EUROPEAN COMMISSION
Directorate-General for Communications Networks, Content and Technology (DG CNECT)

Data
**Learning, Multilingualism and Accessibility**

# Report of the Digital Learning Participatory Meeting H2020 projects

27 March 2017, Euroforum Building, 10 rue Robert Stumper, L-2557 Luxembourg

## ➢ *Welcome and introduction (Marco Marsella, Head of Unit G3 in DG CNECT, European Commission):*

- *Marco Marsella welcomed the participants to the clustering meeting. He presented the activities of the Unit covering the legislative work, multilingualism, learning and Safer Internet activities.*
- *He stressed the two main reasons for organizing the meeting:*
  *1) The importance that project coordinators get an overview of the parallel projects, cluster during the meeting and discover opportunities for synergies and collaboration. Significant funding has been undertaken so far into digital learning projects in different domains covered by the Unit (gaming, learning analytics, wearables and robotics, etc.) so it is essential that the projects are also linked to each other and to the on-going policy actions.*
  *2) Reflection on what is going on and what the projects will lead to. This should help identify outlooks and paths for the future of digital learning and skills. Potential impact of the projects and the gaps that need to be addressed in future activities should also be discussed during the clustering sessions.*
- *He introduced the guests who have been invited for the participatory meeting to give insight into their past and on-going work: Ms Maria Karamitrou from DG RTD, Ms Deirdre Hodson from DG EAC and Dr Serge Linckels from the Ministry of Education Luxembourg.*

## ➢ *Presentations of Guest Speakers from EC and Ministry of Education Luxembourg*

- Maria Karamitrou, DG RTD: activities to support STEM (Unit B.7 Science with and for Society)
  *The presentation focused on Science Education in FP7 and H2020 as well Responsible Research and Innovation as a cross-cutting issue. SCIENTIX, the community for science education, set up to ensure a wide uptake and dissemination of STEM education practices, was also presented.*

- Deirdre Hodson, DG EAC, Unit C1 – Innovation and EIT

  *The presentation gave an overview of: 1. Cooperation with governments and partner organisations (Digital Skills and Competences Working Group 2016-2018 which brings together representatives of Ministries of Education and stakeholder organisations in charge of Digital) 2. Platforms and training (www.openeducationeuropa.eu;* http://www.schooleducationgateway.eu/*; eTwinning) 3. Funding programmes (Erasmus+); 4. Research & studies (JRC reports: OpenCases: a Catalogue of Mini Cases on Open Education in Europe, Research Evidence on the Use of Learning Analytics, Developing Computational Thinking in Compulsory Education); 5. Competence frameworks & tools (Digital Competence Framework for Educators – DigCompEdu: SELFIE coming soon: Self-reflection on Effective Learning by Fostering Education through Educational Technology).*

- Dr Serge Linckels, Ministry of Education Luxembourg, The Strategy Digital (4) Education

  *The presentation focused on the recent initiatives of the Luxembourgish ministry of education to modernize education through different initiatives for digital learning, training, and infrastructures. He presented some of these projects: young journalists contest where students create projects on journalism, Makerspaces: the discovery of technology, and exchange event of teachers using digital resources, e.g., a media day or "journée eduSphere".*

- *After the presentation a short discussion followed*

- For more information presented by Guest Speakers, please find their presentations here.

## ➢ *Project presentations: 2 minutes free presentation per project*

After the coffee break the coordinators of 29 projects funded gave an overview of their projects

