European Schoolnet

Transforming education in Europe

Annual Report
2020

European Schoolnet is a network of 32 Ministries of Education (MoEs) from across Europe, leading educational innovation at European level. European Schoolnet (EUN) operates key European services in the area of innovation in education on behalf of member Ministries of Education, the European Commission and industry partners. European Schoolnet articulates three strategic priorities to achieve its goals:

● Providing concrete evidence and data about innovation in education on which to base policy recommendations;

● Supporting schools and teachers in their teaching practices;

● Developing and sustaining a network of schools engaged in innovative teaching and learning approaches.

FOCUS AREAS

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Foreword

We are glad to present European Schoolnet's Annual Report for 2020. This was of course an exceptional year. The COVID-19 pandemic brought an unprecedented crisis to school systems across Europe and beyond. The spread of COVID-19 arguably led to more technology-supported change in schools in that period than in the past 20 years. Digital technologies became a fundamental necessity in providing much-needed continuity and support for teachers, learners and families in ways that would have been unimaginable, if not impossible, only a few years ago.

Ministries of Education rapidly put in place measures linked to the closure of schools and launched a range of emergency remote teaching initiatives to support the school community. European Schoolnet took immediate action to enable its members' network to share experiences and challenges by organising a series of regular online meetings. During those online monthly webinars, policy-makers and members of Ministries of Education came together to exchange information about the measures decided in each country, the use of digital tools for remote teaching and learning, discuss about the challenges faced for the school community and later on exchange practices on how to organise school attendance safely and efficiently by using alternative teaching and learning methods. At the same time European Schoolnet launched an online platform with up-to-date information about school systems' status in European countries as well as measures in place. The COVID-19 crisis may provide a wake-up call to schools which helps them (and parents) recognise that, in more normal circumstances, they are not exploiting the extent to which innovative pedagogical practices involving ICT (e.g., flipped classroom, MOOCs and other forms of remote teaching) can improve learning.

Under the unprecedented circumstances that the pandemic created, European Schoolnet strove to continue working via its projects and working groups on the priorities identified for 2020. European Schoolnet continued supporting teachers' professional development and innovative pedagogies; targeting initial teacher education, where working with providers in this area is a route for mainstreaming successful innovation and preparing future teachers to be fully prepared for the classrooms of today and tomorrow when they enter the profession; defining the most appropriate innovative ecosystems and approaches that support large-scale deployment and adoption of the wide variety of successful innovations; moving towards a whole-school approach where issues such as leadership strategies, digital citizenship education, STEM education, development of flexible learning spaces and innovative pedagogies are themes to be discussed and plans developed at whole-school level; supporting new learning ecosystems with an increasing need to link formal, non-formal and informal learning opportunities that take place in and out of school.

When the situation becomes "normal" again we may be faced with the following challenge: how to manage the wish of teachers to continue leveraging technology and the possibility that the school/system is making them go back to the old ways? In addition, a second challenge will be not to let teachers reject educational technologies due to the constraints and any negative experiences during the COVID-19 crisis.

If we want to change the normal schooling model, we have to demonstrate the **added value of educational technologies**. In that context, it will be essential to identify those new learning activities where it is important to use educational technologies. It is part of the remit of our network to identify, federate, share and analyse all the digital innovative pedagogies developed.

Marc Durando
Executive Director of European Schoolnet

Who we are

European Schoolnet is a network of 32 Ministries of Education from across Europe, leading educational innovation at European level. European Schoolnet operates key European services in innovation in education on behalf of member Ministries of Education, the European Commission and industry partners. We act as an interface between education policy and practice, bringing together Ministries of Education, schools, research and industry for fruitful exchange and collaboration.

OUR MISSION AND REMIT

Our mission is to support education stakeholders in Europe in the digital transformation of education processes. We do this by identifying and testing promising innovative teaching and learning practices, sharing evidence about their impact and supporting their mainstreaming so as to align with 21st-century standards for the education of all students. Digital technologies are a significant focus of European Schoolnet's work because of the critical role they play in designing and implementing future classroom scenarios and in supporting new forms of learning both in and out of school. European Schoolnet continues to position itself as a key organisation in Europe concerned with the development and demonstration of scenarios for the school of the future.

WHAT WE OFFER

● A European forum where Ministries of Education can exchange knowledge and experience about what works (and what doesn't) in educational innovation and the integration of ICT in education;

● Pilot projects and policy experimentations to test new models of teaching and learning, involving Ministries of Education, research and industry as well as other national and European partners;

● Evidence-based reports and recommendations concerning educational innovation and the pedagogical use of ICT to foster national policies;

● Large-scale surveys to gather quantitative and qualitative data on policy and practice, and develop an analytical framework to benchmark, analyse and compare national findings with other countries;

● Innovative educational tools validated by various countries and adapted for use at national and regional levels;

● Accreditation services for schools to enhance their eSafety and STEM profiles;

● Free online professional development for teachers and other education professionals through the European Schoolnet Academy;

● A Future Classroom Lab where teachers and students, as well as representatives from ministries and industries, can explore new technologies to help them implement innovative pedagogies;

● A Learning Resource Exchange offering over 330,000 Open Educational Resources in 30 languages from 80 content providers.

OUR FIVE FOCUS AREAS

Our core activities in 2020 focused on testing, sharing evidence and spreading innovation in five areas:

DIGITAL CITIZENSHIP

STEM EDUCATION

EVIDENCE FOR INNOVATION

PROFESSIONAL DEVELOPMENT

SCHOOL NETWORKING

A sixth area of activity arose due to the impact of the COVID-19 pandemic on the school community with the aim of supporting our policy-makers and also our practitioners in that period.

This work has been supported by several publicly and privately funded projects, as well as by European Schoolnet's Policy and Innovation Committee, the Learning Resource Exchange Subcommittee and four working groups supported by Ministries of Education on indicators, digital citizenship, STEM education and the interactive classroom. Activities have been undertaken collaboratively with our members, partners and stakeholders, and this report provides them and the wider education community with an overview of the past year's achievements, as well as looking forward to future challenges and goals.

2020 in Numbers

44 Projects

12 Major events

50 Public webinars

16 New Massive Open Online Courses (MOOCs)

31k+ MOOC registrations

21 Publications

115 Videos

128k+ Social media interactions

26k+ Facebook page likes

+25k Twitter followers

Response to COVID-19

> " *The levels of professionalism and dedication of teachers and head teachers have been inspirational, as has the commitment shown by students and families to the school community in extraordinarily difficult circumstances. In the longer term, we need to address issues such as access to equipment, connectivity, tools, resources, equity, professional development and exchange of practices. It is important therefore to reflect, in the light of the various experiences, on emerging formal school models, to rethink school: space, time, content and tools, processes, and, most of all, people.* "

Marc Durando
Executive Director of European Schoolnet

The crisis generated by the spread of COVID-19 has arguably, due to necessity rather than choice, led to more technology-supported changes in schools in a few weeks than in the past 20 years. Throughout Europe, our Ministries of Education have rapidly put in place measures linked to the closure of schools and launched a range of emergency remote teaching initiatives to support school leaders, teachers, parents and of course young people in this exceptional period. Our network is supporting our ministries, as well as the school community in that context. For the time being, many education stakeholders have joined forces to respond to respond with astonishing speed to COVID-19, but undoubtedly, school systems will never be the same again after this crisis.

Two main actions have been initiated at the level of European Schoolnet:

● Providing to our network of Ministries of Education a platform for exchange and organising webinars to support exchange between ministries.

● Supporting school leaders, teachers, and the whole school community as regards immediate urgent needs, by leveraging all our various projects, such as eTwinning, Scientix, Better Internet for Kids (BIK), Future Classroom Lab (FCL).

For its part, European Schoolnet moved quickly to enable member ministries to share experiences and challenges. **A Covid-19 work programme** was put in place as of March 2020.

