

A WHOLE SCHOOL APPROACH TO TECHNOLOGY SUPPORTED CHANGE

SUMMARY OF THE LIVING SCHOOLS LAB RESULTS



SEPTEMBER 2014

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Thanks also to all the schools and teachers taking part in the project, including the Advanced Schools, selected by National Coordinators, and visited during the Link Observation Visits (one primary school and one secondary school in each of the twelve countries):

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- Puropelto School, Turku, Finland
- EPPU Ingrandes sur Loire, France
- Lycée Pilote Innovant International, Poitiers, France
- Scoil na gCeithre Máistrí, Athlone, Ireland
- Coláiste Bríde, Presentation Secondary School, Clondalkin, Ireland
- Istituto Comprensivo di Cadeo, Piacenza, Italy
- ITIS Majorana, Brindisi, Italy
- Kaunas Varpelis Primary School, Lithuania
- Simono Dacho Progymnasium, Klaipėdos, Lithuania
- Skjelnan School, Tromsø, Norway
- Tromstun School, Tromsø, Norway
- Escola Básica Parque das Nações, Lisbon, Portugal
- Escola Secundária Eça de Queirós, Lisbon, Portugal
- Broadclyst Community Primary School, Exeter UK
- Shireland Collegiate Academy, Sandwell, UK

Introduction:

A Whole School Approach

“We need a different kind of vision that demonstrates how education in school is connected and interconnected to the outside world more than ever before. Technology is not our biggest challenge in enabling whole school change.”

Diana Bannister MBE, University of Wolverhampton – leading observation and documentation of practice in LSL schools. Link Observation Visits report, September 2014

This summary report shares the main findings, conclusions and recommendations from Living Schools Lab (LSL). The project was funded by the 7th Framework Programme of the European Commission, and it ended in September 2014.

With the participation of 15 partners across 12 countries, including 10 education ministries, the two-year Living Schools Lab project built a network of teachers engaged in pan-European collaboration on the effective use of ICT in schools. To build the network, two Advanced Schools and five Advanced Practitioner Schools were selected by partners in each country. The network promoted a whole-school approach to ICT use, scaling up best practices in the use of ICT between schools with various levels of technological proficiency.

ADVANCED SCHOOLS:
where technology is embedded in teaching and learning across the whole school.

ADVANCED PRACTITIONER SCHOOLS:
where technology is only partially embedded within the school.

The participating schools were supported through peer-exchanges in regional hubs, pan-European teams working collaboratively on a number of themes, and a variety of opportunities for teachers' ongoing professional development.

Observation of Advanced Schools across the 12 countries produced a report and recommendations on the mainstreaming of best practice, and the development of whole-school approaches to ICT. The results from the observations have been developed into a Collaborative Schools Professional Development Course.

The main outputs are shared in this project summary, to help organisations and schools faced with the challenge of mainstreaming. Details of the related reports and projects referred to in this summary are included at the end of the report. LSL outputs include:

- **“NETWORK OF LIVING SCHOOLS” - REGIONAL HUBS:**

The methodology and approaches used to build the network of schools;

- **FRAMEWORK FOR MAINSTREAMING CHANGE:**

Based on the observations, a framework to help schools consider the school environment supporting change;

- **COLLABORATIVE SCHOOLS COURSE:**

Taking the framework forward into a course for school leaders and practitioners;

- **FREELY AVAILABLE RESOURCES:**

- **Best practice videos:** sharing and demonstrating best practice in schools;
- **Collaborative Schools Professional Development Course:** Trainer's guide;
- **Learning Snacks:** library of short, online learning events for schools and teachers;
- **Observation Blog:** an insight into each of the Advanced Schools visited, sharing ideas;
- **Link Observation Visits report and case studies:** the evidence and framework for mainstreaming practice developed as a direct result of the Link Observation Visits to Advanced Schools, including 12 country case studies.
- **Validation Manual:** developed and tested during the project, a manual for European Commission projects, companies and organizations interested in running validations in schools in Europe.

