Beyond Borders & Across Subjects

SciLMi

Teacher Academy

Strengthening EU Values through Digital Participation
Riga, Latvia | 28-30 October 2025

EduNet Europe

TOGETHER FOR EDUCATION

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Today's Challenges

EMPOWERING TEACHERS

Tomorrow's Opportunities

SciLMi

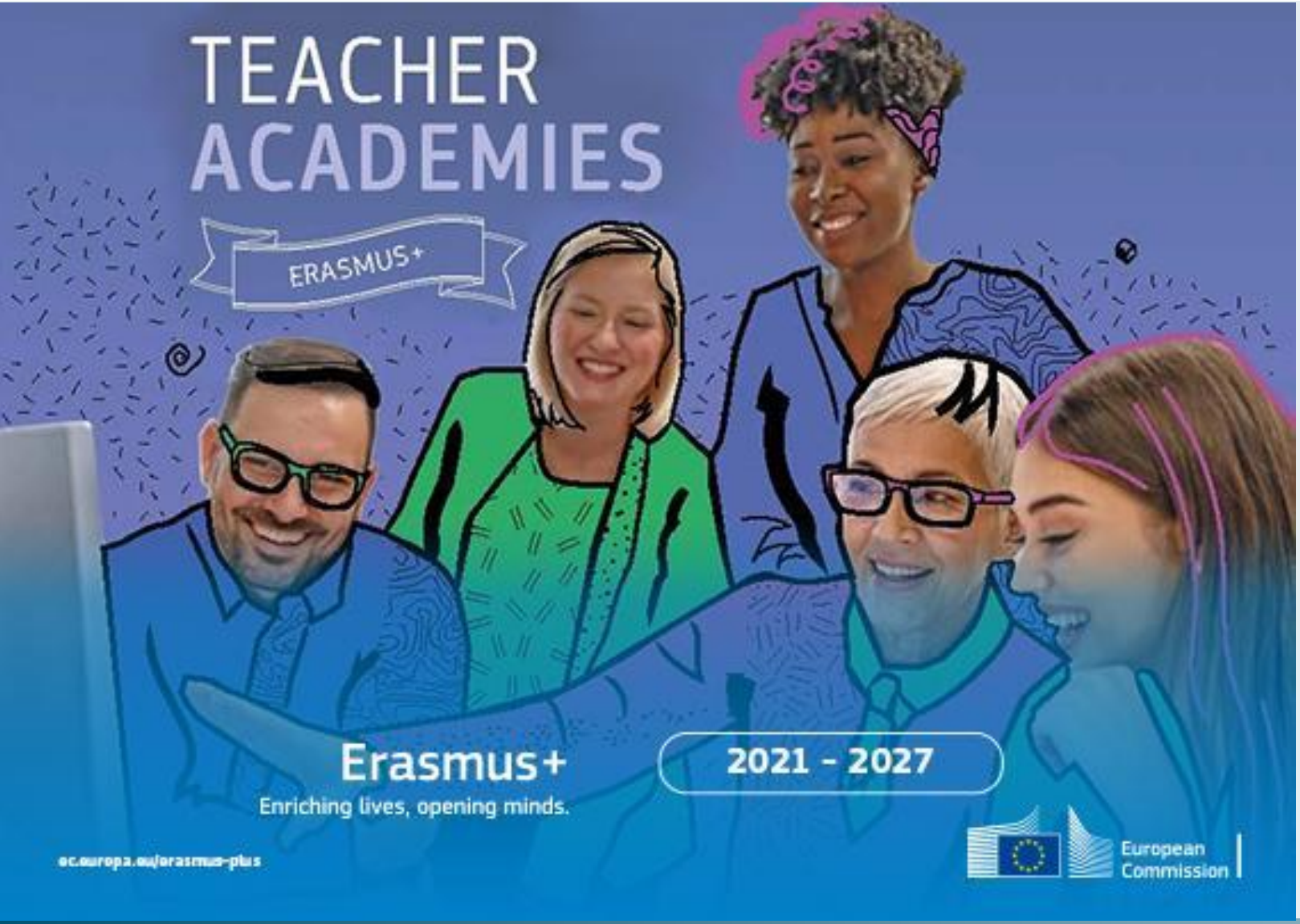
Meta-Scientific Literacies
in the
(Mis-)Information Age

www.scilmi.eu

Co-funded by
the European Union

DATEVSTIFTUNG ZUKUNFT

Erasmus+ Teacher Academy



- create networks of **communities of practice** on teacher education
- co-create and offer **courses for pre- and in-service teachers** on EU priorities such as learning in the digital world, sustainability, equality and inclusion
- develop and test different **models of mobility** in ITE and CPD
- make **mobility an integral part** of teacher education in Europe
- develop **sustainable relationships**

