**EDUCATION • ENSEIGNEMENT • ONDERWIJS • BILDUNG**

Belgian Presidency
of the Council of the
European Union

be
EU
belgium24.eu

# Report - Outcomes

# Digital Education Dialogues

28 - 29 May 2024
Ghent

FÉDÉRATION
WALLONIE-BRUXELLES

Flanders
State of the Art

Ostbelgien

# Table of Contents

# PART I: OUTCOMES OF THE DIGITAL EDUCATION DIALOGUES

## 1.1.    Introducing the Digital Education Dialogues

Digital transformation in education is one of the key education priorities of the Belgian Presidency of the Council of the European Union (EU). The aim of the Presidency is to take steps forward in fostering successful digital transformation in education and training in the European Education Area (EEA).

As technology continues to evolve, the importance of a digitally literate population increases. Building on the foundation laid by the (former) Spanish Presidency, the Belgian Presidency maintained the focus on digital education. The Digital Education Dialogues, organised on 28 and 29 May in Ghent, provided an excellent platform to discuss progress within digitalisation in education. The event brought together European member states, representatives of the European Commission and relevant European stakeholders.

During the Digital Education Dialogues, discussions centred around three themes.
1. A first key theme was the balance between learning, data and privacy. With the increasing importance of digital technologies within educational environments, it becomes necessary to critically examine their impact and ensure equitable and ethical practices.
2. Moreover, the conference focused on the two Council's recommendations on digital education and skills, adopted in 2023. These recommendations serve as guiding principles for improving governance and capacity-building of the EU education and training systems, as well as digital skills and competences across the European Union.
3. Finally, participants had the opportunity to explore the potential of Extended Reality (XR) and artificial intelligence (AI) in education and training. Demonstrations of inspiring XR practices in education and training supported the discussions.

## 1.2.    Objectives of the Digital Education Dialogues

The objectives of the Digital Education Dialogues were:
1. Underscoring the critical importance of successful digital education and training.
2. Discussing the roles and responsibilities of the various stakeholders with regard to privacy in the field of digital education.
3. Reflecting on the accomplishments of the Digital Education Action Plan (DEAP) (2021-2027) and contributing to the DEAPs ongoing review;
4. Following-up on the key strategic topics in the recommendations as agreed under the Spanish Presidency i.e. the Council Recommendation on key enabling factors for successful digital education and training and the Council Recommendation on improving the provision of digital skills in education and training.
5. Drawing attention to the impact of emerging technologies, such as XR and AI in education and training while also debating its implications in the educational field.

6. Strengthening the EEA by elevating digital transformation in education and training to the forefront of the European policy agenda.
7. Fostering connections among policymakers, the European Commission, and European stakeholders to facilitate sharing best practices and enhance mutual learning.

## 1.3.  Participation

The Digital Education Dialogues brought together over 100 participants from the EU member states, the European Commission and European stakeholders.

## 1.4.  Strategic steering: action points identified during the Digital Education Dialogues

Throughout the discussions, many different action points have been expressed. The action points of these discussions, as written down in this report, will be shared with key stakeholders including the European Commission, the Council's preparatory body Education Committee, the High-Level Group on Education and Training (including the Coordination Board), the DELTA working group, and the upcoming Presidencies. Moreover, this report will serve as input for the Digital Education Action Plan review process that takes place in 2024-2025.

Please find below a non-exhaustive overview of the action points, as discussed during the Digital Education Dialogues.

### 1.  *Privacy and security*

The Digital Education Dialogues highlighted the critical importance of privacy and trust in the evolving landscape of educational technology (EdTech). One key takeaway is the emphasis on data privacy, especially with the integration of emerging technologies such as Artificial Intelligence (AI) and Extended Reality (XR). Participants underscored the necessity of stringent data protection measures. To mitigate these risks, the Dialogues stressed the **need for robust frameworks and standards, GDPR compliance, EU cooperation and more initiatives in the Technical Support Instrument projects.** The EU Member States have the possibility to apply for a multi-country (or multi-region) project under the EU **TSI** to help them address challenges related to ensuring data security, privacy and ethical use in their education and training systems. (More information is provided in point 2.8.)

Collaboration between member states on the one hand and between member states and the European Commission on the other can play an important role in overcoming barriers related to privacy and trust in EdTech. Many participants stressed the need to identify **privacy and trust as strategic priorities in the next phase of the Digital Education Action Plan (DEAP)**. Specific goals and actions related to enhancing privacy protections and further building trust in EdTech can be outlined, ensuring a focused and coordinated effort.

A last key message was the urgent need for a **structural mechanism that allows member states to exchange plans and results of Data Protection Impact Assessments (DPIAs) on educational tools**. Such a system would enhance transparency, and ensure compliance with data protection regulations across different countries and regions. By collaboratively

evaluating the impacts and effectiveness of these tools, member states can better protect the privacy of students and educators while fostering innovation and trust in educational technology. This collaborative approach is essential for maintaining high standards of data protection and for promoting a secure educational environment.

## 2. EdTech

Trust in EdTech was another central theme, with speakers highlighting the challenges posed by the rapid adoption of digital tools in education. Several speakers pointed out that a lack of transparency and insufficient research undermines user trust in EdTech solutions. The Digital Education Dialogues called for **greater transparency in product development**, emphasizing the importance of **clear communication about data handling practices** from EdTech companies.

Furthermore, the necessity for a **collaborative approach** involving educators, researchers, policymakers, and technology providers was emphasized to build a trustworthy EdTech ecosystem. This approach includes **improving data governance, ensuring comprehensive data privacy training for teachers, fostering public-private partnerships, and can lead to minimum quality standards** to enhance security and trustworthiness in digital education tools.

The policy roundtable made it clear that balancing innovation in digital education with privacy and trust is crucial. Effective data protection measures, compliance with existing regulations like GDPR, and fostering a culture of transparency and collaboration among stakeholders are essential to achieving this balance. As EdTech continues to evolve, these elements will be crucial in ensuring that the benefits of digital education can be fully realized without compromising the privacy and trust of learners and teachers. Projects such as EmpowerED can pave the way for collaboration between stakeholders, building bridges between education and tech providers and a better understanding of mutual needs and concerns.

## 3. Strategic steering by the High Level Group on Education and Training

Ongoing discussions and collaborations are essential for the successful governance of the recommendations. **The High Level Group on Education and Training, supported by initiatives like the Digital Education Dialogues, should ensure continuous stakeholder engagement** to continue, adapt and refine governance strategies over time.

## 4. Assessment and certification of digital skills and competences

The development and assessment of digital skills varies widely among member states, with some integrating digital competences across various subjects and others implementing dedicated IT subjects with specific assessment criteria. Standardized tests, diagnostic tests, and digital maturity assessments are essential for evaluating students' digital skills. Furthermore, a continuous focus on digital skills at all education levels remains important, **requiring further integration of digital competencies in local, regional and national curricula**.

To ensure that digital skills and competences are effectively developed and assessed within education and training systems, **it is crucial to prioritize continuous professional development for teachers**. This includes providing incentives for teachers to engage in digital

Co-funded by
the European Union

FÉDÉRATION
WALLONIE-BRUXELLES

Flanders
State of the Art

Ostbelgien

5

skills training, integrating digital competences into pre-service education. Successful initiatives have shown that embedding digital skills into the curriculum and professional development programs can enhance teachers' ability to teach and assess these skills effectively. Additionally, the **implementation of tools** such as SELFIE for teachers can help in self-assessment, promoting ongoing learning and skill enhancement.