Building on the recommendation of Ministries during an online round table, European Schoolnet:

① **Launched a series of monthly webinars.**
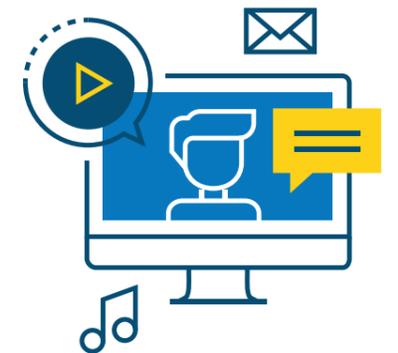
Those webinars targeted policy-makers, researchers, experts and sometimes practitioners, depending on the topic. They focused on challenges and opportunities of remote teaching (April 2020), gradual re-opening of schools before the end of the school year (April 2020), assessment in times of

COVID-19 (May 2020), ways to foster inclusion in a health crisis (June 2020), outlook for the coming 2020-21 school year (July 2020), start in practice of the 2020-21 school year (October 2020), teaching during COVID-19, putting digital infrastructures to the test and policy options ahead (November 2020), ways to foster equity & support disadvantaged students in times of COVID-19 (December 2020).

● Launched an informative public and private website informing about the status and measures in place of education systems across Europe.

● Identified a range of resources and tools to support collaboration, professional development and online safety for the education community as well as raise awareness on the challenges of the circumstances for policy-makers.

2 **Leveraged, in full consultation with the Commission, the activities offered by some EC-funded initiatives and replaced face-to-face activities with online alternatives.**

As the school community became increasingly reliant on digital technology, everyone was confronted by the many opportunities it provides but also the online risks. **A COVID-19 mini-campaign was therefore launched on the Better Internet for Kids portal** and social media from March 2020 onwards, to showcase useful resources for staying safe online and to position the European network

of Safer Internet Centres as a key source of localised support and advice for children, young people, families and educators during these challenging times. Topics covered included wellbeing during lockdown, remote emergency teaching and learning, sources of positive online content and protecting online privacy, along with guidance on minimising risks from fake news, disinformation, scams and similar.

Within **BIK**, an Insafe Training meeting (June 2020), a joint Insafe-INHOPE Training meeting, the 2020 edition of the Safer Internet Forum and the corresponding BIK Youth Panel (also November 2020) were all organised online to the great satisfaction of the stakeholders involved. In fact, due to their online nature, these meetings and events were able to draw an all-time high number of participants from across and beyond Europe.

Meanwhile, a co-design workshop on age-appropriate design with industry, which was planned under the BIK Youth Pledge initiative, was reshaped into a set of decentralised industry-led activities, which helped to make this activity line more meaningful for both companies and young people. Similarly, for CO:RE and ySKILLS, the project teams had to be creative to transform a range of face-to-face consultations with young people and teachers into an online format. While this surely challenged the recruitment process, also because of other priorities such as the ongoing adaptation within schools to emergency remote teaching, the project teams were able to find creative solutions to ensure successful delivery.

eTwinning supported teachers as early as from February when the first schools started closing. The group *"eTwinning@home"* was established and in a few days more than 10,000 eTwinners were already sharing practice and ideas on how to address emergency remote teaching. The platform has been used as a

virtual classroom by thousands of teachers in *"intra-school projects"*, but at the same time the usual activities continued with even more engagement.

For the first time too, the eTwinning Annual Conference took place online on 22-24 October under the theme *"Classrooms in action – addressing climate change with eTwinning"*. The event hosted more than 600 participants and run more than 40 online workshops.

❝

We have learned a lot from it, including how important the sense of community really is. Since the beginning of the pandemic eTwinners have been better prepared to go online and more used to helping, inspiring and lifting each other's spirits."

Speaker **Mariya Gabriel**
European Commissioner for Innovation, Research, Culture, Education and Youth

School Education Gateway highlighted information and resources about online and distance learning with two surveys addressed to the topic, on distance learning and the return to school experience. Teacher Academy adapted its new courses to support the new reality of most teachers.

In the **European Schoolnet Academy MOOCs**, the course coordinators and moderators were encouraged to explicitly address the impact of the health crisis on schools. The Future Classroom Lab face-to-face courses were cancelled but instead a reinforced offer of webinars and an online *"learning community"* was introduced.

Many projects including Scientix, STE(A)M IT, Europeana, NBS and Aerospace in Class, to name a few, transformed workshops to online events and reinforced communication with teachers and other stakeholders. The iLearning Scenarios created within these projects were adapted to distance learning and tried out with students across Europe.

With the support of Scientix and Amgen Teach, European Schoolnet launched a comprehensive **international survey on teachers' practices** and use of educational technologies during the COVID-19 pandemic. The survey, addressed to teachers in primary and secondary education (students aged 3 to 19), was available in 25 languages. The study collected information on the educational technologies that teachers used in the weeks that followed the outbreak of the COVID-19 pandemic, the problems they encountered, the solutions they adopted and recommendations they may wish to share. The answers to this survey will help shape future actions to support teachers better and will be made public in 2021.

Digital Citizenship

Safer Internet Day

2020 edition celebrated in more than

170 countries worldwide

#SID2020 and **#SaferInternetDay** hashtags trended across the globe

eSafety Label for a safer school

Since 2012,

3.2k+ labels have been awarded in schools

669 labels were awarded in 2020

62 countries

SELMA

SELMA Toolkit available in

7 languages:
English, Danish, German, Greek Finnish, Polish and Portuguese

WHY IS DIGITAL CITIZENSHIP IMPORTANT?

The digital society places an increasing range of expectations and responsibilities on education and its major actors, both at systemic and at school level.

While digital technology can be an enabler in many positive ways, COVID-19 has put the spotlight on a persistent digital gap, in terms of access and skills, which risks leaving behind vulnerable groups on the grounds of sex, disability or socioeconomic or ethnic background.

Nowadays, digital skills and literacy have become an essential part of what it takes to become an active citizen. Public and private stakeholders have a shared responsibility to make it possible for all children and young people to grow up in a digital world where they feel comfortable and confident to play and experiment, exploring and creating a diversity of information and content, developing their personal identities and relationships, uninhibited by any form of online bullying, harassment, misinformation or hate speech.

European Schoolnet continues to invest in a variety of projects and platforms equipping pupils and students with basic skills from an early age, fostering critical thinking and creativity as they grow older, while building towards more advanced digital expertise in an inclusive manner.

The pupils and students of today will drive tomorrow's future. Through digital citizenship we empower them to become innovative yet responsible agents of change.

OUR WORK TO DATE

European Schoolnet continued driving teachers, schools and pupils to safe and responsible use of digital technology. By running the **BIK** platform – on behalf of the European Commission – European Schoolnet provided access to child-appropriate and child-safety-related content and resources and coordinated the network of Safer Internet Centres (SICs) in Europe (comprising Insafe awareness raising, helpline and youth participation strands) in collaboration with INHOPE (leading on the hotline strand). Within this context, European Schoolnet continued to maintain and develop the BIK portal as a public Web interface, along with associated mini sites for BIK Youth, Positive Online Content and Safer Internet Day, while animating an internal space catering to the needs of the community of Safer Internet Centres, allowing them to build capacity and share knowledge and expertise in the delivery of national online safety services.

The **eSafety Label** initiative, which started in 2012, continued to support schools in shaping a culture of safe and responsible use of digital technology amongst pupils, teachers and other school staff. In 2020 the eSafety Label community provided assistance to its stakeholders on aspects ranging from infrastructure to policy and best practice. Meanwhile, the Label further grew as an accreditation tool with a cyclic re-assessment of its members every 18 months.

Regarding online hate speech, the **SELMA project** provides online resources for teachers and other professionals who wish to educate children and young people about online hate speech. In 2020, the SELMA Toolkit on online hate speech was newly translated into Polish, Portuguese and Finnish. Outreach efforts will continue along these lines with the aim of making SELMA available across EU countries and languages.

European Schoolnet further collaborated with the Interactive Software Federation of Europe (ISFE) to create a new version of the **GIS – Games in Schools** handbook for teachers – *"Using educational games in the classroom: guidelines for successful learning outcomes"*. Published in September 2020, the handbook outlines the educational benefits of digital games and supports teachers in using them as educational and motivational resources in their lessons.