SciLMi Partnership

NTNU
Kunnskap for en bedre verden

OSLOMET

FaktaBaari EDU

universität innsbruck

HÉTFA RESEARCH INSTITUTE

Palacký University Olomouc

USC
UNIVERSIDADE DE SANTIAGO DE COMPOSTELA

ΙΔΡΥΜΑ ΕΥΓΕΝΙΔΟΥ 1954

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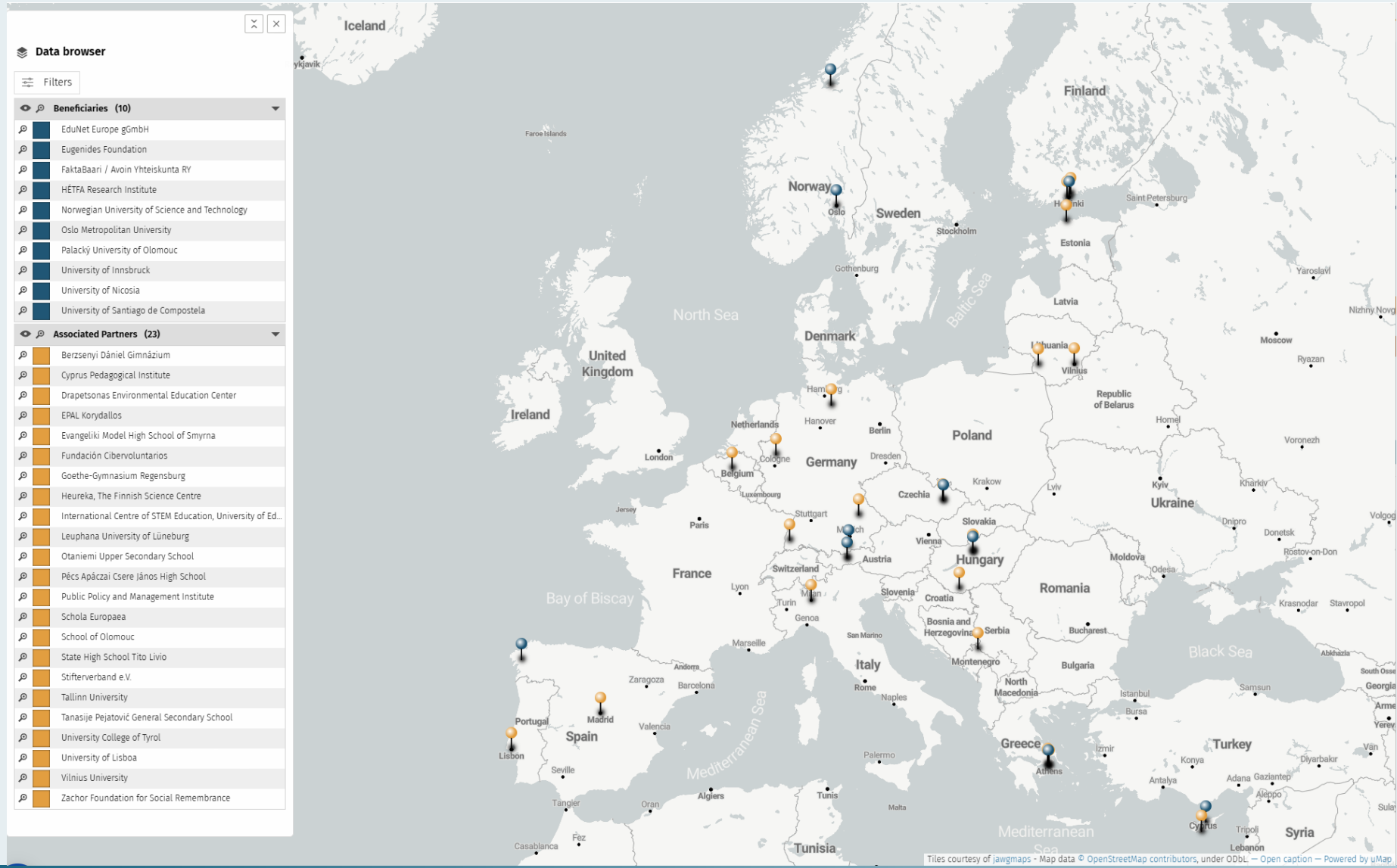
TOGETHER FOR EDUCATION

UNIVERSITY of NICOSIA

SciLMi Associated Network



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Dimitris Jourouvakalis Anna Krulatz Inés Martínez Pena
Jonathan Osborne Jasmin Peskoller Katerina Petropoulou
Corinna Pieber Birger Pistohl Csenge Polgár Blanca Puig
Aki Saariaho Thomas Schubatzky Dagmar Sedláčková
Maria Steger Eszter Szőnyi Stig Tobiassen
Ingeborg Vangsnes Sini Virtanen Maria Vrikki

Digital Transformation

Clicks are changing
the world.

Digital Transformation

Digital Transformation

Avoid chemical ingredients.
Natural ones are much better
for your health!

Getting vaccinated will kill you!

Eating sea lettuce will prevent you from getting COVID-19.

Do you know how you can find out if you have been infected by SARS-CoV2? Just hold your breath for ten seconds. If you can't, you have caught the virus!

Climate change is a hoax.

An injection inside the human body with a disinfectant like bleach or isopropyl alcohol is likely to combat the virus.

Renewable energy can only work when it's not cloudy or windy.

IN 




WE [MIS]TRUST

Socio-Scientific Issues (SSI)

- Climate Migration
- Waste Pollution
- Atmospheric Pollution
- Infectious Diseases & Pandemics
- Food & Water Scarcity
- Genetic Engineering

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- Climate Migration
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open-ended problems

societal impact

controversial

ethical dimension

diverse potential solutions

⇨ no ultimate truth,
only **informed** opinions

FIGURE C

Global risks ranked by severity over the short and long term

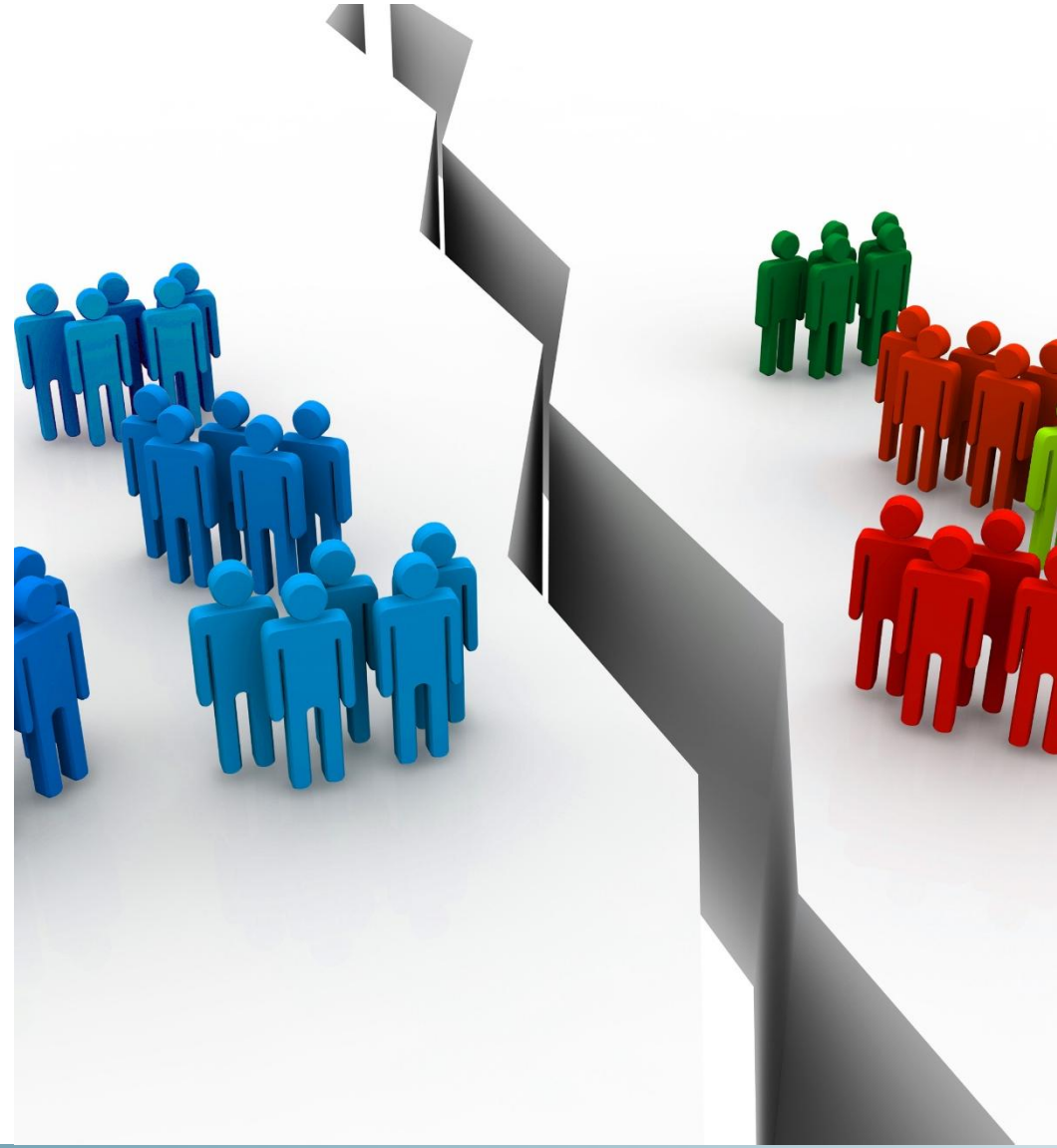
"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period."