<http://fcl.eun.org/lsl>

Regional hubs: A Network Of Living Schools

Regional hubs have created a successful model for developing a mentoring and collaboration relationship between schools at a national and regional level. In the project, the hubs were facilitated by National Coordinators, who coordinated the meetings and were able to add a wider perspective and network of contacts to the benefit of the hubs. The other major benefit of the regional hub was the opportunity to share practice in the local language, supported by virtual forums in the project's online Community of Practice.

REGIONAL HUBS:
clusters to share good practices, and
provide opportunities for closer mentoring
and collaboration between schools

The main elements of work within the regional hubs included:

STEPS Plan –
“Showcase, Demonstrate, Validate”

A common planning framework and language to help sharing among schools. Every school was encouraged to write its own STEPS Plan, to identify a single aspect of school development using ICT that would be developed as part of the project. Schools/teachers were then encouraged to share their STEPS Plans with other teachers and schools in the regional hub meetings and across pan-European collaborative groups.

National Coordinators

The main point of communication and contact for the LSL schools at a national and regional level. In charge of coordinating across the schools, supporting the development of the regional hubs, linking to wider perspectives, and coordinating the observation visits and dissemination through the Community of Practice and national focus group.

Regional hub meetings and forums

Regional hub meetings took place on average once a term. These were held either face-to-face or virtually depending on geographic location. Meetings were supported by local regional hub forums, facilitating the exchange of ideas on an on-going basis.

STEPS Plan – “Showcase, Demonstrate, Validate”



Collaboration around common themes

As evidenced in the project from teachers' feedback, working with other teachers on their STEPS Plan in school, through the regional hubs, and for some at a pan-European level, proved an important way to support and connect often isolated, innovative teachers to encourage a whole school approach to using ICT. This process included:

- **At school level:** sharing the STEPS Plan around a selected theme, to provide a focus within the school, supported by the school senior management;
- **At regional hub level:** working on common themes, such as 1:1 devices, sharing and demonstrating practice across schools, supported by the regional hub meetings and forum;
- **At pan-European level:** working on common themes at the pan-European level, sharing and demonstrating practice across countries via webinars, supported by the Community of Practice manager.

"The involvement in the Living Schools Lab project has been important for us. Taking part in the regional hub helped us to share good practices on a topic we have been working with, the use of one-to-one devices. In the project we have also upgraded our knowledge on collaborative learning, a topic we built up together with teachers from other European countries."

Xavier Garnier, Lycée Pilote Innovant International (LP2i) in Poitiers, France



Funding

The regional hubs were supported by funding within the project. Following the project, plans to continue with regional hubs vary across project partners and funding. In Austria, the regional hub concept has been integrated with other national initiatives to support the on-going coordination of schools at national/regional level. Other examples include, in Belgium where it is being linked to cascading professional development across more schools, and in France, where a new hub was formed in the last month of the project supporting a strategic initiative:

"The process of peer-learning in a hub seems to be the most effective and efficient outcome of LSL. As we live in a small country it is relatively easy to continue with very little costs."

Jens Vermeersch, LSL Project Lead, GO! Belgium Flanders

Motivation

For teachers the benefits of collaboration and sharing practice supported the development of a whole school approach around their selected theme:

"The project gave us the impetus and inspiration to spread Edmodo [a Virtual Learning Environment] throughout the school... Working with LSL we have been able to see how good practices have been spread throughout other schools, how other teachers have for instance set up e-learning teams, where some teachers train and support others. We have been able to replicate that."

Ciarán Kennedy, ICT coordinator, St. Patrick's School, Galway, Ireland

"The new regional hub of Grenoble is linked to the national Ministry of Education current strategy Faire entrer l'école dans l'ère du numérique (Bringing all schools into the Digital Age), in order to develop massively the uses of ICT in education."

