

Learning and teaching for transformational capacity:

Today's needs for learning and teaching innovation

imply integrated institutional transformation

EUA Learning and Teaching Forum 2021

Session III: Connecting the dots - How to transform education to generate comprehensive knowledge and skills

Dr. Sybille Reichert, 18 February 2021

Quadrants of Transformation in Higher Education:

Critical moment with great potential for integrating teaching & learning reforms with overall institutional transformation

World – Global Challenges

Ubiquitous transformation -

urgent needs for societal, ecological and technological transformation,

- rethinking and redesigning current practices,
- redefining boundaries or relations: state/market, human/machine, humanity&technology/nature, public/private, social identities or divides, global north/south

↑ Innovation revisited -

New emphasis on / notion of innovation:

- joining technological with social innovation
- multi-stakeholder-based
- challenge-driven
- systemic, trans-sectoral
- mixing public and private institutions and aims

People

New urgency for t&I reforms – for redefining competences & taking student-centered learning seriously:

critical and transformational capacity

ownership of learning process

New centrality of university – institutional transformation

unavoidable, incl. integration of teaching, research, knowledge exchange

Value of Higher Education: Responsible citizenship and critical analysis & reflection Institutions

Innovation Needs and Competences: Teaching reforms affect institutional culture and policy

Table 2 Learning and teaching: needs, responses and framework conditions

New needs and concerns related to universities' role in innovation	Institutional responses of universities	Necessary framework conditions	
Qualitative aims:	Teaching reforms:	Regulatory:	
Prepare for disruptive innovation	Extend interdisciplinary, project-based	Sufficient academic autonomy of	
 Promote systemic understanding and competences 	learning	 universities for introducing new study programmes and design their content Sufficient academic autonomy of universities for the selection of students to 	
	 Support student self-organisation 		
Create game-changers	Improve teaching innovation services		
 Extend students research-related competences 	 Extend mentoring, including by external stakeholders 	study programmes	
		Financial:	
 Promote digital skills 	Provide entrepreneurial modules, as	Sustainable funding for low student/	
Foster entrepreneurial mind-set and skills	extra offer or integrated into curriculum.	staff-ratios to allow for project-based	
	 Develop digital skills modules 	learning, orientation in diverse learning paths, and mentoring	
	Encourage and support start-ups		

New urgency for t&l reforms – redefining competences & making students owners of their learning

importance of research competences

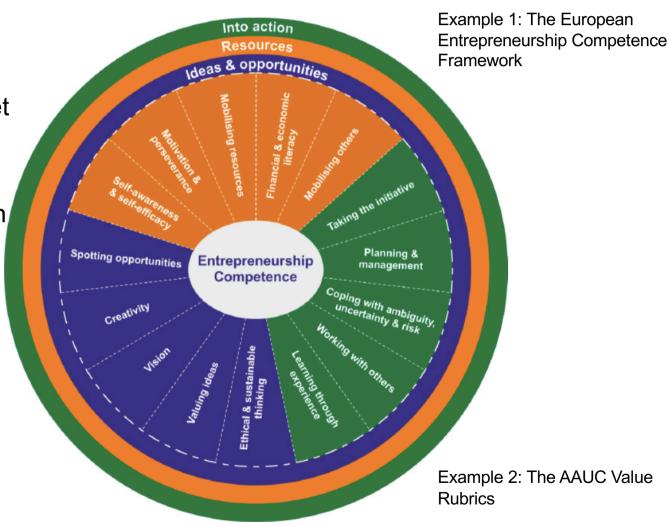
entrepreneurial mind-set & competence

interdisciplinary understanding based on disciplinary comp.,

intercultural, global understanding

Information, data & science literacy

Critical thinking and understanding of scientific methods



Example 2: AACU 16 Value Rubrics with different levels of learner performance & autonomy

CIVIC ENGAGEMENT VALUE RUBRIC

for more information, please contact value@aacu.org



Definition

Civic engagement is "working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values, and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes." (Excerpted from *Civic Responsibility and Higher Education*, edited by Thomas Ehrlich, published by Oryx Press, 2000, Preface, page vi.) In addition, civic engagement encompasses actions wherein individuals participate in activities of personal and public concern that are both individually life enriching and socially beneficial to the community.

Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone Milestones		Benchmark	
	4	3	2	1
Diversity of Communities and Cultures	Demonstrates evidence of adjustment in own attitudes and beliefs because of working within and learning from diversity of communities and cultures. Promotes others' engagement with diversity.	Reflects on how own attitudes and beliefs are different from those of other cultures and communities. Exhibits curiosity about what can be learned from diversity of communities and cultures.	Has awareness that own attitudes and beliefs are different from those of other cultures and communities. Exhibits little curiosity about what can be learned from diversity of communities and cultures.	Expresses attitudes and beliefs as an individual, from a one-sided view. Is indifferent or resistant to what can be learned from diversity of communities and cultures.
Analysis of Knowledge	Connects and extends knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline to civic engagement and to one's own participation in civic life, politics, and government.	Analyzes knowledge (facts, theories, etc.) from one's own academic study/field/discipline making relevant connections to civic engagement and to one's own participation in civic life, politics, and government.	Begins to connect knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline to civic engagement and to tone's own participation in civic life, politics, and government.	Begins to identify knowledge (facts, theories, etc.) from one's own academic study/ field/ discipline that is relevant to civic engagement and to one's own participation in civic life, politics, and government.
Civic Identity and Commitment	Provides evidence of experience in civic- engagement activities and describes what she/he has learned about her or himself as it relates to a reinforced and clarified sense of civic identity and continued commitment to public action.	Provides evidence of experience in civic- engagement activities and describes what she/he has learned about her or himself as it relates to a growing sense of civic identity and commitment.	Evidence suggests involvement in civic- engagement activities is generated from expectations or course requirements rather than from a sense of civic identity.	Provides little evidence of her/his experience in civic-engagement activities and does not connect experiences to civic identity.
Civic Communication			Communicates in civic context, showing ability to do more than one of the following: express, listen, and adapt ideas and messages based on others' perspectives.	Communicates in civic context, showing ability to do one of the following: express, listen, and adapt ideas and messages based on others' perspectives.
Civic Action and Reflection	Demonstrates independent experience and shows initiative in team leadership of complex or multiple civic engagement activities, accompanied by reflective insights or analysis about the aims and accomplishments of one's actions.	Demonstrates independent experience and team leadership of civic action, with reflective insights or analysis about the aims and accomplishments of one's actions.	Has clearly participates in civically focused actions and begins to reflect or describe how these actions may benefit individual(s) or communities.	Has experimented with some civic activities but shows little internalized understanding of their aims or effects and little commitment to future action.
Civic Contexts/Structures	Demonstrates ability and commitment to collaboratively work across and within community contexts and structures to achieve a civic aim.	Demonstrates ability and commitment to work actively within community contexts and structures to achieve a civic aim.	Demonstrates experience identifying intentional ways to participate in civic contexts and structures.	Experiments with civic contexts and structures, tries out a few to see what fits.

21st Century Teaching & Learning Reforms presuppose integrated institutional transformation

- Increasing importance of research and research competences (data & science literacy)
- Research projects at all levels incl.
 bachelor
- High value of research in academic career progression
- Integration of industry/ user / citizen perspectives and data in research projects, incl. bachelor and master projects, community learning
- Strategic partnerships and Joint (infra-) structures

Research

Teaching & Learning

- Student-centered learning
- Increasing levels of learner autonomy
- Project-based learning
- Teachers as learning coaches, supervisors, mentors
- Requires didactic training, continuing professional development for academic staff Extended support services

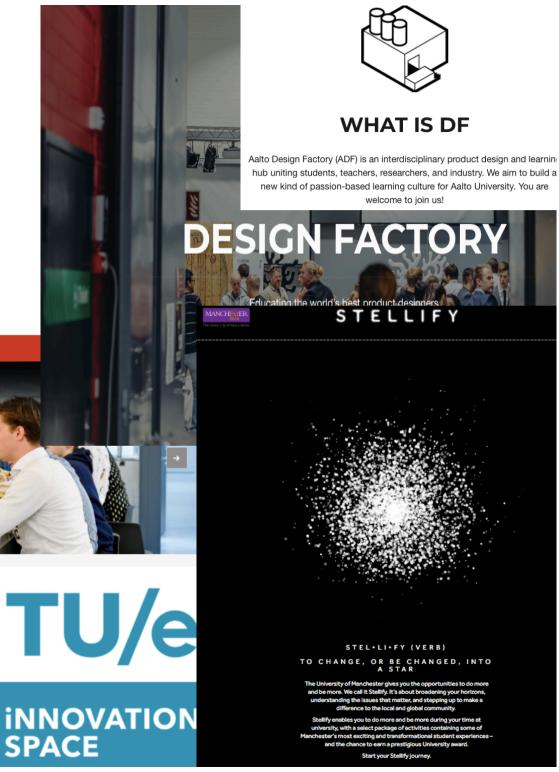
Knowledge Exchange Institutional
Development
&
Governance

Academic freedom
Expert institution:
Large degree of
autonomy and
participation in
institutional
development for
students, academic
staff

 Involvement of external stakeholders in boards,strategic dialogue, curriculum development

Examples:

Aalto Design Factory TU/e Challenge Projects Manchester Univ. Stellify TUMentrepreneurship education/StarTUM





TU/e innovation Space is a community and facility that supports interdisciplinary hands-on

It's a place where students learn to deal with complex societal and industrial challenges.

Furthermore, it provides a space and support for lecturers that develop and offer hands-on

SPACE

education, engineering design and entrepreneurship.

courses and want to contribute to innovation in education

COMMUNITY PLATFORM -

Projects

Industry

Events

Our people Contact us

Blog Tom Selten and Bas Verkaik

Example: StarTUM (start-up/ stardom)

StarTUM - The Integrated TUMentrepreneurship Education Approach

TUMentrepreneurship Education instructs and guides its participants through all the different phases of establishing a business, ensuring that the content and method of instruction is practically oriented and tailored to the needs of each project. Our program is geared toward participants with a variety of disciplinary backgrounds and experience, from Bachelor's and Master's students, to doctoral and post-doctoral candidates through to scientists and professionals.

S	Sense	What options do I have besides traditional employment? See for yourself!
Т	Touch \Rightarrow	Can I make a living from being an entrepreneur? Get in touch with real entrepreneurs!
A	Assess \Rightarrow	Do I want to become an entrepreneur? Find out how it feels to be an entrepreneur!
R	Recognize $ ightarrow$	What do I have to do to become an entrepreneur? Recognize opportunities and get all the important information!
Т	Take-off $ ightarrow$	How do I get my own business started? Get Practical!
U M	Understand More →	How can I understand more about entrepreneurship theory and advance it further by doing cutting edge research? Delve deep!

EUA STUDY

The Role of Universities in Regional Innovation Ecosystems

https://www.eua.eu/resources/publications/819:the-role-of-universities-in-regional-innovation-ecosystems.html

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