1. **AFEL** (Analytics for Everyday Learning): the project contests the assumption that learning can be captured by one platform. In reality, a variety of online social platforms are being increasingly used for learning. Learning analytics should therefore learn to exploit data from activities on those platforms, tracking the learner's progress through heterogeneous online resources and informal learning activities. More details at afel-project.eu
2. **Beaconing** (Breaking Educational Barriers with Contextualised, Pervasive and Gameful Learning): the project intends to break educational barriers with contextualized, pervasive gaming techniques. It fosters cross-subject learning, facilitated by personified gamified lesson plan acknowledging that creating games is a challenging task for teachers. It focuses on adaptability, scalability and sustainability.
3. **CRISS** (Demonstration of a scalable and cost-effective cloud-based digital learning infrastructure through the Certification of digital competences in primary and secondary schools)**:** the project creates flexible, scalable and cost-effective cloud-based digital learning ecosystem that allows the guided acquisition, evaluation and certification of digital competences in primary and secondary education, and easily scalable to other educational levels. A new methodology is established and a large-scale pilot is planned with 25.ooo students.
4. **DEVELOP** (Developing Careers through Social Networks and Transversal Competencies): the project creates a personalised learning environment for career development (highlighting realistic career paths). Longer lives today mean that our learning and career will last longer.

The project leverages game-based assessment, personalization tools and assessment of transversal competencies. It spans three important areas of work: research, vendors and end-users.

5. **Envisage:** (Enhance Virtual Spaces through Gaming in Education). The underlying assumption is that the virtual labs can revolutionize education. The project uses the knowledge from the domain of digital games to achieve advances in virtual labs. Teachers will be able to design content with a special authoring tool.
6. **Focus-Locus** (ADHD management Gaming System for educational achievement and social inclusion): the project develops an alternative approach to managing ADHD (Attention Deficit and Hyperactivity Disorder) through a gamified intervention programme. New features are introduced.
7. **Gaming Horizons**: the project seeks to enlarge the scope of the discourse about gaming and to expand the research and innovation agenda on serious gaming and gamification. Many important aspects such as equity and ethics are discussed. The adopted methodology is based on consultations.
8. **GATES:** (Applying Gaming Technologies in Smart Farming). The project develops a serious game-based training platform, in order to train professionals across the agricultural value chain on the use of Smart Farming Technologies (SFT). It intends to contribute to the wider goal of meeting the increasing demand for food.
9. **I-LINC** (Platform for ICT learning and inclusion for youth employability and entrepreneurship): The project focuses on improving employability and entrepreneurship of young people through establishing an overarching platform for ICT (for) learning and inclusion. It addresses stakeholders in education, concerned with youth employability. One of the important goals is inter-linking existing platforms. The platform offers many resources and interaction possibilities: http://www.i-linc.eu/
10. **iMuSciCA** (Interactive Music Science Collaborative Activities): The project leverages engagement in music activities to enable better STEM learning among secondary school students. It focuses on the development and exploitation of original and innovative enabling technologies that include virtual 3D environments to design personalized musical instruments, computer generated sound by varying the design parameters of musical instruments with interpretations of the related physics and mathematics, gesture and pen-enabled multimodal interaction of learners with the virtual 3D musical instrument for co-creation and music performance, interactive STEM authoring and learning environments with advanced tools for the creation and presentation of lesson plans and 3D printing technology for realizing the physical musical instrument as an actual/tangible physical object. More details can be found at www.imuscica.eu
11. **INLIFE** (Incubate a New Learning and Inspiration Framework for Education): the project intends to leverage the Internet-of-Things as the basis to create a gamification network. It directly links actions, decisions and events happening in real-life with in-game educational progress and modern gaming technologies. It enables third parties to create their own games. Virtual rewards lead to learning and behavioural adaptation. The impact will include an innovative gamification framework (an ecosystem).
12. **iREAD** (Infrastructure and Integrated Tools for Personalized Learning of Reading Skill): the project develops adaptive technologies to help primary school children become more proficient readers. The project covers domain models for English, Greek, German and Spanish learners. That includes: applications for supporting learning, literacy games, interactive e-books, reader app that utilise the infrastructure to yield different A number of apps is going to be developed. iREAD is looking at the different curricula across the countries and planning large-scale pilots. The impact should address industry, market and schools.
13. **L2tor** (Second Language Tutoring Using Social Robots) addresses pre-school children (age 4-5). The assumption behind the project is that language proficiency is vital for performance at school (impact on socio-economic factors). The project aims to design a child-friendly tutor

robot that can be used to support teaching preschool children a second language. One of the ideas is to develop a series of lessons in three domains (number, space and mental language). Large evaluation with approximately 250 children will be conducted.

