



European R&I and Digital Learning Overview and orientations

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DG CONNECT

Unit G3 "Learning, Multilingualism & Accessibility"

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H2020 ICT Work Programme 2016-2017 Call 1 results

Technology

Enhanced Learning



What was the challenge?

Technologies for learning and skills (ICT-22)

Gaming and gamification (ICT-24)

<http://bit.ly/2cWzR49>
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What was the challenge?

Technologies for learning and skills (ICT-22)

Gaming and gamification (ICT-24)

Learning and skills: ICT-22-IA

- **Open, interoperable components / cloud-based digital learning infrastructure / primary and secondary education / personalised, collaborative or experimental learning**
- **One or several of the following areas:**
 - easy creation, mix and re-use of content, services, applications and contextual data for interactive learning processes
 - environments for new learning experiences and experimentation
 - educational support services
- **Clearly defined learning context**
- **Dynamic real-time assessment of learner's progress**
- **Tested through very large pilots**

Learning and skills: ICT-22-RIA

- Deeper learning of Science, Technology, Engineering, Mathematics combined with Arts (STEAM) / innovation and creative capacities of learners / new role of teacher as a coach
- Foundational research and/or component and system level design with pilot testing / real-life intervention strategies / new enabling technologies

Gaming and gamification: ICT-24-IA

- Technology transfer / small scale experiments / developing and validating open gaming technologies and mechanics / non-leisure situations and scenarios / training and motivational purposes.
- gaming technologies / learning and behavioural triggers / social science aspects

Work programme 2016-2017

H2020 Call 1 - results

Rights, Equality and Citizenship Programme

Research Fund for Coal & Steel

FP7 & CIP Programmes 2007-2013

Calls

Other Funding Opportunities

• 15 April 2016 18:58

Submission of proposals to 20 topics in this call closed on 12 April 2016. A total of 1080 proposals were submitted in response to these topics. The breakdown per topic and type of action is as follows:

Topic	CSA	RIA	IA	PCP	Total
ICT-01	3	73			76
ICT-02		34	7		41
ICT-03	2	75			77
ICT-06		87	17		104
ICT-10		90			90
ICT-12	1	15	11		27
ICT-13	4	14			18
ICT-14			40		40
ICT-15			14		14
ICT-17	2				2
ICT-18	1	31			35
ICT-21			33		33
ICT-22		94	48		142
ICT-24			95		95
ICT-25		73	39		114
ICT-26		49	6		55
ICT-29	7	59	5		71
ICT-34				5	5
ICT-35		18			18
ICT-36	16		7		23
Total	39	714	322	5	1080

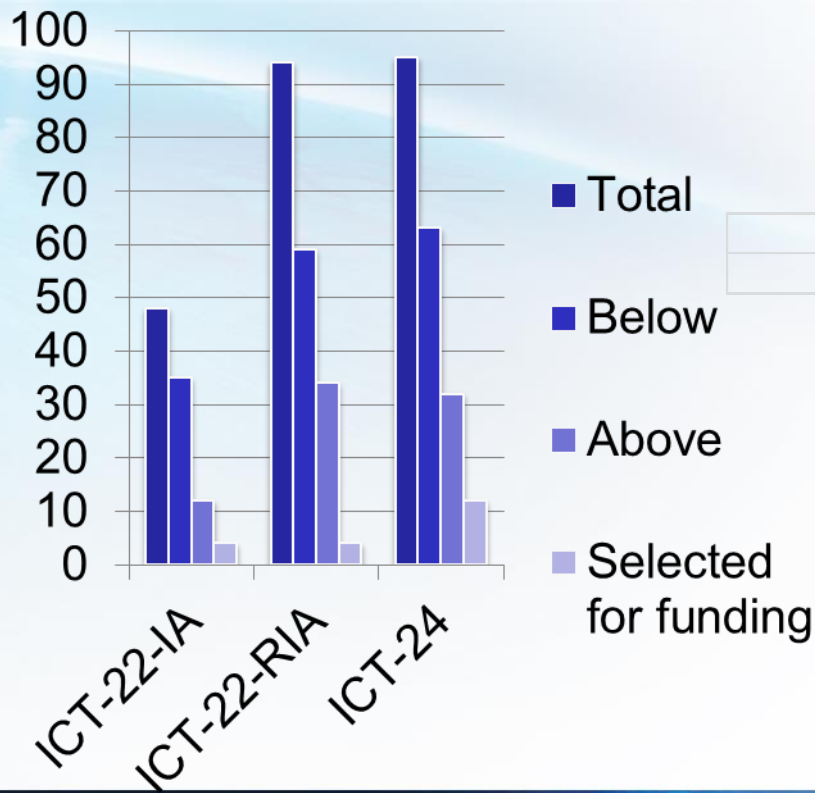
ICT-22 had the highest submission rate of the entire call:

