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EUROPEAN TRADE UNION COMMITTEE FOR EDUCATION
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Report

Closing Conference of the

European eLearning Forum for Education 2 (ELFE 2)

Bled, 14-15 September 2009

ETUCE CSEE

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1. Pre-conference event

The evening before the conference, a pre-conference event took place. It was an informal working dinner where representatives from schools that had contributed to the ELFE 2 project, and teacher unions working with ICT in education, had the opportunity to present their experiences and discuss these with the participants.

Hans Laugesen, project coordinator of the ELFE 2 project, welcomed the participants and introduced the programme for the evening.

The first presentation was given by **Troels Graff Nystrøm**, teacher at Grantofteskolen in Denmark. He presented their experience with installing interactive whiteboards in every classroom of the school. He underlined the necessity of the school allowing time for teacher training in the use of the new technology, but also the importance of colleague-to-colleague learning.

Fridis Sarcevichs, of the Auce Secondary School in Latvia, presented his school's work concerning ICT. This includes using ICT in practically all subjects and also involving students in building their own ICT hardware.

Tamara Strefnel from the unit of schools in Rogow, Poland, gave accounts of how video is frequently used in teaching at the schools, and also of how students are involved in the creation of the schools' homepage.

Silvester Tratar, headmaster of the Upper Secondary School for Electrical and Computer Engineering (VEGOVA) in Ljubljana, Slovenia, related their experiences with teacher training in ICT and with "school informatisation".

Allan Kjaer Andersen, principal of Ørestad Gymnasium in Copenhagen, Den mark, presented his school's pedagogical vision that has ICT as a core element. He also presented their work on creating an ICT-strategy for the school – pointing out that *"work really starts, when you have enough computers."*

Marcin Stanowski of Czacki Secondary School in Warsaw, Poland, presented their use of ICT, especially in physics and astronomy classes, but also in relation to the school's annual drama-festival.

Two of the participating teacher unions also gave presentations on their efforts and strategies concerning ICT:

Andrew Parry-Williams from NUT, United Kingdom, gave an account of their extensive computer training programme for teachers, which has now been running for ten years. Approximately 1600 teachers have been enrolled, and key elements of the programme are to arrange the trainings close to where teachers live, and to have a maximum of 15 teachers in each class. 85% of participants have been women, and the programme is also very popular among supply- and part-time teachers who often miss out on in-service training.

Bert Imminga from AOb, Netherlands, gave the last presentation of the evening. The topic of the presentation was: "Use of ICT in schools by professional teachers and the role of teacher unions" – presenting the AOb strategy on ICT. AOb is working with a concept of teachers' professional space – in relation to ICT this involves:

- Teachers should have influence on the ICT policy at school
- Teachers are responsible for the quality of learning and teaching, and for the use of ICT
- Teachers can only be responsible if they have influence.

Among other things, Mr. Imminga also encouraged all teacher unions to put pressure on authorities to use the European Pedagogical ICT licence – EPICT.

2. Introduction

2.1 Welcome words

Mr. Martin Rømer, ETUCE General Secretary, welcomed the participants to the Closing Conference of the ELFE 2 project.
He explained the ETUCE commitment to the issue of ICT in education. ETUCE seeks to support national teacher unions in understanding the key factors influencing a successful use of ICT in education, and also encourages national teacher unions to get involved and initiate discussions on what use of ICT they aspire.

It is a goal to ensure that the teachers' point of view is taken into account on how their profession should evolve with ICT. Based on research, ETUCE also seeks to provide guidelines to national teacher unions on how to make best use of ICT. Lastly ETUCE is involved in EU lobbying i.e. for more funds for mutual learning.

Mr. Rømer also pointed out **the current situation concerning ICT in education in Europe** as shown on the slide on the right.

The focus of the ELFE 2 project has been on how to ensure an added value of ICT use in education. The main objects of study have been schools and teacher education institutions. There has also been a focus on the link between school management, school financial organisation and how well teachers are prepared to use ICT in their classes.

The targets of ELFE 2 have been:

- To link policy to practice and support evidence-based policy-making
- To provide national teacher unions with information on the current situation in schools and teacher education institutions (5 test countries)
- To provide national teacher unions with recommendations on the organisational and pedagogical use of ICT, with the aim to develop pupils' digital and eLearning competences

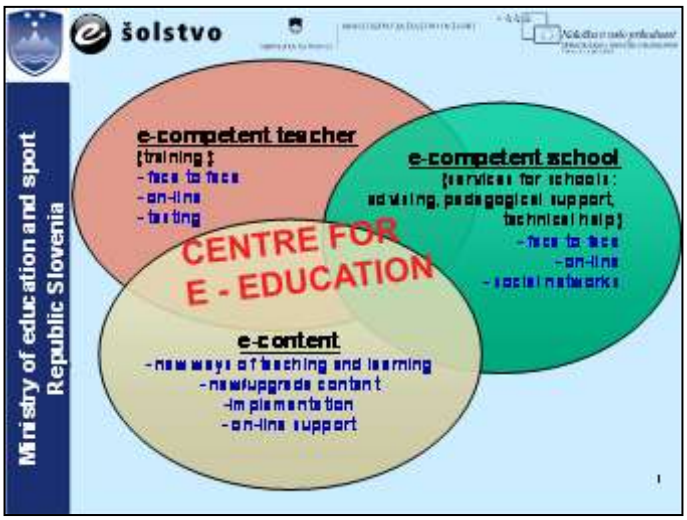
Mr. Rømer finished his introduction by outlining the objectives of the ELFE 2 Final conference.

2.2 Opening speech

Mr. Borut Campelj, Undersecretary of the Slovenian Ministry for Education and Sport, opened the conference by welcoming participants to Slovenia, and introduced the ICT-activities of the Slovenian Ministry for Education and Sport. In 2009 a Centre for E-education has been inaugurated as a focal point for the Ministry's three main focus areas:

The e-competent teacher: Catalogues for an e-competent teacher standard, the competent school ICT organiser, and the ICT school leading team have been developed, and seminars have taken place.