14. **MaTHiSiS**(Managing Affective-learning THrough Intelligent atoms and Smart InteractionS) creates a novel educational framework enabling the coupling of new technologies with formal, in-formal and non-formal education. MaTHiSiS platform provides every type of learner, in every type of setting, on the device they have at their disposal, with a bespoke, individualized learning experience that is adapted to their personal requirements. An ecosystem for assisting learners/tutors/caregivers for both regular learners and learners with special needs will be introduced and validated in 5 use cases: Autism Spectrum Case (ASC), Profound and Multiple Learning Disabilities Case (PMLDC), Mainstream Education Case (MEC), Industrial Training Case (ITC) and Career Guidance Distance Learning Case (CGDLC). Further information is available on http://www.mathisis-project.eu/.
15. **NEWTON** (Networked Labs for Training in Sciences and Technologies for Information and Communication): the innovation action develops a large-scale platform (linking existing teaching labs) to deliver educational content in a fast and innovative way. The project methodologies are based on personalization and adaptation. Real-life pilots in several countries will be used as demonstrations and cover multiple subjects, ex. physics, biology, mathematics.
16. **Next-Lab** (Next Generation Stakeholders and Next Level Ecosystem for Collaborative Science Education with Online Labs): The project is based on the assumption that enquiry learning makes students enthusiastic for science and renders deeper knowledge acquisition. The project collects and inter-links online labs from all over the world. It provides scaffolds for personalized learning an authoring platform and the Go-Lab sharing platform. The resources can be distributed with one click to all students and shared between teachers.
17. **No One Left Behind**: the project develops a non-leisure gaming 'toolkit' for formal educational contexts in order to improve the engagement of students during the learning process through the development of digital games and applications on mobile devices (create@school). It allows children to create their own digital games and apps, it also provides some game templates that can be easily customized to several subjects. The project runs 3 pilots in the UK, Spain and Austria and involves around 600 students between 9-17 years old in three different contexts of risk of exclusion. The outcomes of the project include a mobile application Create@School, a project management dashboard and an analytics tool. The impact will include enhancing children's academic abilities as well as their logical reasoning, creativity and social skills.
18. **ProsocialLearn** (Gamification of Prosocial Learning for Increased Youth Inclusion and Academic Achievement): the project establishes a new market for digital games focusing on delivering digital games to 7-11 year olds. The pro-social games will help children develop skills for social and emotional well-being.
19. **RAGE** (Realising an Applied Gaming Eco-system): the project aims to develop, transform and enrich advanced technologies from the leisure games industry into self-contained gaming assets. They will support game studios at developing applied games easier, faster and more cost-effectively. The project leverages real-time emotion recognition, learning analytics, a virtual human controller, an adaptation engine and social gamification.
20. **REVEAL** (Realizing Education through Virtual Environments and Augmented Locations): the project pioneers the use of mainstream PlayStation VR technologies for innovative educational applications which engage audiences in the Europe's rich historical and scientific heritage. It will help SMEs to bring new educational VR applications to the online PlayStation Store through new processes and technologies. Open source engines are being used.
21. **SlideWiki** (Large-scale pilots for collaborative OpenCourseWare authoring, multiplatform delivery and Learning Analytics): The project further develops the SlideWiki platform addressing the need for an open collaboration and authoring platform. The project will

contribute to accessible, multilingual, timely, engaging and high-quality educational material being more widely available. Large-scale trials are conducted.