### 5. Quality requirements for digital educational tools and content

Successful integration of digital education tools requires active collaboration among all stakeholders, including publishers, schools, teachers, and EdTech companies. **Establishing common guidelines on creating digital content, privacy, and GDPR compliance** is vital for standardization and data interoperability. Continuous dialogue with stakeholders, along with the **involvement of teachers in the development process (for instance through test beds),** can ensure flexibility and adaptability in digital education.

### 6. Presidency priorities: digital inclusion and well-being

There remains a significant **need for more evidence, research, and data sharing in the field of digital well-being**. Understanding the long-term effects of digital tools on students requires comprehensive studies and the sharing of findings across educational institutions. Collaborative efforts between educators, researchers, policymakers, and technology developers can lead to more informed decisions and innovative solutions. Enhanced data sharing can help tailor strategies to diverse student populations, ensuring that digital well-being initiatives are inclusive and effective for all.

### 7. Proposals of the Member States for key and common strategic topics for the future

To improve the efficiency of digital education policies, **member states should prioritize agile digitalization strategies that are evidence-informed**. These strategies support an agile and rapid response to the fast-paced nature of digitalization, ensuring that policies remain effective and up-to-date. Future priorities for digital education include ensuring robust infrastructure, comprehensive digital competence frameworks, lifelong learning, integration of AI and innovative technologies, and addressing the digital divide.

### 8. Digital Education Action Plan

The **DEAP should continue beyond 2027** with a structure allowing mid-term reviews and ongoing stakeholder dialogue. Sustainable investment, including through EU programmes, and the involvement of all relevant stakeholders, are crucial for the plan's relevance and adaptability to emerging technologies and challenges. A holistic approach should integrate digital education within the broader educational context, focusing on basic skills, critical thinking, and privacy concerns to ensure comprehensive and future-proof digital education initiatives.

### 9. Extended Reality and Artificial Intelligence in Education

The transformative potential of XR and AI in education should be pedagogy-driven rather than solely technology-focused. To effectively integrate these technologies, **member states could prioritize developing conceptual models like the DTALE and Propeller models**, which help

in designing powerful immersive learning experiences and ensuring sustainability and scalability of innovations. Moreover, leveraging existing EU policy frameworks such as the DEAP and ensuring alignment with educational goals will support inclusive and effective integration of AI and XR and possible other emerging technologies in education.

The discussion on AI in education highlighted several critical subtopics, including the **need for safeguards and overall preparedness in the upcoming EU AI Act** specific to educational settings and the importance of autonomy for educational institutions in implementing AI strategies. Member states emphasized **shared values and ethical standards** across educational systems to guide AI integration effectively, as well as the importance of **developing AI skills and literacy**, including among teachers and educators.

# PART II: PROCEEDINGS OF THE DIGITAL EDUCATION DIALOGUES

Tuesday 28 May 2024

## 2.1. Opening remarks by the Belgian Presidency and the European Commission

The Digital Education Dialogues conference in Ghent was opened with an address by the Deputy Minister-President of the Flemish Government and Minister for Education. The Minister highlighted the critical role of digital tools in education, a need that became evident during the COVID-19 pandemic. He shared the progress made through the Knowledge Centre for Digital Education, a historic investment of nearly half a billion euros aimed at transforming the education system by enhancing digital infrastructure, providing laptops, and improving teacher training in Flanders.

The Minister reported the latest positive effects of the initiative, including improved digital competences among pupils and increased satisfaction with ICT infrastructure among teachers and students. Schools have adopted robust ICT policies, integrating digital devices into teaching practices and focusing on lifelong learning.

He also discussed the introduction of Flemish standardized tests, which were conducted digitally with participation from 150,000 students. These tests aim to improve quality education by providing valuable data on educational processes and learning outcomes. The Minister emphasized the importance of data privacy in these standardized tests and the measures taken to ensure it, including collaboration with the Netherlands and other countries to address privacy risks associated with the use of educational technologies.

Looking ahead, the Minister highlighted the integration emerging technologies such as Extended Reality (XR) and Artificial Intelligence (AI) in education as strategic priorities. Investments in XR and AI are intended to enhance learning experiences and outcomes.

Similarly, Antoaneta Angelova-Krasteva, Director of Innovation, Digital Education, and International Cooperation at the European Commission delivered the opening remarks from the European Commission. She emphasized the crucial role of investing in digital education and the needed digital skills for the EU's prosperity. Skills and competences are not just advantageous but essential for active participation in the labour market and society.

Director Angelova-Krasteva highlighted the significant milestone reached in Council with the adoption of the two recommendations for effective and inclusive digital education and digital skills provision. The European Commission swiftly implemented these recommendations by

establishing two expert groups focused on digital education content and on high-quality informatics.

She noted that the review of the DEAP aims to learn from past actions and explore new priorities and encouraged those interested to submit position papers. She identified three key challenges: data and privacy issues, AI, and disinformation.

### *Data and Privacy Issues*

Concerns about the use of learners' personal data have increased with the rise of AI technologies and the growing use of digital tools for teaching and evaluation reflecting the evolving landscape of education. She stressed the need for a balance between harnessing the benefits safe data collection can bring, fostering innovation and ensuring data protection, especially for minors. Effective regulations require ongoing dialogue among public and private entities.

### *Artificial Intelligence*

AI represents a pivotal moment for education and training systems. While offering significant benefits, AI needs safeguards to ensure its responsible and effective use in classrooms. She welcomed the focus on AI in education and affirmed the European Commission's commitment to supporting member states by facilitating the exchange of good practices and offering guidance. The Ethical guidelines on the use of AI and data in teaching and learning for educators, the updated DigComp 2.2 framework and a study on the implications of digital legislation, including the AI Act are part of these efforts.

### *Disinformation*

With upcoming elections, there is concern about young people's ability to deal with disinformation, recognized as a threat to democracy by many Europeans. Schools must strive to shape digitally literate students and raise awareness of online risks. Key work in this area comes from the Digital Education Action Plan and in particular the Guidelines for teachers and educators on tackling disinformation and promoting digital literacy as well as from the Erasmus+ programme, which supports this by focusing on teacher training and curriculum development to combat disinformation in 2023.

## 2.2. Introductory Keynote by Beth Havinga, Managing Director of the European EdTech Alliance

Beth Havinga, Managing Director of the European EdTech Alliance, delivered the introductory keynote, focusing on the critical issues within the EdTech landscape. She highlighted the critical distinction between technologies specifically designed for educational purposes and those repurposed for use in educational contexts. This distinction is essential, as it frequently leads to significant misunderstandings regarding transparency, efficiency and impact. Furthermore, she emphasized the need for trust in EdTech, which is currently hindered by a lack of research and evidence, leading to user mistrust. The EdTech Strategy Labs project aims to address these issues by examining evidence gathering practices and certification processes.

Havinga discussed the necessity of mapping the EdTech industry, noting significant disconnects between organizations and researchers. She stressed the need for systematic

knowledge exchange among stakeholders to facilitate co-creation and collaboration in education systems.  She mentioned the Digital Education Hub as a suitable platform for cross-sectoral exchange. The EmpowerED project, funded by the EU and coordinated by European Schoolnet seeks to establish a pan-European network and platform for such exchanges between European EdTech initiatives, support organisations, practitioners, and policymakers.

She pointed out the challenges of managing vast amounts of data and the lack of a unified vision for its use. Improved data governance and management are essential, with a focus on ensuring those whose data is gathered have more agency. Havinga raised concerns about current systems' ability to handle emerging issues like deepfake videos and voice cloning, highlighting the need for policies to address these gaps and ensure appropriate data use for young learners.