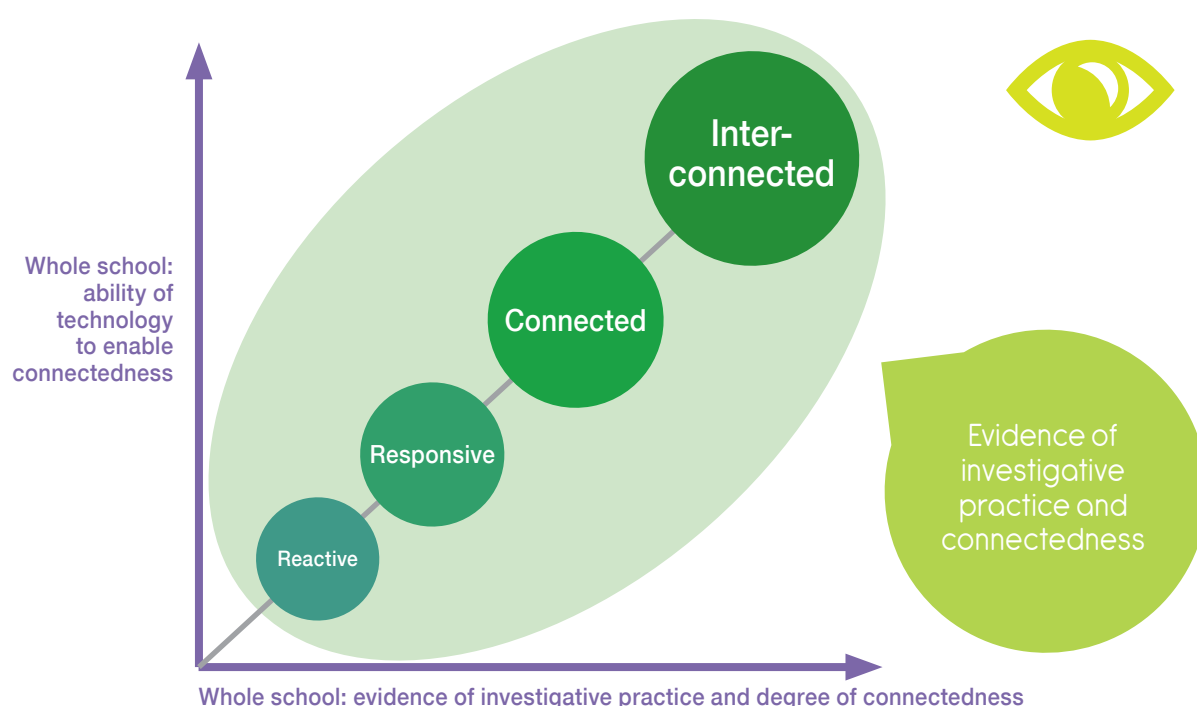
Karine Aillerie, LSL National Coordinator, CANOPE, France



A Framework for Mainstreaming Change Using ICT

The Link Observation Visits report provides a framework for mainstreaming change using ICT and an overview against each of the original parameters used to select the first group of LSL network schools. It draws on the extensive evidence collected during the observation process, including visits to Advanced Schools in each of the twelve project partner countries. Based on the observations, the idea of “Collaborative Schools” has

been developed into a “Framework for Mainstreaming Change”. The framework – complementary to a maturity model developed in the iTEC project – is then used to summarise the evidence under four different categories which define the different levels of “connectedness” observed in Advanced Schools: Reactive; Responsive; Connected; and Inter-connected.



- **Reactive schools** showcase the use of new technologies, but the implementation of new equipment is often not directly connected to whole school developments in learning and teaching.
- **Responsive schools** respond to top-down changes and seek opportunities for enthusiasts to engage in projects that may support staff interests or benefit the students within the school.
- **Connected (investigative) schools** have a strategic approach to the implementation of technology; there is a shared understanding that technology will be used to explore whole school developments.
- **Interconnected schools (collaborative):** staff at all levels know the key themes for innovation and development within the school. There is a team of teachers in the school which is engaged in external activities outside the school. Technology plays a significant role in pedagogical change.