Source

World Economic Forum Global Risks Perception Survey 2023-2024.

SciLMi Key Priority in Education

How can teachers empower *all* learners to act as **competent and effective democratic citizens** in a world flooded by socio-scientific mis- and disinformation?



Rethinking (Teacher) Education

(Mis-)Information Age

- Internet + AI → (mis)information readily accessible

Complex Global Challenges → Socio-Scientific Issues

- no single-discipline solutions

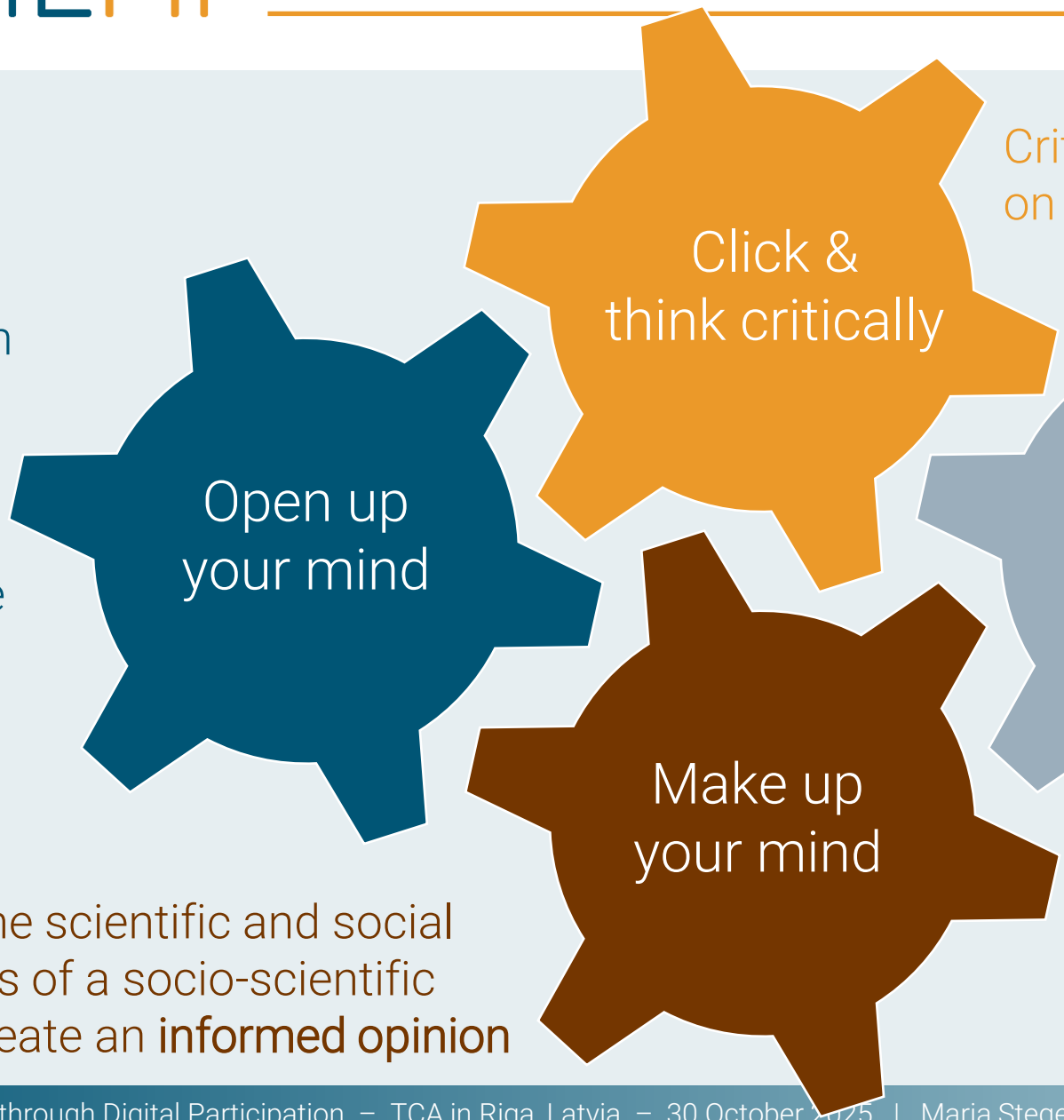
Education must help learners to

- ➡ think outside the box and across subject boundaries
- ➡ contextualise and connect their learning to real-world problems
- ➡ integrate knowledge with 21st-century skills

Cross-Disciplinary Approach

Meta-Scientific Literacies

SciLMi Model of Meta-Scientific Literacies



Critically analyse **information** on a socio-scientific issue

Identify, search & preselect **information sources** on a socio-scientific issue

Exercise **civic engagement** on a socio-scientific issue

Evaluate the scientific and social dimensions of a socio-scientific issue to create an **informed opinion**

Meta-Scientific Literacies

Identify, search & preselect **information sources** on a socio-scientific issue

Recognise your own information bubble or echo chamber.