Lastly, Beth Havinga emphasized the nuanced nature of risk in EdTech, advocating for more agile processes and adaptable policies to keep pace with technological advancements. She called for a collaborative approach to digital education, where all stakeholders share responsibility for co-creation, testing, and feedback. This community-driven approach aims to build bridges between the Education sector and the Tech providers and grow ideas safely, ensuring the benefits of digital education are realized within a supportive and well-regulated framework.

## 2.3.   High-level panel

Participants:
- Ben Weyts, Deputy Minister President of the Flemish Government and Flemish Minister for Education;
- Stefaan Hermans, Director Policy Strategy and Evaluation Unit, European Commission;
- Kadri Maasik, CEO EdTech Estonia;
- Elena Pezzi, Ambassador eTwinning Network;
- Cédrine Morlière, Chairwoman of the Belgian Data Protection Authority;
- Moderator: Jo Tondeur, Associate Professor of Digital Technologies in Education, Vrije Universiteit Brussel, Belgium.

The high-level panel discussion brought together speakers from different sectors to address critical issues of balancing learning, data and privacy in education and training.

Elena Pezzi from the eTwinning Network highlighted that the pandemic has increased awareness among schools and teachers regarding data and privacy issues, but this is still at a very basic level. She underscored the need for further GDPR compliance training and support in tools and resources to help teachers develop a more critical approach to this issue. Ben Weyts, Flemish Minister for Education, emphasized the necessity to regulate the EdTech sector to address privacy concerns while ensuring cautious progress, whereas Stefaan Hermans, Director for Policy Strategy and Evaluation at the European Commission, expressed concerns about the declining skill levels among young students and emphasized the importance of involving teachers in technological innovations.

Cédrine Morlière, Chairwoman of the Belgian Data Protection Authority, discussed the legislative role in building trust.She emphasized that National Data Protection Authorities (NDPAs) can play a crucial role in ensuring the protection of minors' data in the EdTech sector by enforcing compliance with data protection laws, such as GDPR, and providing clear guidelines for edtech companies on handling children's data responsibly. They can conduct audits, investigate complaints, and impose sanctions on non-compliant organizations. Additionally, she advocated for more efforts to raise awareness among educators, parents, and students about data privacy rights and best practices, ensuring that edtech tools are designed and used in a manner that prioritizes the safety and privacy of minors.

Kadri Maasik, CEO of EdTech Estonia, stressed the importance of trust for EdTech adoption, suggesting investments in security to create a safe environment. By prioritizing security, the EdTech developers can reassure stakeholders and mitigate risks, thereby facilitating the effective integration of these tools in educational contexts.

In closing remarks, Elena Pezzi emphasized AI's role in supporting teachers and making data privacy training more engaging. Ben Weyts stressed the importance of digital literacy for both teachers and pupils as a foundation to effective use and management of these technologies and the date they create. Cédrine Morlière called for technical discussions at the European level regarding data processing and coordination of data compliance research/tests. Kadri Maasik emphasized privacy, cybersecurity, and data security as main challenges, and Stefaan Hermans called for strengthened partnerships between EdTech and education systems, focusing on value, quality, and evidence-informed approaches.

## 2.4.  Policy discussion between Member States, European Commission, and stakeholders on balancing learning, data and privacy

During the policy discussion, different subtopics were mentioned regarding balancing learning, data and privacy in education and training.

### Common Standards and Regulations

*Minimum quality standards*
A central theme in the policy discussion was the necessity to provide a framework of minimum quality standards and robust guidance to educators and developers of EdTech applications. This framework needs to be standardized across the EU to provide clear guidelines and ensure safety and autonomy for teachers and trainers in their choice of learning activities. The framework should cover aspects such as data privacy, security measures, and the ethical use of digital tools in education. By addressing these key aspects, the framework can help shape a safe, inclusive and supportive environment where school institutions and specifically educators can confidently integrate technology into teaching practices while ensuring accountability and transparency.

*Transparency in Product Development*
Member states stated that transparency from EdTech developers and manufacturers is crucial, particularly in the early stages of product development. Transparent practices help in identifying and addressing potential risks associated with data privacy and security. Developers should provide comprehensive information about their data handling practices,

ensuring users are aware of how their data is used, stored, and protected. Across the member states, there have been various national strategies and approaches set in place to further support the balance between innovation and transparency in data creation and management. Examples regarding this area include implementing management systems to anonymize data processed by EdTech companies, developing repositories of best practices for innovative data protection, harmonizing legal frameworks from European level to a national level and involving stakeholders in the feedback loop, as part of the evaluation process.

### GDPR Compliance

Ensuring compliance with the General Data Protection Regulation (GDPR) is vital, especially when dealing with data related to minors. Member states highlighted the need for both public and private sectors to collaborate systematically to achieve GDPR compliance. This collaboration involves developing clear policies and guidelines that educational institutions and technology providers can follow to protect student data effectively.

### Identity Management and Single Sign-On Infrastructure

Effective identity management ensures that minors' personal information is safeguarded, reducing the risk of unauthorized access and data breaches. SSO infrastructures simplify the login process, allowing students to access multiple educational resources with a single set of credentials, thus enhancing security and user experience.

The European Commission highlighted the necessity of strict compliance with existing legislative frameworks such as the GDPR and emphasized the need for cooperation and resource utilization to address implementation challenges effectively.


## Digital Skills and Education

### Enhancing Digital Skills and Competences

Member states stressed their efforts in integrating digital skills into their curricula to improve the skills and competences of teachers and students. This includes programs for safe internet use, critical thinking, and the ethical use of digital technologies. Initiatives range from professional training for teachers, integrating AI and other digital tools in curricula, to national projects for assessing digital education products. The European Commission noted the importance of the structured dialogue (2022), where participants shared experiences, best practices and lessons learned from their actions, investment and reforms in digital education and training. The Commission also noted the effective utilization of frameworks (such as DigComp or DigCompEdu), existing resources, guidelines, and projects like Erasmus+ to support the efforts of the member states. Member states added that more support is needed both in funding and policies.

### Tools and Resources

Tools and guidelines have been developed to help teachers with data protection and the use of digital tools. For instance, one member state has created a website offering resources related to data privacy for teachers, students, and families. Another member state has developed resources to analyse and label the compliance of digital tools with GDPR, assisting teachers in their pedagogical choices. A collaborative effort to share good practices and innovative solutions among member states was highlighted as essential. The EU Commission

stressed the need for cooperation beyond public-private partnerships, including parents, civil societies and other stakeholders, to ensure wide support for digital education.

## Innovative Practices and Ecosystems

### Public-Private Cooperation

The comparison was made with systems that are already well established in, for example, healthcare. In healthcare there are already robust systems for data storage, exchange and interoperability with much more trust and security. This system aims to enhance transparency and increase awareness of data processing practices. One member state has implemented a risk management system acting as a third party between private EdTech companies and public users to increase transparency and data processing awareness. The EU Commission highlighted the necessity of a structured-dialogue between the EdTech sector and the EU to support and address challenges in this area.

### Support for EdTech Startups

Member states are working with EdTech startups to develop policies from an early stage, this proactive approach ensures that startups adhere to data protection standards and ethical practices from inception. One member state has partnered with Google to study the handling of privacy issues, particularly concerning children using their parents' accounts to make purchases. All members states recognize the growing presence of EdTech in education and also the need for ongoing support in resources, expertise and research and also pilots in collaboration with educational institutions to ensure relevance and effectiveness in this particular context. The EU Commission noted that significant investments in digital transformation by all member states would support the development of innovative practices and the growth of EdTech startups.

