INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR INCLUSION

Italy

1. Policy Frameworks

This information was provided by Raffaele Ciambrone (Executive Officer).

1.1 Policies that impact on ICT for inclusion in the compulsory school sector

At present, the national policy Cl@ssi 2.0 (Cl@sses 2.0) aims to increase the average ICT aids for each class (interactive whiteboards, tablets and laptops, broadband connection, WiFi).

With regard to inclusion, targeted policies have been included in Cl@ssi 2.0. This is the case of the New Technologies and Disabilities (NTD) project, started in 2006 and co-funded with a budget of EUR 10 million by the Ministry of Education and the National Centre for ICT in Public Administration (CNIPA).

It has been structured into seven action areas:

1. creation of a database for supporting devices due to disability;
2. the HANDITECNO portal;
3. website accessibility under Law no. 9/2004, entrusted to the National Research Council (CNR);
4. Local Support Centres (CTS, according to their initials in Italian);
5. CTS operators' training;
6. financing of research projects carried out by schools;
7. dyslexia and other specific learning disabilities.

There are over 90 CTS distributed throughout the provinces. Each centre employs two teacher-operators, who are specialised in new technologies for inclusive education. Today there are 200 operators working in the centres. Each CTS headquarters is located in a 'leading school'.

The core aim of the CTS lies in creating a permanent territorial network in order to collect and disseminate best practices, i.e. knowledge and training courses, other than resources, i.e. hardware and software, for inclusive education through new technologies.

Furthermore, the mission of the CTS is to offer specific support to schools in order to purchase and use these technologies efficiently.

In their first two years of activity, the CTS carried out 260 training courses, involving over 13,650 teacher-operators. Under Action 6, 26 free educational software programs have been created, which can be downloaded free of charge from the Ministry of Education, Universities and Research (MIUR) website.

Through the creation of the CTS, the Ministry of Education initiated a process of development whereby these centres have the opportunity to increase their relationships with and commitment to schools in a fruitful way throughout the territory. They have built up a highly valuable network, based on teachers and operators exchanging and comparing experiences. Such operators have rapidly become promoters of experiments and research in the fields of special educational needs (SEN) and ICT development. Many

of them have also created and made available educational software and, in this way, have developed and disseminated free software utilisation. They collaborate with the CNR Institute of Didactic Technologies in Genoa, the regional assistive technology centres and other research centres.

1.2 Current policy on ICT for inclusion in relation to the main project themes

1.2 (i) ICT as a tool for promoting equity in educational opportunities.

The Italian Ministry of Education leads the project 'International Classification of Functioning, Disability and Health (ICF) – From the World Health Organization's Classification to Planning for Inclusion', which envisages innovative practices in 100 schools. Under the World Health Organization (WHO) classification, the main keys are facilitators and barriers. Therefore, ICT is considered a tool for the development of further facilitators. The ICF project works to extend and experiment with new assistive technologies and aids for inclusion.

1.2 (ii) Access to appropriate ICTs as an entitlement

Under the current Law no. 9/2004, in Italy websites and software must guarantee accessibility and access for people with special needs. Furthermore, the mission of the CTS is to offer specific support to schools in order to purchase and use these technologies efficiently.

1.2 (iii) Training of educational staff in the use of general and specialist ICTs

- Recently, the MIUR initiated a major and ambitious training plan in universities in order to raise teachers' competence levels.

- 35 master's degrees in learning disability have been established to train over 4,000 teachers, thanks to an agreement reached by the national permanent conference of the deans of the faculties of education.

- The Ministry started a further 40 master's degrees devoted to special needs and specific impairments (autism, intellectual disability, ADHD, sensory impairment, etc.), aimed at increasing the number of specialised teams.

- In such master's degrees, some modules are always devoted to ICT and the CTS operators are involved in labs and teaching activities.

- The CTS operators keep on their teaching activity and are employed part-time in the centres, thereby maintaining their contact with the school and its environment.

1.2 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

The CNR in Genoa is specialised in teaching technologies and educational materials and aids and it works in partnership with the Italian Ministry of Education and Research to promote ICT in schools.

1.2 (v) Data collection and monitoring in the use of ICT in inclusion

The National Institute for the Evaluation of the Education System (INVALSI) is in charge of collecting data and monitoring ICT use.