The e-competent school: This area involves advice on ICT for school leading teams, didactical support and advice for teachers, and technical help.



E-content: This area involves new ways of teaching and learning, new content or upgrades, implementation, and on-line support.

Mr. Campelj went on to explain that all Slovenian schools have free internet access, and access to a school network, that is used for both administrative and pedagogical matters. He expressed his wish to learn from the conference and the participants, and gain inspiration for future ICT strategies.

3. ICT in education

3.1 Learning, innovation and ICT - A new discourse for eLearning

Ms. Godelieve Van den Brande, European Commission, DG Education and Culture gave a presentation concerning ICT and education from the point of view of the European Commission. She presented the results of a number of studies that are complementary to the work done in the ELFE 2 project

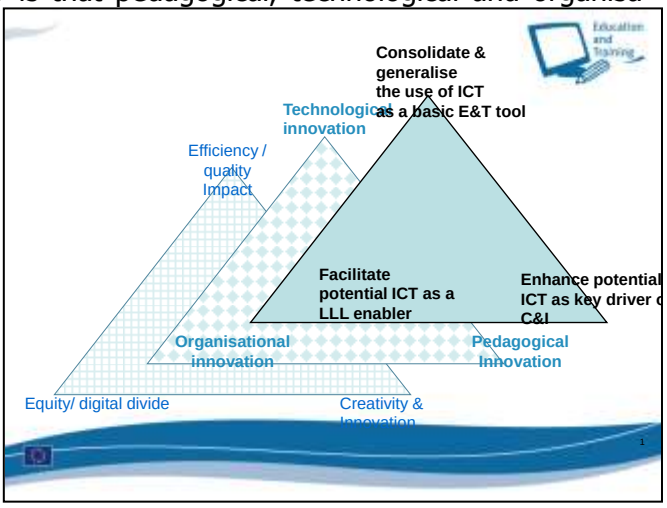
Ms. Van den Brande first presented the European Commission Staff Working Document from 2008 (European commission, 2008) on the use and impact of ICT supporting innovation and lifelong learning. The working paper concludes that on an overall level there is strong progress on access, use and quality of ICT. However **the transformation of business and public services through ICT has not yet reached the teaching and learning processes**; embedding ICT in education and training systems requires further changes; and further work is needed on the potential of ICT to develop a "learning continuum" supporting lifelong learning.

Furthermore three key challenges concerning ICT and innovation are outlined in the working paper: pedagogical, technological, and organisational innovation. According to Ms. Van den Brande, especially pedagogical innovation needs attention at this point.

Three priorities emerge from the challenges presented in the working document:

1. To consolidate and generalise (mainstream) the use of ICT as a basic education and training tool
2. To facilitate the potential of ICT as a lifelong learning enabler
3. To enhance the potential of ICT as a key driver for innovation and creativity

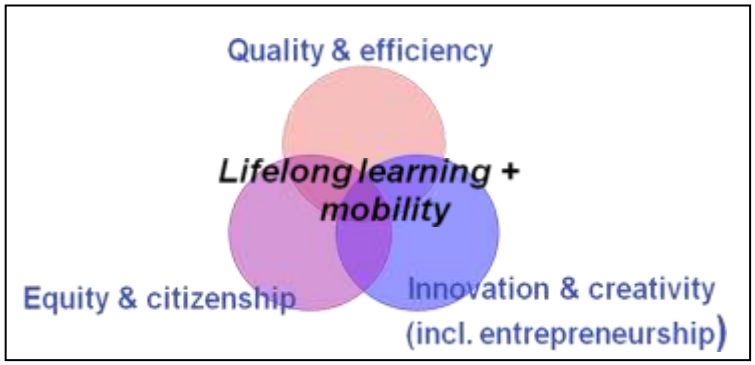
The final conclusion of the working paper is that pedagogical, technological and organisational innovations demand a renewed and more comprehensive approach towards the role of ICT in education and training.



Ms. Van den Brande also discussed **efficiency and quality and the Impact of ICT**. Here she referred to the STEPS-study, *The study of the impact of technology in primary schools* (Empirica/ EUN, 2009).

Concerning the impact by ICT on learners, among other things the study finds that skills and competence development are supported by ICT, and that ICT helps children to better understand. On the other hand the study also found that learners may lack basic computer skills, and that there is a discrepancy between home and school ICT use. The impact on teachers is, among other things, described as improvement of motivation and teaching skills, and creation of constructive learning environments. On the other hand, the study also concludes that **ICT is pedagogically under-used** – it is more used for administration, organisation and planning, and that there is a lack of pedagogical vision concerning ICT. Regarding impact on schools the study among other things concludes that school leader support is crucial, and that ICT should be used in classrooms rather than computer labs.

Digital competence is, according to Ms. Van den Brande, also to be seen as **a core life, employment & career skill**, and it is important to discuss what types of skills and competences need to be learned for the new jobs of the future. New technologies will undeniably play a major role as triggering new skills for new jobs, and to find new and more effective ways of operating, supporting pedagogical and organisational innovation. She went on to define digital competence as a basic life skill that involves the confident and critical use of Information Society Technology (IST) for work, leisure and communication, and that is underpinned by basic skills in ICT: the use of computers, and exchange of information (e-skills).



Ms. Van den Brande finished her presentation by pointing out the strategic challenges for ICT in education – summed up in this diagramme.

3.2 Key-note speaker presentation - Tjeerd Plomp, Universiteit Twente

Professor Tjeerd Plomp, who was involved in the ELFE 1 project as a project expert, gave a presentation on his perspectives on ICT in education.

Professor Plomp started his presentation by underlining the importance of using a "curriculum perspective" when discussing ICT in education, which entails seeing learning as an interaction between actors and goals of education. In the Knowledge economy or Information society, knowledge is no longer primarily knowing facts and theories and being able to reproduce them ('old' knowledge, reproductive skills), but an ability to find relevant data and to derive meaning from it (lifelong learning skills) ('new' knowledge, productive skills).