## Multistakeholder Approaches

### Collaboration and Shared Responsibility

The shared responsibility of various actors, including teachers, students, parents, EdTech developers and governments, was highlighted. Trust and responsibility in using data were emphasized, with a call to explore the added value of strengthened EU-level cooperation. The necessity of including different stakeholders in the dialogue, such as civil society organizations, was underlined to ensure a comprehensive approach to digital education. The European Commission emphasized the importance of cooperation beyond public-private partnerships, advocating for the inclusion of  all stakeholders in these discussions.

### Exchange of Best Practices

Member states are collecting and sharing experiences and good practices to develop innovative practices in data protection. This exchange is still in its early stages, and more moments of sharing, at different levels, are needed to build upon these initial discussions. One member state developed a standard for securely transferring student data when changing schools, ensuring innovative solutions for data sharing. The review of the DEAP should highlight the importance of sharing experiences and good practices to further support these initiatives.

## Challenges and Solutions

### Addressing Risks and Ensuring Safety

New digital technologies offer opportunities but also come with risks to safety and well-being. Measures to enhance digital competences are crucial, with topics like safe internet use being integrated into the curricula. One member state adopted a modern STEM environment to teach students about the ethical and safe use of digital technologies, supporting common standards for data protection at the EU level. The EU Commission stressed the importance of having multi-faceted strategies and whole government approaches to address the risks of digital education.

## 2.5. Presentation on the review of the Digital Education Action Plan by Georgi Dimitrov, Head Digital Education unit, European Commission

*Objectives of the Review*
The review has three main objectives:
1. **Assess the Impact and Effectiveness**: Evaluate the outcomes and impact of the actions implemented under the DEAP to date.
2. **Address Emerging Challenges**: Given the long-term nature of the DEAP, conducting a review at the midway point helps to ensure that the strategy remains on track and continues to address emerging challenges in digital education effectively.
3. **Evaluate Communication and Outreach**: Assess the effectiveness of communication and outreach activities that support DEAP actions, ensuring that stakeholders are adequately informed and engaged.

*Launch of the Review*
To facilitate this review, the European Commission has initiated a process of evidence collection and has issued a call for position papers, inviting all stakeholders and member states to share their insights and ideas until September 15. Moreover, the Commission will also organise discussions with stakeholders, including the private sector, followed by broader consultations with the teaching professionals and the wider community between April and November 2024.

*Key Topics Identified*
The kick-off event on April 29, focused on three key topics: **artificial intelligence (AI), disinformation and digital well-being, and gender equality**. These topics will be central to the ongoing discussions and the formulation of future strategies under the DEAP

*Expected Outcomes*
The review aims to provide a comprehensive look back and forward at the implementation of the DEAP, ensuring that digital education action plan remains reactive and adaptable. This process is linked to the evaluation of the European Education Area (EEA), ensuring complementarity between the two initiatives. The results of the DEAP review are expected to be available in the second quarter of next year.

## 2.6. Presentation on the two Council Recommendations on digital education and skills by Spain

*Overview of the Council Recommendations*

On April 18, 2023, the European Commission proposed two key Council Recommendations, which were adopted on November 23, 2023, during the Spanish Presidency of the Council of the EU. These recommendations focus on enabling successful digital education and training and improving the provision of digital skills and competences in education and training.

*Key Enabling Factors for Successful Digital Education and Training*
This Council Recommendation urges all member states to guarantee universal access to an inclusive and high-quality digital education and training, reducing the digital divide. The overarching objective urges member states to promote structural reforms that are needed at national level to advance towards the digital transformation.

Key objectives include:
1. establishing coherent strategies specifically addressing digital education and skills;
2. following up and assessing digital education and training policies;
3. rapidly integrating results to enhance policies;
4. encouraging cooperation among various stakeholders, including the private sector;
5. creating and reinforcing teacher associations and networks to ensure access to digital training for all educators and school community members;
6. promoting equitable investments for inclusive and high-quality digital education and training.

Five specific actions are outlined:
1. develop national/regional strategies for digital education under a global scope;
2. ensure a whole-of-government approach and promote stakeholder participation;
3. provide digital training for educational leaders and teachers;
4. promote equitable investments for resilient and inclusive education;
5. engage the High-Level Group on Education and Training to steer strategic topics.

The European Commission intends to support these efforts through:
1. exchange of experiences and good practices;
2. training programmes for school leaders and teachers through programmes, tools and guides;
3. investments on the impact of digital infrastructure and digital education and training services through national and European fundings;
4. improving transparency and assessment of the progress on the implementation of the digital education and training.

*Improving the Provision of Digital Skills and Competences in Education and Training*
This recommendation focuses on developing basic, intermediate, and advanced digital skills through comprehensive education and training, including the professional development of teachers. Key areas include:
1. establishing strategies for digital education;
2. providing early guidance for students, balancing technology with other learning methods;
3. reinforcing digital skills in primary and secondary education, addressing risks like hyperconnectivity and cyberbullying;
4. enhancing the development of transversal digital skills and improving teacher training and assessment;
5. ensuring teachers have expertise in Informatics and Computational Thinking;

6.  promoting high-quality education in Informatics and Computational Thinking;
7.  advancing digital skills in Vocational Education and Training (VET), including AI technology;
8.  higher Education: Develop digital competences considering the autonomy of institutions, learning opportunities, and exchange with industry or support for educators;
9.  adult Education: Form public-private associations among social stakeholders, national and regional authorities, schools, associations, and industry;
10. recognition and Certification: Recognize and certify digital competences across various levels and types of education and training;
11. addressing ICT Specialist Shortages: Evaluate future digital needs, attract and retain foreign talent, and train and attract ICT specialists;
12. funding: Allocate funds for developing digital skills and competences using national, Union, or private sources, and open-source content or data;
13. high-Level Group on Education and Training: Entrusted to steer key strategic topics related to this recommendation.

Expected outcomes include improved methods for teaching digital skills, guidance on Informatics, and better digital skills among European citizens, contributing to the objectives of the Digital Decade and the European Education Area.

The European Commission will support efforts to improve the provision of digital skills and competences and high-quality Informatics or Computational Thinking by creating guidelines for educators. It will also promote excellence in advanced and specialised digital skills courses in higher education and VET. Lastly, the Commission will facilitate the recognition of certificates of digital skills and support efforts to raise the number and variety of ICT specialists.

*Implementation and Governance*
Discussions on implementing and stabilizing governance of these recommendations have begun, with the High Level Group on Education and Training playing a central role. Initiatives like the Digital Education Dialogues by the Belgian Presidency are exploring a sustainable governance options for the High Level Group on Education and Training.

## 2.7. Inspiring practices by three Member States on their implementation of the two Council Recommendations on digital education and skills

These presentations from three member states highlighted different innovative approaches, challenges, and successes in the implementation of the two Council recommendations on digital education and skills.

### Slovenia's Digital Education Plan

Slovenia presented their approach to integrating digital competencies into the national curriculum. The key points of the presentation included:

**Digital Education Action Plan (2021-2027):** Slovenia's Digital Education Action Plan aims to incorporate digital competencies based on the DigComp framework into the new curriculum.

**Curricular Reform (2023-2025):** The reform mandates the inclusion of digital, green, and financial competencies across all subjects from Grade 1 to Grade 13. Informatics will become a

voluntary subject in primary education and a compulsory subject in secondary education. It is accompanied by obligatory teacher training. This integration is financed by the Resilience and Recovery Program.