1.3 Strategic plans for implementing policy on ICT for inclusion

The Ministry of Education has structures in place for participation and technical and scientific co-ordination. The Standing National Observatory for Inclusion of Students with Special Needs involves all relevant parents' and civil associations. Moreover, a Technical

Committee and a Scientific Committee have been appointed to monitor the master's degree in learning disability. The President of the National Conference of Headmasters and the President of the Italian Society of Special Education sit on these committees. Through these committees, the Ministry creates links with universities and research.

In addition, there is a joint MIUR–Ministry of Health round table for inter-institutional co-ordination.

Institutional duty for the inclusion of pupils falls under the responsibility of the General Directorate for Students. The General Directorate for Staff is in charge of support teachers.

The MIUR co-ordinates management and control in accordance with the autonomy of educational institutions.

1.4 Monitoring and evaluation of policies or strategic plans relating to ICT for inclusion

INVALSI conducted research in 2010. Please see: http://www.invalsi.it/invalsi/rn/doc_monval/5.Report4%20e5.pdf

1.5 Main policy developments in ICT for Inclusion that have taken place since 2000

Development policies for ICT for inclusion have been developed since the NTD project in 2005/2006. These were shortly followed by on-site experiences in schools, universities and support centres.

1.6 Current issues in relation to ICT for Inclusion

ICT and ICF

Please see Q. 1.2 (i).

1.7 Important short and long-term developments in ICT for Inclusion

The history of inclusion in Italy began in 1977 with the abolition of special courses, schools and classes. In 1992, the Framework Law on Disability was launched. The Law on Learning Disabilities was enacted in 2010. Thanks to the Directive of 27/12/2012 on SEN, all pupils with learning difficulties – not just those with disabilities – have the right to individualised educational interventions. The same Directive also provides for a territorial reorganisation of services related to inclusion, centred on the CTS and Local Inclusion Centres (CTI, according to their initials in Italian) equipped with new technologies.

For instance, in Veneto there are 7 CTS and 44 CTI, comprising a network of more than 50 schools and a leading school in the development of assistive technologies. We are endeavouring to extend this model to all Italian regions.

2. Country Practice

This information was provided by Prof. Pierpaolo Limone (Professor of Education at the University of Foggia).

2.1 Main developments in practice in ICT for Inclusion since 2000 in relation to the main project themes

2.1 (i) ICT as a tool for promoting equity in educational opportunities

At national level, many initiatives focussed on the use of ICT as a tool for promoting equity in educational opportunities have been undertaken in order to test the application of new teaching models.

In the course of recent years – and especially after the introduction of the legislation on school autonomy – various strategic actions, focussed on educating teachers in the informed and strategic use of didactic technologies in order to foster inclusive teaching, were brought to ministerial level.

Such actions took off in two main directions:

1. funding suitable for investment in technologies with the purpose of favouring widespread use of teaching technologies, both in geographical and curricular terms (national plans for investment in interactive whiteboards, also with EU funding);

2. technical and financial support for the achievement of didactic-educational planning in every school type and level with the purpose of defining and validating didactic intervention models using ICTs (classes 2.0; school 2.0; National Digital School Plan, with validity on the Italian Digital Agenda, the national branch of the Digital Agenda for Europe).

Furthermore, the MIUR finances the school network of CTS so that they may be equipped with specific hardware and software that promote inclusive teaching, with particular reference to SEN.

In accordance with Actions 4 and 5 of the ministerial NTD project, the first public network of CTS was founded. This network, which is evenly distributed throughout Italy, offers consultancy and training to teachers, parents and students in the field of applied technologies in support of students with disabilities.

The establishment and operation of the CTS were defined by Actions 4 and 5 of the abovementioned project. The following are the goals of said actions:

Action 4: To create a permanent territorial network that enables the collection, conservation and dissemination of knowledge (good practice, educational courses) and resources (hardware and software) in favour of the didactic integration of students with disabilities using new technologies. The network must be able to specifically support schools in the purchase and efficient use of new technologies for school integration.

Action 5: To implement local educational initiatives for the correct use of technologies aimed at teachers and other school employees, as well as parents and the students with disabilities themselves.