He went on to define **Lifelong Learning Skills** as:

In new circumstances, being able to

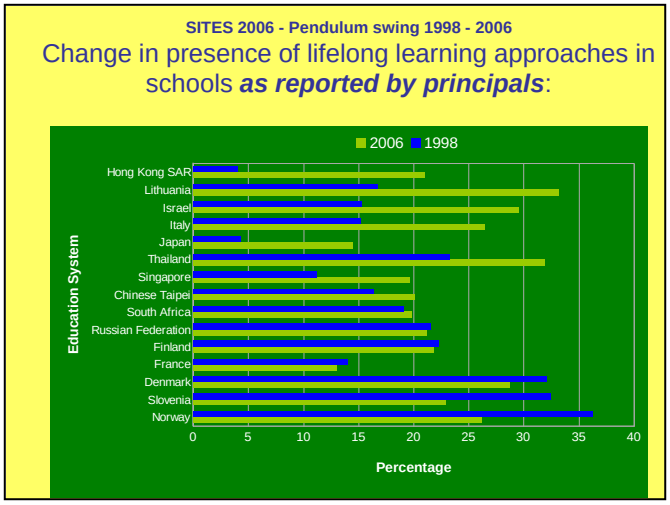
- generate and evaluate answers to open, non-standardized questions
- set own learning goals
- plan and regulate own learning
- evaluate own progress

All in all there is a need for analytical, creative and synthesizing skills.

Professor Plomp presented a definition of **21st century skills**:

- Ways of thinking – involving creativity and innovation, critical thinking, problem solving, decision making, and learning to learn
- Ways of working – involving communication and collaboration (teamwork)
- Tools for working – involving information literacy (includes research) and ICT literacy
- Living in the world – involving citizenship – local and global, life and career, and personal & social responsibility (including cultural awareness and competence)

These changes imply that **a different balance has to be found between 'old' and 'new'** elements in teaching. It becomes central to enable learners to participate more actively and to make them more responsible for arranging their own learning process. The role of the teacher simultaneously becomes more that of a 'professional coach.'
According to Professor Plomp, there is an obvious role for ICT in realising these new visions of teaching and learning, but this does not entail a neglect of 'old' knowledge', or of what has traditionally been valued as important knowledge and skills. Schools should reflect a good balance between what is traditionally valued and what is considered important in the information society.



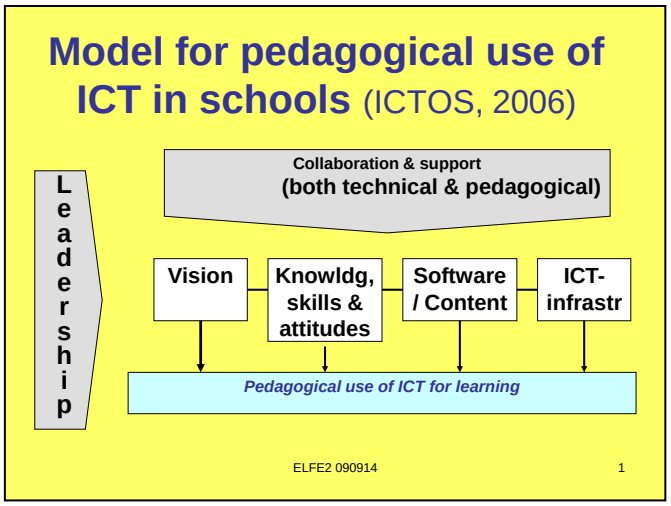
Furthermore **change should be perceived as a process, not an event**, meaning that it is not reasonable to expect schools and teachers to change at 'a point in time'. Some schools may introduce step-by-step new elements in their curriculum and pedagogical approaches. And other schools may decide for different emphases and priorities.

It is also important to understand that the **use of ICT does not automatically foster a pedagogical paradigm in line with the needs of knowledge society.** Researchers have observed a development labelled "the pendulum swing", where some countries are actually experiencing a decreasing presence of life-long learning approaches in schools. (SITES 2006)

A study concerning factors that influence the innovative use of ICT in education has also been carried out (Drent, 2005). The most important factors turned out to be:

1. Student oriented pedagogy
2. Positive attitude towards ICT
3. Years of computer experience
4. Personal entrepreneurship (of teachers)

Number 3 and 4 are deemed to have the strongest influence.



Professor Plomp summed up his presentation by presenting a model for pedagogical ICT in schools. As the model illustrates a number of factors are at play in this process.

To create a successful process of implementing pedagogical use of ICT in schools, **a balance is needed between 'top down' and 'bottom up' processes**. 'Top down' is understood as *direction and facilitation,* and Bottom up*'* as *space for entrepreneurship.*

4. Findings and policy recommendations from the ELFE 2 project

4.1 Final report from the ELFE 2 project research in schools and Teacher Education Institutions

Ulf Fredriksson, University of Mid-Sweden, and Elżbieta Gajek, University of Warsaw - both ELFE 2 project experts - presented the draft final report from the ELFE 2 project.[1]

ELFE 2 aims and methodology

Picking up where ELFE 1 ended, ELFE 2 aims at:

- Obtaining a better understanding of the strengths and weaknesses of using ICT in education
- Identifying methodologies applied to favour the use of ICT to promote added learning value
- Developing recommendations to policy-makers, schools and teacher education institutions, and trade unions on:
    - ICT and teacher education
    - ICT and school management
    - ICT and strategic use of available financial means

The research instruments for this research included: information on each school's background, ICT infrastructure, and on the pedagogical and organisational aspects of the intensive use of ICT in the school.

The schools studied in the project were all secondary schools and were selected according to a number of criteria, including that the **schools should be schools receiving 'normal' funding** as opposed to schools that receive extra budgets and support as part of a specific project; that the use of ICT in the schools should be aimed at **pedagogical methods** (e.g. student centered pedagogy) and/or addressing **new curricular goals** (e.g. goals related to developing lifelong learning skills); and that the schools should be regarded as **advanced in respect of ICT use** in their countries. The teacher education institutions (TEIs) were selected using largely the same criteria.