Use search strategies to find (more) information sources on the socio-scientific issue.

Exclude the (superficially) least relevant search results / feed posts on the socio-scientific issue.

Select the most credible information sources.

Meta-Scientific Literacies

Critically analyse **information** on a socio-scientific issue

- Differentiate between fact and opinion.
- Identify biased information.
- Analyse the logical consistency of information.
- Select the most informative and relevant insights.

Meta-Scientific Literacies

Explore the viewpoints on the socio-scientific issue comprehensively.

Explore impacts and solutions as well as parties affected by the socio-scientific issue.

Evaluate the trade-offs between the scientific, social and ethical dimensions.

Weigh your viewpoints against the various dimensions of the socio-scientific issue.

Evaluate the scientific, social and ethical dimensions of a socio-scientific issue to create an **informed opinion**

Meta-Scientific Literacies

Design a plan for your civic engagement to address the socio-scientific issue.

Communicate established viewpoints on a socio-scientific issue: Inform.

Communicate your viewpoint on a socio-scientific issue: Argue.

Take action to become a responsible democratic citizen.

Exercise **civic engagement** on a socio-scientific issue

Values, Dispositions & Attitudes

Appreciation for the Nature of Science

Epistemic Humility

Curiosity & Awareness

Reliability & Commitment

Civic-Mindedness

Respect, Openness & Tolerance

Hope & Futures Literacies

Will Power

SciLMi Bridging Theory and Practice

Competence-Based Approach

WHAT FOR Learning Objective

- WHAT Learning Outcome → verbs of "external visibility" (Bloom) → assessment
  a. HOW by doing …
  b. HOW by doing …
  c. HOW by doing …

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  a. HOW by …

Meta-Scientific Literacies

Critically analyse **information** on a socio-scientific issue

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Competency-Based Approach

WHAT FOR In order to **identify biased information**, students need to

- **WHAT** identify manipulation strategies (emotional appeal, social pressure)
  a. **HOW** **by** examining the use of ☑ rhetorical devices
  b. **HOW** **by** identifying ☑ sensational or emotional language

- **WHAT** identify deceptive tactics (lying, omission, fabrication, misrepresentation)
  a. **HOW** **by** checking if the information presents multiple viewpoints or if it is one-sided
  b. **HOW** **by** evaluating whether the author or messenger might have a ☑ motive, such as financial benefit, political gain, or fame, that could affect the objectivity of the information

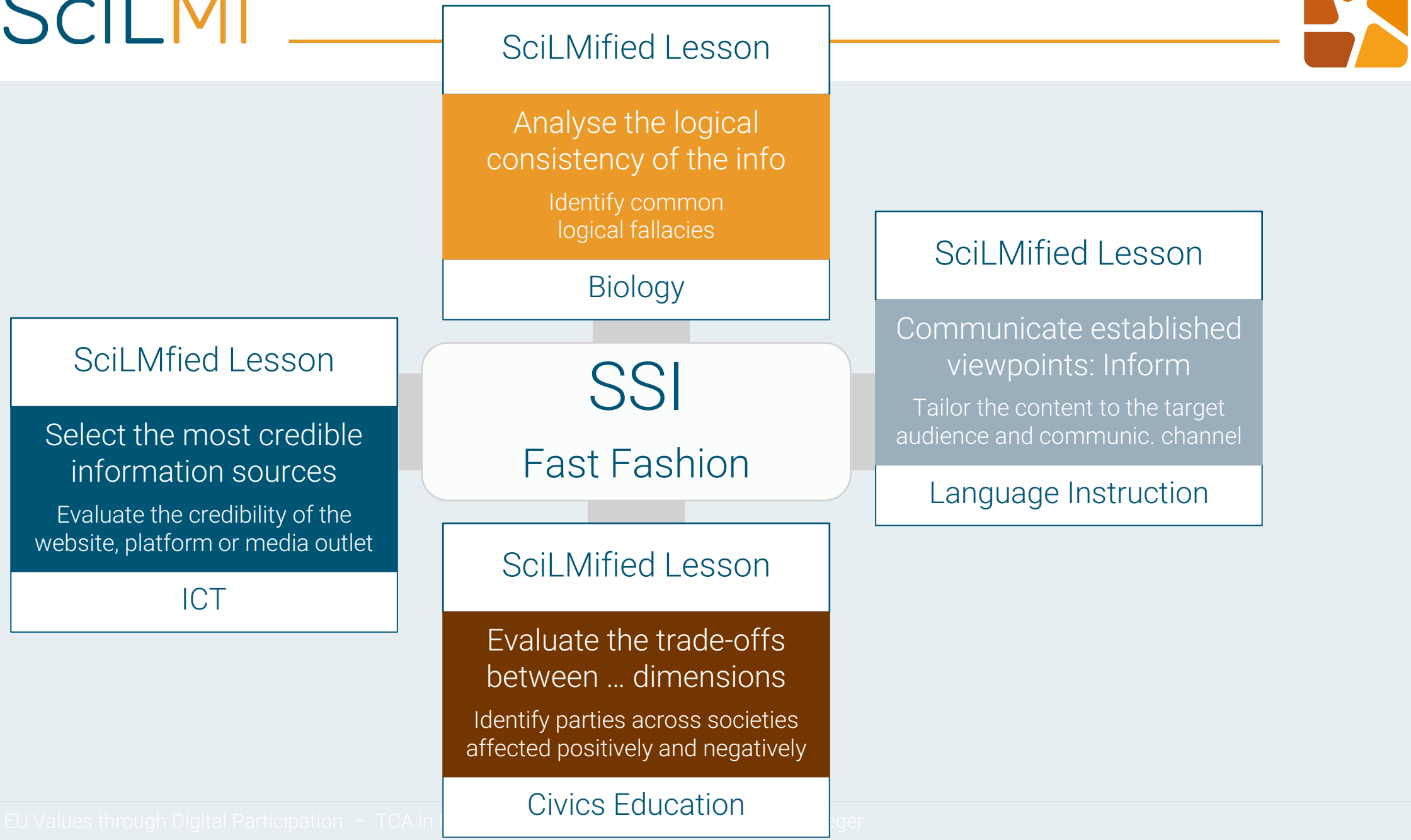
Practice-Oriented Approach

Teachers need not reinvent their teaching.