22. **STORIES** (Stories of Tomorrow - Students Visions on the Future of Space Exploration): the project facilitates deep learning through STEAM. It will positively influence children's ebooks by developing user-friendly interfaces for young students to create their own multi-path stories and by enrichment with AR, VR and 3D printing technologies. The students can work on such engaging topics as for example a big journey to Mars.
23. **TELMI** (Technology Enhanced Learning of Musical Instrument Performance): the project studies how we learn to play musical instruments. It designs and implements new interaction paradigms for music learning and training. The project advances interactive, assistive, self-learning systems. Machine learning techniques are being personalized.
24. **TeSLA**: (An Adaptive Trust-based e-assesment System for Learning): the project develops an adaptive trust e-assessment system for online and blended learning with the goal of ensuring authentication and authorship. The project includes a Large Scale Pilots scheme. Several technologies for authentication and authorship are being used.
25. **TRANSLITERACY** (Transmedia Literacy. Exploiting transmedia skills and informal learning strategies to improve formal education): the project seeks to understand how teenagers are developing 'transmedia skills' outside the school and how did they learn to do that (informal learning strategies). The fieldwork is about to finish and now is the time to analyse the data and develop the final scientific and educational outputs. The team will produce a Teacher's Kit and a series of videos to promote the production of youth-generated contents and exploit transmedia skills in the classroom.
26. **Up2U** (Up to University - Bridging the gap between schools and universities through informal education): the motivation behind the project is to bridge the gap between formal and informal education. Most of the schools are not really digitally equipped: technological challenges and a different teaching style are two reasons why people drop out in the first University year. The project leverages formal and informal learning, open interfaces and reward systems.
27. **WEKIT** (Wearable Experience for Knowledge Intensive Training): professional learning is in crisis in Europe and so the main driving force behind the project is to help people identify, acquire and exploit skills valued by industry. The project uses AR for augmenting learning through experience. One of the action lines involves generating content to preserve the implicit knowledge. Extensive trials are planned.
28. **WhoLoDance** (Whole-Body Interaction Learning for Dance Education): it has developed a large Library of Dance Movements (acquired through motion capture sessions) and, on top of it, the prototype of a Bending Machine, allowing choreographers and dance teachers to assemble dance motions, creating novel choreographies. All captured dance movements are annotated highlighting their expressivity and movement qualities, and can be further analysed by applying similarity search tools and techniques for emotional content analysis. WhoLoDance makes use of Life-size volumetric displays (avatars) of dance masters' motions enabling dancers to self-assess their own body alignment and technique by comparison, and allows accessing the Library of Movements and the Similarity Search functionalities also by having recourse to low-end motion capture devices, easily accessible by wide audience practices.
29. **eCraft2Learn** (Digital Fabrication and Maker Movement in Education: Making Computer-supported Artefacts from Scratch): the project researches, designs, pilots and validates an ecosystem based on digital fabrication and making technologies for creating computer-supported artefacts. It intends to deepen personalised learning and teaching in science, technology, engineering, arts and math (STEAM) education.

## ➢ *Live clustering of project coordinators*

The clustering methodology was based on the Participatory Leadership methods (Open Space). It allowed the participants to come up with such five major topics:

1. **Community Building,**
2. **Gaming, games and gamification**
3. **Learning Analytics**
4. **Skills Assessment for STEAM**
5. **Wearable Technologies, wearable learning and AR**

The topics were discussed in groups along the following aspects: challenges, synergies/opportunities, European added value and future needs. The participants were able to rotate between the groups to contribute with their expertise. Each topic session had a host assigned to it who presented the results at the end of the discussions. The conclusions of the discussions are summarized below.

# *Community Building*

- **Challenges**: EC projects are a natural opportunity for networking with people and establishing new contacts. However, there are several challenges: community-building involves hard work and takes a long time. The timeframe of a project imposes concrete deadlines for delivering outcomes and if the schedule is tight it may interfere with community-building. There are a lot of communities active in the EC so some of the relevant questions are: shall we create a new community or join an existing one? Which platform should be used? How should community building be sustained financially? How can transaction costs be reduced? How can awareness-raising among the target groups be best achieved? There is also a clear need for test users.

