Introduction

With the participation of 15 partners, the two-year Living Schools Lab project promoted a whole school approach to ICT use, scaling up best practices in the use of ICT between schools with varying levels of technological proficiency. Visits to the project’s Advanced Schools in 12 countries were carried out to observe school’s best practices leading to a report and recommendations on developing and mainstreaming of whole school approaches to ICT.

In addition to this, twelve case studies present the evidence gathered as part of the school observation visits to two Advanced Schools in each of the 12 countries: Austria, Belgium, Cyprus, Czech Republic, Finland, France, Ireland, Italy, Lithuania, Norway, Portugal, and the United Kingdom. Alongside the case studies, each Link Observation Visit was detailed in a blog post, along with useful links and practical ideas to try in the classroom: http://lsl.eun.org/observation-visits.

A framework of eight main questions was used to develop the case studies:

1. What types of technologies and resources are available in the Advanced Schools?
2. Are there recent national initiatives that have had an impact upon whole school development of ICT?
3. Who leads the decisions about the development of ICT?
4. What types of training and professional development are available to teachers?
5. How is ICT being used in different subjects?
6. What kinds of research and development are the teachers engaged with?
7. Are the Advanced Schools engaged in any partnerships or networks?
8. Are there particular areas that could be mainstreamed or replicated?

All case studies contain information that has been reviewed by National Co-ordinators. The studies outline evidence gathered as part of the Link Observation Visits and throughout the Living Schools Lab project. Further information is available on each school website about the individual school, although this may be in the home language.

All of the school visits were undertaken by Diana Bannister MBE, University of Wolverhampton. These case studies should be read in conjunction with the project’s Link Observation Visits final report available at http://fcl.eun.org/lsl.
# Observation Case Studies: Italy

**Istituto Comprensivo di Cadeo e Pontenure | Italy**

<table>
<thead>
<tr>
<th>Number of students</th>
<th>1200</th>
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<tbody>
<tr>
<td>Age group of students</td>
<td>6-15 years</td>
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<tr>
<td>School website</td>
<td><a href="http://www.istitutocomprensivocadeo.it/">http://www.istitutocomprensivocadeo.it/</a></td>
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<tr>
<td>Name of principal</td>
<td>Mr Daniele Barca</td>
</tr>
<tr>
<td>LSL project Lead Teachers</td>
<td>Angelo Bardini, Giovanna Rosi</td>
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**ITIS Majorana, Brindisi | Italy**

<table>
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<tr>
<th>Number of students</th>
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<tbody>
<tr>
<td>Age group of students</td>
<td>15–19 years</td>
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<tr>
<td>School website</td>
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<td>Name of principal</td>
<td>Salvatore Giuliano</td>
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<tr>
<td>LSL project Lead Teachers</td>
<td>Salvatore Giuliano, Daniela Di Giuseppe, Giaocchino Margarito, Rossella Palmizio</td>
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</table>
What types of technologies and resources are available in the Advanced Schools?

The state Comprensivo Istituto di Cadeo e Pontenure is introducing technologies in most of its classes and it is recognised at national level for its effective use of ICT. As a regional service centre it has been involved in assistive technologies for disabilities and dyslexia for ten years: it provides students, parents and teachers with educational aids, assistive and adaptive technologies and training courses on how to use them. Described by the school as a campus for students with Learning Disabilities (LD), it serves the whole province of Piacenza. It consists of a lab-type learning environment (in extra school hours) aimed at learning how to use dyslexia learning aids, resources, software and tools.

The library has a surface of 500 square metres; it is considered by the school as the heart of the educational activity. Its guidelines draw inspiration from the ten “rights of the reader” by Daniel Pennac.1

Since 2009 it has been involved in the project “Classroom 2.0” issued by the Italian Ministry of Education, University and Research (MIUR) with a class from the secondary school and one class from the primary. It has introduced the use of iPads with its own funds in two classes of the secondary school with the aim to become a School 2.0. This means that the school would be given the task to assess and order interactive whiteboards for primary and secondary schools of the province and nearby provinces. Students use the interactive whiteboard and tablets every day; they work in small groups and they are strongly involved in the activities for the whole class as well as in paired work.

The school has established a regular system for all innovation within the school, in order to create a digital curriculum across the different subjects reflecting the progression of the students across the different age groups. The school has provided the students of the nursery school (3 to 5 years old) with a digital wall (touchscreen wall) to let them express their feelings and relations. The students of the primary school (from 6 to 10 years old) have immersive digital content that can be accessed easily and quickly. Students in the secondary school have the opportunity to use technologies every day at school as well as at home.

