



"Science, research and education" | 04.03.2021

Project: DigiTeRRI | GA n° 873010

Event Format: web-based round table discussion, bringing together regional/national stakeholders and experts

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To be published on webpage: www.digiTeRRI.eu/styria

Executive Summary

Roundtable 2 "Science, research and education""

The second DigiTeRRI round table discussion regarding "Science, Research and Education" was a successful sequel of events in the preparation phase of the Styrian roadmap development. The round tables support the roadmap process, help to better understand the regional characteristics, the future challenges for the various stakeholder groups, their different perspectives and needs in context with digitalization.

Key topics for the round table discussion are derived from the Styrian roadmap vision (see graphic below).



Styrian Vision

further information: <https://www.youtube.com/watch?v=ul10MhRhq0s&feature=youtu.be>

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The second web-based round table discussion focused on the different challenges and needs in science, research and the tertiary education sector. Representatives of regional stakeholders like universities, universities of applied sciences and funding organizations discussed with Austrian experts in informatics and higher education in informatics the current state and future fields of action. The speakers of the panel contributed their personal and professional experiences in the 90 minutes discussion event. More than 15 participants attended the discussion.

Discussion panel of the second roundtable:

- Sonja **Gögele** | FH Joanneum –Head of Internet-Technologies & Applications
- Martin **Stockinger** | Montanuniversitaet Leoben, Chair for Technology on Metals Forming
- Alexandra **Mazak-Huemer** | Montanuniversität Leoben, Lehrstuhl für Subsurface Engineering
- Christian **Huemer** | TU Wien, Dean of Academic Affairs in Informatics
- Iris **Groher** | Johannes Kepler University Linz, Institute on Business Informatics and Software Engineering
- Susanne **Urschler** | Steirische Wirtschaftsförderungsges.m.b.H., Digital Innovation Hub



Panel members and participants of the second Roundtable „Science Research and Education“

Moderated by Brigitte **Kriszt** | Montanuniversitaet Leoben
 Introduction to the DigiTeRRI Project by Teresa **Riedenbauer** | ZAT

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Other members of project team:

Julia **Schmidbauer** | Montanuniversitaet Leoben

Erich **Weber** | Standort und Marketing Bruck an der Mur GesmbH

And other registered participants like Marianne Hörlesberger (AIT Austrian Institute of Technology, Project Coordinator) and Iris Filzwieser (METTOP, Member of the DigiTeRRI Advisory Board), et al.

Main statements and discussion points

Cooperation and science

- In the area of digitalization, interdisciplinary cooperation is crucial.
- Conflict between evaluation metrics at universities and research in the objectives for society -> cultural / institutional change necessary.
- Successful role models are required.
- More potential for international networking.
- Challenge of transforming theoretical IT concepts into a "real" industrial engineering context.
- Challenge "open science" in interdisciplinary projects - strive for an open culture of cooperation.
- Building trust and crossings boundaries of science disciplines.

Cooperation Industry and Business (Technologytransfer)

- Barriers in cooperation with business: confidence building for SMEs is the key.
- Solely technical solutions are not enough - companies also need holistic support in terms of change management.
- Digi Hub South, which will start in April, will focus on SME in particular. Information, cooperation, networking and further training in companies are the main actions.
- Individual disciplines are well covered –challenge of transferring them into industrial applications.
- Science goes public - digitalization goes SME and industry.
- Different expectations of SMEs and research institutions/higher education organizations: solutions in a short time vs. open and unbiased scientific projects.
- Small projects (eg with students) as a starting point can help overcome inhibitions.
- Potential for digitalization start-ups who could close the application-oriented gap between science and business.
- Cooperation with platforms and special interest groups in order to promote the topic of "digitalization" for economy more intensively and in an application-oriented manner.
- Support of entrepreneurship ambitions of young academics.

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Academic education and knowledge transfer

- Problem: Studies related to digitalization could be more attractive for young people, in general lower interest of young people in technical studies.
- It is not only important to train the younger generation, also older generations in science and business have to be involved.
- The aim is a "common language" between young and old, computer scientists and scientists in traditional engineering fields.
- Abstract thinking must be encouraged from an early age = basis for starting innovation processes.
- There are no differentiated job descriptions.
- Modernizing school curricula is recommended.

Being an attractive studying, living and working area

- Problem of promoting "Upper Styria" as an attractive location for science, work and life to the outside world. Counteracting the urbanization trend in order to keep students and (academic) employees in the region or to win them over.
- Branding of Upper Styria from traditional industry to digital transformation region necessary.

Gender aspects

- Attracting young women for technical studies, increasing number of female students.
- The challenge of attracting young women (early enough) to the topic of "digitization", partly downward trend, adaptations in teaching (peer learning, group exchange and cocreation of knowledge) can reduce the gender gap.
- Create special training environments and options for women (peers, coaching, teaching in groups of women).

Summarizing the key topics of the discussion:

The following major topics were addressed in the 2nd Round Table:

- Existing regional programs in the tertiary education regarding digitalization (computer science, internet technology, software engineering) and the problem of the low student numbers, appeal to young people from other regions of Austria and Europe.
- Attracting women and increasing the proportion of women among the students, special teaching environments for women.
- Integration of knowledge and skills in the existing technical training, interdisciplinary cooperation in research and training.
- Academic training for people with professional experience.
- Strong links between research, studies and cooperation with other sciences as well as business.

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- Opening of IT to other technical disciplines and application topics of companies, building trust in order to carry out cooperations, especially with SMEs (support through new transfer approaches such as hubs - creating spaces for cooperation).
- Usage of new cooperation models enabled by digitalization.
- Creation of a positive image of Upper Styria as a perfect place to live, study and work
- Reduce gender gap.