The project has been based on a case study-approach. For this reason it is not possible to generalise from observations – neither to the national, nor the European level. Since the schools and TEIs involved in ELFE 2 were selected because they were believed to have an advanced practice concerning ICT-use, their experience may however show us the risks and opportunities that schools will meet in the years to come.

The findings of the ELFE 2 project

The visited schools were fairly well-equipped with ICT hardware such as interactive whiteboards, computer equipment to facilitate experiments, video and sound editing, and video recording systems. Schools used different types of software - e.g. PowerPoint to support lectures, different computer programmes and web pages to illustrate issues for students,

[1] The final report from the ELFE 2 project will be available on the ELFE 2 homepage when it is finalised.

and the internet to find information. In the context of ICT-based communication the project found that the schools used internet and e-mail learning platforms to post general information about the school to an audience outside the school, to disseminate information to teachers and students and to create archives with information, to facilitate contact with other schools, and for distance education.

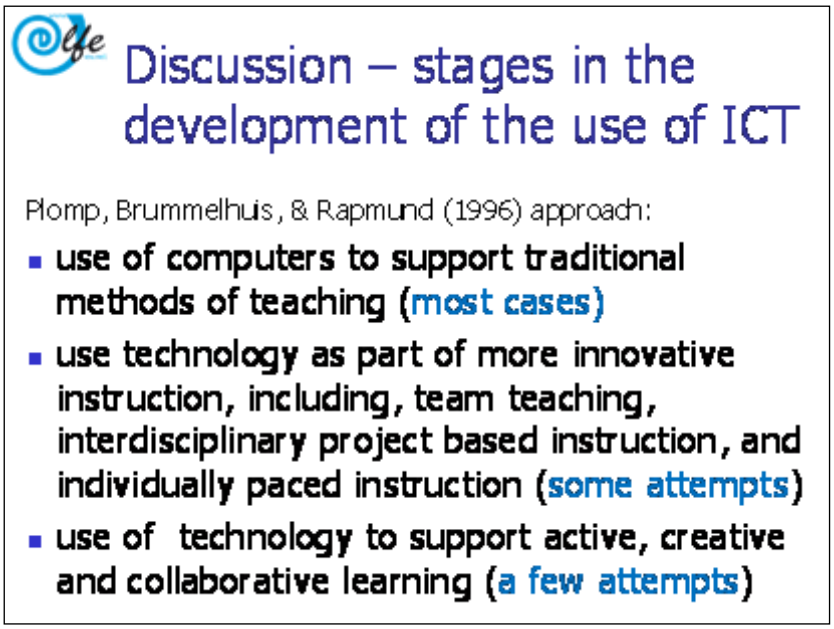
Concerning **factors that support or hinder the use of ICT in schools**, the project found the following factors important:

- ICT infrastructure available in school and at home
- Shared vision of the use of ICT
- Margin for trial and error
- Link between academic research and teaching practice
- Link between teacher training and teaching practice
- Teachers' enthusiasm and confidence
- In-service formal and informal training focused on ICT-based instruction

The situation in teacher education institutions revealed more differences than in the studied schools. The project found that the closer the cooperation between educational research departments and the school practitioners was, the more advanced and intensive teacher training in ICT-based instruction took place.

The project found that both public and private financial means are used to provide hardware in schools. Budget primarily seemed to be needed for maintenance of the infrastructure, technical support, and teacher training.

Furthermore it was concluded that the Head teacher's enhancing and supportive role had been important for the use of ICT in the schools. It was also found to be significant if ICT was included in the school's vision or not.

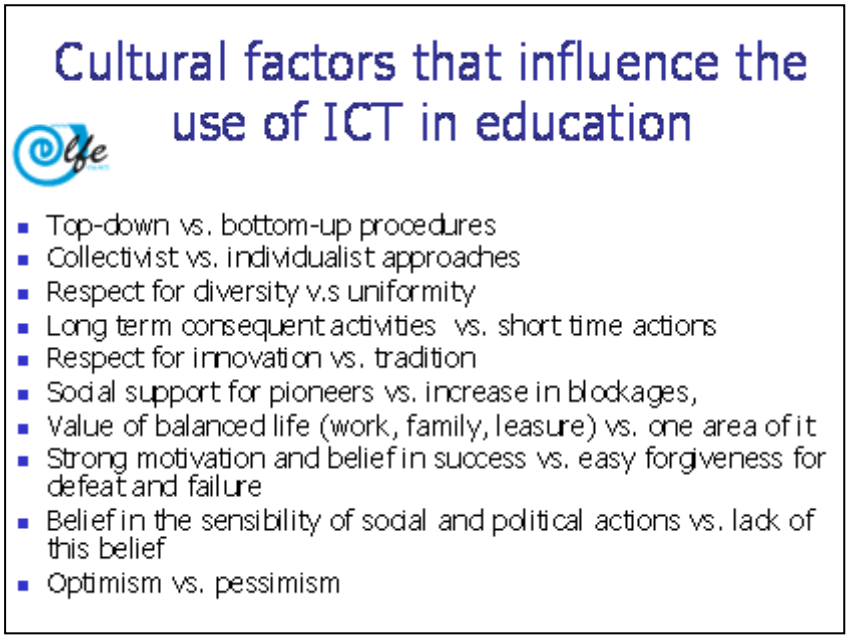


Concerning ethics of ICT-based instruction, the project found that issues such as intellectual property, copyright, safety, netiquette, gaps between teachers' and students' computer literacy, and teacher professional conduct were prominent.

Furthermore the **stages in the development of the use of ICT** in visited Schools and TEIs were discussed. Most schools and TEIs used computers to support traditional methods of teaching, and only a few attempts of using technology to support active, creative and collaborative learning were observed.

In teacher education the interesting challenges are to combine pedagogical theory and practice, and to transform students' personal computer literacy into professional literacy.

Regarding the possibility for the studied schools to continue their work and to further develop it, despite budgetary challenges, pedagogical practices and the positive attitude towards change and innovative practices can be sustained in the institutions visited, and transferred to any other school.