92 CTS were founded throughout the national territory.

In support of the CTS, the Ministry schedules meetings between the regional representatives and the centres' operators for training and discussion on the subject of disability.

The objectives of the CTS are:

- to enhance the role that new technologies offer for the assimilation of students with disabilities in schools;

- to create a permanent territorial network that enables the collection, preservation and dissemination of knowledge (good practice, educational courses) and resources (hardware and software) in favour of the didactic integration of students with disabilities using new technologies;

- to provide support to schools in the purchase and efficient use of new technologies for school integration.

The roles and functions of the CTS were recently reaffirmed in the Guidelines provided for under Article 3 of Ministerial Decree 5669, dated 12 July 2011. More specifically, Clause 6.1 of the Guidelines requires that the Regional School Offices (USR, according to their initials in Italian) see to the strengthening of the CTS, by both increasing their resources (subsidies and specific technological tools for learning disabilities) and further publicising their function as demonstration areas. Moreover, Clause 7.4 requires the USR to adequately promote and incentivise the CTS's actions in support of schools in order to properly respond to the territory's true needs.

The funds allocated to the centres' activities in 2012 were invested in the assistive aids, software and equipment necessary to boost their quality for the benefit of teachers and schools. Throughout 2012, the CTS consolidated their roles as reference centres for teachers, staff members and families; such reference centres not only serve to help in choosing assistive technologies that support the needs of consumers in the field of disability, but in light of the new competences acquired with the implementation decree of Law 170/10, no. 5669 dated 12 July 2011, they have become points of reference for all of the issues related to school integration and to the choice of compensatory aids for students with specific learning disabilities (Ministerial Newsletter no. 83, dated 4 October 2012).

In fact, the majority of consultancy and CTS activities are dedicated to the schools and teachers in need of help regarding the integration of students with learning disabilities into schools, as well as the intervention requests made by families, provided for under Regional Law no. 8 dated 12 May 2008, Regulations on Specific Learning Disabilities.

In spite of such efforts, the problem of training and actual development in inclusive educational settings stems from the fact that the educational interventions that were conducted along with the described strategic actions often gave exclusive priority to training in the use of tools, with little or no methodological reflection as to their application in teaching.

The ministerial actions for the introduction of interactive whiteboards in Italian schools push teachers toward a strong cultural change that has yet to find adequate support in the field of education.

The actual changes intended by the Ministry were achieved 'here and there', that is, only in the few schools that were able to invest the training received into inclusive teaching with ICT and through the use of specific open-source software.

In fact, the majority of schools used the funding exclusively toward the creation of basic computer courses and for the purchase of technological devices, which were soon found to be useless, given the lack of adequate training in their precise and informed use. As for the reforms concerning the school sphere, the development of co-operative approaches such as those required for ICT is obligatory. Unfortunately, however, the lack of careful planning supported by competent staff resulted in a dearth of specific training and fruitless, inadequate computer literacy on the part of the teachers, which is not the same as media education. From an assessment point of view, the evaluation of the ministerial projects was designated entirely for ministerial websites, where teachers ended up alone and

lacking minimal assistance or supervision of their actions. Assessment was too often focussed on the teacher and not on school practice also.

The Italian Government launched a series of initiatives for the introduction of new technologies in the teaching and learning processes in the school environment – more specifically, the use of assistive technologies in support of disadvantaged students, with particular regard to those with disabilities.

One such example is the Cl@ssi 2.0 project, through which the MIUR agreed to offer the possibility of verifying how and to what extent learning environments might be transformed as a result of the constant and widespread use of technology in daily teaching. The Cl@ssi 2.0 action was launched in 156 middle schools during the 2009/2010 school year. The schools were chosen by means of an announcement, divided amongst the regions based on the number of active classes during the 2008/2009 school year and the average number of classes per region. Cl@ssi 2.0 allows students and teachers to use technological and multimedia devices and progressively equips classrooms with apparatus for internet connections. With the support of the National Institute of Documentation, Innovation and Educational Research (INDIRE) and a network of university associates, Cl@ssi 2.0 constructs a didactic project for the testing of advanced teaching methodologies. The project's logic tends to value the implementation of various innovative models that may be disseminated locally, even among schools that did not participate in the initiative. The improvement process that the project hopes to promote is composed of multiple levels, from organisational aspects, to teaching aspects, to the choice of actions, starting from the analysis of the schools' needs, which may provoke the assimilation of technology into the teaching/learning process (in both instrumental and methodological terms). The focus is not on the technology itself, but rather the innovative dynamics that it may trigger.