- subject-specific learning goals
  - unchanged
- meta-scientific literacies
  - woven into everyday teaching
  - complement subject-specific learning goals
  - deepen subject knowledge
  - connect subject knowledge with interdisciplinary thinking

Low-Prep Cross-Subject Planning

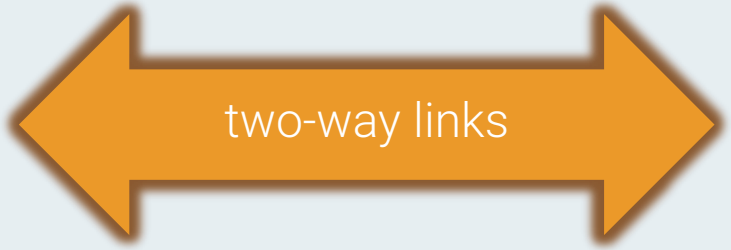
SciLMi


SciLMified Lesson
Analyse the logical consistency of the info
Identify common logical fallacies
Biology
SciLMfied Lesson
Select the most credible information sources
Evaluate the credibility of the website, platform or media outlet
ICT
SSI
Fast Fashion
SciLMified Lesson
Communicate established viewpoints: Inform
Tailor the content to the target audience and communic. channel
Language Instruction
SciLMified Lesson
Evaluate the trade-offs between … dimensions
Identify parties across societies affected positively and negatively
Civics Education

SciLMi Outcomes… to Come

Wiki

- Pedagogical infos & checklists
- Socio-scientific issue briefs
- Inclusive learning settings
- H5P activities
- AI prompt library
- …



SciLMified Lesson Plans

SciLMified Lesson Plans

SciLMified Lesson Plans

SciLMified Lesson Plans

SciLMi Course Modules

SciLMified Lesson Plans

SciLMi Course Modules

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EU Action Plan on Basic Skills (2025)

Literacy	The ability to understand, use, evaluate, reflect orally and in writing using visual, audio and digital materials across disciplines and contexts.
Mathematics	The capacity to reason mathematically and to formulate, use and interpret mathematics to solve problems in real-world situations and make well-founded judgements and decisions based on data.
Science	The ability to engage with science-related issues and ideas as a reflective individual. This requires skills such as explaining phenomena scientifically, evaluating and designing scientific enquiries, and interpreting data and evidence.
Digital	The confident, critical and responsible engagement with digital technologies for learning, working and participating in society. This includes information literacy, communication, media literacy, digital content creation, online safety and digital well-being.
Citizenship	The ability to act responsibly and participate fully in civic life, grounded in an understanding of social, economic, legal and political structures. This involves understanding and evaluation of civic and democratic concepts, institutions and processes, including democracy, media literacy, crisis preparedness and respect of others and freedom of speech.

Source: OECD: PISA 2022 Assessment and Analytical Framework, PISA 2018 Assessment and Analytical Framework and PISA 2015 Assessment and Analytical Framework (for literacy, math, and science); 2018 Council Recommendation on key competences for lifelong learning (for digital and citizenship); IEA (2023), International Computer and Information Literacy Study (for digital); IEA (2022), International Civic and Citizenship Education Study (for citizenship).

SciLMi PISA 2025 & 2029 READY

https://education.ec.europa.eu/sites/default/files/202503/Graphic%20version%20Action%20Plan%20on%20Basic%20Skills.pdf

Initial Teacher Education Course Pilot

SciLMi BIP

blended course

Santiago de Compostela, Spain

9-13 June 2025

past

BIP Pilot 2025, Santiago de Compostela

Teacher Training Pilots

SciLMi Critical Thinking for Effective Democratic Citizens

blended course

Santiago de Compostela, Spain

16-20 June 2025

past

SciLMi Digital Media and Information Literacies

blended course

Munich, Germany

1-5 September 2025

past

Inclusive SciLMi Classrooms for Effective Democratic Citizens

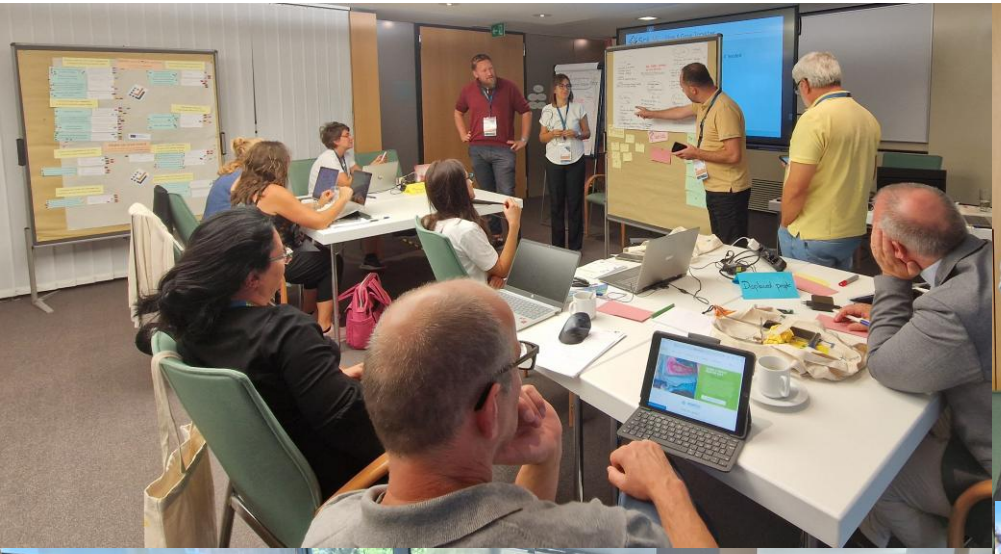
blended course

Innsbruck, Austria

3-7 November 2025

full

SciLMi BIT Pilot 2025, Munich



Padlet

Erasmus+ SciLMi + 26 • 1m

BIT Digital Media & Information Literacies

Where do you live?

Bad Heilbrunn

Bad Heilbrunn

Niš

Niš

Celle, Deutschland

Celle, Deutschland

Oslo

Oslo

Bozen, Autonome Provinz Bozen - Sü...

Bozen, Autonome Provinz Bozen...