Finally, focusing on Entrepreneurship Education and Women's Entrepreneurship, the **EE-WE** (Peer-Learning Activities in Entrepreneurship Education and in Women's Entrepreneurship) project aimed to increase coordination and foster exchange between different actors and countries by peer-learning activities for public administrations and key public and private stakeholders. 2020 efforts included the animation of a dedicated online community space with further collaborative activities currently being designed to gather relevant input for the formulation of policy recommendations and roadmaps promoting entrepreneurship education and female entrepreneurial activities.

OUR CONTINUOUS WORK

In 2020 European Schoolnet continued strengthening 21st-century digital skills and competences for teachers and pupils and responsible use of online technologies through several new projects and activities.

Under the Connecting Europe Facility, European Schoolnet, Tremend, DIGITALEUROPE, LIKTA, European DIGITAL SME Alliance and Public Libraries 2030 started developing in 2020 – on behalf of the European Commission – the Digital Skills and Jobs Platform (DSJP) to become the key infrastructure for boosting digital skills in Europe and a one-stop shop for anyone interested in digital skills and jobs. Digital skills will be critical for the recovery and growth of Europe. The DSJP will play a **strategic role in addressing the growing digital skills gap** across different sectors of business and society, such as the shortage of ICT specialists and the need for upskilling/reskilling of EU citizens in digital technologies. The DSJP will become a core resource to support the future skills pillar of the **Digital Europe Programme**, also playing an important role in delivering the **Recovery and Resilience Facility** and helping EU Member States bridge the digital skills gap in their countries. The platform will bring together a **Digital Skills Community** from all across Europe, providing a collaborative space though a community tool for a wide range of organisations to work and grow together. It will empower the **National Coalitions** to become core contributors by providing an opportunity to cooperate, share resources and improve their visibility and knowledge, animating the connected national infrastructures and supporting them through a dedicated **Helpdesk**. The DSJP will be **open and accessible for everyone** interested in digital skills. It will provide free access to high-quality information, training, and support, helping users advance their knowledge, further their career and bring value to their organisation. The DSJP will be launched in March 2021.

The **ySkills** project aims to establish a better evidence base to understand which **skills 12- to 17-year-olds need to use ICT technology** responsibly and ethically. European Schoolnet has coordinated a series of interviews with experts to better understand the role of digital skills education in schools and informal learning settings, as well as the digital skills needed to cope with technological transformations in the labour market.

Digital SkillUp is an education initiative with a focus on emerging technologies. It is one of the learning pillars within the Digital Skills and Job Platform ecosystem. The Digital SkillUp initiative (brand name of the European Digital Academy project) is funded by the European Commission and coordinated by European Schoolnet with a consortium of partners representing a large segment of industry and citizens' organisations in Europe (DIGITALEUROPE, European DIGITAL SME Alliance and Public Libraries 2030) and the Finnish tech company Reaktor, experienced in online learning technologies. The Digital SkillUp initiative **aims to make basic knowledge about emerging technologies (such as artificial intelligence, robotics, cybersecurity, blockchain) available and accessible to all citizens and SMEs.** Citizens of all ages and

Nowadays, digital skills and literacy have become an essential part of what it takes to become an active citizen."

educational backgrounds need to better understand how digital and emerging technologies are – and will increasingly be – part of their daily life, for health services, financial transactions, leisure and shopping, and so forth. Meanwhile, SMEs have employees who face significant challenges in the process of digital transformation while trying to make the most of emerging technologies for business processes, including communication, commerce, security and automation.

This initiative aims to put into practice the principles and general objectives of the **New Skills agenda** and the **Digital Education Action Plan** while paving the way for a successful integration within the broader Digital Skills and Job Platform ecosystem.

The Digital SkillUp website will be launched in Spring 2021.

Educational and Training Landscape – Training Needs of Citizens and SMEs'.

COMMITTEES AND WORKING GROUPS

Digital Citizenship Working Group

The Digital Citizenship Working Group, composed of members or nominees from Ministries of Education, was established in 2017. It tackles challenges related to digital citizenship, whilst keeping teachers and schools actively involved in its debates and the design of its action plans. 11 countries participate in the working group: Belgium, Finland, Hungary, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Spain, Turkey.

The Working Group met online three times to develop a strategic digital citizenship framework, provide a space where network members exchange best practices and challenges, and identify future work areas.

The Children Online: Research and Evidence (CO:RE) project works to create a pan-European knowledge base centralising the latest research, empirical data and policy recommendations on the impact of **new technologies on young users**. European Schoolnet carried out a few targeted consultations with school leaders, teachers and students on how to make academic research more accessible and user-friendly, while starting to explore opportunities to co-create resources with and for these stakeholders.

Under the **School of Social Networks (SOSN)** project eduPad and European Schoolnet **educate primary school children on how to use social media safely** and responsibly by interacting and experimenting with chatbots in a fun, safe and pedagogical online environment. A tool in French and English was created combining an engaging chatbot experience for children with a rich set of education materials and activities for teachers and partners.

In March 2020, the Working Group reached important conclusions as to how digital citizenship policies and strategies can successfully be translated into practice, both at macro and micro levels. Members were able to exchange on recent experiences in terms of policy implementation in the Netherlands, Belgium (Flanders) and Portugal. In addition, the Social Media Literacy for Change project coordinator shared strategy implementation recommendations based on a whole-school perspective.

A second online Working Group meeting took place in September 2020. It incorporated a semi-structured focus group discussion linked to the EU-funded Children Online: Research

and Evidence (CO:RE) project, addressing three main overarching themes:

● Children's engagement with digital technologies

● Digital technologies and education

PROJECTS

Better Internet for Kids

Better Internet for Kids (BIK) aims to create a safer and better Internet for children and young people. The project provides a coordination role to the European Network of Safer Internet Centres (SIC) and provides a secure online space within the core service platform to support their collaboration and knowledge sharing.

CO:RE

To ensure children's wellbeing, health and safety, researchers are looking into the positive and negative impacts of new technologies on young users. The CO:RE (Children Online: Research and Evidence) project maintains an innovative, dynamic European platform that provides data, from all possible fields, connected to how technological transformations influence the attitudes, problems or activities of children.

● Content/design of the CO:RE platform

At the third online meeting the Working Group members shared their know-how on primary school digital citizenship approaches and resources.

eSafety Label

The eSafety Label (eSL) is a Europe-wide accreditation and support service for schools. eSL assists schools in introducing the safe use of online technology as part of their teaching and learning experience. Schools can review their own eSafety infrastructure, policy and practices against national and international standards.

Games in Schools

The Games in Schools (GIS) project explores the opportunities and challenges offered by integrating games into teaching and learning.

SELMA

The SELMA Toolkit offers educational resources to help us tackle the growing issue of online hate speech. These include over 100 customisable resources for professionals working with children and teens.

The School of Social Networks

The School of Social Networks

The School of Social Networks teaches primary school children how to use social media safely and responsibly. The tool implemented via the project lets them interact and experiment with chatbots in a fun, safe and pedagogical online environment.

ySKILLS

ySKILLS

ySKILLS (Youth Skills) is a large international research project launched to ensure the impact of the digital environment on children and youth remains a positive one. The project aims to uncover which skills young people in a digital society need to thrive in terms of wellbeing, education and social life.

Digital Skills and Jobs Platform (DSJP)

The core objective of the project is to develop, launch, and actively populate with content the DSJP – a one-stop-shop for information on digital skills and an active stakeholder community. The platform will provide free access to high-quality information, training, and support, helping users advance their knowledge, further their career and bring value to their organisation.

Digital SkillUp

digital sk://up

Digital SkillUp is an educational initiative with a focus on emerging technologies aiming to make basic knowledge about emerging technologies available and accessible to citizens and SMEs.