Another example is that of the project 'Interventions for the Development of Advanced Services in the Schools of Southern Regions', funded with approval from the Inter-ministerial Committee for Economic Planning (CIPE) on 9 May 2003 no. 17, which proposes the development of digital content in support of teaching and the introduction of new ICT to the educational and learning processes by replacing the traditional paradigm of 'Learn ICT' with 'ICT to Learn'. Within this project, a field of intervention related to disadvantaged students was identified. This prompted the Steering Committee – comprised of the Ministry of Public Education and the Department for Innovation and Technology of the Presidency of the Council of Ministers – to request the creation of a specific project. The initiative, called 'Project E-Inclusion', is aimed at the elementary and middle schools of the regions defined as Objective 1 (Basilicata, Calabria, Campania, Apulia, Sardinia and Sicily), in addition to Abruzzo and Molise. It proposes to facilitate the integration and inclusion of disadvantaged students in school life through the use of ICT, with particular attention given to students with disabilities.

2.1 (ii) Access to appropriate ICTs as an entitlement

With regard to hardware and software as didactic support – more specifically as special educational support – numerous actions were undertaken at ministerial level. In addition to the Cl@ssi 2.0 project mentioned above, the Scholarly Digital Publishing project was approved within the macro intervention entitled Digital School. This action is part of the activity plan of the European Digital Agenda provided by the notification dated 5 May 2010 of the European Commission and part of the action plan approved by the Italian Government to improve literacy, proficiency and inclusion in the digital world.

The Action Guidelines, written by a technical-scientific committee, call for multimedia products whose individual components may be utilised by teachers in the development of

customised teaching material. The project aims for the acquisition of 'scholarly digital edition' prototypes that enable effective interaction with digital technologies and contribute to the creation of new learning environments. The purpose of the Scholarly Digital Publishing project is to test digital content for both individual and group study. The initiative additionally serves as an action trigger in the world of publishing to inspire the creation of innovative publishing products. The plan involves the acquisition of 20 prototypes, that is, examples of 'scholarly digital editions' that cover a significant portion of the curricula. The scholarly digital edition prototypes will be obtained through 20 acquisition procedures issued by numerous school institutions throughout the national territory, divided among elementary, middle and high schools as well as polytechnic and professional institutes. Another example in this regard is the Notification for the Presentation of Planning Ideas for Smart Cities and Communities and Social Innovation referred to in the Director's Decree prot. no. 391/Ric dated 5 July 2012, with which the MIUR allocates EUR 655.5 million to interventions and to the development of smart cities throughout the national territory. The MIUR identified multiple areas for the development of proposals, including schools. More specifically, it calls for the presentation of proposals for:

– the design of innovative devices for students that support both the reading of electronic books, with suitable screens and resolutions, and offer ease of access and use, with architectures that are compatible with the main operating systems;

– multimedia digital content that is accessible online;

– a Learning Management System (LMS) capable of supporting all of the management functions necessary for the customisation of learning paths, in terms of timetable flexibility and backup for on-site activities, as well as a dynamic group framework and tools for the management of students;

– Content Management Systems (CMS) that may be integrated into LMS environments, aimed at teachers for the development of multimedia digital content.

A research and development campaign aimed at the institutional prototyping and production of multimedia publishing and inclusive teaching products would be beneficial (useful for SEN, foreigners, etc.). A good example of multimedia publishing is Anastasis, a publishing house which proposes that software and tools that can improve learning are not only for pupils with difficulties, but can be used autonomously, even by private users.

2.1 (iii) Training of educational staff in the use of general and specialist ICT

The education of teaching staff and all the academic staff in contact with students with SEN is vitally important to promote inclusive teaching strategic actions using ICT. Such technology plays an increasingly decisive role in the learning process. It will ultimately entail a significant change in teachers' work, given that students would encounter a world that is completely different from that of the classroom they have known thus far.