Ms. Gajek finished the presentation by elaborating on a number of **cultural factors** that influence the use of ICT in Education.

4.2 Presentation of the ELFE 2 policy recommendations

Hans Laugesen, ELFE 1 and ELFE 2 project Coordinator, presented the draft ELFE 2 policy recommendations.

He started his presentation by outlining the goals of using ICT in education. ICT is a valuable instrument for training students in the use of modern technology, and for training them in new competences such as information collection, project work and entrepreneurship. There is no evidence in the two ELFE projects or in the Handbook on Information Technology in Primary and Secondary Education (Voogt & Knezek, 2008), that students learn more in subjects by using ICT.

Referring to a recent PISA study on ICT use in Denmark, Mr. Laugesen outlined the gender inequality dimension. Boys in Denmark are among the best in Europe, and the overall performance of girls in ICT-use is very low. Since the teachers of boys and girls are the same, and the same level of technical equipment is available, this is a **pedagogical challenge** for teachers.

There are also un-used possibilities concerning ICT. Some schools use ICT as a passive overhead-projector for PowerPoint presentations, or a type writer to register marks or assessments. This use does not however exploit the possibilities for training new working methods and creativity.

So what should teachers do? To this question, there is no easy recipe and no solution to fit all. However it is important that teachers get inspiration from in-service training, other schools, and colleagues. It is important to speak with students about their use of ICT – get an understanding of how playing and learning interacts. Furthermore school policy on ICT-use must be discussed with teachers, and there must be room for trial and error. Teachers working in teams should agree on the use of ICT and possible variations, to avoid conflicts and confusion.

Concerning funds, Mr. Laugesen stressed the need for funds for equipment, support, and proper training. Funding should allow time for teachers to reflect and room for errors. He also stressed that public funds must be sufficient to meet the requirements. Many schools today rely on sponsorships, and here it is important to consider how schools can stay in full control of pedagogical decisions, and how they can continue their activities after the sponsorship period. Furthermore schools should not be part of advertising programmes.


Final Policy Paper

ELFE 2 Policy Recommendations

ELFE 2 policy recommendations

Given the relevant hardware and software and given the appropriate support, **teachers** should give consideration to reflect on pedagogical changes, to experiment with new tools, and to participate in professional development, in teacher networks, and to follow innovative developments. They should also reflect on applying blended learning where one mixes traditional teaching with ICT. Teachers should furthermore ensure that they include all students when using ICT. ICT can also be used to create contacts between classes in different schools and countries.

School leadership should give consideration to discuss and develop the school's ICT goals and policy with teachers, and support the policy in the school's budget. They should also encourage variety in teaching, and respect that development of new practices requires time to plan and reflect. It is also important to promote a culture where you can learn from mistakes. Teachers should be offered the relevant in-service training, and supported in cooperation and exchange of experience both at school level and between schools.

Teacher education institutions should give consideration to integrate training in pedagogical use of ICT in teacher education. Furthermore the establishment of partnerships between teacher education institutions and schools to strengthen the pedagogical use of ICT is

recommended. They should also give consideration to focus more on research in the pedagogical use of ICT.

Teacher unions should give consideration to promote that teachers engage in relevant use of ICT, and at the same time monitor the workload and protect the teacher from being available 24 hours a day. Teacher unions can also play a role in promoting exchange of experience between teachers both at school level and between schools, and in identifying teachers' needs for ICT-based instruction and promotes long-term continuous in-service training. Teacher unions should also consider calling for authorities to find necessary funds for equipment, support, professional development and to offer time to develop teaching.

National and local authorities should give consideration to ensure that the political vision and expectation for using ICT at school corresponds to the learning requirements in the curriculum and in each subject, and furthermore provide the necessary funds to implement the political goals set up for the use of ICT at schools. This should include funds for equipment, support and the professional development of teachers. National and local authorities should also give consideration to provide funds for research and pilot projects on the pedagogical use of ICT, and strengthen the focus on pedagogical use of ICT in teacher education.

European Commission should give consideration to support member countries in their efforts to provide teachers with adequate training in the use of ICT, and in providing internet access in all schools. Support should be continued for information exchange between schools, teachers' and pupils' exchanges and networks. Initiatives in schools and research that aim at deepening teachers' knowledge on pedagogical use of ICT should also be supported. Furthermore the European Commission should influence international surveys like TIMSS and PISA so the evaluation of 21st century skills becomes more visible in the published results.

ETUCE should give consideration to promote these recommendations in dialogue with the member unions and in the European institutions. ETUCE should also look for funds for a follow-up project focusing on pre-service and in-service training on the use of ICT in education. Furthermore ETUCE should monitor the development on the pedagogical use of ICT by arranging seminars on the topic every two to three years.[2]

5. ICT in education at the national level

5.1 National education programmes on ICT in Europe

Professor Emeritus Jef Moonen, of Universiteit Twente, gave his perspectives on ICT in education. He remarked that he could not give an overview of national ICT programmes in Europe, but that he would

[2] The full policy recommendations are available on the ETUCE homepage. The recommendations are complementary and the concerned actors are dependent on each other to put them into practice.

instead focus on a limited number of aspects and make some remarks that might be useful for the final policy recommendations.

Professor Moonen first pointed out that the problem has never been to find pioneers in ICT. The problem is to reach the majority of teachers.