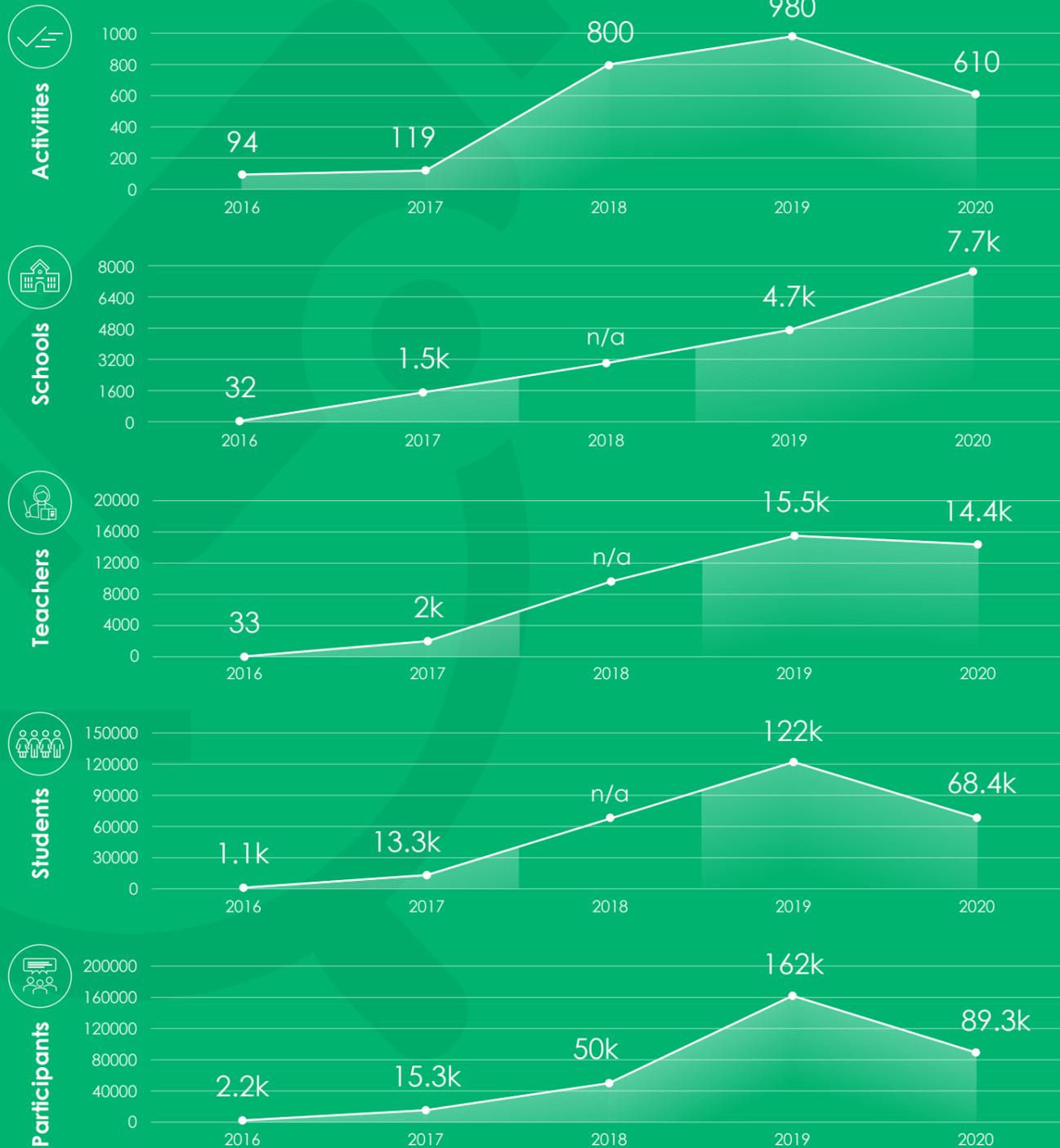## EE-WE

The EE-WE (Peer-Learning Activities in Entrepreneurship Education and in Women Entrepreneurship) project fosters the creation and improvement of strategies supporting women entrepreneurs and entrepreneurship education. It facilitates information sharing across countries between entrepreneurship policy stakeholders such as public administrations and key public and private stakeholders.

STEM Education

STEM Discovery Campaigns

Activities

2016	2017	2018	2019	2020
94	119	800	980	610

Schools

2016	2017	2018	2019	2020
32	1.5k	n/a	4.7k	7.7k

Teachers

2016	2017	2018	2019	2020
33	2k	n/a	15.5k	14.4k

Students

2016	2017	2018	2019	2020
1.1k	13.3k	n/a	122k	68.4k

Participants

2016	2017	2018	2019	2020
2.2k	15.3k	50k	162k	89.3k

Online STEM Events

Scientix, STEM Alliance and STEM School Label organised a **High-level Event** online on 25 and 26 June, with plenary talks, discussions and interactive sessions with over 400 participants – Ministries of Education, researchers, school representatives and industry representatives.

Organised on 2 October, the **STE(A)M IT 2nd Co-Creation Workshop** gathered 60 participants, including industry representatives (Airbus Foundation, GSMA, SissaMedia Lab, Texas Instruments, Transport Malta and LEGO Education), Ministries of Education, experts in STEM education, researchers and teachers. Together, the participants discussed and exchanged on the status and development of the STE(A)M Integrated Framework and the enrichments of its various components.

On 17 November, the **Nature-Based Solutions (NBS) pilot study organised an online Workshop for Ministries of Education**. 70 participants attended including representatives from 19 Ministries of Education, as well as Scientix National Contact Point representatives (including Universities, STEM organisations and Teacher Training organisations) and NBS Pilot teachers. Participants exchanged on the role of NBS in education, and that of education for NBS and sustainability.

Major Publications

Sustainability in Formal Education: Ways to Integrate It Now

STE(A)M IT Integrated STEM Teaching State of Play

Nature-Based Solutions in education: Validation report

Review of Existing Educational Materials on Climate Change and Sustainability

> *Sustainability emerged as a way to address global challenges 'without leaving anyone behind'. Nevertheless, sustainability is hard to implement. At the individual level, education can help, as recognised at the international level. This paper looks at sustainability for education, and vice versa…. This interplay can exist without intervening in the national curricula, by focusing on student-centred pedagogies and the role of teachers. Three projects show how, through learning scenarios, massive online open courses and competitions, teachers can support sustainability education."*

Paper: Sustainability in Formal Education: Ways to Integrate It Now

WHY IS STEM EDUCATION IMPORTANT?

The lack of young people choosing STEM studies and careers continues to be a major challenge facing Europe. Education can play an important role in partnership with business and other stakeholders to help increase interest in STEM studies and occupations. The need to foster STEM talent in young people so they can become the much-needed STEM professionals of tomorrow continues to be a top priority for European Schoolnet. Furthermore, STEM disciplines continue to be taught in an isolated way. Initiatives that promote interdisciplinary teaching, connected to real life challenges (like sustainability or research), collaboration and whole-school approaches in STEM education are a priority for the coming years.

OUR WORK SO FAR

In 2020 the work on STEM education was split into five strategic areas:

● **STEM subjects as a whole** – looking at STEM subjects as a whole, we continued to support the STEM education community through: **Scientix**, the community of Science Education in Europe, which developed professional development activities (including MOOCs and workshops), campaigns (with the 2020 STEM Discovery Campaign reaching almost 90,000 participants in spite of the COVID-19 school shutdowns) and dissemination actions; the **STEM Alliance project**, supported by 14 major industry and private partners, aiming at strengthening links between STEM education and careers; the **STE(A)M IT project** looking into integrated STEM teaching; or the **STEM School Label**, with more and more schools getting their STEM strategies developed and recognised.

● **Exploratory projects** – addressing different topics like Space Education via projects like **Space EU** or **STIM**, citizen science with **BRITEC** or **Inquiry-Based Science Education (IBSE)** in Life Sciences with **Amgen Teach**.

● **Pilot projects** – looking into how to integrate different topics in education enhancing the curricula through the projects **Three Rs on Animal Research**, **Nature-Based Solutions**, **Bioeconomy**, **Augmented Reality** and **Aerospace**.

● **Green projects** – focusing on sustainability related issues like Oceans through the **EU4Ocean Coalition for Ocean Literacy** project or tree planting as nature-based solution in the **LifeTerra** project.

● **Emerging technologies** – identifying, selecting and accelerating the most disruptive EdTech solutions through the **Impact EdTech** project.