The observations have shown that Advanced Schools lead the way in whole school innovation by connecting to other schools, showcasing their practice, learning from each other, and demonstrating (showing others) how this can be mainstreamed. Collaborative Schools share in common:

- A vision that connects teaching and learning with the effective use of technology.
- Access to learning using technology within the classroom and beyond the school day.
- Co-ordinated professional development and opportunities to observe practice.
- Exemplary teachers who can motivate others, demonstrate practice and lead professional development communities.



This emphasis on networking and collaboration is in line with one of main findings from the 2013 TALIS survey: “Teachers who are involved in collaborative learning report using innovative pedagogies more and being more satisfied with their jobs” (the OECD Teaching and Learning International Survey (TALIS) - 2013 Results).

The level of connectedness can be seen as an indicator of a school’s collaborative culture and attitude to change. Based on the observations, it suggests a hypothesis, that for a school to really use technology to its full potential, it requires a high degree of inter-connectedness. There is significant evidence of ongoing investigations to develop practice across the whole school. The more Advanced Schools seem to be more “inter-connected” – teachers and students inter-connected within the school, with their stakeholders (parents and the local community), with other schools and with external partners. This framework is developed further in the final report on Link Observation Visits (LSL deliverable D3.3), with descriptors provided against each of the different categories outlined within the school selection process at the beginning of the project. The framework can be used to help assess the degree of the school’s connectedness, by viewing the detailed profiles created for reactive, responsive, connected and inter-connected schools, with supportive actions summarised according to the different categories.

A Collaborative Schools Development Course

The Framework for Mainstreaming Change has been taken and developed into a LSL Collaborative Schools Development Course, which includes a series of 10 investigations carried out by teachers and school leaders to support whole school reflection and technology-supported

change. The course and investigations have been developed through the project workshops (both face-to-face and online) and the LSL Summer School, and tested with a small focus group of advanced practitioners and with a larger group of senior school leaders.

COLLABORATIVE SCHOOLS DEVELOPMENT COURSE: 10 investigations to support mainstreaming the use of ICT

1	1st Peer Exchange Workshop
2	Observing and Reflecting on Classroom Practice in my School
3	Developing a Whole School Focus
4	Building a Professional Development Framework for Staff
5	Peer Exchange Visit
6	Students as Digital Leaders
7	Developing Partnerships and Networks
8	Sharing Practice with Others
9	Collaborative Schools
10	2nd Peer Exchange Workshop: Findings and Outputs

The course is set out as a series of investigations for a school wishing to develop a more collaborative whole school culture. It has a flexible structure, offering different options for delivery according to school priorities and funding. Depending on the school development plan, for

some schools/teachers following one investigation may be sufficient, while for others a more accelerated path may be more attractive.