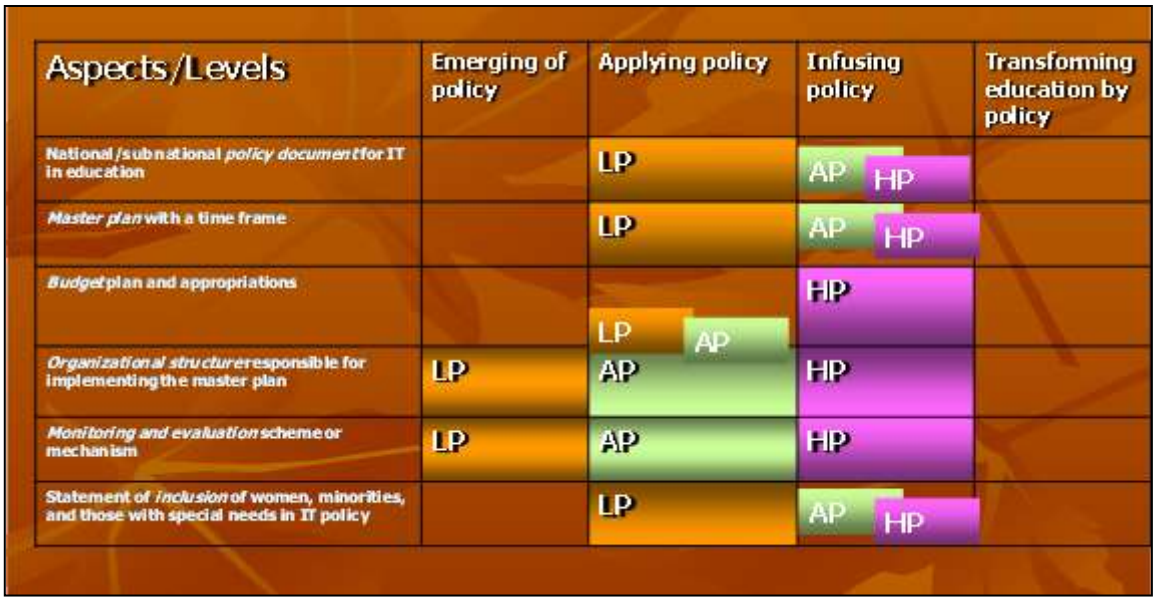
A very important aspect is always to **look at the context**. Learning-related processes supported by technology always take place within a complicated mix of personal, social, organisational, and cultural contexts. Therefore there are no simple answers. Three levels of context to consider, when discussing ICT in education, are:

- Macro level: Technological & social context
- Meso level: Curriculum context
- Micro level: Daily classroom practice context

Macro-level: A way to look at the technological and social context is to look at "e-readiness" rankings of countries. E-readiness is a measure of the quality of a country's ICT infrastructure and the ability of its consumers, businesses and governments to use ICT to their benefit. The average e-readiness (for the world) rose again from 6.24 to a score of 6.39 in the 2008 rankings. However this overall progress masks some backtracking among some countries, and in particular within the rankings' top ten countries.

There is a tendency for the specific focus on ICT to fade away as ICT is becoming more omnipresent. A mismatch is developing between increasing global use of technology and decreasing explicit focus on ICT in government policy - also for education. ICT is becoming less separate from other, broader aspects of teaching and learning.

Meso-level: At the meso- or curriculum level, countries can be grouped as 'high performing (HP)', 'average performing (AP)' and 'low performing (LP)' (Voogt & Knezek, 2008). These groups can be related to six aspects of curriculum implementation, and to four levels of implementation, as it is visualised in the chart below.



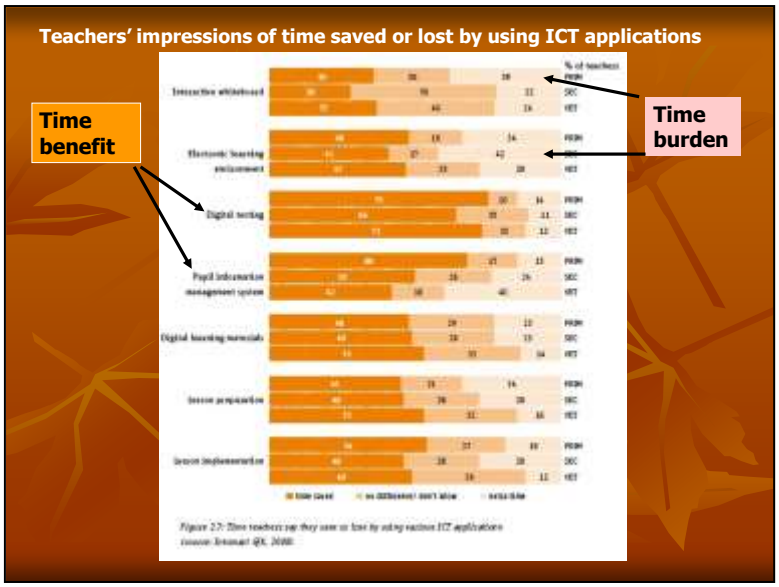
In most countries ICT is successfully introduced in schools following a logical sequence of events: initiating a policy, providing technical ICT infrastructure, and teacher training.

The sequence of events continues to the infusing phase and to the aspiration for pedagogical and curricular change as well as content development. However the use of ICT as a pedagogical tool in subject areas is not a major success, and transformation towards a change of the educational structures, including new teaching/learning processes, is not yet occurring.

It seems that we are in a transitional period – a recent study from the Netherlands shows that while there is a lack of transformational change *within* the existing educational structures and *formal* learning because of ICT, ICT creates a very substantial transformational change in society, *outside* of the school system and is supported by *informal* learning.

Micro-level: At the micro-level – the daily classroom practice context. Professor Moonen found it important to stress that there is a distinction between ICT as 'core' versus 'complementary' technology. Where policy focuses on the 'core' technology, daily practice also involves complementary technologies which are difficult to influence on a large scale. Professor Moonen pointed to a tendency to use ICT as a 'container' term, forgetting the distinction between specific 'core' ICTs and others.

It has recently been shown that three out of four teachers feel they lack incentives to improve the quality of their teaching (OECD TALIS report 2009), this means that education authorities need to provide more effective incentives for teachers. It is also important to consider the time teachers perceive to gain or lose using different ICT applications as shown in the table on the right.



6. Discussion of the ELFE 2 Policy Recommendations

6.1 Debate in working groups

The participants were encouraged to discuss the policy recommendations and give their input in two working group sessions held during the conference.

During the **first working group session** groups were chaired by members of the ELFE 2 Steering Committee: Karen Robinson, NUT,

UK, Dorota Obidniak, ZNP, Poland, and Elżbieta Gajek, University of Warsaw, Poland.