Bergen, Norway

Bergen, Norway

Havířov

Havířov

Sibiu

Sibiu

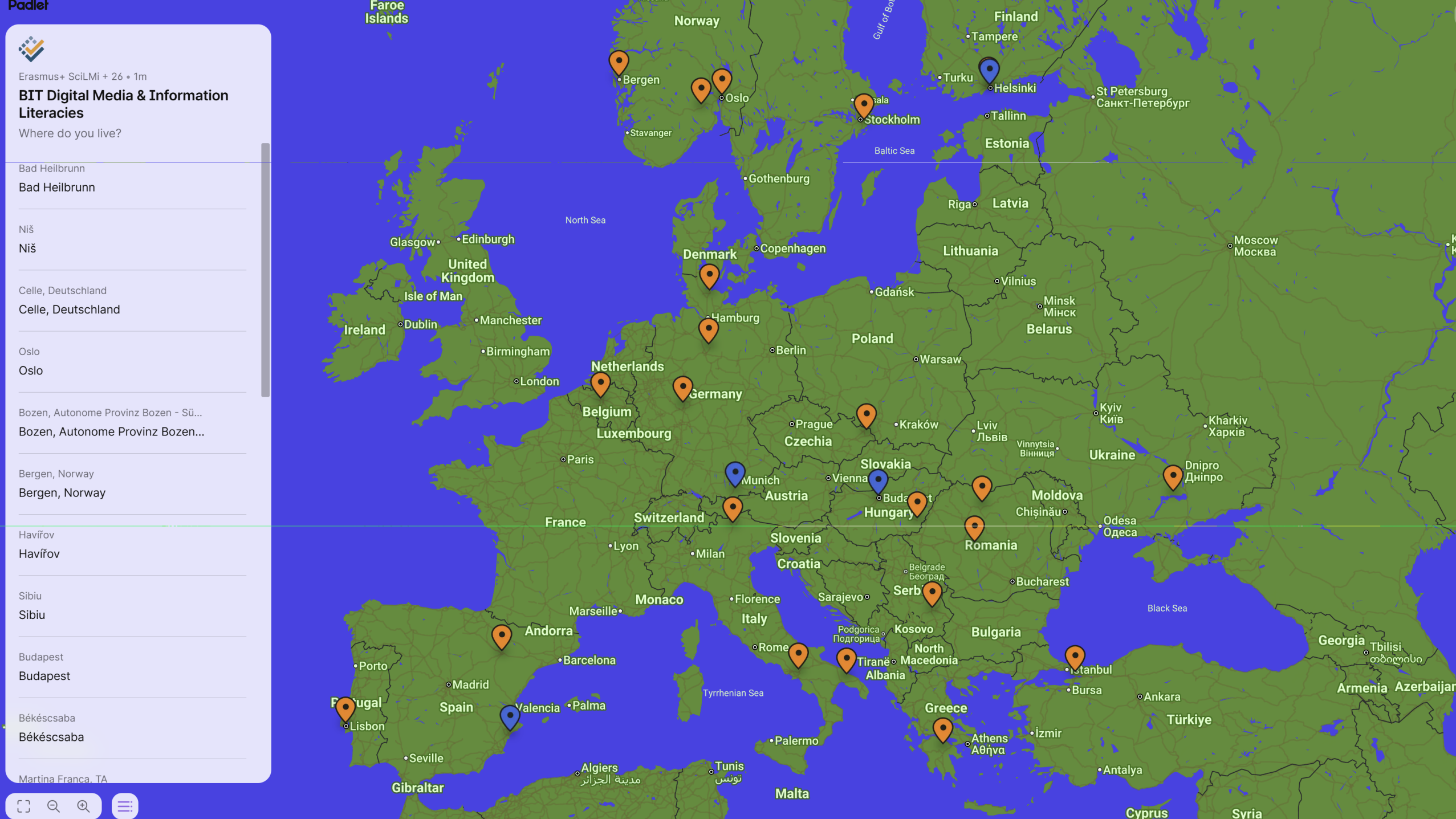
Budapest

Budapest

Békéscsaba

Békéscsaba

Martina Franca, TA



Every lesson, however small, contributes to empowering students by fostering the skills to detect and resist misinformation.

Don’t wait. Start as soon as you can.

(Osborne, Jonathan. 2024. “Just Because It Sounds Plausible, Doesn’t Mean It’s True”. In *The Science Teacher* 91:2. 13.)

SciLMi Capacity-Building Weeks in 2026

SciLMi "Train the Trainer" Multiplier Event

blended course

Palaio Faliro / Athens, Greece

20-24 April 2026

SciLMi Translation & Adaptation Camp

blended course

Budapest, Hungary

11-15 May 2026

KA1 & KA2 Synergy & Sustainability Loop

And then?

Erasmus+ KA1 & KA2 Synergy & Sustainability Loop

Turns Internationalisation from an Experience into a Design Principle of Teacher Education