•13% of total

•142 proposals out of 1080

Work programme 2016-2017

H2020 Call 1 - results



Panel	Total	Below	Above	Selected
ICT-22-IA	47	35	12	4
ICT-22-RIA	93	59	34	4
ICT-24-IA	95	63	32	12

Panel	Below	Above	Selected / all	Selected / above
ICT-22-IA	75%	25%	9%	33%
ICT-22-RIA	63%	37%	9%	12%
ICT-24-IA	66%	34%	13%	38%

Panel	Total mio €	Avg. mio €
ICT-22-IA	20	5
ICT-22-RIA	11	2-2,5
ICT-24	12	1

LEARNING

**ICT-22-RIA:
Selected for negotiation**

ICT-22-RIA (1/4)

1. Multisensory development, Arithmetic, Geometry, Music, Drawing, Serious Games, Social interaction, Multi-sensory technology, Embodiment, Affective computing
2. Based on the renewed neuroscientific understanding of the role of **communication between sensory modalities** during development: specific sensory systems have specific roles to learn specific concepts
3. Learn **arithmetical concepts** from multisensory rhythm exploration and music and **geometrical concepts** from body movement and multisensory drawing
4. Multisensory technology and **three serious games**
5. Application to typical children and **visually impaired** (space and geometry) and **dyslexic** (rhythm)
6. 24 months, 9 partners

ICT-22-RIA: (2/4)

- 1) Physics, Geometry, Mathematics, Technology and Music for **secondary** school students (aged 12-16);
- 2) 3D design environment for personalized **virtual musical instruments**, advanced music generation and processing technologies to apply and interpret related **physics and mathematics principles**
- 3) Gesture and pen-enabled multimodal interaction functionality for music co-creation and **performance**, 3D printing for realizing the actual/tangible physical instrument.
- 4) Suite of interdisciplinary **project/problem based educational scenarios** for STEAM for creativity and deeper learning
- 5) Pilot-tested and evaluated in Belgium, Greece and France
- 6) 30 months, 8 partners

ICT-22-RIA: 3/4

- 1) **Storytelling**, e-books, deeper learning students profiles in STEAM, technology-enabled science education, student-driven learning, Virtual & Augmented reality, 3D printing, creativity
- 2) **Interactive e-books for 10-12 years olds** through a platform for children's artistic expression and scientific inquiry / advanced interfaces to augment characters, buildings / detecting and tracking outcome
- 3) Tested in Germany, Greece, Portugal, France, Finland, Japan with **3000 students**
- 4) **Novel cooperation** between creative industries and electronic publishing, educational research institutions in the field of STEM, schools and informal learning centres
- 5) 30 months, 15 participants

ICT-22-RIA: 4/4

- 1) Research, design, pilot and validate an ecosystem based on **digital fabrication**
- 2) Technologies for creating computer-supported artefacts to reinforce **personalised learning** and teaching in science, technology, engineering, arts and math and to development of **21st century skills**
- 3) **Formal and informal learning** by providing the appropriate digital fabrication, making technologies, programming tools and mechanisms for personalised and adaptive learning.
- 4) 24 months, 12 participants

LEARNING

**ICT-22-IA:
Selected for negotiation**

ICT-22-IA: (1/4)

- 1) Hybrid formal and informal learning, **Project based learning**, **Peer-to-peer learning**, Student skills, Teacher trainings, Secondary schools (11-19 yrs olds)
- 2) **Bridging the gap** between secondary schools and higher education and research, better integration of formal and informal learning **scenarios**, adapting technology and methodology to those used in universities.
- 3) **Intersection of formal and informal** spaces, a dynamic hybrid learning environment where synchronous activities meet in both virtual and real dimensions.
- 4) Open, more effective and efficient co-design, co-creation, and use of digital content, tools and services adapted for personalised learning and teaching of **high school students preparing for university**.
- 5) 36 months, 18 participants

ICT-22-IA: (2/4)