- **Synergies/Opportunities**: there are many ways for projects and researchers of learning from each other and some of them may be very effective. Community-building enables meeting new partners and provides opportunities for development activities. A case study on each project would be a good opportunity to learn and exchanging studies on projects would enable a better overview of the accomplishments and obstacles encountered by others. Creating a social network of the projects could be an effective way of community-building.

- **European Added Value**: sharing of knowledge across MS constitutes an important added value. The language challenge in European research collaborations and the cultural differences cater for diversity and a divergence of approaches, but pose difficulties as well.

- **Future Needs:** a discussion on legal issues, IPR and licencing (what can be done about intellectual property rights?) would benefit the whole community. At the moment the projects are not well-interlined – could a social network for projects address this issue? Inter-linking of communities would lead to better knowledge exchanges and the pooling of

scattered know-how. Could there be a one-stop shop that brings me to the community I want to be involved in? Currently there may be many project coordinators in a similar situation and with similar questions/needs. Improving the knowledge-sharing mechanism could save many parties a lot of time and reduce 'parallel searches for information'. Finding a central mechanism for support would be very beneficial. The projects need an interface to look 'for the long tail'.

- Remark by Francesca Borrelli: IPR help-desk in Alicante has been set up to provide assistance with IPR and it might be useful contacting them if there are questions about IPR.

## *Gaming, games and gamification*

- **Challenges**: the real uptake of games and gaming on a large scale is difficult because the stakeholders need to be convinced about the value and benefits. This is difficult due to the lack of very clear-cut and convincing evidence demonstrating the added value. As a community we need to disseminate what we are doing: this means influencing decision-makers and the policy in most countries. One of the crucial questions is: how do we work with people who are in charge of procurement? We want to work with people who are not aware of what we are doing – games should be part of an ecosystem and combined with other solutions and cannot be regarded as the solution itself. Game-pedagogical constructs and adaptability still offer scope for improvement. Gaming literacies and culture are not fully developed yet. Further challenges that prevent a more wide-spread adoption of games and gaming are related to: distribution channels, securing digital assets rights (copyright, IPR), re-use of digital content and content creation. The gaming community should be realistic, yet ambitious and look for optimisation opportunities.

- **Opportunities:** the assessment of competences developed through game-based learning can make a huge difference in further adoption of gaming in education. How can we come up with the guidelines that will help us assess the competences developed through gaming? Projects which are quite similar need to be in touch and there needs to be a bigger ecosystem of solutions – Scientix can possibly help in bringing the community closer and pooling the available knowledge. Most projects concentrate on one type of solution and deployment, but it would really be good to have some sort of an ecosystem. Evaluating different components will help find synergies. Bringing people of different backgrounds in EC projects needs to be done urgently but it's a challenge.

- **European Added Value**: Games enable learning anytime anywhere (e.g. create@school – mobile coding application, Beaconing). Gaming and gamification promise innovation with real impact in different non-technical domains (cultural and trans-disciplinary). Communication takes place across the EU. A repository of game components is created with a kind of modularity that enables re-use.

- **Needs:** Games articulated as cultural artefacts are very often discussed now. Games literacy needs to be improved. EU-wide distribution channels should be supported. We need a future

strategy and a policy on game-based learning (GBL). Comment: There is a disconnection between what a policy-maker may be expecting from a project (indicators) and what comes out from projects. A game-assessment framework and better infrastructure are necessary. The stakeholder community would need some funding to further consolidate.

## *Learning Analytics*

- **Challenges**: While Learning Analytics (LA) has been attracting a lot of attention recently and today nearly everyone talks about it, there are several misunderstandings about the nature and uses of LA. First of all, the common assumption about LA uses really simple cases and reduces LA into very simple questions (will a student drop out or not)? The potential and complexity of LA extend far beyond such simple cases and questions. More and more learning happens in a lot of different situations, with informal learning becoming more and more prominent. LA needs to adapt to do justice to this reality. There is a huge variety of contexts: there are worlds apart between such users as primary school students and professional dancers for example. It's very important to understand how the different uses affect LA and how LA will really depend on the context. The use of results raises questions about how to conduct interpolation and data analysis. Some of the uses of LA include: certification, failure detection, personal development, preference monitoring, similarity research, learning design, learner engagement, self-reflection, personalized feedback, interventions, and research validation. Another challenge for LA lies in tracking the development of the non-traditional skills (soft skills as opposed to cognitive skills). The capturing of social/interaction data also poses significant challenges for LA. **Privacy (blockchains) and ethics** are yet other difficult questions to tackle – **data protection** is really important in the context of learning analytics.