During the 2007–2009 period, the Ministry of Public Education approved 'I CARE', a project involving a strategic action in support of research-action interventions designed for the structuring of inter-institutional networks in order to:

– initiate self-assessment practices regarding the 'inclusiveness' of social environments into which minors with SEN are inserted (the class, school community, family, country);

– define the strategic intervention actions to improve the qualitative levels identified by the strategic diagnosis carried out during the start-up phase.

In the context of such actions, some of the inter-institutional networks initiated and financed by the ministerial measure have proposed and approved the use of ICT to favour

the processes of inter-institutional communication and/or improve the degree of inclusiveness in educational communities.

The main goal of the 'I CARE' project was to promote training methods dedicated to the participation of teachers, who must be involved not as mere recipients, but as professionals who reflect upon and put in place teaching methods geared toward effective integration into normal, everyday school life.

In a context characterised by the autonomy of school institutions, the Ministry agreed to provide instruction on on-going support of the schools', supervisors' and teachers' initiatives.

The common thread that brought the national 'I CARE' plan to fruition was the belief that all students have the right to learn.

More recently, in the years 2010–2012, the MIUR approved the plan entitled 'ICF – From the World Health Organization's Classification to Planning for Inclusion' as a continuation of the 'I CARE' project. Following the model that was already tested for 'I CARE', the plan called for financing for the inter-institutional networks, awarding those already committed to the 'I CARE' project in order to favour the production of models for the application of the ICF tool in the school curriculum. Within the context of such experiences, ICT also proved to be instrumental for network activity, as it was chosen to improve the inclusiveness of environments, even non-school ones, for people with SEN.

The Cl@ssi 2.0 project has also particularly focussed on educating teaching staff – not in terms of instrumental literacy aimed at the mere 'technical' use of technology, but rather as a methodological-didactic education focussed on the integration of technologies intended as indispensable tools in support of inclusive teaching. The project, at least in its intentions and educational goals, was determined to translate training into consolidated educational practices. Unfortunately, this transition did not always occur in every region, thus resulting once again in a rather 'sporadic' education.

Teacher education is currently favoured by the most recent legislative innovations in the field of specific learning disabilities (implementation decree of Law 170/10 no. 5,669 dated 12 July 2011), which gave various incentives to in-service teachers in compulsory education. Education dedicated to learning disabilities promotes inclusive practices, starting from educational paths that require digital and innovative methodological-didactic expertise.

2.1 (iv) The promotion of ICT research and development requiring a multi-stakeholder approach

The first documents and legislative measures already call for the necessity of a territory-based inter-institutional connection in order to guarantee the quality of school intervention; intervention that is only part of the broader process of social integration of the person with disabilities. The CTS represent a point of connection that attends to the documentation, resources and services in relation to the process of school integration of people with disabilities.

On a national planning level, scientific research has always considered the involvement of stakeholders (like families and students) as a key factor. More specifically, research based on the evidence of cases for the European Community's projects has always advocated the multi-stakeholder approach in the development of research activities.

On the other hand, families were hardly ever taken into consideration with regard to specific actions. Moreover, the majority of interventions regarding ICT for inclusion

excluded serious and timely monitoring actions. Essentially, the politics of good practice had no success in the schools.

All of this demonstrates the existence of an alarming division between what is planned at research level and actual classroom intervention.

In addition to the establishment of CTS, a further attempt to promote and develop ICT using a multi-stakeholder approach is Law no. 4 of 2004, the *Legge Stanca*. This law deals with the topic of accessibility in terms of inclusion and integration of citizens from disadvantaged categories, and indicates the steps to be taken to facilitate the establishment of a context in which the culture of accessibility proves to be widespread. In legislative material, the term 'accessibility' refers to the ability of computer systems, in ways and within the limits permitted by technological knowledge, to supply services and provide usable information without discrimination, even to those who, due to disabilities, are in need of assistive technologies and special configurations. Furthermore, under the decree on technical regulations, an atmosphere of consensus and engagement is guaranteed for all of the operators, the most representative user associations, the producer associations, the developers and anyone else interested in the issue of accessibility.

All of these elements foster the creation of an environment that is culturally and civilly evolved, throughout which the concept of inclusion is widespread.

