

The link between entrepreneurship education and sustainability

The University of Applied Arts, Vienna

The case in summary

The University of Applied Arts Vienna ('the Angewandte') has developed a bachelor's and a master's programme on socially responsibility, (in terms of the UN Agenda 2030) entrepreneurship education and complexity. The experience of the Angewandte is relevant to the HEInnovate community for at least three main reasons. First, it illustrates that entrepreneurship education encompasses a large domain of activities, fields and practices. Second, it shows that entrepreneurship education is relevant in all kinds of higher education institutions. Third, it demonstrates the increasing importance of entrepreneurial skills vis-à-vis the grand challenges of the next future, including social and environmental sustainability. This case study briefly discusses the evolution of entrepreneurship education at the Angewandte, and the important role the University of Applied Arts plays in the Vienna innovative ecosystem and far beyond.

1.1 Introduction to the Vienna University of Applied Arts

Located in the heart of the capital city of Vienna, the University of Applied Arts was founded in 1867, following the example of the Arts and Crafts Movement in England, to set up a place of advanced education, where artists and teachers would be equally trained to serve the demands of the "art industry". The combination of scientific and artistic skills, unique to this institution's foundation, has now resulted in interdisciplinarity and the inclination to find innovative and creative solutions to complex world problems.

The Angewandte focuses on practice, research and education in arts and design, such as architecture, painting, sculpture, design and industrial design. It is home to some 430 staff and is currently attended by about 1700 students,¹ 41% of which come from 70 different countries to study in the University's 13 institutes. The active output of the students is reflected in the 200 exhibitions a year, in addition to events and public presentations.

1.2 Entrepreneurship and sustainability

Numerous higher education institutions, including the Angewandte, are looking to play an influential role in creating a more sustainable society. This reflects society's increased expectations to be more sustainable which in turn have paved the way for the development and diffusion of more eco-friendly narratives, policies and technologies.² In parallel to these new opportunities, organisations are also having to respond to a world characterised by tightening regulations, shrinking resource supplies, climate change effects and shifting social pressure.³

¹ See www.dieangewandte.at/berichte

² Witjes and Lozano (2016) Collaboration for Circular Economy: Linking sustainable public procurement and business models, Utrecht University. Available at: <https://www.sciencedirect.com/science/article/pii/S0921344916300994>

³ Bocken et al. (2014) A literature and practice review to develop sustainable business model archetypes. J. Clean. Prod. 65,42–56. Available at: <http://dx.doi.org/10.1016/j.jclepro.2013.11.039>.

In this context, Angewandte's programme in sustainable entrepreneurship ('Cross-Disciplinary Strategies – Applied Studies in Art, Science, Philosophy, and Global Challenges') is a way of taking on societal responsibility, and additionally, generating competitive advantage through identifying sustainability as a new opportunity to establish new career and business opportunities. Nevertheless, education and research on sustainable entrepreneurship is still in its fledgling stages at many institutions. Recent research, for instance, has contributed profoundly to a more complete and systematic approach to education for sustainable development and has also stimulated discussion about teaching related course design and delivery.⁴ However, in practice, many (sustainable) entrepreneurship courses focus heavily on a business or technical perspective.

1.3 The HEI provides diverse formal learning opportunities to develop entrepreneurial mindsets and skills.

Based on this foundation, the University of Applied Arts, Vienna, launched a bachelor's degree in "Cross-Disciplinary Strategies. Applied Studies in Art, Science, Philosophy, and Global Challenges" to develop students' ability to thrive in complexity, through creative thinking. It is an interdisciplinary programme and provides students with a mix of artistic and scientific skills. For instance, basic principles of art, philosophy, natural sciences, engineering and the humanities are an integral part of the curriculum. In addition, the bachelor's specifically focuses on areas where creative and entrepreneurial thinking will be needed, such as automation, artificial intelligence and genome editing.

The study programme also offers new teaching approaches with the aim of building the capabilities to respond to the complex dynamics of a globalised and interconnected world, as well as applying artistic strategies in order to confront traditional ways of knowledge production. The programme promotes collaboration and teamwork, and enables the planning, creation, implementation, analysis and inspired leading of projects. Creativity/entrepreneurship teaching has also generated engagement opportunities for the Angewandte. For instance, a Vienna-based company that is currently developing digital technologies for self-driving cars has asked the University of Applied Arts, and in particular, the students of the bachelor's course, to help with the streamlining digital frameworks, in order to improve the reliability of self-driving technologies.