- **Opportunities**: embedding analytics in OER; AFEL (Analytics for Everyday Learning); developing different analytics for different uses; embedding analytics in different contexts.

- **Needs:** **Standards** are needed: we need to know what can be taken from students. We need **standards in terms of monitoring and ethics and standards related to the practices**. What is acceptable and not acceptable for the users? It would be very helpful for the LA community, if research projects release anonymised data sets at the end for re-use and compare. Building analytics into the resources will allow the domain to grow and develop. There are big discussions around privacy and ethics – if the conclusions and findings are captured and shared by the researchers affected now, this could be re-used by other projects later on. It's important to consolidate the principle of being transparent with the data and with the users so that they understand what is being done to them. How should privacy be embedded in the design? The capture, use and practice should be continued and disseminated.

## *Skills Assessment for STEAM*

- **Challenges:** The main challenge of assessment is to understand better what *assessment* itself means to the different stakeholders. When something is easy to quantify then the assessment can be done easily, also by computer. On the contrary, when something is difficult to evaluate/quantify, then the assessment is difficult for everybody: what should be measured and how? There is the need to develop new approach of assessment and to empower both teacher and students in this process. Students and teachers should be able to develop themselves, customised assessments. Arts have been consistently put lower on the pedestal in education than science or mathematics. They are also very often separated from STEM and the assumption that they should be separated still persists in education.

- **Opportunities**: Research shows that bringing arts back into education and integrating them more fully into the curricula can bring many benefits: this fosters engagement and creativity, enables cross-disciplinary learning and transversal thinking. At the moment the most typical way of bridging STEM and arts is bringing people from different disciplines together which allows for creative, cross-disciplinary ideas to emerge. Fostering social interactions between engineers and artists for example enables reaching across traditional boundaries. What we need in education however is a more intrinsic inter-disciplinary approach: we need more and more people who do not define themselves just as scientists or just artists but who will be able to leverage the strengths of the two worlds in their thinking and working.

- **Needs**: While it is clear that bringing arts back into curricula and upgrading their status may have positive long-term effects on educational outcomes, it is not fully clear how we can we bring arts back to the framework. In this context the assessment plays a crucial role. Things which are easy for a computer to measure may not be easy to measure in humans – so how can we bring together these two worlds? Standardized assessment has a role to play here: assessing by the outcomes and not by quantifiable metrics.

## *Wearable technologies, AR & Wearable Learning*

- **Challenges**: there is significant fragmentation of knowledge and players in the field. We witness current difficulties in producing high-quality content and creating large pools of it. The area is negatively affected by the lack of standardization and compatible platforms. Complex issues of data ownership and privacy issues have not been resolved yet (EEG data of learners). Currently the costs of equipment are very high. The lack of well-tested and reliable business models hampers up-scaling.

- **Opportunities:** the AR and wearables are in coming and there is a potential for a huge AR market developing in the coming years. The adoption of wearables and AR creates significant opportunities for more engagement at schools and can really revolutionize learning.

1. **Needs:** Due to the fragmentation there is a strong need for knowledge to be shared (scenarios, etc.); Re-inventing things does not make sense and is a waste of time, so it is crucial to link the pockets of innovation, collect evidence and share experiences.