**Implementation Strategy:** The implementation uses DigComp 2.2 as a primary source, with special expert groups preparing learning outcomes for primary (level 4) and secondary (level 6) education. The approach involves IT support for centralized visibility of curricula interconnections and learning outcomes, although challenges remain in aligning subject-specific content with DigComp standards.

**Supporting Actions:** Various projects are supporting the initiative, such as experimental projects in innovative pedagogy, generative AI in education, and digital citizenship. The 'Digitrajen učitelj' project focuses on training educators in digital competencies, sustainable development, and financial literacy. Leadership training for digital education is also planned.

## Portugal's Digital Transition Action Plan

Maria João Horta from Portugal's Directorate-General for Education presented the nation's Schools' Digital Development strategy. Portugal's Digital Transition Action Plan (2020-2025) is designed to enhance educational success **by integrating digital skills, building digital capacity, and investing in infrastructure and connectivity**. This plan aligns with the European Union's Digital Education Action Plan (2021-2027) and emphasizes a coordinated national and regional approach involving multiple stakeholders.

The **strategic approach** includes capacity building and digital training for educational leaders, teachers, and staff, aiming to promote equitable and inclusive digital education. Core principles of the plan focus on developing digital skills, strengthening digital capacity, investing in infrastructure, and promoting quality education. It also addresses the safe and responsible use of digital technologies and the opportunities and risks of emerging technologies like AI.

An important component of the plan is **teachers' digital empowerment** through structured training programs. These programs are divided into three levels, from basic digital adoption to advanced digital leadership and innovation. The training focuses on professional engagement, digital resources, teaching and learning, assessment, and empowering learners. The goal is to train all teachers by 2025.

The **Schools' Digital Development Action Plan** fosters strategic visions for integrating digital technologies into school environments, including with the help of the SELFIE tool. This includes improving organizational and pedagogical practices, enhancing collaborative work and professional development, and investing in open educational resources and infrastructure.

Portugal has implemented various **studies and monitoring platforms** to evaluate the impact of these digital initiatives. Importantly, the training programs have significantly increased teachers' digital proficiency levels, positively influencing educational practices and methodologies. A report will soon be published on the impact of the reforms by European Schoolnet.

## Belgium's Digital Transformation in Education

*Flanders Presentation*

The Flemish presentation focused on the **Digisprong Action Plan**, which aims to address the digital divide, enhance professional development, and support ICT administrators. The plan emphasizes investing in infrastructure, providing support for schools, boosting teacher training, and developing digital learning resources.

**Key initiatives** include 1:1 hardware provision for students and teachers, improving connectivity, and promoting Green IT and cybersecurity. The plan also includes the establishment of a new knowledge center for digital education and a policy planning tool for schools. Another important achievement was strengthening the support structure in schools by creating a new status and better working conditions for ICT coordinators and embedding them in broader ICT teams.

**Professional development** is supported through additional funding, training opportunities, and a training database. The development of digital learning resources is enhanced through initiatives like KlasCement and the XR Action Plan for vocational education. The Digisprong action plan is backed by a robust research portfolio to inform policy, monitor progress, and evaluate outcomes.

*Fédération Wallonia Bruxelles (FWB) Presentation*

The FWB presentation highlighted the **Continuous Professional Development (CPD) reform** and the cooperation with the Pix platform to enhance digital skills and competences. The digital transition in compulsory education is part of the broader **"Pacte pour un enseignement d'excellence" reform**.

The **CPD reform includes** hybrid and online training, identifying digital competences based on the DigCompEdu framework, and the creation of the COFOPRO council. Pix, a free platform linked with DigComp 2.2, offers competence-based pathways supported by an adaptive algorithmand permits to track progress. The deployment of Pix across various education levels aims to improve digital skills among educators, pupils and students.

**Current achievements** include the widespread adoption of Pix in higher education and lifelong learning, and dissemination of pathways for teachers, with plans for further expansion to compulsory education and fostering collaboration to create new thematic pathways for teachers and students.

## 2.8.   Technical Support Instrument

During the Dialogues, Jeroen Backs highlighted the possibility of countries partaking in the Technical Support Instrument (TSI). The TSI offers EU Member States a mechanism through which they receive tailor-made technical expertise to tackle common challenges such as in relation to the digital transformation in education and training.

The support is demand-driven, guided entirely by the needs and requests of Member States. It does not require any co-financing. The TSI works on the basis of Member States submitting

Co-funded by
the European Union

FÉDÉRATION
WALLONIE-BRUXELLES

Flanders
State of the Art

Ostbelgien

18

requests for support to the Commission, via the TSI National Coordinating Authorities contacts. Technical expertise is delivered by a wide range of providers, including international organisations, public bodies, the private sector or the Commission's own staff.

Requests can be submitted individually, or authorities from several Member States may join forces to submit a multi-country (or multi-region) request in order to work together and exchange insights to tackle common challenges. Technical support can take various forms, such as supporting the design of digital infrastructure investments, supporting development of strategies and roadmaps, provision of expertise and legal advice, studies, training, or expert visits on the ground.

*Submitting requests for support via the Technical Support Instrument*
Member States have the possibility to submit a request for technical support, identifying the policy areas and the priorities for support **by 31 October 2024**. If an authority in a Member State – national, regional or local – wishes to request support under the TSI 2025 annual cycle, the relevant request templates can be found in the dedicated webpage. The Commission assesses the request for technical support further to a dialogue with Member States in accordance with the criteria and principles referred to in Article 9 of the TSI Regulation. The Commission starts deploying the projects on the ground after the adoption of the annual work programme of the TSI.

## 2.9. World cafés on the key strategic topics outlined in the two recommendations on digital education and skills

### World café 1: Assessment and certification of digital skills and competences

*Question 1: How can education and training systems ensure that digital skills and competences are developed?*

Concerning teacher's digital skills, some member states highlighted the use of tools like SELFIE for teachers as self-assessment mechanisms, collecting information on digital skills before and after training to evaluate government programs' effectiveness. Others emphasized the importance of personalized learning suggestions following assessments to encourage continuous learning. A common theme was the need for continuous professional development and support for teachers. This includes incentivizing teachers to engage in digital skills training and providing resources like digital learning platforms. Some countries reported successful initiatives in making digital skills part of pre-service teacher education and ongoing professional development.

With regards to students digital skills, several member states have embedded digital skills within the curriculum from an early age, often integrating AI and other digital literacy components into compulsory education. In some countries, ICT is a separate subject, particularly in secondary education, while others incorporate digital skills across various subjects. Assessing digital skills varies, with some implementing standardized tests and others relying on teacher discretion. Examples include robotics clubs, coding initiatives, and partnerships with local companies to foster digital skills among students.

*Question 2: What are the current practices for assessing digital skills and competences in education and training systems?*

Current practices vary widely. Current practices vary widely. Several member states explained that they do not have a strategy in place for the assessment of digital skills of pupils or teachers. In addition, some member states mentioned that even when there is an assessment methodology in place, it is often optional and up to the teachers. Same goes for assessment of teacher training in digital skills. Some member states reported that digital competences are integrated into cross-curricular activities without formal assessment, while others have dedicated IT subjects with specific assessment criteria. Informal assessments and voluntary participation in digital skills platforms were noted.

The discussion highlighted the challenge of defining digital skills and ensuring they are included in standardized assessments. Some member states are developing diagnostic tests and digital maturity assessments for schools, incorporating feedback mechanisms to adapt teaching programs. Examples of specific projects include the use of AI in curricula and developing interactive digital textbooks.