- 1) Scalable, cloud-based software infrastructure of open, interoperable components, including real-time user modelling and domain knowledge components, to support **children's reading skills**
- 2) **Domain models** for English, Greek, German and Spanish (i) typically developing readers, (ii) English and Greek readers with dyslexia and (ii) learners of English as a Foreign language.
- 3) **Orchestrated applications** for supporting learning (literacy games, interactive e-books, Reader app) for **personalised learning services** and experiences, learning analytics, personalised content classification metrics that “enable reading” for use by electronic publishers and libraries
- 4) **Large-scale evaluation pilots** across European countries
- 5) 48 months, 17 partners

ICT-22-IA: (3/4)

- 1) Collection of interactive **online (virtual and remote) laboratories** that can be combined by mixing and re-use / dedicated support tools and multimedia materia / open, cloud-based, shareable educational resources with an embedded pedagogical structure.
- 2) **Localisation and personalisation** / analytics facilities for monitoring progress / co-creation with users in combination with rapid development and testing cycles.
- 3) **21st century skills / self- and peer-assessment / portfolio development / learning by modeling.**
- 4) **Primary and secondary education** / pre-service teacher training programs
- 5) **Very large-scale pilots** with in-depth, qualitative, case-based, assessments.
- 6) 36 months, 12 participants

ICT-22-IA: (4/4)

- 1) Digital learning ecosystem for guided acquisition, evaluation and certification of **digital competences** in primary and secondary education, scalable to other educational levels.
- 2) Adaptive learning solution / supported by advanced pedagogical methodologies and technologies / **tested with 25 000 students and over 2000 teachers**
- 3) **Support schools and educational institutions** in the definition and creation of a curricular programming
- 4) **New learning experiences and methodologies** / creative and motivating use of technologies / **minimizing the distance** btw. digital competences acquired at school and needed for labour market.
- 5) Learning analytics module for **unique student ICT Dynamic Profile**
- 6) 36 months, 14 partners

ICT-22-IA: Selected for negotiation



ICT-24-IA: Gaming and gamification

- 12 proposals selected for negotiation
- 5 main areas:
 - learning
 - social inclusion
 - citizens' participation
 - behavioural change

ICT-24-IA: Selected for negotiation

Learning

- 1) Innovative gamification framework targeting both typical as well as special education and social inclusion activities based on Serious Games. Potential of the **IoT paradigm** to directly link actions, decisions and events happening in real-life with in-game educational progress.
- 2) Pioneering the use of mainstream PlayStation VR technologies for innovative educational applications which engage world-wide audiences in the Europe's rich **historical and scientific heritage**.
- 3) Solution towards optimizing the learning process in **virtual labs** and therefore maximize their impact in education. Migration of knowledge from the neighbouring domain of digital games to reach its objectives.
- 4) Serious game-based training platform, in order to train professionals across the agricultural value chain on the use of **Smart Farming Technologies (SFT)**, thus allowing deploying its full economic and environmental potential in European agriculture.

ICT-24-IA: Selected for negotiation

Social Inclusion

- 1) Disruptive and innovative game-based intervention, relying on agent-based game mechanics that incorporate learning schemes for mental and motor skill acquisition and behavioural change. It will be tested for **ADHD management**.
- 2) Online service platform to personalise games to enhance the living adjustment of people with **Cerebral Palsy (CP)** avoiding a gamification process where one fits for all.

ICT-24-IA: Selected for negotiation

Citizens' participation

- 1) Based on scientists in all fields increasingly relying on active public participation for experiments and analyses of complex and/or massive data, and the outreach and education possibilities of **citizen science**, to develop and validate a reference platform enabling the injection of scientific tasks into on-line communities, such as gamers.
- 2) Develop, validate and demonstrate a gaming and social network platform for educating **energy consumers and virtual energy communities** towards evolving EU energy markets' operation.
- 3) Innovative and interactive Serious Games platform that will empower and guide users to adopt an **eco-friendly driving style**.

ICT-24-IA: Selected for negotiation

Behavioural change

- 1) Platform to fosters an ecosystem of games and applications that help people stay motivated to lead **socially engaged, physically and cognitively active lifestyles**.
- 2) An exergame which requires movement to be played, and can have great potential to promote **energy-related behaviours** (physical activity, sedentary behaviour) especially among adolescents and those of lower socio-economic status.
- 3) Test a methodology that includes several models for **game development methodology combined with Applied Behaviour Analysis and Learning Analytics** in order to design serious games able to promote behavioural changes in the user.