It must be specified that the new Code on Digital Administration (Legislative Decree no. 235/2010) has further raised the accessibility and usability levels of public institutional communication tools with respect to SEN.

2.1 (v) Data collection and monitoring in the use of ICT for inclusion

The following is an example of ministerial monitoring for CTS:

New Technologies and Disabilities Monitoring and Assessment Project, Actions 4 and 5 – Territorial Support Network and Local Training Interventions.

The cornerstone of development and overall implementation of the New Technologies and Disabilities project is represented by the interventions planned in Actions 4 and 5, which aim to structurally support the schools, through the creation of CTS, in using technology to help to integrate students with disabilities.

The goal of the supervision implemented by INVALSI was to acquire information on the implementation status of the New Technologies and Disabilities project in relation to actions 4 and 5, both at regional level and with regard to each individual CTS, in order to enable the revision of certain organisational methods and the promotion of support and correction initiatives according to emerging needs, for the full achievement of the anticipated objectives. While setting up the project's monitoring plan, two aspects were kept in mind:

1. the mandate of the commissioner directed toward the collection of regional and provincial data and the identification, at the end of the monitoring, of indicators for the assessment of overall service effectiveness;

2. the necessity to reach the highest possible number of CTS during the execution of local exploratory visits (third objective established by the Convention).

INDIRE, with INVALSI and the inspection body of the MIUR, is part of the national system for assessment on the subject of education and training, and is also responsible for collecting data related to disability.

INDIRE has a website (http://www.indire.it/) that serves as an archive of national and international data and instructions for the use of ICT in school education. For example, in relation to the project Cl@ssi 2.0, an online catalogue of all of the projects presented, with updated and downloadable data, is available from this link: http://www.indire.it/alert/content/index.php?action=read_cnt&id_cnt=13872

Furthermore, a virtual environment was designed within the Digital School approved by the MIUR (http://www.scuola-digitale.it/elenco-dei-progetti/), which contains all of the projects promoting the use of ICT for inclusion that are supported by or carried out with the participation of the MIUR.

2.2 ICT to promote learning in inclusive settings

2.2 (i) Country-based networks to support teachers in using ICT to promote inclusive learning

Italy supports teachers in their use of ICT to promote learning in inclusive settings through the network of CTS. In each region, schools that are traditionally involved in the development and improvement of teaching methods within inclusive settings were called by the USR to support teachers in a school network corresponding to a district. As a result of professional peer-teaching, Italy has a national network of schools (CTS). With the assistance of public funding, these centres are able to help the schools in their area engage in the challenge of improving the achievement of pupils with disabilities. A soft-law document (*Guidelines for Special Educational Needs*) reorganising the country-based network of CTS was published on 27 December in order to improve their outcomes.

2.2 (ii) Initial teacher education in using ICT to promote inclusive learning

Today, the development of technical competences tied to the use of ICT is the first necessary step in educating teachers, but it is not the final destination: the ultimate goal is to build teacher professionalism.

In the Italian system, numerous reforms have radically changed initial teacher training. Minister Gelmini signed the Initial Teacher Training Regulations, which were essentially founded on four fundamental principles, among which there is particular emphasis on new technologies and on careful, focussed preparation for the integration of students with disabilities.

The following constitutes an integral part of the educational paths for initial teacher training:

- the acquisition of linguistic proficiency in the English language at level B2, as required by the Common European Framework of Reference for Languages, adopted by the European Council in 1996;

- the acquisition of the digital competences required by the Recommendation of the European Parliament and of the Council of 18 December 2006. More specifically, such competences abide by the capacity to utilise multimedia languages for the representation and communication of knowledge, the use of digital content, and, more generally, the use of simulation and virtual laboratory environments. In order to extend full fruition of such to students with SEN, the digital content must be defined in accordance with criteria that ensure its accessibility for all students.

With the new system, for the first time specific attention was given to the issues of students with disabilities, calling for training sessions in all courses that will provide teachers with basic preparation on special needs.