Capitalising on the success of the bachelor's, which has attracted students and generated new exchange opportunities with businesses, the Angewandte, in cooperation with Tongji University Shanghai, will start a new joint master's programme in "Global Challenges and Sustainable Developments" in Spring 2021. The curriculum of this double degree programme requires that students spend two semesters at the respective host university. In the course of the programme students from both universities will be working together during two semesters, once in Vienna and once in Shanghai.⁵ The joint master's programme is offered as part of the newly established department for "International Programmes in Sustainable Developments" at the Angewandte, which offers an innovative and future-oriented international study programme as well as international cooperation projects in sustainable quality education. The master's programme will be taught in English and will focus on innovative forms of university education in aesthetic, artistic, and inter-, cross- and transdisciplinary strategies, as well as in trans- and intercultural competences for shaping and designing the future world. Students will acquire skills and abilities that support them in "provoking the system" by combining artistic methods, creative strategies, and design-thinking concepts, with a deeper understanding of societal issues and

⁴ Lozano et al. (2015) A review of commitment and implementation of sustainable development in higher education: results from a worldwide survey, *Journal of Cleaner Production*, Vol. 108, pp. 1-18.

⁵ Students initially enrolled at the Angewandte will acquire 60 ECTS at Tongji University in Shanghai.

challenges. They will obtain the competences to critically reflect and consider the global impacts of economic and political changes in the relationship between China and the Western world.

The programme is project-based and gives students the freedom to choose most parts of their study fields, be it through the selection of their thesis topic or their open choice from a wide range of courses and modules offered throughout all Angewandte's institutes. The aim is to educate experts in transformative innovation processes as well as to become "cultural translators" in Chinese-European cross-disciplinary projects.

1.4 The HEI provides diverse informal learning opportunities and experiences to stimulate the development of entrepreneurial mindsets and skills.

The institution has become increasingly specialised in inter- and transdisciplinary project work, complex design, innovation and entrepreneurship. For example, the Angewandte Innovation Laboratory (AIL)⁶ focuses on art and artistic research as a driving force for innovation, offering opportunities for exchange between the university and the public, thematic project work and out-of-the-box initiatives.

By being part of project work on different levels and in different roles, students gain valuable hands-on experience for their future professional practice as artists and designers who often will go on to work as entrepreneurs producing and selling their art after graduation. These interdisciplinary activities developed by the Angewandte have shed light on the complementarity of business, entrepreneurship and arts and design in educating students.

As part of the graduate activities of the "Cross-Disciplinary Strategies" programme, students are stimulated to navigate complex processes of the globalised world, developing critical thinking, cooperation skills and goal-oriented learning – also in the context of internships that can be recognized as a part of the programme. Its approach aims to qualify students for work in both the public and private sectors, giving students the chance to explore opportunities in universities as well as external research facilities, where their interdisciplinarity will be an essential skill given the complexity of the research subjects.

1.5 The HEI demonstrates active involvement in partnerships and relationships with a wide range of stakeholders

The implementation of these programmes has also affected the institutional activities of the Angewandte, which has been strengthening its relationship with the Alliance of Sustainable Universities in Austria and its active participation in the UniNEtZ project. UniNEtZ was established in 2019 as a project dedicated to delivering a report of options to the Austrian government on the implementation of the UN Sustainable Development Goals (SDG) as well as a strategy of including a broader society. UniNEtZ involves scientists and artists from 18 partner institutions, contributing to the project with interdisciplinary expertise, ranging from the social and natural sciences to technology, art and music.

The Angewandte contributes especially to SDG 8 (Decent Work and Economic Growth) by leading the responsible working group and to facilitating interaction between different scientific and artistic disciplines throughout the UniNEtZ project, in order to effectively address the overarching goals together.

⁶ www.aialab.at

Source

This case study was prepared by Raffaele Trapasso from the OECD. The status of information in this case study is December 2020.

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Key links

<https://www.dieangewandte.at/berichte>

https://dieangewandte.at/cds_en

https://www.dieangewandte.at/en/institutes/arts_and_society/cross_disciplinary_strategies

<https://www.sciencedirect.com/science/article/pii/S0921344916300994>

<https://www.sciencedirect.com/science/article/pii/S0959652613008032?via%3Dihub>