2. Content is king but currently it is difficult to produce high-quality content and to create large pools of it. If the digital agenda is to taken seriously, then creating large pools of wearable content is a must. It is necessary to lower entry barriers through recording and in situ authoring systems. There is a need for creating large pools of 3D Open Educational Resources (OER). Further pre-requisites for the wearable technologies and AR to take off in education are: access to best people in the field (kineastetics) and an open market for augmented reality content.
3. Taking into account the current fragmentation standardization and compatible platforms are really important in the future developments of wearables and AR (sensor fusion, sensor mapping). In this context 'Learning from The Best' should be recommended as the way forward. Development will be sustainable when driven by standardization.
4. There is a need for upgrading the existing content – this is definitely an opportunity. Yet it is still open what competences can be and will be trained with augmented reality and wearables. The inventory of competencies that will most benefit from being trained with wearables/AR has not been created yet. Hardware and smart phones are expensive – but so are the HoloLens. How can they become a part of normal school equipment? Who in the existing ecosystem will be driving the change? The wearable learning methodologies should be compatible with the existing ones and build on the best practice rather than re-invent the wheel. The IoT will likely enable a graceful transition to cheaper delivery platforms, with the gazillion sensors now available.
5. If we want wearable solutions like smart glasses to be an essential part of school and work life, we have to come up with financing solutions and sustainable business models. The emergence of sustainable business models needs to rely on an ecosystem of content providers, soft- and hardware vendors and buyers.
6. The relevant research questions in relation to wearable learning and AR are:
   - Collaborative AR learning experiences: will they involve small teams or full classrooms?
   - Achieving accuracy in assessment and feedback;
   - Objects in learning: working with AR and 3D printing /interfacing of 3D printing with augmented reality; Submit SIG WELL workshop to ECTEL;
   - Industry 4.0: working with cyberphysical systems.

## ➢ *Closing words by Marco Marsella:*

- Marco Marcella thanked all the participants for their attendance and their ideas and expressed hope that the clustering meeting has enabled the projects to come closer and initiate cooperation and create better inter-linking. He expressed hope that collaboration will continue between the projects beyond the meeting. He stressed that for him the impact of the projects is really important and thinking from the very start about the sustainability of outcomes is key for long-lasting success of projects. Bridging the gap between the research, innovation, deployment and then the policy is in the interest of all parties. The sustainability of individual projects' outcomes will contribute to the sustainability of funding actions overall and this is very much in the interest of not just EC but European citizens and taxpayers. We need a sustainable holistic ecosystem that will benefit both teachers and students.

## *Agenda*

### *H2020 projects Digital Learning Participatory Meeting*

### *27 March 2017*
### *9:30-16:30*
### *Main Conference Room - EUFO 001*

### *EUROFORUM building, 10 Rue Robert Stumper, Luxembourg*

**MORNING SESSION: The scope and the European Challenges**

| | |
|---|---|
| **9:30** | Welcome<br>DG CONNECT |
| **9.35** | DG Connect: Digital Learning<br>*Marco Marsella – Head of Unit G.3 Learning, Multilingualism and Accessibility* |
| **09.50** | DG RTD: activities to support STEM<br>*Maria Karamitrou - Unit B.7 Science with and for Society*<br><br>Scientix Project |
| **10.15** | DG EAC<br>*Deirdre Hodson - Unit C1 –Innovation and EIT* |
| **10.30** | The strategy Digital (4) Education<br>Ministry of Education Luxembourg<br>*Dr. Serge LINCKELS* |
| **10.45** | **Coffee break** |
| **11.00** | Project presentations<br>2 minutes free presentation per project in alphabetical order |
| **13.00** | **LUNCH** |

**AFTERNOON SESSION – PROJECTS NETWORKING**

| | |
|---|---|
| **14.00** | **Live clustering**<br><br>Participants can **rotate freely to contribute to clusters** |
| **15:30** | **Presentation of the group results**<br><br>Each cluster presents shortly the discussion:<br>✓ Challenges<br>✓ Synergies<br>✓ Opportunities to collaborate<br>✓ European Added Value |
| **16.15** | **Conclusions** |