COMMITTEES AND WORKING GROUP

The Ministries of Education STEM Working Group

The **Ministries of Education Science, Technology, Engineering and Mathematics (STEM) representatives Working Group (MoE STEM WG)** is a platform for discussion and exchange for Ministries of Education regarding their STEM education policies. The overall objective of this initiative is to help lay the foundations for medium- and long-term strategies and activities among MoEs in the field of STEM education, and especially within the Scientix project, following an agenda that addresses the ministries' priorities and main interests. EUN coordinates the working group.

MoEs are responsible for appointing the members of the MoE STEM WG. The kick-off took place in March 2016 and set the first topics and actions of the working group. Since then, the MoE STEM WG has met annually and in 2020 participated in two additional meetings/workshops on Integrated STEM Teaching and Including Nature-Based Solutions in Education.

24 Ministries of Education from 23 countries have confirmed their participation and appointed a STEM representative as of 8 November 2020.

The main priorities in STEM education indicated by the MoE STEM WG:

Priority 1. Supporting primary schools with the teaching of STEM.

Priority 2. The limited information on STEM careers.

Priority 3. Results from projects presented by teachers and teacher collaboration as a way of sharing results with policy-makers and among themselves.

Priority 4. Getting leading schools to work together and share expertise.

Priority 5. Supporting exchanges in the working group.

Priority 6. Scientix should support the federation or cohesion (dissemination) of national initiatives.

Priority 7. Ways to make research results more accessible to teachers.

Priority 8. How to mainstream innovative practices, validation and piloting from different initiatives.

Priority 9. Integrated STEM teaching and learning framework with a special focus on 1) transversal themes; 2) secondary education and VET; 3) addressing pre-service and initial teacher training; 4) whole school as a learning ecosystem.

During the meeting of June 2020, the MoE STEM representatives agreed not to add any further priorities for the time being.

PROJECTS

Aerospace in Class

The Aerospace in Class project aims to integrate STEM resources (Learning Scenarios) from the Airbus Foundation Discovery Space in classes for 8- to 12-year-old students.

Amgen Teach

Amgen Teach provides secondary life science teachers in Europe with meaningful professional development opportunities through a new pilot science education programme.

ARETE

The ARETE project aims to support the pan-European interactive technologies effort both in industry and academia, through multi-user interactions within AR technologies evaluated in education in both professional and private contexts.

BRITEC

BRITEC proposes introducing research into classrooms through Citizen Science activities, co-designed between schools and research institutions, initially in the partner countries and with the long-term view of massive uptake in Europe and beyond.

Eurostat Videos

Eurostat has produced short tutorial videos accompanied by learning materials (such as exercises, student toolkits for the classroom, etc.), targeted specifically at teachers, on how to use European official statistics in the classroom. EUN supported providing advice and preparing a communication campaign.

IMPACT EdTech

IMPACT EdTech establishes a start-up incubator-accelerator to help European digital education innovators to bring their digital learning solutions into the market, focusing on those solutions that can contribute to extend personalised and inclusive educational models that support the development of the skills that are relevant in today's world. It is important to follow and support the EdTech sector to help break the barriers to education and enhance learning experiences in a new era of human-centred digital education.

Make it Open

Make it Open brings the inquiry-based approaches of science education to meet the expansive philosophy and creative classroom approaches of the maker movement in an accessible and actionable framework.

EU for Ocean (OL4ALL)

Ocean Literacy aims at supporting the development of a European network of Blue Schools that will contribute to the acquisition of the necessary ocean knowledge, skills and competences – from primary, lower and upper secondary, technical and vocational schools.

Scientix 4

Scientix 4, the Science Education Community in Europe that promotes Inquiry-Based Science Education (IBSE) and other initiatives at national level, will ensure the continuation and adaptation of Scientix 3 activities and will contribute to the development of national strategies for a wide update and dissemination of IBSE and STEM in society.

SOS-ACT

The SOS-ACT project aims to prepare innovative educational programmes to standardise the STEM and Coding practices which currently vary from region to region. These programmes will define the content, duration, participants and activities of the training.

STE(A)M IT

STE(A)M IT – An interdisciplinary STEM approach connected to everything around us will produce the first European integrated STE(A)M framework.

STEM Alliance

The STEM Alliance – inGenious Education and industry, brings together industries, Ministries of Education and education stakeholders to promote Science, Technology, Engineering and Mathematics (STEM) education and careers among young Europeans and address anticipated future skills gaps within the European Union.

STIM
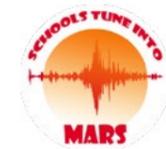
The overall objective of the project Schools Tune Into Mars (STIM) is to provide pedagogical materials with high-quality lessons related to planetology, to which all teachers should have access for their continuing professional development to keep up to date with the latest space research and ways of teaching.

Three Rs Pilot [Concluded]

The Three Rs pilot created learning activities for secondary school to introduce the principles of the Three Rs: the Replacement, Reduction and Refinement of animal experiments. Students will develop their critical thinking and science literacy skills by exploring topics such as ethics in science, how the European Union is protecting the welfare of laboratory animals and what high-tech non-animal tools are available as alternatives.

BLOOM [Concluded]

BLOOM aimed to establish open and informed dialogues, co-created by European citizens, civil society, bioeconomy innovation networks, local research centres, business and industry stakeholders and various levels of government including the European Commission.

NBS – Phase 1 [Concluded]

Building on scientific evidence and on experiences from Nature-based Solutions (NBS) demonstration projects in cities, the educational pilot study exploits recent research results to develop innovative educational programmes and resources to raise awareness of Nature-Based Solutions (NBS) and their benefits among children, young people and families.

spaceEU [Concluded]

spaceEU promoted partnerships and activities between the education community, families and the space sector with the main goal of attracting students to space subjects and space-related careers and guiding them towards studies in STEM fields.

STEM School Label [Concluded]

The project gave recognition at the national and European level to schools engaged in promoting STEM activities by providing them with a quality European-wide accreditation called the STEM School Label. The label supports other schools engaging in a similar process via the development of an online ecosystem. The STEM School Label will continue from 2021 under Scientix.

TIWI [Concluded]

The Teaching ICT with Inquiry (TIWI) project aimed to provide teachers with tools and skills in order to train them in digital literacy with the help of an inquiry-based approach to teach coding and motivate their students to choose ICT- and STEM-related fields as a possible future career.

Evidence for Innovation

TEACHUP

5 new reports

1. *How to Improve Completion and Assessment in Scalable Online Courses for Teachers*
Languages: DE, EL, ES, ET, HU, LT, PT, SK, TR

2. *Implementing Personalised Support In Scalable Online Courses*

3. *Peer Versus Expert Assessment — How To Make Assessment In Online Teacher Training Work*

4. *TeachUP Evaluation Report*

5. *Evidence from the TeachUP Experimentation*
Languages: DE, EL, ES, ET, HU, LT, PT, SK, TR

Animation video

Results of the TeachUP Policy Experimentation

WHY IS EVIDENCE FOR INNOVATION IMPORTANT?

Today's educational issues and solutions are complex. The need to revisit curricula, competence frameworks, learning environments, and governance is immense. To face such challenges, European Schoolnet aims at providing and brokering evidence from research, policy and practice in the area of innovation and digital. Evidence from research is crucial for policy-making to get the best possible understanding of reality, but not enough. It must be complemented by evidence from policy to understand constraints and stakeholders' interplay, and by evidence from practice to benefit from daily experience, feed-back and knowledge.

Particularly, we collect and analyse data through pilot and experimental projects, policy analysis and second-level analysis of data (such as TALIS, ICILS and other international surveys). By doing so, European Schoolnet intends to inform its network at European level in a grounded and transparent manner about successful practices and practices that require adaptation and improvement.

OUR WORK SO FAR

TeachUP is a policy experimentation concluded in 2020 which tested an innovative instructional design for online courses, involving personalised support to participants to understand how such support helps to promote active participation in online courses and improve retention rates, which it did by up to 10 percentage points. TeachUP involved 4,000 teachers and student teachers in ten countries. The experimentation results are acutely relevant in the context of the hybrid and remote teaching experienced in 2020.