KA1 & KA2 Synergy & Sustainability Loop

Interdisciplinary Course Design

Teacher Academy

Erasmus+

Course Delivery

Blended Intensive Programme

SciLMi KA1 & KA2 Synergy & Sustainability Loop

Interdisciplinary Course Design

Erasmus+

Course Delivery

Blended
Intensive
Programme

Scaling

Staff Mobility
KA131-STA

Invited Organisation Representatives
KA131-STA2

SciLMi KA1 „Sustainability BIP“ 2026

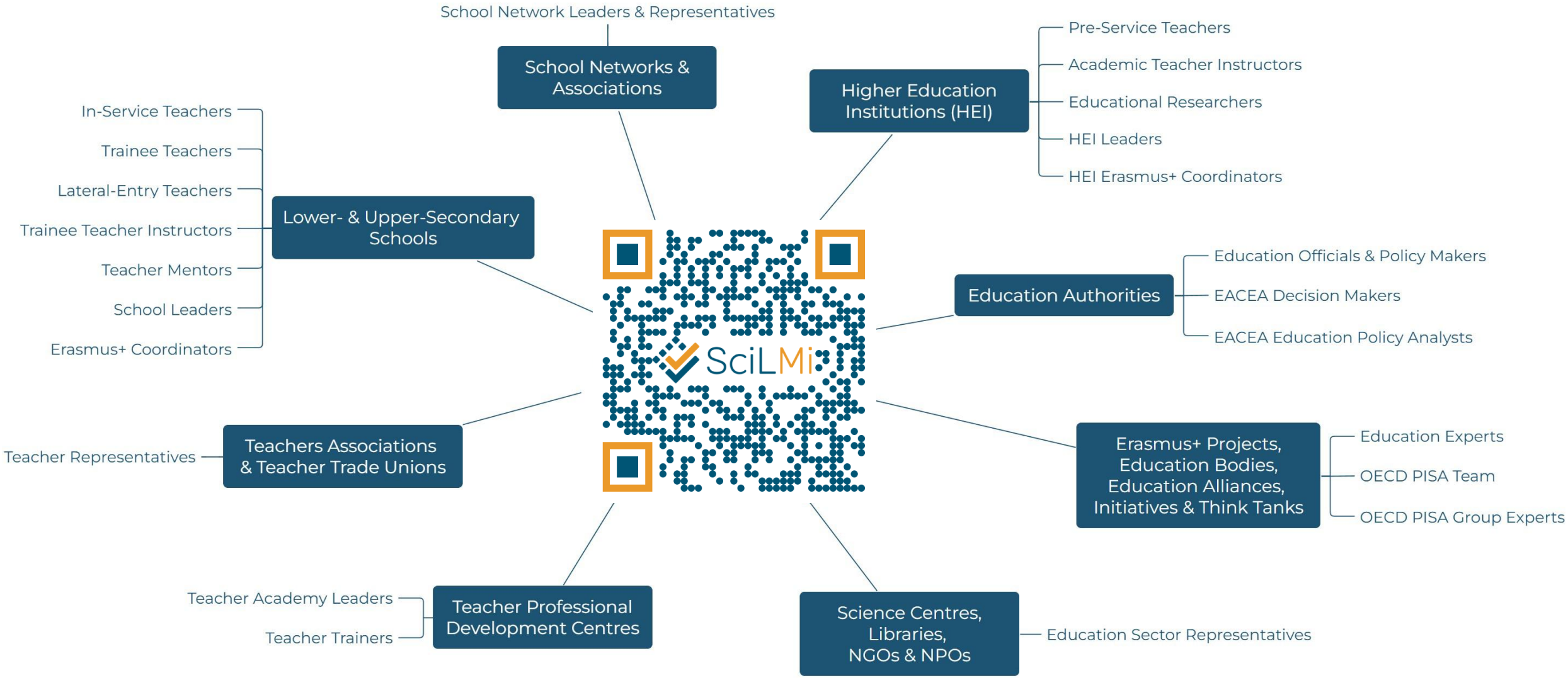
SciLMi
KA1 “Sustainability BIP”

blended course

Innsbruck, Austria

June 2026

SciLMi Hub → Join Our Mission



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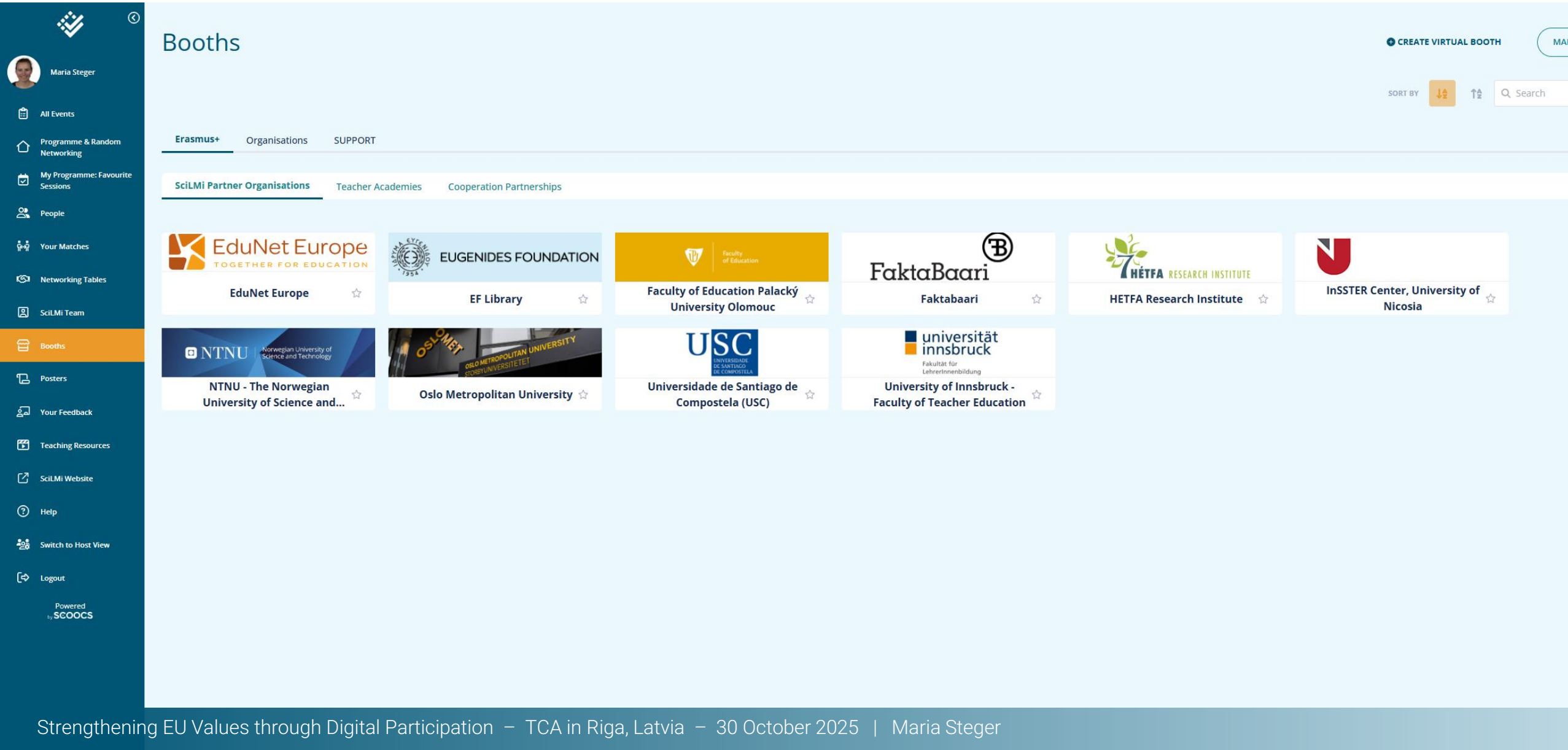
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All Events
Programme & Random Networking
My Programme: Favourite Sessions
People
Your Matches
Networking Tables
SciLMi Team
Booths
Posters
Your Feedback
Teaching Resources
SciLMi Website
Help
Switch to Host View
Logout
Powered by SCOOCS
Booths
CREATE VIRTUAL BOOTH
SORT BY
Search
Erasmus+
Organisations
SUPPORT
SciLMi Partner Organisations
Teacher Academies
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EduNet Europe
EUGENIDES FOUNDATION
EF Library
Faculty of Education
Faculty of Education Palacký University Olomouc
FaktaBaari
Faktabaari
HETFA RESEARCH INSTITUTE
HETFA Research Institute
InSSTER Center, University of Nicosia
NTNU
Norwegian University of Science and Technology
NTNU - The Norwegian University of Science and...
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STORBYUNIVERSITETET
Oslo Metropolitan University
USC
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universität innsbruck
Fakultät für LehrerInnenbildung
University of Innsbruck - Faculty of Teacher Education