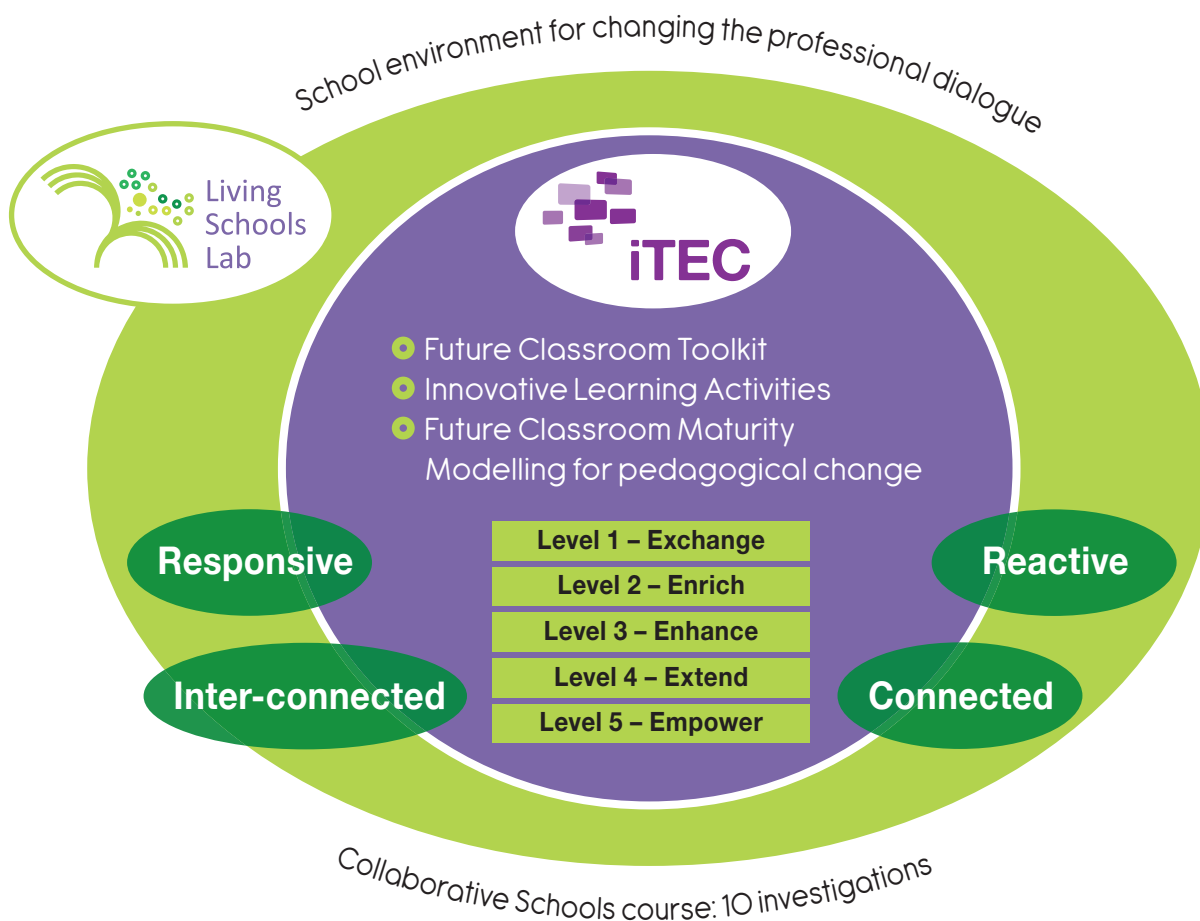




The focus of the course is emphasised in its title: encouraging and supporting greater collaboration both within and between schools. The innovative practices observed and summarised in the Link Observation Visits report against the Framework for Mainstreaming Change are embedded within the investigations in the course, for example “Developing a Whole School Focus” and “Developing Partnerships and Networks”.

It should be stressed that the course is not a model for pedagogical change across the whole school. The LSL course is intended to encourage teachers to adopt a

whole school approach to undertaking investigations and collaborating with others. Instead, pedagogical change has been the focus of the iTEC project. Its Future Classroom methodology is based on models of e-maturity deployed in countries such as Norway and the UK and on implementing the project’s Learning Activities in over 2,500 classrooms in 20 countries. The Future Classroom methodology, including a maturity modelling, helps schools to achieve pedagogical change, moving to higher levels of empowerment across the school, teachers and learners.



Conclusions and recommendations

The main conclusions resulting from the LSL project are summarised as follows. Against each conclusion is an outline of recommendations derived from the observations of the Advanced Schools and the on-going dialogue with

national coordinators and school senior leaders, teachers and students in the LSL network schools. The full detail is provided in the Link Observation Visits report.