The **Learning Leadership for Change (L2C)** project came to an end in 2020. It aimed to support shared leadership approaches in schools, fostering a new culture in which teachers, students and potentially parents willingly take responsibility for leadership in the school community. The project encouraged effective networking through capacity-building (self-assessment, training and sharing of best practices) within three areas: STEM education, innovative use of ICT in teaching and digital citizenship.

Snapshot from video "Results of the TeachUPPolicy Experimentation"

OUR CONTINUOUS WORK

Assess@Learning (A@L) is a current policy experimentation promoting digital formative assessment practices via a toolkit supporting teachers, school heads, students and parents. In 2020, A@L enriched the toolkit and adapted it to the needs of educators operating in (post-) COVID-19 contexts. The A@L randomised-controlled trials will start in October 2021 in five countries (Estonia, Finland, Greece, Portugal, Spain).

Under the **Structural Reform Support Programme (SRSP)**, European Schoolnet coordinates in cooperation with the DG Reform and the Greek Ministry of Education, an assessment of the use of digital technology in Greek school education; the development of a roadmap and action plan to improve educational outcomes in Greek school education; and interactive online courses (MOOCs) on innovative digital pedagogies and competences.

In parallel, under the **Structural Reform Support Programme,** EUN provides technical support to the Flemish Department of Education and Training to develop and pilot an evidence-informed framework and guidelines for implementation of teacher induction in Flemish schools. The intervention will aim at raising quality and professionalism in the teaching force, tackling teacher shortages and creating an effective continuum of teacher education.

COMMITTEES AND WORKING GROUPS

ICT@school

The **ICT@school** indicators Working Group (WG) includes 16 participating countries: Austria, Belgium (both Flemish- and French-speaking communities), Denmark, Estonia, Finland, France, Ireland, Italy, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Turkey.

In 2020, the ICT@school WG continued the regular exchanges of information about findings of country-level surveys about digital education with more in-depth information from a survey run in Croatia about mentors' support to distance learning during the COVID-19 pandemic. The WG also contracted the Foundation Bruno Kessler – Research Institute for the Evaluation of Public Policies (FBK-IRVAPP) based in Italy to produce and discuss a second-level analysis of 2018 TALIS data about continuous professional development, professional capabilities and innovative teaching practices.

PROJECTS

TeachUP

TeachUP was a policy experimentation which tests two different instructional design approaches in Initial Teacher Education and Continuous Professional Development by delivering courses on new teacher competences in four areas: teacher collaboration, personalised learning, formative assessment and creative thinking.

Learning Leadership for Change

The aim of the Learning Leadership for Change project (L2C) is to foster shared school leadership and effective networking through capacity-building (self-assessment, training and sharing of best practices) within three key areas: STEM education, innovative use of ICT in teaching and digital citizenship. l2c.eun.org

Assess@Learning

Assess@Learning is a European policy experimentation which aims to support the systemic uptake of Digital Formative Assessment (DFA) practices in schools.

SRSP Project (Greece and Belgium)

In collaboration with the Flemish Department of Education and Training the SRSP project aims to develop and pilot an evidence-informed framework and guidelines for implementation of teacher induction in Flemish schools. Similarly, European Schoolnet coordinates, in cooperation with the DG Reform and the Greek Ministry of Education, an assessment of the use of digital technology in Greek schools.

> *European Schoolnet aims at providing and brokering evidence from research, policy and practice in the area of innovation and digital.*"

Professional Development

Future Classroom Lab

10 Webinars

35 Presenters

4.2k+ Twitter followers

8.7k+ Facebook followers

250+ Network of learning labs

European Schoolnet | Academy

16 MOOCs

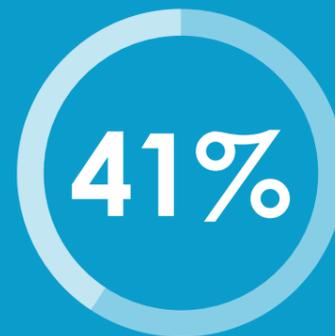**31.4k+** Enrolments

51% Engagement

48% Completion

CodeWeek.

3.4m Participants | **72k** Activities

84 Countries

Most active countries:

Turkey (23,580 activities)
Poland (20,653 activities)
Italy (9,833 activities)
Austria (3,192 activities)
Romania (1,955 activities)

41% of participants were girls or women

84% of activities organised in or by schools

WHY IS PROFESSIONAL DEVELOPMENT IMPORTANT?

The teaching profession was one of those that faced unprecedented challenges in 2020 due to the school closures and *"emergency remote teaching"* (ERT) put in place. Such exceptional circumstances allowed no time for preparation. It became evident that the teachers and schools who had done their *"homework"* were better off: appropriate equipment, tools and infrastructure combined with staff with sufficient digital skills and confidence to move their teaching online made learning possible even during long periods of complete school closures.

European Schoolnet has always aimed to provide high-quality, versatile Continuous Professional Development (CPD) to teachers and all school staff across Europe. While in previous years the CPD offer was delivered both face-to-face and online, in 2020 online training became the only option. All active projects reacted to the situation quickly by amplifying and/or transforming their CPD activities, resulting in a vast offer of online courses and webinars (and anything in between). European Schoolnet supported teachers in this difficult period, helping them to adapt their skills for distance teaching and discovering and trying out new ways of teaching.

OUR WORK SO FAR

Teachers' professional development and capacity-building are integral parts of the majority of European Schoolnet's projects. A large part of the CPD activities is channelled through two flagship initiatives: **Future Classroom Lab** and **European Schoolnet Academy.**

The **Future Classroom Lab** (FCL) is an inspirational learning environment in Brussels, that allows stakeholders (policy and decision-makers, teacher trainers, EdTech providers and school staff) to explore innovative approaches and technologies and engage in discussion on ICT, pedagogy and learning space design. FCL is supported by over 30 industry partners and by the network of Future Classroom Lead Ambassadors representing 15 countries.

The FCL worked hard to support teachers in the sudden switch to distance teaching and learning. The "*FCL Talks*" webinar series addressed the topic "*Teaching in time of Corona*". Three webinars were organised with industry partners Microsoft, ESRI and Dassault Systèmes on the use of educational technology to support remote/blended teaching and learning. A new type of online learning event was introduced: "A*ctive learning in the hybrid classroom*" was a short learning activity including both synchronous and asynchronous sessions over the course of four days (as an alternative to webinars and MOOCs). Additionally, the network of learning labs was rebranded as "*Future Classroom Lab Network of Innovative Learning Labs and Spaces*" and a new membership label was designed and distributed. The list and map of members was updated, including at the end of the year over 100 labs.

The **European Schoolnet Academy (EUNA)** offers massive open online courses (MOOCs) to school staff and educational professionals on innovative pedagogical concepts, whole-school strategies, and tools and resources to enhance everyone's teaching practice. In total, 16 MOOCs were offered in 2020. The courses covered several topics including leadership for change, animal use in science, space exploration and astronomy, coding, integrated STEM teaching, digital skills and cultural heritage.

EUN continued working with national and regional entities (Spanish regions and the Portuguese CCPFC) to enable teachers to have their EUN Academy certificates formally recognised.

Some new initiatives were introduced too. The "*Europeana MOOC*" was organised in four languages in addition to English. The "*Designing for Personalisation and Inclusion with Technologies (DEPIT) course*" was the first MOOC hosted in EUNA by an external provider.

Finally, the EUN Academy Blog was launched in March 2020 providing useful resources, tools and ideas for remote teaching and learning scenarios drawn from Academy courses, as well as the Academy's experiences in designing online learning.

Other relevant work done in CPD includes the **Europeana Education** initiative mainstreaming the use of digital culture in classrooms, across curricula and at a transnational level. In the 2019-2020 academic year, over 2,000 primary and secondary-level teachers from 37 countries created and used learning scenarios, shared their experiences on the Teaching with Europeana Blog and participated in the Europeana Education Competition.