Currently, initial teacher training does not provide teacher with the competences necessary to use ICT to promote inclusive learning in their teaching. The new law (2010) concerning initial teacher training contains only a general suggestion, as it establishes that each teacher involved in the *Tirocinio Formativo Attivo* (Teachers In Training) course must know about SEN and the role of technology in promoting inclusive learning. For this reason, Italy should encourage policies that are sensitive to teachers' training needs with regard to SEN.

2.2 (iii) Practical support in classrooms to help teachers' use of ICT to promote inclusive learning

From an instrumental point of view:

Teachers in classrooms are aided by the use of interactive whiteboards, as well as laptops, PC netbooks and iPads. Such tools are not evenly spread among all schools or in all areas, despite the efforts of national projects in recent years, backed by institutional and scientific networks from the start, to help the schools buy and use them.

From a procedural point of view:

In their daily routines, the schools and, therefore, teachers lack reference and support figures for the informed use of ICT to foster inclusive educational settings. In fact, in the field of autonomous schools, certain individuals that are crucial to the fulfilment of the educational offer were elected by the Teachers' College with the purpose of supporting the implementation of the Educational Offer Plan (POF). Depending on the specific profile of the educational offer of each school institution, it should be possible to identify a support function specific to the teachers' needs in regard to didactic methodologies based on the ICT; however, only a few schools seem to be oriented in this direction. Nevertheless, some school institutions are equipped with specialised technical staff that provides support in laboratory education.

Unfortunately, teacher training has never been seen as an integrated activity and has therefore always taken place during afternoon hours, requiring teachers to make an extra effort that goes beyond their strict working obligations. Integrated training should take place during school hours and thus ensure that the expert is always familiar with the class's daily situations in order to pragmatically resolve the problems observed by teachers.

In practice, this type of setting, which is challenging and significant from a pedagogical point of view, encounters numerous difficulties. In fact, it clashes with the duties required of a successful teaching role under the National Collective Labour Agreement (CCNL). An intervention on the part of political decision makers, planned with the union organisations, is essential in order to specifically tackle the issue. Therefore, in order to foster high-quality inclusive teaching through ICT, teachers must be appropriately supported in their daily practices. To make this possible, the aspects that render pedagogical and cultural models inclusive in the school context must be identified, together with the difficulties that teachers may encounter on a daily basis and the role that technological devices may have in a real inclusion process. Various ministerial initiatives have planned and continue to plan scaffolding actions for teachers on the part of experts in media education and special education. An additional necessity is that of facilitating the creation of teacher networks for the fruitful exchange of information, material and knowledge, thus favouring the development of communities of practice where endeavours are mutual – not because everyone shares the same ideas and practices, but because these are negotiated collectively.

The Cl@ssi 2.0 project also required particular 'assistance' to teachers on the part of university tutors assigned directly in the classroom. The coaching activity amounted to an on-the-job intervention geared toward the teachers' acquisition of competences for the improvement of their professional performance (cf. Recommendation of the European Council 2006: Key Competences for Lifelong Learning).

Another example is given by the AESSEDI (Accessibility of Didactic Software) project, part of a broad institutional context tied to the implementation of Law 4/2004, art. 5, which extends the obligation to purchase accessible software applications to schools. The inclusive teaching design involved the creation of an online communication platform where each teacher had the opportunity to exchange thoughts with their work team and with colleagues from different contexts.

2.2 (iv) Important information sources about new developments, hardware and software products and ideas for using ICT to promote learning in inclusive settings

At national level, many networks exist thanks to associations made up of teachers, volunteers or families of students with special needs. Such networks may provide useful support in teaching individuals with special needs and in their daily use of ICT.

The following are some of the main networks:

- http://www.educationduepuntozero.it/: This is an online community dedicated to the world of education; it is open to all of the participants in the school world (teachers, supervisors, trainers, students, parents, etc.). All of the users may analyse, discuss and share personal experiences and express opinions by posting articles and comments.

- http://www.auladigitale.rcs.it/index.shtml: Digital Classroom is a virtual environment intended to guide teachers on their annual teaching course. It was created for the modern schools of today, which cannot disregard the possibilities offered by technology, multimediality, interactivity and the web.

- http://www.didaweb.net/index.php: Didaweb is a community of academic staff committed to collaborative research/actions. The Didaweb community works to guarantee, through the involvement of all its registered members, the publication of quality teaching material. The ultimate purpose of the Didaweb community is to achieve a virtual school, a network of individuals who create learning-to-learn tools that are supportive, collaborative and free.