The groups discussed the policy recommendations, each focussing on different target groups of the recommendations. In general the groups all agreed with the recommendations. Some suggestions were made for a reorganisation of the recommendations in a different order and some precise suggestions for changes of wording were handed over to the ELFE 2 Steering Committee for consideration when revising the document.

The recommendations also sparked a number of discussions of a more general character. One group discussed the importance of teacher unions developing clear visions of how to work with ICT. Emphasis was put on the discussion of responsibility for ICT-training - whether it is the teacher trade union's responsibility to train teachers, or the government and municipalities' responsibility.

Another group discussed how traditional top-down education can be changed with the use of ICT. ICT was seen as an opportunity for more bottom-up oriented education, involving a new role for teachers. Furthermore the issue of teachers' motivation to work with ICT was discussed. It was the experience of the group that many, especially younger teachers, are increasingly critical of mainstream software and prefer to work with freeware and open access tools. This non-profit track was found worth pursuing by the group.

The **second working group session** was chaired by Steering Committee members Ulf Fredriksson, University of Mid-Sweden, and Ilze Trapenciere, LIZDA, Latvia. A third group was chaired by Sandi Modrijan, ESTUS, Slovenia. In this second round of working groups the topic for discussion was: *"How and what use should be made of the policy recommendations at national level?"*

One group outlined three ways in which teacher unions could use the recommendations. Teacher unions could inform about the recommendations at national level, demand training for teachers, and have discussions within the union about the use of ICT in schools. Another group also came up with a concrete list of actions and suggestions for teacher unions. Some of the suggestions were to: arrange discussions in schools with school leaders; give suggestions for the ministry of education; arrange conferences and seminars; lobby governments to implement the European Pedagogical ICT drivers licence (EPICT); collect good practices on how ICT can change schools, and disseminate them; and to translate the recommendations to make them accessible for a national audience.

The third group had a discussion on roles. What should the respective roles of the Ministry of Education, parents, teachers and trade unions be? Some participants had experience with parents contributing financially, buying ICT equipment for the school. Other participants were however concerned that an approach like this would give the parents too much power in schools, which might limit the autonomy of the teachers - for example concerning the pedagogy used in class.

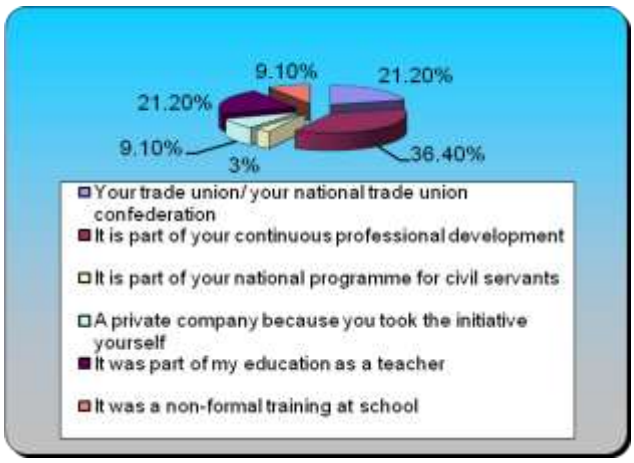
All in all the working groups were an opportunity to share experiences and strategies among teacher unions, while at the same time providing valuable input for the work on finalising the policy recommendations by the ELFE 2 Steering Committee.

6.2 Plenary debate

As this was the closing conference of the ELFE 2 project, a plenary debate was held where participants gave their views on a possible follow-up project to ELFE 2, concerning ICT, teacher education and pedagogical methods.
Some of the suggestions made were to experiment with methods and develop models for pedagogical use of ICT, and to study and work with teachers' time-use in relation to ICT.

7. E-survey on participants, unions and ICT

In the spirit of the conference topic, an e-survey of participants and their opinions, experience and use of ICT was carried out. 40% of participants were from Eastern Europe and 60% from Western Europe. One of the first questions was "How often do you work with ICT?" – 97.8% answered "every day", and only 2.2% answered "a few times a month or less." So the vast majority of participants were very frequent users of ICT.



Another question concerned participants' training in ICT. 71.1% had received training in ICT and 28.9% had not. To the question of who provided the training, 21.2% answered that it had been provided by their trade union or trade union confederation, 36.4% answered that it was part of their continuous professional develop-

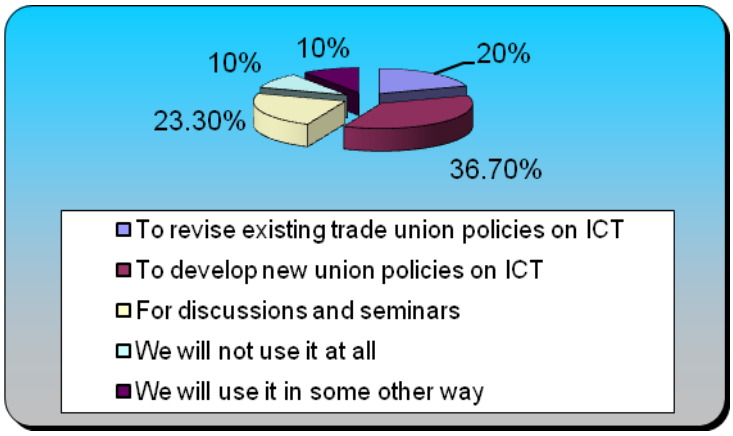
ment, 3% answered that it was part of a national programme for civil servants, 9.1% had received training from a private company because they took the initiative themselves, 21.2% had received training as a part of their education as a teacher, and 9.1% had received a non-formal training at school. Among other things, this tells us that, though this is not a traditional task for trade unions, they play a role in providing ICT-training for their members.

A third question was: "Do your national education authorities support the use of ICT in education?" 62% answered "financially and policy-wise", 9.3% answered "financially", 18.6% answered "policy-wise", and 9.3% answered "neither". So it seems that the majority of participants have a good starting point for cooperating with, and putting pressure on their national governments on issues concerning the pedagogical use of ICT in schools.