Conclusions	Recommendations	Policy-makers	Schools/Teachers
1. NATIONAL POLICY Schools benefit from both pedagogical and technical guidance provided at national level.	Establish regional hubs and networks of schools to share practice and work collaboratively. Fund ambassador schools/teachers to undertake investigations and disseminate findings to support national/European developments.	✓	✓
2. FUNDING Schools benefit from meeting regularly with policy and funding authorities to exchange information and identify key actions for improving teaching and learning with future funding.	Establish a separate funding line specifically for ICT, including the cost to replace, refurbish and/or refresh existing equipment.	✓	✓
3. VISION The school vision includes a clear statement of the whole school change envisaged, with examples showing the role of technology.	Develop Future Classroom Scenarios as part of whole school planning process with a learning and teaching strategy that embeds the use of technologies across the curriculum for all students.		✓
4. STAFFING AND PROFESSIONAL DEVELOPMENT Connected schools identify a teaching and learning team with responsibility and time to lead, implement and monitor innovative practice. Schools value having an entitlement to a set annual number of hours for ICT training and professional development.	Make time for a teaching and learning team to meet and discuss. Distinguish between pedagogical and technical support. Establish a European benchmark on standardised entitlement to training. Include opportunities in teacher professional development for observing practice and team teaching.	✓	✓
5. ACCESS Schools would benefit from having a minimum specification of equipment and robust wireless access for all classrooms.	Provide national advice on ICT equipment and services provision. Provide a minimum specification of technology for teaching and learning spaces. Provide high capacity WiFi that supports student use of individual devices in every classroom and learning space.	✓	✓

6. CURRICULUM AND RESOURCES Emerging technologies such as cloud computing improves access to learning materials, digital resources and digital portfolios, facilitating sharing of resources between teachers, and enables frequent and faster feedback or response to students	<p>Schools need to consider how learning materials, communication and feedback are supported beyond the traditional lesson time.</p> <p>The use of ICT needs to be mapped to competencies within different subjects. The curriculum needs key level descriptors for the use of ICT.</p> <p>Schools should establish clearer e-safety guidance.</p>	✓	✓
7. STUDENTS Involving students in whole school development provides valuable feedback about the use of technology.	<p>Establish a group of student digital leaders who can provide support to other students and staff.</p> <p>Invite students to develop a school showcase promoting students' work.</p>		✓
8. LEARNING SPACES All physical and virtual spaces are used to support teaching and learning.	<p>Audit and monitor when and how technology is being used in the school.</p> <p>Consider adapting a room into a Future Classroom to pilot and demonstrate different pedagogical approaches before implementing them across the whole school.</p>		✓
9. LSL METHODOLOGY The LSL process of regional hubs, with a common framework and language of STEPS Plans and "Showcase, Demonstrate, Validate", encourage schools to share practice and monitor school development plan progress. Working with peer schools inspires and stimulates ideas for innovation and creates opportunities for teachers and students to work together across different schools.	<p>Establish a common framework, or language, to support collaboration, using tools such as a STEPS</p> <p>Plan to document the aims and support the whole school development process.</p> <p>Join networks of schools to collaborate, share practice and investigate the use of ICT to support whole school change.</p> <p>Establish collaborative projects with other schools through networks such as eTwinning.</p> <p>Review funding opportunities (e.g. Erasmus+) and sponsorship to apply for support for collaboration with other schools.</p> <p>Engage with a University partner or an independent consultant to support with developing and documenting evidence of change.</p>		✓
10. PARTNERSHIPS AND NETWORKS Developing partnerships and networks encourages a culture of collaboration within the school to help support change. Partnerships and Networks should be developed with parents and the local community; other schools; local business and commercial suppliers.	<p>Use the LSL framework for mainstreaming change to assess the degree of the school's connectedness.</p> <p>Develop an action plan to show the priorities for developments within partnerships and networks.</p> <p>Choose an appropriate investigation(s) and incorporate it into the school development plan, appointing an Investigation Leader and Practitioner.</p>		✓