Lifelong learning and the digital skills of existing professionals were also discussed, emphasizing the importance of continuous learning opportunities beyond the traditional education system.

*Question 3: What barriers do education and training institutions face in the assessment of digital skills and competences, and how can those barriers be overcome?*

Key barriers include a lack of financial resources and infrastructure, insufficient training for teachers, and resistance from teachers' unions against compulsory assessments. Voluntary training programs are often underutilized, and there's a need for better-designed training that addresses the real needs of teachers. Fear among teachers regarding assessment is another barrier. Many are reluctant to acknowledge their competencies and fear change. Implementing anonymous testing and self-evaluation can pave the way for voluntary continuous training.

Motivation for teachers can be increased through incentives such as funding, certification, and recognition of digital competence development. Regular and consistent assessment, though challenging, is necessary to track progress and adapt teaching methods.

There's also confusion about the best approaches to assessing digital skills, with varying views on whether knowledge-based assessments or practical, task-oriented assessments are more effective. Ensuring that teachers have the necessary digital skills and confidence to teach and assess these competences is crucial. Some member states have introduced IT support roles within schools to assist teachers.

Additionally, the role of parents in supporting their children's digital education was noted, although it's recognized that not all parents are equipped to do so. Overall, a multifaceted approach involving support functions, continuous professional development, and parental involvement is essential to overcoming these barriers.

## World café 2: Quality requirements for digital educational tools and content

*Question 1: How are digital education content and associated tools for teaching and learning integrated into your digital education plans? What are your priorities in this regard?*

Some member states emphasized the need to define clear pedagogical objectives and goals for digital education, ensuring that digital tools contribute to inclusive and qualitative education for all students. They highlighted the importance of setting up small pilot projects to evaluate the effectiveness of digital tools and creating comprehensive frameworks and guidelines for digital education. These frameworks should address content, skills and competences, and infrastructure while considering local differences and needs.

There was also a focus on the quality of digital content, with some member states developing AI tools to screen for disinformation and establishing certification mechanisms for digital tools, which are reassessed regularly to stay aligned with the curriculum. Developing common standards at both national and EU levels, including single-sign-on platforms and negotiations with EdTech companies, was deemed crucial.

Member states stressed the importance of collaboration to create a digital ecosystem involving all stakeholders, including publishers, schools, and EdTech companies. Teachers were highlighted as central agents in this process, requiring support and autonomy to effectively integrate digital tools into their teaching.

*Question 2: What measures are you putting in place to facilitate cooperation and support stakeholders (creators, funders, and users) to share common requirements for creating, developing, and using high-quality digital education content?*

Some member states reported using platforms where teachers share materials and conduct peer evaluations, but noted the lack of legal requirements and quality checks. There is a need for evidence-informed and common guidelines on creating digital content, privacy, and GDPR compliance. Standardization and data interoperability are crucial for seamless transitions between different providers and tools.

Examples of successful initiatives include common platforms where copyright-free educational content is shared between publishing companies and the government, and centralized portals for teachers, students, and parents. Member states also emphasized the importance of continuous dialogue with stakeholders to ensure flexibility and adaptability in digital education.

The involvement of teachers in the evaluation process and the establishment of quality standards for digital educational content were highlighted as essential steps. Some member states suggested that the government should play a role in ensuring the accuracy and reliability of digital education content to prevent misinformation.

*Question 3: How do you evaluate the effectiveness of your digital education content and tools, and what metrics or feedback mechanisms are used to ensure continuous improvement and relevance to educational goals?*

Member states employ various strategies to evaluate digital education content, such as 'seals of approval' for learning apps, which are evaluated by teachers and periodically reassessed. The use of platforms for open educational resources and collaborative evaluation with the teacher community was noted.

Assessment practices vary, with some regions having guidelines and platforms for digital content evaluation, while others rely on municipalities and school-level decision-making. Certain tools are being piloted to evaluate teachers and students, with feedback mechanisms to monitor progress and plan future training.

Challenges include the slow pace of curriculum adaptation, the need for cross-curricular digital competence development, and ensuring the quality and relevance of digital tools. Involvement of stakeholders in co-creation processes and feedback collection from teachers are crucial for continuous improvement of digital educational content. Some member states also highlighted the importance of aligning evaluation practices with EU standards and leveraging existing frameworks for consistency.

## World café 3: Presidency priorities: digital inclusion and well-being

*Question 1: What policies and initiatives can education policymakers implement to promote digital inclusion of learners and teachers?*

All member states emphasize the importance of digital inclusion, aiming to ensure equitable access to digital tools and resources for all learners and educators. Some member states emphasized that digital inclusion should extend beyond special educational needs by also focusing on learners from low socioeconomic backgrounds, migrants, and highly gifted students, ensuring their participation in the learning process. It was underscored by various member states that digital education and in particular online tools can bridge equity and physical gaps, providing inclusive learning opportunities for all students. This advantage calls for further investments in making tools accessible and providing training for teachers both pre- and in-service. Member states highlighted the importance of sharing best practices, noting that similar challenges exist across diverse national educational settings.

The role of teachers is crucial; they need to be trained and supported in digital competences and supported to monitor and evaluate the impact of digital technologies in real-time. A collective approach is necessary, where countries collaborate to develop frameworks and standards that can be adapted locally, enhancing bargaining power with EdTech firms.

Public procurement procedures should ensure that digital materials meet accessibility and educational standards. There is also a need for clear goals and measurable outcomes for the integration of new technologies and research on the added value they bring to the educational practices

*Question 2: How can education and training systems ensure that the use of technology promotes the well-being of all learners within the school community?*

Promoting digital well-being involves creating an inclusive learning environment that considers the needs of all students. Given that the use of digital tools extends beyond the classroom, parent involvement becomes essential. Schools could actively support and engage parents in comprehending and overseeing the impact of digital tools on their children. This collaboration can enhance the well-being of all learners while creating a strong and inclusive community with schools as a catalyzer.

Digital literacy and critical thinking should be integral parts of the curriculum in order to empower students in navigating digital environments safely. This involves teaching them not only how to use digital tools effectively but also how to critically assess and evaluate information online. For teachers, comprehensive and engaging training programs are a must, including both improvement of digital skills, leadership qualities to support students' wellbeing effectively and information on how to tackle disinformation and promote digital literacy in educational settings. Monitoring the impact of technology on student well-being, is necessary for fostering  balanced digital experiences.

Moreover, teachers require adequate tools and support systems to foster student agency in learning, while also extending the digital integration beyond the classroom. Policies should promote a shared societal responsibility for education, involving all stakeholders in promoting and supporting digital well-being.

There is a critical and persistent need for extensive and innovative research in the field of digital well-being, in order to facilitate effective collaboration and a multistakeholder approach.

More evidence, research, and data sharing are needed in digital well-being. Comprehensive studies on the long-term effects of digital tools on students and sharing findings across educational institutions are crucial. Collaboration and data sharing can lead to informed decisions and innovative solutions.

*Question 3: How can teachers and educators ensure that young people are equipped with the digital skills/competences to feel safe and be empowered online when learning takes place in the classrooms?*

Integrating digital skills into the curriculum as a transversal competence is vital for preparing students for the digital age, using frameworks like DigComp, DigCompEdu. Equally important is the professional development of teachers who need ongoing  training to acquire and therefore also teach the necessary digital competences. Schools should promote a culture of continuous learning and peer support among teachers. These actions will enable teachers and educators to pass along digital skills and competences to young people.