In ITIS Majorana, the classes are provided with one tablet per student, an interactive whiteboard and WiFi connection. Textbooks are digital and interactive and they are printed out by the school itself, thus reducing the costs for the families. A digital learning environment is available, where students can find recorded lessons in case they are not present. Students’ attendance, activities and performances are tracked and recorded by the use of a personal digital student card.

The WiFi broadband connection is available in the school and since students have their own devices and are responsible for them, they can use them in the school library or in other school areas, thus enhancing the informal learning or peer education sessions during all the school day.

The school council is entirely involved in the use of technology across the school. All curriculum subjects are covered (Italian language, History, Geography, Sciences, Chemistry, English, Physics, Law and Economics, Mathematics, Informatics, Design and Technology, Natural Sciences). The project started in 2007 and has progressively involved new schools into the network.

Digital textbooks, resources and software are regularly used during lessons. In order to keep digital textbooks and resources up-to-date, teachers are involved, together with their peers from the other partner schools, not only in the selection of online digital content but in the production of it, according to students’ learning styles and achievement. The project started mainly because textbooks were considered as not suitable to students and a decision was taken to produce them according to end-users needs and preferences. Some students take part in the review of digital content material and, during the Link Observation Visit, there was an opportunity to hear from some of the students who had authored one of the books.

When the Book In Progress2 project started in 2007, the school was alone in this innovation process. They immediately got the support from the families because this innovation project on textbooks allowed them to save up to 500 € each year and to invest part of that money on personal technological devices.

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2 www.bookinprogress.it/patrocini.php
2. Are there recent national initiatives that have had an impact upon whole school development of ICT?

Indire is the national research institute in Italy in charge of the teacher training at a national level. It is part of the Ministry of Education where the advisers provide policy advice and training, including blended courses on technology.

There are regional offices for the Ministry and each region autonomously issues calls for proposals for schools to apply for funding to support other schools.

The institute has been responsible for the organisation and implementation of several “Actions”. The initial action was to provide interactive whiteboards (IWBs) and training; this was co-ordinated across the country by regional offices for Indire. 36,000 IWBs were installed in schools and schools have bought some of their own; this amounts to approximately 52,000 altogether.

A second action was Class 2.0; the aim of this was to provide students with PC access and to bridge the gap between learning at school and at home.

A third action, School 2.0, was about the transformation of whole school into a flexible environment where teaching and extra curriculum collaborative activities enable collaborative learning – 50 schools, 1,400 teachers and 15,000 students.

The leading teacher, Daniela di Giuseppe from ITIS Majorana, felt that the implementation of ICT over the years by the government has led to “a completely new world, a complete revolution… my teaching is completely different now. I can encourage the students to initiate their own learning; they are at the centre of their own learning path.”

3. Who leads the decisions about the development of ICT?

The Principal in each school is responsible for ICT implementation. “Teachers are proactive and want to learn.” The lead teacher is able to give examples of staff who have taken part in professional development of their own accord, even though it is not compulsory. In both of the schools, there is evidence of a leadership group who meet regularly to review the development of ICT in school.

4. What types of training and professional development are available to teachers?

Training usually takes place in the afternoon, after school. Training is mandatory for NQTs and this is provided by INDIRE at a regional level. Istituto Comprensivo di Cadeo has been promoting ICT training courses at district, provincial and inter-provincial level since 1999. These training courses are organised partly as a frontal lesson and partly as a lab/workshop. Experimental projects are: Classroom 2.0, issued by MIUR, and School Digital Publishing (EDS).

The deputy headteacher explained that the care the school has always taken for technological innovation and training activities has allowed the formation of a group of teachers who provide ICT training within the school and who are recognised as leading users and teacher trainers on the use of ICT.

ICT has been embedded across the curriculum for at least 4 years, the school being spurred by the ministerial project “Classroom 2.0” and by its

1 https://www.gov.uk/teaching-schools-a-guide-for-potential-applicants
interest in testing and experiencing technologies. The teachers of Classrooms 2.0 take part regularly in training courses organised by the Regional School Office together with the University of Bologna.

At present it is promoting training courses, at provincial level, based on the teachers’ needs for a basic use of interactive whiteboards, effective teaching strategies, and development of teaching experiences about integration and inclusion. The school participates in a teaching innovation project (by MIUR) concerning digital publishing and new learning environments.

In this Advanced School in Italy, the motivation for teachers to undertake training is because teachers believe that ICT makes a difference to learning. They help each other to learn how to use new tools. The teachers have not dedicated a regular time to the sharing of practice, but support each other as and when needed. Daniela Di Giuseppe describes teachers in the Advanced School as “proactive and they want to learn.” Teachers have taken part in Continuing Professional Development on their own accord, even if it is not compulsory, and to do this they will attend sessions after school in the afternoon. She comments that “Training is a right and a duty.”

