

Faculty vision on sustainability in education

Anyone who is embarking upon studies at the Faculty of Engineering and Architecture undeniably assumes a **societal responsibility** in doing so as well. This responsibility is precisely why an engineering faculty should make its students aware of their potential and point out to them how the knowledge, skills and attitudes they sharpen throughout their education contribute to this social responsibility.

In 1987, the UN defined **sustainable development** in its Brundtland Report as development that meets the needs of the present generation without compromising the needs of future generations. In 2015, the same organisation clarified how it intends to achieve that sustainable development by the use of Sustainable Development Goals (SDGs). In this vision text, FEA concretises how it interprets this sustainability agenda and translates it into a faculty vision for sustainability within its education.

Through the SDGs, sustainability refers to a comprehensive set of intertwined societal challenges that will have to be answered through, among others, technological development. Several of these are so **urgent** that FEA insists on referring to them as crises, in the broad sense of the word (e.g., climate crisis, biodiversity crisis). After all, that wording moreover carries the possibility of using the crisis as an opportunity and accelerator of necessary change.

From the outset, the UN has emphasised that the 17 SDGs form one indivisible whole, and FEA endorses that systemic and holistic nature. This is precisely why the faculty considers the framework a valuable tool for placing technological developments in a **broader and inherently complex context**. For an (architectural) engineer in training, a reflection on sustainability provides an opportunity to broaden one's view of society, departing from one's own technical expertise.

At FEA, tomorrow's education is partly determined and nourished by today's research. The faculty therefore strives to conduct sufficient research supporting this sustainability vision. However, due to the specificity of each research domain and the broader context and evolution in which it finds itself, it is impossible to apply an unequivocal standard with regard to sustainable research and technology. However, everyone in the faculty (i.e., researchers, staff and students) should always maintain the necessary critical eye and consider the extent to which their own **internships, theses and faculty research that supports education** can be considered relevant and responsible from a sustainability perspective.

At FEA, **each study programme is developing a vision of sustainability** in its area of expertise. The study programme implements its sustainability vision throughout the entire educational pathway the student experiences (e.g., via a sustainability curriculum) and is thus imbued with sustainability. Moreover, the study programme communicates its vision to all its (future) students and thus to society at large.

By highlighting social context and complexity in addition to science and technology from the first bachelor year onwards, each study programme provides its students with necessary insights, intellectual challenge and motivation. In this way, it **continuously sharpens the sustainability competencies of its students** and alerts them of the broader social reality and the resulting

responsibility of the engineer throughout the entire educational track. In particular, FEA sensitises students who spend time abroad as part of their studies to put the skill of thinking sustainably, which has been instilled throughout their studies, into practice immediately.

Starting students do not yet have the substantive expertise of the specialism they will later choose. Therefore, **intrapersonal and interpersonal skills** will initially typically make up a larger share of a sustainability curriculum, laying a solid foundation – fully in line with the SDG framework – for subsequent, more substantive collaborations. Indeed, even when students acquire more specialised knowledge and skills over time, the complexity of the sustainability issue will inevitably require them to engage in collaborations to transcend the boundaries of their own specialism.

Simultaneously, FEA recognises that on a topic such as sustainability, students may possess expertise complementary to that of their lecturers and supervisors. The faculty therefore encourages these students to fully unleash the sustainability potential of their education through **constructive dialogue with teachers and study programmes**. Such collaborations can reveal both through existing representations as through new initiatives such as student-led education.

Those students who have completed studies at the Faculty of Engineering and Architecture will therefore not be mere experts in their own field. By systematically questioning one's own expertise within a broader social context on the one hand and collaborating beyond the boundaries of one's own discipline on the other, a student at FEA will gain increasing insight into the complexity of sustainable development. Those graduating from FEA thus take on the responsibility of contributing to a sustainable society and to *Dare to Think* sustainably.