Since 2018, EUN has supported the European Commission in scaling up **EU Code Week**. The initiative aims to promote coding and digital literacy in schools providing professional development opportunities to educators and engaging activities to students. In 2020, EUN ran two MOOCs as part of the initiative. These courses aimed to introduce the initiative to participants and to foster coding and computational thinking in teaching practice.

EDURegio (Digital Regions for Education) aims to empower schools and teachers in using digital technologies, encouraging them to be active and innovative, according to EU priorities on digital citizenship and skills. In 2020, the project delivered an online course to foster teachers' confidence and competence in the use of digital technology in education.

The **Novigado project** focuses on active learning in innovative learning environments. In 2020 the activities included webinars, preparation of an "*Active Learning Reference Framework*", creation of an online scenario tool and development of a capacity-building programme for schools.

OUR CONTINUOUS WORK

In November 2020, the **Mentoring for School Improvement (MenSI)** project was launched with the aim of carrying out a pan-European investigation into how different approaches to mentoring can support the mainstreaming of innovative digital teaching practices in primary and secondary schools. Involving Ministries of Education in six countries, MenSI – funded by the EC's Horizon 2020 programme – will create a network of 24 Mentor Schools working with some one hundred Mentee Schools. By the end of the project, the network will open up to other schools interested in applying school mentoring approaches to develop innovative pedagogical practice involving digital technologies in teaching and learning.

In summer 2020 LEGO Education® and EUN set up a pilot project to experiment with and champion the **effective pedagogical use of LEGO Education®** solutions with the active engagement of the FCL network and community. Within the pilot, which will last until 2021, FCL Lead Ambassadors from five countries (Belgium, Denmark, Finland, France and Italy) carry out professional development and training activities using LEGO Education® solutions.

The **Designing Future Innovative Learning Spaces (Design-FILS)** project aims to use ICT in innovative learning environments, to transfer developing and changing applications to multi-disciplinary fields and to solve scenarios based on real-life problems by following scientific steps in flexible learning environments. The project is funded by Erasmus+ KA2 and is coordinated by the Turkish Ministry of National Education.

EUN in collaboration with the Institut français and ARTE created the European Film Factory platform for film education. Available in eight languages, the platform offers free access to European film to students aged 11-18 and teachers. Under the guidance of EUN a teachers' focus group created ten educational kits that include in-depth film analysis and ready-to-use lesson plans. A webinar series in eight languages aims to familiarise educators with the platform and its educational value.

COMMITTEES AND WORKING GROUPS

Interactive Classroom Working Group

The Interactive Classroom Working Group brings together seven Ministries of Education (Czech Republic, Ireland, Italy, Luxemburg, Belgium (Flanders), Portugal and Switzerland) to explore common areas of concern, share experiences and address policy challenges related to the integration of a wide range of technologies in classrooms and their impact on teaching and learning. In 2020, the Working Group capitalised on the effort dedicated to Makerspaces in schools and finalised the foreseen publications, including the guidelines for Makerspaces in schools, addressed to school leaders, and 15 case studies from nine different countries.

The results are published on the Future Classroom Lab portal and were presented during a multi-stakeholder event organised in December involving national and European policy-makers, as well as schools who virtually opened their Makerspaces doors to the international audience. The WG has been reflecting on what should be the next **focus** and has decided to concentrate on **digital technologies for interactivity and engagement**. Considering the impact that the pandemic has had on teaching and learning, the WG will look at how technology has helped and can help to facilitate engaging digital learning and will provide resources and examples to teachers and heads of schools to better face the opportunities and challenges of a digital age.

PROJECTS

EDURegio project

EDURegio project aims to empower schools and teachers in using digital technologies, encouraging them to be proactive and innovative, and to implement the development of the main EU Commission priorities related to digital citizenship and skills. The project fosters the exchange of good practices among regional professionals and policy-makers.

EU Code Week

EU Code Week is a grassroots initiative which aims to bring coding and digital literacy to all schools in a fun and engaging way. The initiative provides to the general public, and in particular to teachers and other educators, resources, virtual spaces for networking, and professional development opportunities, such as online courses and train-the-trainer programmes.

Design-FILS

The Design-FILS (Designing Future Innovative Learning Spaces) project will create a training programme for an international group of teacher trainers, with focus on learning environment, use of ICT and innovative pedagogy.

Europeana
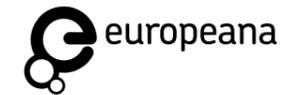
Europeana empowers the cultural heritage sector in its digital transformation by developing expertise, tools and policies to embrace digital change and encourage partnerships. Europeana facilitates the use of cultural heritage for education, research, creation and recreation.

MenSI

The Mentoring for School Improvement (MenSI) project analyses and supports different formats of school-to-school mentoring with the aim of mainstreaming innovative digital teaching practices across schools in Europe.

Novigado

The Novigado project aims to support schools and related stakeholders in the transition from a conventional and teacher-centred classroom to teaching practices that promote active learning with the support of innovative learning environments and use of relevant ICT.

European Film Factory

European Film Factory is an open platform for film education available in eight languages for students aged 11-18 and teachers across Europe.

School Networking

SchoolEducationGateway

48 News articles

7 Video interviews

5 Surveys & Reports

26 Teaching materials

12 Expert articles

12 Practice articles

13 Thematic areas

TeacherAcademy

4 New MOOCs

9.8k+ Enrolments

60% Engagement

52% Completion

98% Say courses met expectations

98% Rated courses as valuable

eTwinning

132.5k+ New teachers

35k New projects

2.1k+ eTwinning school labels

19k National Quality labels

11.3k European Quality labels

22-24 Oct

eTwinning Annual Conference
"Classrooms in Action: Addressing Climate Change with eTwinning"

600+ Participants

48 Workshops

6k Prize Ceremony viewers

"We have learned a lot from it, including how important the sense of community really is. Since the beginning of the pandemic eTwinners have been better prepared to go online and more used to helping, inspiring and lifting each other's spirits."

Mariya Gabriel
European Commissioner for Innovation, Research, Culture, Education and Youth

WHY IS SCHOOL NETWORKING IMPORTANT?

Networking is about growing together. European Schoolnet empowers individual educators by providing opportunities to meet and collaborate so that thousands of schools can grow and improve. Networking activities provided through European Schoolnet enable educators from different countries and from varied backgrounds to learn from each other, be inspired to tackle new challenges and emulate their most innovative and creative colleagues. Networking allows the whole system to grow: everyone with their own competences, skills, attitudes and qualities can help and support the others.

OUR WORK SO FAR

One of the founding principles of European Schoolnet over 20 years ago was to enable schools and teachers across Europe to become part of an interconnected system, benefiting from the experience of the most innovative schools and nurturing the less advanced ones, for the sake and growth of the whole network. For this reason, since its beginning, European Schoolnet has been involved in pan-European school networking activities which prepared the ground for the development of eTwinning, a European Union initiative, named *"The Community for Schools in Europe"* and later of eTwinning Plus, an expansion of the network to eight neighbouring countries. In 2020, European Schoolnet continued to provide the Central Support Service for eTwinning. Funded under the Erasmus+ programme, on behalf of the European Commission, eTwinning is a vibrant community that in its 16 years of existence has reached 880,000 teachers working in 210,000 schools. In 2020, despite the pandemic and school closures, 95,000 teachers took part in at least one project, involving more than two million students across the continent.

2020 was Year Six of the School Education Gateway, the European Commission's platform on school education. The platform helps schools plan their Erasmus+ applications and projects through a catalogue of on-site courses as well as a partner-finding tool. It also provides education professionals with useful information and resources, such as teaching materials, good practices, news articles, surveys and video interviews. Users also benefit from professional development opportunities on the platform's Teacher Academy, including free online courses and webinars, offering introductions to monthly topics by experts in the field.

OUR CONTINUOUS WORK

Collaboration between schools remains one of the most efficient, cost-effective and sustainable ways of improving teaching and learning at classroom and teacher level. Communities of practice, peer and online learning – all elements offered by European Schoolnet initiatives – are highly effective means of sharing and spreading inspiring innovative practices. For this reason, European Schoolnet will continue to invest in fostering school networks and teacher communities.