<https://www.flickr.com/photos/buckarooobay/3721809217/in/photostream/>

Towards 2017 Where do we stand?

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No new call on learning in 2017

Other activities and funding possibilities

Assistive technologies, anyone?

ICT-23-2017: Interfaces for accessibility

- Intelligent, affordable and personalised **interfaces and affective computing** for people with cognitive disabilities (RIA)
- Solutions, models and algorithms to improve (and act upon) **information extraction from brain and neural signals**, including through advances on state of the art electrodes and implantable devices (RIA)
- develop and demonstrate decision support tools for the **assessment of compliance to websites accessibility** standards and guidelines (IA)
- **RIA 10 mio € / IA 4 mio €**

Pilot projects (PP) and Preparatory Action (PA) of the European Parliament

- **Pilot project**: an initiative ‘of an experimental nature designed to test the **feasibility of an action and its usefulness**’
- **Preparatory action** - normally the successor of a successful pilot project on the same matter - is designed to prepare proposals with a view to the adoption of actions like **EU policies, legislation, programmes** etc.
- **Funded** from EU budget, not H2020 budget
- **Proposed** by the Members of the European Parliament
- **Executed** by the Commission

PPs and PAs in 2016

In negotiation:

- (PP) **Open Knowledge Technologies**: Mapping and validating knowledge “Digital up-skilling platform for European young unemployed” (2 mio €)

To be published:

- (PP) Employability skills for **citizens at risk of exclusion, in particular migrants**, by matching the interests and the current knowledge of these with the most demanded labour market skills and suggest possible learning roadmaps (1,5 €)
- (PP) Digital tools for children with **attention deficit and hyperactivity disorder** (400K)

PPs and PAs in 2017

Tentatively in 2017:

- European platform on vulnerable people in the Information Society: mapping best practices and socio-economic impact for the empowerment of **vulnerable communities** through ICTs (PP)
- Application of web accessibility requirements in **web-authoring tools and platforms by default** (Web Access By Default) (grant to support pilot projects)
- **Open Knowledge Technologies**: Mapping and validating knowledge (PA, follow up)
- Framework of best practices to tackle **child sexual abuse online** (PP)

Where are the PPs and PAs published?

The screenshot shows the website <https://ec.europa.eu/digital-single-market/>. The page features a navigation bar with categories like 'The strategy', 'Economy', 'Society', 'Access & connectivity', 'Research & innovation', and 'DG CONNECT'. A sidebar on the right contains links for 'Events', 'Funding', 'Newsletters', 'Consultations', 'Blog', and 'Discussions'. The main content area includes several news items:

- European Broadband Awards 2016: apply by 15 September!** (01/09/2016): A blue banner with a ribbon icon and the text 'European Broadband Award 2016 Apply by 15 September'.
- 28 000 votes send 16 innovators to Innovation Radar Finale** (01/09/2016): Text describing the public's decision on 40 dynamic European innovators.
- The Digital Assembly 2016: Putting the Digital Single Market at the heart of Europe** (28/09/2016 to 29/09/2016): Text about a conference gathering 700 high-level policy makers.
- Summary report on the public consultation on the Evaluation and Review of the ePrivacy Directive** (05/09/2016): Text stating the competition for the European Broadband Awards 2016 is open.

Studies procurement (ongoing)

- **Satellite Broadband** in Schools Feasibility Study
- SMART 2015/0061
- **2nd Survey of Schools**: ICT in Education
SMART 2015/0071
- Feasibility study on **cross-border use of eID and authentication services** (eIDAS compliant) to support student mobility and access to student services in Europe – SMART 2016/0064

Where to find calls for tenders?

The screenshot shows the TED website interface. At the top, there's a browser address bar with the URL <http://ted.europa.eu/TED/main/HomePage.do>. Below the address bar is a cookie consent banner with buttons for "I accept cookies" and "I refuse cookies". The main header features the TED logo and the text "Ted-tenders electronic daily Supplement to the Official Journal of the EU". A navigation menu includes "TED", "TED SIMAP", "TED eNotices", and "TED eTendering". The left sidebar contains a "Log in" button and a "My TED" section with links for "Anonymous", "Preferences", and "Saved search profile". The main content area is titled "TED home" and includes sections for "What is TED?", "How can I benefit from TED?", and "Why should I register on TED?".