## *List of Participants*

| H2020 project | Title | Representative | Representative |
|---|---|---|---|
| AFEL | Analytics for Everyday Learning | Mathieu D'Aquin | |
| BEACONING | Breaking Educational Barriers with Contextualised, Pervasive and Gameful Learning | Sylvester Arnab | Antoniu Stefan |
| CRISS | Demonstration of a scalable and cost-effective cloud-based digital learning infrastructure through the Certification of digital competences in primary and secondary schools | Hara Stefanou | |
| DEVELOP | Developing Careers through Social Networks and Transversal Competencies | Neil Peirce | |
| eCraft2Learn | Digital Fabrication and Maker Movement in Education: Making Computer-supported Artefacts from Scratch | Gunnar Widforss | |
| ENVISAGE | ENhance VIrtual learning Spaces using Applied Gaming in Education | Spiros Nikolopoulos | |
| FocusLocus | FocusLocus: ADHD management Gaming System for educational achievement and social inclusion | Stelios C. A. Thomopoulos | Tassos Kanellos |
| GATES | Applying GAming TEchnologies for training professionals in Smart Farming | Zisis Tsiropoulos | Tim Hutzenlaub |
| Horizons Games | Alternative framings for a new role of gaming in education and society | Carlo Perrotta | Chris Bailey |
| I-LINC | Platform for ICT learning and inclusion for youth employability and entrepreneurship | Bastian Pelka | |
| iMuSciCA | Interactive Music Science Collaborative Activities Interactive Music Science Collaborative Activities Interactive Music Science Collaborative Activities | Pierre Laborde | Vassilis Katsouros |
| INLIFE | Incubate a New Learning and Inspiration Framework for Education | Konstantinos Demestichas | Evgenia Adamopoulou |
| iRead | Infrastructure and integrated tools for personalized learning of reading skill | Mina Vasalou | |
| L2TOR | Second Language Tutoring using Social Robots | Paul Vogt | |

| H2020 project | Title | Representative | Representative |
|---|---|---|---|
| MATHISIS | (Managing Affective-learning THrough Intelligent atoms and Smart InteractionS | Carmen Padron | Nicholas Vetros |
| NEWTON | Networked Labs for Training in Sciences and Technologies for Information and Communication | Gabriel-Miro Muntean | |
| Next-Lab | Next Generation Stakeholders and Next Level Ecosystem for ColLaborative Science Education with Online Labs | Ton De Jong | Denis Gilet |
| No One Left Behind | No One Left Behind | Yolanda Ursa | Eugenio Gaeta |
| ProsocialLearn | ProsocialLearn - Gamification of Prosocial Learning for Increased Youth Inclusion and Academic Achievement | Francesco D'Andria | |
| RAGE | Realising an Applied Gaming Eco-system | Wim Westera | Ruben Riestra |
| REVEAL | Realising Education through Virtual Environments and Augmented Locations | Jacob Habgood | |
| Scientix | The community for science education in Europe | Noelle BILLON | Àgueda Gras-Velázquez |
| SlideWiki | Large-scale pilots for collaborative OpenCourseWare authoring, multiplatform delivery and Learning Analytics | Sören Auer | Mari Carmen Suárez-Figueroa |
| STORIES | Stories of Tomorrow - Students Visions on the Future of Space Exploration | Jens Koslowsky | Sofoklis Sortiou |
| TELMI | Technology Enhanced Learning of Musical Instrument Performance | Rafael Ramirez | George Waddell |
| TeSLA | An Adaptive Trust-based e-assesment System for Learning | Ana Elena Guerrero Roldán | Israel Conejero |
| Transliteracy | Exploiting transmedia skills and informal learning strategies to improve formal education | Carlos Alberto Scolari | |
| Up2U | Up to University - Bridging the gap between schools and universities through informal education | Peter Szegedi | Stefano Lariccia |
| WEKIT | Wearable Experience for Knowledge Intensive Training | Fridolin Wild | Cinzia Rubattino |
| WhoLoDance | Whole-Body Interaction Learning for Dance Education | Edwin Morley-Fletcher | Katerina El Raheb |