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Logout
Powered by SCOOCS
Time shown in: Device's timezone (EET) - Default
Edunet Europe - Networking Table
27/06/2024
17:45 - 18:45
1h, 0m, 0s
Table has ended
EduNet Europe
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Anita Früchtl
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Sylvia Braesel
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inter-national
inter-disciplinary
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Social & Emotional Well-Being
Language & Communication
STEAM
interdisciplinary
international
Digital Literacies

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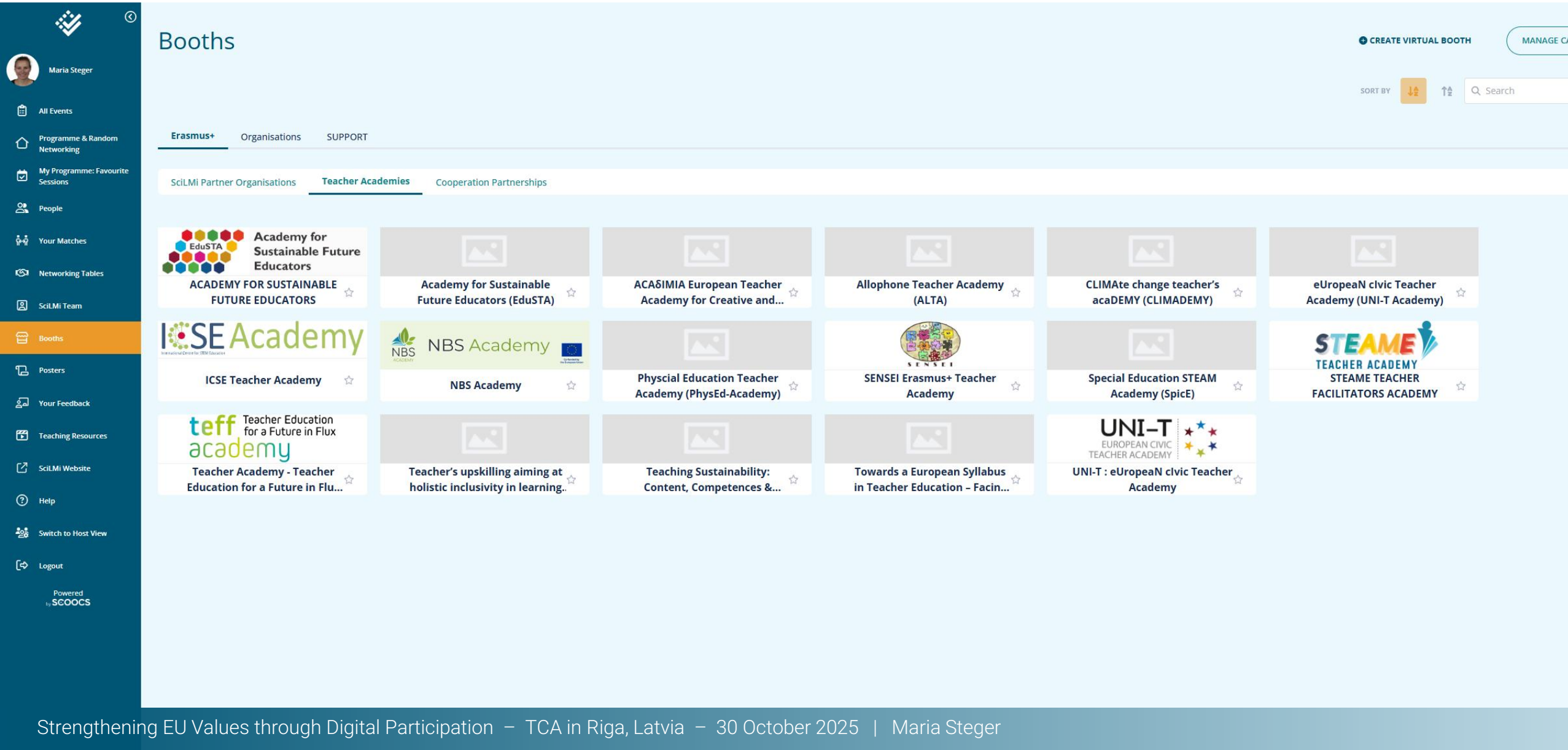
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Academy for Sustainable Future Educators (EduSTA)
ACAδIMIA European Teacher Academy for Creative and...
Allophone Teacher Academy (ALTA)
CLIMAte change teacher's acaDEMY (CLIMADEMY)
eUropeaN clvic Teacher Academy (UNI-T Academy)
ICSE Academy
ICSE Teacher Academy
NBS Academy
NBS Academy
Physcial Education Teacher Academy (PhysEd-Academy)
SENSEI Erasmus+ Teacher Academy
Special Education STEAM Academy (SpicE)
STEAME TEACHER ACADEMY
STEAME TEACHER FACILITATORS ACADEMY
teff Teacher Education for a Future in Flux academy
Teacher Academy - Teacher Education for a Future in Flu...
Teacher's upskilling aiming at holistic inclusivity in learning..
Teaching Sustainability: Content, Competences &...
Towards a European Syllabus in Teacher Education – Facin...
UNI-T EUROPEAN CIVIC TEACHER ACADEMY
UNI-T : eUropeaN clvic Teacher Academy

Thank You

Let’s make mobility the engine of teacher education.