- http://www.accaparlante.it/: the Handicap Documentation Centre Association attends to disability, social problems, voluntary work and the non-profit sector. The association and co-operative are committed to serving as a cultural laboratory open to the subjects of disadvantage and diversity.

- http://www.altrascuola.it/: this is a space dedicated to teachers and students for information and training in the use of new technologies. The principal objective is to stimulate the growth of an advanced 'teaching culture' that is tied to co-operation and the construction of knowledge. It is more than merely a school portal.

- http://www.asphi.it/index.htm: the Onlus ASPHI Foundation promotes the integration of people with disabilities into school, work and society through the use of ICT. ASPHI performs various activities with the primary purpose of using technology to improve the quality of life of people with disabilities. The foundation also aims to share its own knowledge and expertise, so that the results obtained from years of work may have a broad influence and supply an increasingly better answer to needs.

- Furthermore, the archive of documents, written and run by the MIUR http://archivio.pubblica.istruzione.it/ brings together all of the ministerial material related to education.

2.3 Current obstacles to using ICT to promote learning in inclusive settings

The main obstacles identified are, in order of priority:

1. Resistance to change on the part of teachers, who too often complain about not having enough time to dedicate to 'additional' training as they must follow a programme that already requires a lot of commitment. Teachers are reluctant to question or modify their teaching methodologies, which are by now consolidated.

2. Despite the fact that the schools, particularly those in the south, were recipients of the European Social Fund and European Regional Development Fund as they are located in Objective 1 – convergence regions (Apulia, Calabria, Campania, Sicily), and are therefore adequately equipped in terms of resources, the culture of use and 'methodological' maintenance of such equipment is inadequate. Furthermore, they lack the will to re-establish the entire curricular approach based on laboratory procedures.

3. School institutions do not have the custom of designing curricula as didactic-educational laboratories, revising entire approach methods or making sure the widespread use of ICT enables the restructuring of learning environments, paces and spaces.

4. The absence of adequate materials and equipment in schools. This does not mean that the schools must be equipped with the latest technologies; rather they must have stable, consolidated devices that are chosen in a suitable manner that does not entail constant technical maintenance.

2.4 Factors that support using ICT to promote learning in inclusive settings

- the existence of teachers that are quite motivated and willing to invest their time, outside working hours, in specific training at methodological-didactic level;

- the presence of a supervisor with consolidated pedagogical expertise, who is able to direct and monitor the teaching class as well as motivate it to change;

- the availability of legislative and ministerial actions in favour of inclusion by way of educational plans focussed on teachers. An example of such is Law 170/2010, which protects the right to study of children with specific learning disabilities by identifying and aiming for new didactic forms, appropriate assessment methods and specific teacher training.

2.5 Perceived short and long-term developments that will have an impact on ICT for Inclusion practice

The following are among the most important future projects:

- The incentive for continuous training is in action; evidence of such has already been demonstrated by the master's courses in SEN for teachers, which include the effective use of technology. There is also the addition to the National Collective Labour Agreement for Teachers of the obligation to receive training, that is, a course on professional improvement based on a system that assesses teachers, school institutions and the entire academic structure.

- The education of school directors: this represents a fundamental element because school directors must know how to strategically procure local funds and sponsors to support the school. School directors must have pedagogical and didactic competences, and perhaps past teaching experience, in order to effectively train a teaching class that is currently elusive.

- The planning of an assessment system for the schools and school directors that is able to synergistically utilise internal and external assessment on paths of continuous improvement; moreover, a system that is based, where necessary, on actions of business process re-engineering that are useful for generating effective change, that is, real innovation.

- The accessibility of school websites is very partial, despite the new Code on Digital Administration, in force since January 2011 (Legislative Decree no. 235/2010 published in the Official Gazette dated 10 January 2011, no. 6), which constitutes a systematic body of regulations with the objective of creating juridical and organisational conditionals that allow for the final transition from an administration based on paper and direct contact with citizens, to a digital administration (which some may call a 'web 2.0 administration') inspired by operative models and communication tools that are capable of fully benefitting from the advantages and potential of new technologies.