Related initiatives and projects

Future Classroom Lab

Created by European Schoolnet, the Future Classroom Lab (FCL) is an inspirational learning environment in Brussels, challenging visitors to rethink the role of pedagogy, technology and design in their classrooms. Since the opening of the Future Classroom Lab in January 2012, policy-makers, industry partners, teachers and other education stakeholders have regularly come together in face-to-face training workshops and strategic seminars to develop visions for the school of the future and strategies on how to realise these.

- fcl.eun.org

iTEC (European Commission's 7th Framework Programme, 2010–2014)

With school pilots in over 2,500 classrooms in 20 countries and 17 participating education ministries, iTEC has been the largest pan-European project to date focused on teaching and learning in the future classroom. Based on its successful methodology, iTEC designed the Future Classroom Toolkit that enables teachers, school leaders and policy-makers to identify educational trends, create Future Classroom Scenarios, and develop innovative Learning Activities.

- fcl.eun.org/itec

Creative Classrooms Lab (European Commission's Lifelong Learning Programme, 2013–2015)

The Creative Classrooms Lab project works with 45 schools in 8 European countries and 9 Ministries of Education to collect evidence on the implementation, impact and up-scaling of tablet use in schools. The results will help policy-makers to take informed decisions on the pedagogical benefits of deploying tablets and implementing 1:1 computing programmes.

- creative.eun.org

European Schoolnet Academy

The European Schoolnet Academy is the first European platform providing free online courses tailored specifically for teachers and educators. The first two courses, Future Classroom Scenarios and Innovative Practices for Engaging STEM Teaching, were successfully implemented in spring 2014. More courses are planned to launch in 2014 and 2015.

- www.eunacademy.eu



Discover the LSL resources!

fcl.eun.org/lsl

Best practice sharing practice in schools

- Over 70 best practice videos shared by LSL schools to demonstrate their practice.
- “Spotlight on Practice” articles giving a more in-depth insight in some of the network’s schools.

Observations sharing insights

Sharing the methodology used and insights from the observation visits, an opportunity to look into schools from across 12 countries and discussions at the national focus groups, and with senior management in schools and in project partner organisations:

- Observation Blog:** Insights and ideas captured during Advanced School visits.
- Link Observation Visits report (D3.3):** A final report covering the observation visits to schools, led by Diana Bannister MBE, University of Wolverhampton. It includes analysis and insights, conclusions and recommendations, along with 12 country case studies, developed with the support of each of the National Coordinators.
- Country case studies:** Produced with the support of the national coordinators.

Professional Development sharing knowledge

- Learning Snacks:** A library of over 30 short, online learning events for teachers and schools.
- Collaborative Schools Professional Development Course (D5.3):** Developed from the observations to support mainstreaming of best practice and a whole school approach to ICT use. It includes 10 investigations and supporting materials.

Validation

- Validation Manual (D4.2.2):** Developed and tested during the project, a manual for EC projects, companies and organisations interested in running validations in schools in Europe.

More resources at the Future Classroom Lab website fcl.eun.org

- Directory of classroom practices:** Practice-oriented examples supporting the mainstreaming of technology and future classroom plans.
- Professional development:** Both face-to-face workshops in the FCL and free online training resources, webinars and courses through the European Schoolnet Academy.
- Future Classroom Toolkit:** To create and implement own Future Classroom Scenarios and Learning Activities.
- Future Classroom Ambassadors:** A network of innovative teachers to support the mainstreaming of innovative teaching and learning approaches at national level. The network welcomes teachers who have been active in European Schoolnet projects and interested in being involved in future validation pilots.
- Validation service:** offering EC projects, companies and other organisations the opportunity to use the network of Future Classroom living schools and teachers for validations and school pilots.