Digital tools play a pivotal role in personalized learning benefiting all students but also particularly for students in need of extra support whether through accessible infrastructure or adaptable learning materials. . Sharing good practices in projects such as financing reading software for students with reading disabilities or creating shared repositories of tools made by teachers for teachers can significantly benefit educators. These actions facilitate collaboration, knowledge exchange and leverage teachers with the needed tools to create inclusive education practices for all learners. Teacher training plays a crucial role in equipping educators with the skills needed to create inclusive and empowering learning environments. By

integrating critical thinking, digital skills and methodologies for digital literacy in training programs, teachers are better prepared to meet the diverse needs of their students in a continuously evolving educational landscapes. Teachers should learn not only how to operate digital tools but also how to integrate them meaningfully into lessons to enhance learning outcomes. This includes training on digital content creation, online collaboration tools, and platforms that support differentiated instruction for students with diverse learning needs.

Critical thinking and media literacy are essential for students to navigate digital environments safely and should be integrated in curricula. Teachers should be equipped to educate students about online safety, responsible digital citizenship, and the ethical use of digital resources. Teachers need to be adept at guiding students through digital environment while enhancing values of digital responsibility and awareness of digital footprints. Education systems should also address the digital divide by ensuring equitable access to digital tools and resources. Programs like Erasmus+ and the eTwinning Network can foster collaboration and sharing of best practices among teachers, enhancing their digital skills and confidence.

## World café 4: Proposals of the Member States for key and common strategic topics for the future

*Question 1: How can we ensure that these key and common topics will be further discussed at EU level in the future? What kind of procedure can be proposed?*

Some member states emphasized the importance of using existing formats more effectively rather than creating new ones. There is a need for better connection between policy and digital experts, suggesting that focused discussions within current groups can enhance efficiency. It was noted that digitalization requires agile and rapid responses due to its fast-paced nature, which differs from other policy areas.

There is a need for more dialogue between different ministries and stakeholders to ensure comprehensive discussions on digital education. Creating targeted expert groups on specific topics, can facilitate focused and agile discussions on specific topics. Additionally, platforms for continuous discussion and document sharing could be beneficial.

*Question 2: What are other future priorities in digital education and training identified by your Member State?*

Future priorities highlighted by some member states include:
1. Ensuring robust infrastructure to support digital education, including necessary equipment and internet access for all schools.
2. Emphasizing the need for comprehensive digital competence frameworks for students, teachers, and schools, which are structurally embedded in curricula.
3. Focusing on lifelong learning and digital citizenship, ensuring that all citizens, including adults and retirees, have access to digital education and services.
4. Integrating AI and innovative technologies into education while maintaining a balance between digital and analogue tools.
5. Ensuring digital sovereignty and interoperability of systems to prevent loss of educational resources during transitions.

6. Supporting teacher training and professional development in digital competences, and addressing the digital divide in terms of access to technology and training.
7. Promoting critical thinking, media literacy, and digital citizenship as core components of the curriculum to prepare students for the digital society.

*Question 3: How can the DEAP remain an agile and flexible tool that fits the rapidly changing digital landscape?*

Maintaining agility and flexibility in the Digital Education Action Plan (DEAP) involves regular reviews and updates to adapt to the fast-evolving digital landscape. Some member states suggested that the DEAP should continue beyond 2027 with a structure that allows for mid-term reviews and ongoing dialogue with stakeholders. This would ensure that the plan remains relevant and can accommodate emerging technologies and challenges, such as AI and digital sovereignty.

It was noted that progress in digital education has been significantly accelerated by funding mechanisms like the RRF, and sustainable investment is crucial for continued development. Involving all relevant stakeholders in the discussion and implementation process is essential. The DEAP should not be overly specific but remain general enough to provide a framework that supports various national initiatives.

Moreover, the need for a holistic approach was emphasized, integrating digital education within the broader educational context and ensuring that digital initiatives align with overall educational goals. The DEAP should focus on developing basic skills and critical thinking, which are fundamental for adapting to future changes in the digital landscape.Additionally, addressing privacy concerns is crucial, as the integration of digital tools in education must ensure the protection of personal data for students and educators alike.

<div align="right">Wednesday 29 May 2024</div>

## 2.10. Presentation by the Belgian Presidency on the use of XR and AI in education and training by the Belgian Presidency

*Flanders Presentation: XR Action Plan for VET Education*

Flanders introduced its XR Action Plan for vocational education and training (VET), highlighting the potential of extended reality (XR) technologies. Research involving 386 teachers and 2707 students revealed a strong belief in the benefits of XR, with 67% of teachers and 73% of students eager to utilize it. XR technology is seen as a tool to enhance self-esteem and engagement, simulate dangerous work situations safely, and provide a gradual transition to real-life apprenticeship experiences.

The XR Action Plan, launched in 2022, encompasses several key components. Firstly, a lending hub was established to provide VET schools with essential hardware such as VR glasses, MR tablets, and 360° cameras, along with the necessary management software. Additionally, the plan involved inventorying existing software, creating new educational software, and ensuring sustainability through platforms like KlasCement.net. Support and training for schools were

also prioritized, with the creation of the XR Academy and integration services for hardware and software.

Scientific research plays a crucial role in the XR Action Plan, focusing on sustainability and effectiveness. The research aims to provide a scientific report, an XR scan for positioning and advice, and recommendations for the government, XR partners, developers, and users.

*FW-B Presentation: AI and Extended Reality in Education*

The Fédération Wallonie-Bruxelles (FW-B) detailed its approach to integrating AI and XR in education. The Service général du Numérique éducatif (SGNE), established by a 2019 decree, oversees the implementation of digital strategies for compulsory, lifelong learning and higher education. The SGNE offers various platforms and resources to integrate digital tools and approaches into education and promotes the sharing of educational resources.

An impact analysis on AI in education identified four major risks: the gap between curricula and necessary skills, lack of AI literacy resources, complexity in managing ethical and legal aspects and potential misuse of AI by students for cheating. The proposed measures to address these risks were debated in the Education Steering Committee.

The FW-B also disseminated publications on AI and XR. The AI Focus, published in January 2024, provides essential information on AI, its impacts, and challenges, with particular attention to generative AI. The XR Focus, published in May 2024, includes desk research and field interviews with university experts and teachers, highlighting the use of VR, AR, MR, and XR in classrooms and is complemented by a video clip compiling university experts' point of views on XR in education.

Findings on XR in education underscored both constraints, such as high costs and technical challenges, and advantages, including increased learner engagement and better understanding of complex concepts. Recommendations emphasized the importance of creating valid teaching scenarios and forming communities of practice to share ideas.

## 2.11.    Keynote speech on XR meets AI

Prof. Sarah Howard, Associate Professor of Digital Technologies in Education at the University of Wollongong, Australia, and Visiting Professor at Vrije Universiteit Brussel, delivered a keynote titled "XR Meets AI: Opportunities for Innovative Learning in Europe."

*Opportunities and Integration of XR and AI in Education:*
Prof. Sarah Howard highlighted the significant opportunities presented by XR and AI in education, emphasizing their potential to transform teaching practices and digital education. She discussed the inherent biases in large language models and stressed the importance of innovation being driven by pedagogy and learning rather than technology alone.

*AI in Education:*
She introduced three models for AI in education: pedagogical, domain, and learner models. These models focus on teaching, learning, and supporting the educational process, offering personalized and adaptable learning experiences. Howard stressed the importance of linking

technology to classroom activities and adapting AI to different tasks, users, and spaces to create highly engaging and inclusive learning environments.