What is TED?
TED (Tenders Electronic Daily) is the online version of the 'Supplement to the Official Journal' of the EU, dedicated to European public procurement. TED publishes 460 000 calls for tenders per year, for about 420 billion euro of value.

How can I benefit from TED?
TED provides free access to business opportunities from the European Union, the European Economic Area and beyond. Every day, from Tuesday to Saturday, a further 1,700 public procurement notices are published on TED. You can browse, search and sort procurement notices by country, region, business sector and more. Information about every procurement document is published in the 24 official EU languages. All notices from the EU's institutions are published in full in these languages.

Why should I register on TED?

- to personalise search profiles, according to your needs;
- to get e-mail alerts based on your search profiles;
- to personalise RSS feeds for your web sites and RSS readers;
- to search in the TED archive, up to five years behind;
- to access the machine translation feature for all notices.

Work programme 2018-2019?

Some key policy documents

- **Digitising European Industry - Reaping the full benefits of a Digital Single Market** (COM(2016) 180 final)
- **A New Skills Agenda For Europe - Working together to strengthen human capital, employability and competitiveness** COM(2016) 381 final

Last but not least...

The screenshot shows the CONNECT G3 website interface. At the top, there is a navigation bar with the following items: CONNECTED COMMISSION, News, Who's Who, Browse, Other Tools, Procedures, Get Support, Connect(ed), a user profile icon (@ 7), a globe icon, a pencil icon, and a search icon. Below the navigation bar is a main header area with a blue background. On the left, there is a small image of a group of people. The main title is "CONNECT G3. Learning, Multilingualism & Accessibility" with a sub-header "in Connected". On the right, there is a "Follow" button. Below the main header is a secondary navigation bar with the following items: Overview, Content, People, Subspaces, Calendar, Actions, About, and Share. The main content area is divided into three columns. The left column is titled "Mission Statement" and contains a paragraph of text. The middle column is titled "2016 Priorities" and contains three sections: "Learning", "Multilingualism", and "Accessibility", each with a brief description. The right column is titled "Find content" and contains a search box. Below the search box is a section titled "Better Internet for Kids" with a sub-section "Youth participation". At the bottom of the page, there is a footer with the European Commission logo and the text "EUROPEAN COMMISSION", the "HORIZON 2020" logo, and the "INNOVATION UNION" logo.

CONNECTED COMMISSION

News Who's Who Browse Other Tools Procedures Get Support Connect(ed)

@ 7

CONNECT G3. Learning, Multilingualism & Accessibility

in Connected

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Mission Statement

The mission of the Unit is to make the Digital Single Market more accessible, secure and inclusive. To this end, the Unit supports policy, research, innovation and deployment of learning technologies and key enabling digital language technologies and services to allow all European consumers and businesses to fully benefit from the Digital Single Market. The Unit is responsible for the Web Accessibility Directive, which makes public sector websites accessible to people with impairments. The Unit also promotes a better Internet for children by protecting and empowering children online, and improving the quality of content available to them.

2016 Priorities

Unit G3 has the following priorities:

Learning
Inclusive 24/7 digital learning for all - Europe's youth, workers and citizens - to get the knowledge and skills to work and live in the 21st century

Multilingualism
To Contribute to a multilingual Digital Single Market

Better Internet for Kids
To give children access to positive experiences and content online, in a trusted environment and to reduce the risks encountered online by children and vulnerable groups.

Accessibility
To make public sector websites accessible to people with impairments - R&I in assistive technologies

G3 - Inclusion, Skills and Youth - related groups

On Learning:

- Digital learning
- Gamification and learning, skills, behaviours, ...

The specified item was not found.

Find content

Search

Search

Better Internet for Kids

Youth participation
we can share here information on how youth can be consulted and provide their views on EU policies

Actions

Start a discussion

"Marco is the new Pat"



Appointment of **Marco Marsella** as Head of Unit CNECT.DDG2.G.3 "Learning, Multilingualism & Accessibility"

Created 2 months ago by Julia GURAU in CONNECT Organisation Chart

R1 is pleased to announce that **Marco MARSELLA** is appointed as of 16 July 2016 to the post of Head of Unit in DG CNECT.DDG2.G.3 "Learning, Multilingualism & Accessibility" following publication of the vacancy notice COM/2016/234. We wish him all the best in his new function.



Thank you!

LIINA MUNARI

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Technology-enhanced learning

European Commission

DG CONNECT - Communications Networks, Content and Technology

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