This Advanced School has undertaken training from some commercial providers, e.g. Apple.

In Istituto Compressivo di Cadeo e Pontenure, there are two teachers who are trainers for interactive whiteboards. Several other teachers are external experts for the use of iPads and different subjects. This means that they provide training to teachers from across the region. Training is delivered in the secondary school in the library and in the ICT lab. This school embraces opportunities to engage with teachers from other schools to enhance practice; for example, the lead teacher was able to give the example of three teachers from Milan visiting the school to speak about how to enhance the motivation of students in English using ICT, e.g. with IWBs and learning platforms.

5. How is ICT being used in different subjects?

ICT is being used across the curriculum in History and Geography; the school has identified resources with a variety of images, virtual tours of museums and other places of historical and geographical interest. The primary classes are experimenting with digital publishing through learning environments such as e-books and 3D navigation in the form of a game. In other subjects, such as Italian and Maths, students make use of specific software, learning objects and digital learning content. Through the interactive whiteboard and tablets, either the whole class or groups of students easily gather, compare and reflect on ideas.

In Italy the lead teacher acknowledges that the school believes that having a personal device for each student helps to personalise the learning. Students can work on their own and learn at their own pace. In school, students with specific learning needs are able to access appropriate software. However, the school has recognised that it is useful to identify a list of software for your students.

Students use the interactive whiteboard and tablets every day, making use of digital cameras, video cameras and “apps”. Then they employ specific software for photo and video editing in order to get a final high-quality product. The interactive whiteboard and tablets are a means to provide students with reinforcing/strengthening activities about content that they have already dealt with in class.

The class email and Dropbox supports and enlarges communication modes within the class and with families: this supports students who have long term absence from school.

In addition to technologies students can access in the classroom, the labs for Mathematics and Science, Music, Art have their own interactive whiteboards and specific software.
What kinds of research and development are the teachers engaged with?

The leading school in Italy highlighted how the school has links with some Universities. Across the school staff, most colleagues are engaged in research on the Internet that informs their classroom practice.

Are the Advanced Schools engaged in any partnerships or networks?

Both of the headteachers recognise that it is the headteacher’s job is to raise money for the school and therefore it is important to work in partnership with others. Both of the Advanced Schools have used technology to engage in partnership working with the parents. In ITIS Majorana, the messages from the electronic register are connected directly to the mobile telephone. Parents can see if their child has attended the lessons.

Partnerships with other school are mainly based on projects, they usually last one year, although this is not always fixed. The school is working with some upper secondary schools.

The school is trying to build a virtual relationship with parents. This is the first year of electronic reports on the Web. If parents have problems with access then print outs are available.

At ITIS Majorana, Book in Progress network meets twice a year physically. There are leaders for every subject who collate all the material. Quality assurance is done by the teachers themselves. Teachers volunteer to be involved in the project and they are not necessarily paid, however they can receive incentives from their school.

The school has a good relationship with parents and they are willing to provide financial support to the school. Some parents make voluntary contributions, for example thirty euros per child or 50 euro for two students – nearly all parents believe in doing this.

One of the schools is supported by a local company with the provision of technology. There is a local non-profit organisation — a foundation which helps the school to raise money. This is mainly run by the secondary deputy and local authority.
8. Are there particular areas that could be mainstreamed or replicated?

- Opportunities for the school to open beyond the hours of the school day to the community to use equipment.

- Use of libraries in schools: the school in Piacenza has demonstrated the importance of the library and how the physical space is being used to develop the use of technologies within learning and teaching.

- The afternoon learning labs have allowed technology to be implemented across the curriculum.

- The teacher encourages the students to take different roles in lessons by giving each student a badge with a responsibility with learning activities, e.g. writer, director, reader, presenter, photographer.

- There are whole school projects across the school that involve teachers from different departments.

- The school has given consideration to the tools that the student requires for learning within the “learning rucksack”.

- The creation of digital textbooks by teachers and students.
Observation Case Studies

Italy

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Publisher
European Schoolnet
(EUN Partnership AISBL)
Rue de Trèves 61
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Belgium

Picture credits
Angelo Bardini
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Design
Hofi Studio, CZ

Published
September 2014

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The work presented in this publication is supported by the European Commission’s FP7 programme – project Living Schools Lab (Grant agreement Nº 317587). The content of this document is the sole responsibility of the consortium members and it does not represent the opinion of the European Commission and the Commission is not responsible for any use that might be made of information contained herein.

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Co-funded by the 7th Framework Programme of the European Union