PROJECTS

eTwinning

eTwinning, currently available in 36 European countries, promotes school collaboration and teachers' professional development by providing support, tools and services for schools through a variety of means, including a sophisticated digital platform where school staff can develop projects together and participate in online learning opportunities.

eTwinning Plus

eTwinning Plus is an expansion of the eTwinning network to 8 other neighbouring countries: Armenia, Azerbaijan, Georgia, Moldova, Tunisia, Ukraine, Jordan and Lebanon.

School Education Gateway

The School Education Gateway is a European Commission initiative as part of the Erasmus+ Programme offering a place for all practitioners to engage with European policy and practice in early childhood and school education.

Teacher Academy

The Teacher Academy, by the School Education Gateway, supports teachers to access relevant training opportunities by providing them with a platform to search for, participate in and evaluate training courses available on-site and online across Europe.

Looking Forward

In 2020, the European Commission published its communication on achieving the European Education Area by 2025 and its new Digital Education Action Plan (DEAP) 2021-2027 *"resetting education and training in the digital age"*. European Schoolnet and its network of Ministries of Education welcomes these two major publications which set the European agenda regarding the development of digital education in Europe.

The transformation of education processes for 21st-century teaching and learning in a digitised society is at the centre of the remit of EUN. In its publication in November 2017, "*Driving innovation in education: How far we have come and where we are going*", EUN capitalised on the latest research on the development of digital education and its role in shaping tomorrow's society.

Over the past 20 years, the educational landscape and society in general have changed rapidly, thanks to the development of new technologies. These changes require stakeholders to focus not only on the digital skills of teachers, school leaders and students, but also on supporting citizens in the digital society more holistically.

They increasingly also require policy-makers to develop whole-school approaches to pedagogical innovation and flexible learning environments and to facilitate new ways of incorporating innovative formal, non-formal and informal learning opportunities. It is also vital to train future generations of teachers effectively to work in an increasingly multi-digital working environment where new pedagogies, new ways of working between teachers and among schools and new ways of accessing professional development opportunities are made possible by technological developments.

Nowadays, it is even more of a priority to consolidate, identify and refine effective mechanisms fostering large-scale adoption of the wide range of successful innovations being implemented by the policy-makers, school leaders and practitioners.

EUN's key strength over the past 20 years has been its ability to act as an effective broker between educational policies and practices. As it continues to work closely with schools on European cooperation projects, EUN remains uniquely placed to provide relevant evidence to its Ministries of Education members that can support informed policy-making and anticipate new challenges and opportunities arising from emerging technological developments.

All these issues related to digital education have become even more pivotal during the COVID-19 crisis, where all our education systems have faced tremendous challenges in the struggle to ensure the continuity of education provision, for example, through emergency remote teaching processes established by the majority of Ministries of Education in Europe. Now, the challenge is to reflect on and apply new models of schooling, as hybrid and blended schooling models are currently emerging linked to the continuation of the COVID-19 crisis and the preparation of a new recovery period.

In that context, with its long tradition in terms of European cooperation in the digital education area, EUN has developed a unique expertise (foresight, methodologies, delivery tools, indicators, etc.) and has a proven track record in how to build a solid cooperative network consisting of EU education ministries, major EdTech providers, educational experts and practitioners that can contribute to this new European digital education agenda.

European Schoolnet and its Ministries of Education have stressed the importance of reinforcing the activities it has already developed as well as strengthening further the cooperation between the European Commission and member states. We believe that, through its various activities, EUN can contribute and support the Commission in the development and implementation of the DEAP.

In parallel, the political priorities defined by the new European Commission, namely innovation in education, science education, climate change (related to education) and the digital skills gap are taken fully into account in the development of future activities.

European Schoolnet looks ahead to growing its shared network and to continuing to improve the future of education, with the help of the European education community which it serves and works alongside.

Marc Durando
Executive Director of European Schoolnet

Our 32 Members

Belgium (FR)
Ministère de la Fédération Wallonie-Bruxelles, Administration générale de l'Enseignement (AGE)

Belgium (NL)
Vlaams Ministerie van Onderwijs en Vorming

Bulgaria*

Croatia
Ministarstvo Znanosti i obrazovanja

Cyprus
Παιδαγωγικό Ινστιτούτο Κύπρου

Czech Republic
Dům zahraniční spolupráce (DZS)

Estonia
Hariduse Infotehnoloogia Sihtasutuse (HITSA)

Finland
Opetushallitus/ Utbildningsstyrelsen

France
Ministère de l'Éducation nationale et de la Jeunesse

Georgia*

Germany*

Greece
Υπουργείο Παιδείας, Έρευνας και Θρησκευμάτων

Hungary
Oktatási Hivatal

Iceland*

Ireland
An Roinn Oideachais agus Scileanna

Israel*

Italy
INDIRE, Istituto Nazionale di Documentazione, Innovazione e Ricerca Educativa

Kosovo*

Latvia
Izglītības un zinātnes ministrija

Lithuania
Nacionalinė švietimo agentūra

Luxembourg
Ministère de l'Éducation nationale, de l'Enfance et de la Jeunesse – Grand-Duché de Luxembourg

Malta
Ministry for Education and Employment

The Netherlands
Stichting Kennisnet

Norway
Utdanningsdirektoratet

Poland
Ministerstwo Edukacji Narodowej

Portugal
Direção Geral da Educação

Romania*

Serbia
Ministarstvo prosvete, nauke i tehnološkog razvoja, uz operativnu podršku Fondacije Tempus

Slovakia
Ministerstvo školstva, vedy, výskumu a športu Slovenskej republiky

Spain
Instituto Nacional de Tecnologías Educativas y de Formación del Profesorado

Switzerland
educa.ch, Institut suisse des médias pour la formation et la culture

Sweden
Skolverket

Turkey
Milli Eğitim Bakanlığı Yenilik ve Eğitim Teknolojileri Genel Müdürlüğü

* Active membership process underway

Funding

PROJECTS FUNDED BY THE EUROPEAN COMMISSION

Funded by the Erasmus+ programme of the European Union

Funded by the
Erasmus+ programme
of the European Union

- eTwinning
- eTwinning Plus
- School Education Gateway
- Teacher Academy

Co-funded by the Erasmus+ programme of the European Union

Co-funded by the
Erasmus+ programme
of the European Union

- Assess@Learning
- BRITEC
- EDURegio
- Design-FILS
- eSafety Label
- L2C
- MENTEP
- NOVIGADO
- SOS-ACT
- STE(A)M IT
- STEM School Label
- STIM
- TeachUP
- TIWI

Funded by the Horizon 2020 programme of the European Union

Funded by the
Horizon 2020 programme
of the European Union

- ARETE
- BLOOM
- CO:RE
- IMPACT EdTech
- Make it Open
- Scientix
- SpaceEU
- ySKILLS

Co-funded by the Horizon 2020 programme of the European Union

Co-funded by the
Horizon 2020 programme
of the European Union

- MenSI
- Next-Lab
- OL4ALL

Co-funded by the Creative Europe Media programme of the European Union

Co-funded by the
Creative Europe Media programme
of the European Union

- European Film Factory

Funded by the European Union Connecting Europe Facility

Funded by the European Union
Connecting Europe Facility

- Better Internet for Kids
- Digital Skills and Jobs Platform
- Europeana DSI 4

Co-funded by the Rights, Equality and Citizenship programme (2014-2020) of the European Union

Co-funded by the Rights, Equality
and Citizenship programme (2014-
2020) of the European Union

- SELMA

Funded by the European Commission

European Commission

- 3Rs
- EE-WE
- EU Code Week
- European Entrepreneurship
- Nature-Based Solutions

Funded by the European Commission with support of the European Parliament

- Digital SkillUp

Co-funded by the Structural Reform Support Programme of the European Union

- Supporting Digital Education
  in Greece (Phase II)
- Implementing an Effective
  Induction System for Novice
  Teachers in Flanders

PRIVATELY FUNDED PROJECTS

STEM Alliance

Amgen Teach

Games in Schools

School of Social Networks

Aerospace in Class

Eurostat Videos

Future Classroom Lab Industry Partners

European Schoolnet – EUN Partnership AISBL

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