driven vs. student-driven)
- #Empowerment (learning autonomy and application in practice)
- #Engagement (involvement and motivation).

### Action 2: Interdisciplinarity across departments and programmes

The cross-disciplinary course “CrossDit” has been under continuous revision since the course was introduced as a pilot in 2018. Despite the effort to improve the course, there has been a massive resistance among faculty and students, which made it very hard for the course to gain foothold. We will therefore pause the interdisciplinary course in 2022 and 2023 to reduce the friction and frustrations for faculty and students on the short term.

Interdisciplinary skills are deemed important by many students and faculty, the management, and employer’s panels, but we have learned from this process that we cannot build such a big and demanding course without a stronger foundation. So, on the long term we will take time needed to build a viable solution that the whole ITU community can take responsibility for and wish to contribute to. The forthcoming three years, we will work on developing a common ground of interdisciplinarity across programmes and departments, strengthen the knowledge base involving Learning Support and at the three departments, as well as improving the internal structures to ensure adequate support and understanding for cross-departmental collaboration and interdisciplinary learning for the future.

Part of this work will be to build on the student evaluations and feedback from faculty to investigate the opportunities and barriers for increasing inter-disciplinary collaboration (courses, teaching, projects, events, etc.) across departments and study programmes. Action point 2 relates specifically to four drivers in BEWISE:

- # Wellbeing (ensuring that faculty and students thrive and feel less stressed)
- # Support (strengthen the support in-house developing common ground)
- # Empowerment (interdisciplinary skills are in high demand in organizations)
- # Engagement (involvement and motivation).

### Action 3 Research-based teaching

Research-based learning is the foundation of all our programmes at ITU. Reflected in our pedagogical principles, research produces theory and evidence-based new knowledge through methodically consistent and experimental learning whereas teaching provides the students with competencies. Despite being defined as separate functions (e.g., Research and Learning support) they are complementary processes leading to a better knowledge output.

Danish universities measure research-based teaching by the distribution of research faculty (VIP) versus external lecturers (DVIP), also known as the VIP-DVIP ratio. However, we have a broad variety of research-based learning styles and levels of teacher-student engagement that the measurement method does not fully capture. So, it is not always evident to students or teachers when it happens, where it takes place, and exactly how it happens. The teaching interaction framework, introduced in the BEWISE strategy, conceptualizes, and exemplifies the variety of research-based teaching methods. One method for widening the understanding of research-based teaching and learning is to encourage faculty to apply the framework to identify how

research-based learning take place at their programmes and courses. This can be presented to students at the semester introduction and illustrated by previous teaching examples. It can also inspire colleagues on how to develop their research-based teaching approaches. Action point 3 taps into dimensions in BEWISE:

- #Balanced Learning and #Engagement (the teaching interaction framework)
- #Empowerment (theory application in practice)
- #Inclusion (involving students in understanding of how they learn)

### Action 4 Teaching Assistants

Our Teaching Assistants (TAs) present an invaluable asset for ITU. They play an important supportive role in teaching, but the administrative, hiring and recruitment processes can sometimes feel too slow, bureaucratic, and time-consuming. We will therefore find ways to optimize these processes, so it gets easier and faster to hire TAs. But the TA function also provides unique value to the student: they boost their own learning process by teaching others as it increases their knowledge retention considerably. We will therefore also look more into the different roles and qualifications of TAs. Action point 4 reflects all dimensions in BEWISE, but mainly these five:

- #Balanced Learning (Student-driven teaching)
- #Empowerment and #Engagement (Empower & Engage learning – see teaching interaction framework)
- #Inclusion (involving students in teaching)
- # Support (supporting teachers as well as other students)

### Action 5 Labs

The last Action is to strengthen the use and support of labs in a teaching context. In acknowledgement of how important labs are to the way we learn at ITU, we would like to expand these activities but also be better at documenting how a lab learning environment create value for research-based education for students and faculty involved.

Experiences integrating “knowing-what” with “knowing-how” and “knowing-who” are central in experiential, problem-based, innovative learning. Labs provide a social and experiential learning environment and are a very strong part of student-centered research-based learning. Here, students get in closer contact with faculty and other students to develop creative ideas and to experiment and innovate in collaboration with others. Instructors facilitate and guide hands-on learning processes while students test ideas and explore approaches get hands-on learning experiences that are beneficial in their future professions, can challenge underlying assumptions about how systems work and engage in tackling “real-world” challenges to build relevant competencies. But the potential of labs is underutilized and should be explored in the future. The last Action relates directly to five BEWISE drivers:

- #Balanced Learning (Connect & Collaborate – see teaching interaction framework)
- #Empowerment (Empower & Engage learning – see teaching interaction framework)
- #Inclusion (create new networks when interacting across disciplines and build understanding of complex systems and interdisciplinary approaches)
- # Support (play a unique social role by uniting interest communities)
- # Engagement (increase motivation to learn as well as to engage in research).

In 2022, The Dean of Education Support and Education Group will facilitate discussion with relevant members of the ITU community on how to realize these action points.