*Challenges and Case Studies:*
Howard acknowledged the struggle to meaningfully integrate digital education in schools, noting that while society has moved quickly, educational institutions often lag behind. She presented case studies from the EU, including Synergy in Flanders and SupportSquare, which explored intelligent XR learning environments. These case studies emphasized the importance of measuring competencies in immersive environments and understanding the connections between data and learning outcomes.

*Teacher Training and Adoption:*
The lack of adoption of digital technologies by teachers was highlighted by Sarah Howard as a significant barrier. Howard underscored the necessity of strong teacher training programs and spaces where teachers can experiment with new technologies. She referenced Gluon Education's initiative in Brussels, which provides both formal and informal training opportunities for teachers to engage with AI and XR technologies.

*Conceptual Models:*
To aid in the integration of these complex technologies, Howard introduced two conceptual models: the DTALE model and the Propeller Model. The DTALE model focuses on key factors such as space, technologies, and organization, helping teachers design effective learning experiences. The Propeller Model, on the other hand, addresses the system-level sustainability and scalability of innovations, offering a roadmap for integrating AI into educational assessments.

*Policy Support and Future Work:*
Existing EU policy support, including the EU Ethical Guidelines on the use of AI and data in teaching and learning for educators and the DEAP, provides a strong foundation for the necessary work in digital education. Howard referred to the key aspects of the Council Recommendation on digital education and skills and emphasized the need for continued collaboration across sectors, development of teacher training programs, and the creation of open repositories for best practices. She stressed the importance of aligning AI tools with educational goals to reduce the digital divide and support inclusive education.

Her presentation called for a holistic approach, driven by pedagogy and supported by strong policy frameworks and cross-sector collaboration.

## 2.12. Policy discussion on the integration of XR and AI in education and training

During a discussion on AI in education, several key subtopics emerged, highlighting the risks, challenges, and opportunities associated with integrating XR and AI into educational systems.

*Risks and Challenges:*

Different member states pointed out the inherent risks and challenges related to AI in education, emphasizing the need for the upcoming EU AI act to include safeguards for its use in educational settings. They also stressed the importance of ensuring equality of opportunities and proposed large national programs to support educational institutions, granting them the autonomy to determine what is best for their contexts.

### *Addressing the legislative framework*
Member states shared the need to ensure awareness and preparedness among education and training stakeholders on the implementation of the AI Act, once into force. Exchanging between Member States in an EU fora (e.g. Peer-learning activity) on the good practices and lessons learned from the implementation would be essential.

### *Values and Feedback:*
The European EdTech Alliance noted a disconnect between needs and implementation strategies, stressing the importance of identifying shared values and visions. Frequent feedback loops at different levels were deemed necessary to guide the process and ensure that implementation aligns with these shared values.

### *National Approaches and Support:*
Another member state shared two national-level approaches, highlighting the significant support required by higher education sectors. They established a higher education forum on digitalization to bring together a broad community, which helps inform universities and establish networks. Additionally, cross-domain AI skills development was promoted through initiatives funded at the federal level.

### *Guidelines and Protection Mechanisms:*
In certain regions, guidelines and protection mechanisms were set based on existing frameworks. Workshops and teacher training sessions were organized to support teachers, and various collaborative projects were initiated to enhance digital education practices.

### *Mainstreaming AI and Research Integration:*
One member state highlighted that AI is not yet mainstream and should be closely linked to research to achieve evidence-informed education. The development of AI in education demands significant resources, including time, expertise, and money. They emphasized the importance of recognizing the autonomy of teachers and higher education institutions, with national frameworks ensuring common principles. Recommendations on AI usage and academic integrity were being developed, particularly concerning generative AI and assessment fraud.

### *Building Ecosystems and Long-term Partnerships:*
Another member state shared their efforts to build an ecosystem based on trust between public and private sectors, focusing on long-term partnerships. They emphasized the importance of ensuring that everyone has access to the developed resources, with brochures and resource accounts made available to support this effort.

### *Clear Objectives and Individual Experiences:*
Another member state stressed the need for clear objectives and principles to add value to AI integration in education. They noted that the use of XR tends to be individualized and

highlighted the importance of age-appropriate tools. They are developing tools to evaluate curricula for inconsistencies and emphasized the need to enhance equity by providing necessary equipment to schools.

*Strategies for Digitalization and Collaboration:*
Several member states discussed their strategies for digitalization in education, including collaboration with stakeholders and continuous learning. They highlighted the importance of learning from each other and the need for universities and the EdTech industry to lead innovation. Some member states shared their efforts to develop AI courses and tools tailored to local needs and emphasized the importance of addressing biases and misinformation.

*Balancing Rules and Innovation:*
The European Commission was noted for its role in creating robust rules but was seen as lagging in supporting fast-paced innovation. The need for a balance between regulation and encouraging innovation was stressed, with cooperation across public and private sectors deemed essential for competitiveness.

*Inclusivity and Access:*
There was a strong emphasis on inclusivity and access, ensuring no one is left behind in terms of technology and users. This included regular updates to guidelines, forming AI workgroups with multiple stakeholders, and making AI simpler and more accessible.

## 2.13. Concluding remarks by the Belgian Presidency and the European Commission

*Belgian Presidency*

Jeroen Backs, head of the Strategy and Knowledge division of the Education and Training Department of Flanders, concluded the conference by emphasizing the importance of privacy in digital education. He highlighted that privacy and effective data management is not only about protecting information but also about building trust, which is crucial as digital education evolves. Backs stressed the need for robust policies and EdTech products that keep pace with technological advancements while respecting the rights and the agency of learners and educators.

He discussed the critical implementation steps for the Council recommendations on digital education and skills, noting that these steps are essential for translating guidelines into actionable strategies. He encouraged continued dialogue and exchange of ideas to overcome challenges and ensure these recommendations are effectively implemented in classrooms worldwide.

The discussions on XR and AI were recognized for their potential to create immersive, inclusive and personalized learning experiences, while also highlighting the importance of addressing data privacy and ethical considerations. Backs called for careful integration of these technologies to maximize benefits while ensuring equity and addressing the digital divide.

Lastly, Jeroen Backs expressed satisfaction that the Hungarian Presidency will continue to build on these discussions by focusing on the green and digital transition in education and training.

*European Commission*

Georgi Dimitrov, head of the digital education unit at DG EAC, European Commission, made three key observations in his concluding remarks:

1. **Format of the Digital Education Dialogues:** He emphasized the importance of creating the right setting and format for the dialogues to achieve the desired outcomes. He noted that wider engagement and cooperation among all stakeholders, including civil society and the private sector, provide a solid basis for implementing strategic goals outlined in the council's publication. He invited the Member States to consider continuing the Digital Education Dialogues.

2. **Trust and Responsibility**: He highlighted the significance of trust and reassurance in digital education, affirming that dialogues are an appropriate format to foster these elements. Dimitrov acknowledged the numerous national initiatives already in place and stressed the added value of further cooperation through a more integrated framework.

3. **Data Privacy and Sovereignty:** He also pointed out the importance of data privacy and sovereignty, suggesting that shared standards should be explored. He warned that if data privacy is not adequately managed within education, it could be controlled by external entities. He mentioned that the European Commission is looking into other legal issues and measures to support digital education.

Lastly, Georgi Dimitrov invited member states to provide input for the upcoming review of the DEAP, underscoring the need for continuous collaboration to address the evolving challenges and opportunities in digital education.