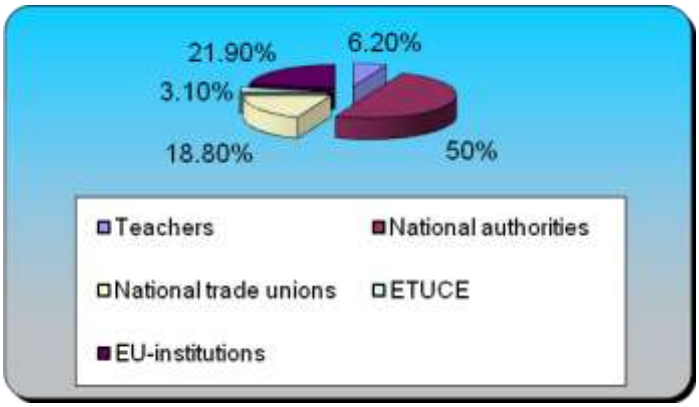
Participants were furthermore asked whether or not their trade union has a special ICT policy. It turned out that the majority (57.9%) did not have such a policy. The existing ICT policies seem very diverse. 14.3% are based on a good practice example of a school; 14.3% are based on an international partnership; 17.9% are a result of a national programme; 25% are based on negotiations with national authorities; and 28.6% fall into the category "others".

Asked how their trade union is using the ELFE 1 recommendations in their ICT policies, 11.5% of participants answered that they are using them as a starting point for launching activities, 38.5% are using them as a stimulus for further work on ICT in education, and 50% answered that so far the ELFE 1 policy recommendations have not been taken into consideration.

Yet another question concerned how participants planned to use the recommendations from ELFE 2. 20% planned to revise existing trade union policies on ICT; 36.7% planned to develop new union policies on ICT; 23.3% planned to use the recommendations for discussions and seminars; 10% answered that they would not use them at all; and the remaining 10% stated that they would use it in some other way. The majority of participants hence see a use for the ELFE 2 policy recommendations in their future work with ICT in education.



The participants were finally asked whom the ELFE 2 recommendations primarily should address. 6.2% answered that teachers should be addressed; 50% thought that they should address national authorities; 18.8% answered they should be directed at national trade unions; 3.1% thought that ETUCE should be addressed; and 21.9% thought that the recommendations should focus on EU-institutions. It is clear that participants consider national authorities to be a very central actor in the implementation of the ELFE 2 policy recommendations.



8. Conclusions

The ELFE 2 Closing Conference, set in the nice country scenery of Bled, was an overall fruitful meeting with interesting speakers and experts. The participants from ETUCE member organisations, ELFE 2 schools and experts engaged eagerly in the working group discussions and exchanged good practices and information on eLearning in education in the various countries. Most importantly they gave their input to the policy recommendations on the use of ICT in school. After the conference, the ELFE 2 Steering Committee discussed the comments the participants made on the policy recommendations to prepare the final set of recommendations. The policy recommendations were approved by the ETUCE Executive Board in October 2009 and adopted.

Regarding the opportunity to establish a new ELFE project, Martin Rømer pointed out that the field of ICT in education is in constant development and funding sources are being reorganised. Due to competition with many other good project proposals sent to the European Commission from other organisations, the timeframe and starting point of a follow-up project could not be defined at the closing of the ELFE 2 conference. ETUCE nevertheless continues its commitment to the topic of ICT in education and persists to seek funding for a new ELFE project.

9. List of abbreviations

AOb	Algemene Onderwijsbond - Dutch Teachers Union
ELFE	European eLearning Forum for Education
EPICT	European Pedagogical ICT Licence
ESTUS	Education and Science Trade Union of Slovenia
ETUCE	European Trade Union Committee for Education
ICT	Information and Communication Technology
IST	Information Society Technology
LIZDA	Latvian Education and Scientific Workers' Trade Union
NUT	National Union of Teachers
OECD	Organisation for Economic Co-operation and Development
PISA	Programme for International Student Assessment
TEI	Teacher Education Institution
TIMSS	Trends in International Mathematics and Science Study
ZNP	Związek Nauczycielstwa Polskiego - Polish Teachers Union

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11. Annexes

Annex 1: Agenda

Agenda
ELFE 2 Final Conference
European eLearning Forum for Education 2

Golf Hotel Bled, Slovenia
14-15 September 2009

Sunday, 13 September 2009	
18.30 - 19.00	*Registration pre-Conference event*
19.00 - 21.30	Working Dinner ***Martin Rømer, ETUCE General Secretary*** ***Presentations from schools and teacher unions***

Monday, 14 September 2009	
09.00 – 09.30	*Registration*
09.30 – 09.40	Welcome words ***By Martin Rømer, ETUCE General Secretary***
09.40 –09.50	Opening speech ***By Borut Campelj, Undersecretary of the Slovenian Ministry for Education and Sport***
09.50 – 10.30	Learning, innovation and ICT ***By Godelieve Van den Brande, European Commission, DG Education and Culture***
10.30 – 11.10	Key-note speaker presentation ***By Tjeerd Plomp, Universiteit Twente***
11.10 – 11.40	*Coffee break*
11.40 – 12.40	Final report from the ELFE 2 project research in schools and TEI ***By Ulf Fredriksson and Ela Gajek, ELFE 2 project experts***
12.40 – 14.00	*Lunch*
14.00 – 15.00	Presentation of the draft ELFE 2 policy recommendations ***By Hans Laugesen, ELFE 1 and ELFE 2 project Coordinator***
15.00 – 17.00	Debate in working groups on policy recommendations (including coffee break)
17.00 – 18.00	Working group reports

19.30	*Dinner*

Tuesday, 15 September 2009

09.00 - 09.30	National education programmes on ICT in Europe ***By Jef Moonen, Universiteit Twente***
09.30 - 10.30	Debate in working groups on how and what use should be made of the policy recommendations at national level.
10.30 - 11.00	*Coffee break*
11.00 – 12.30	Discussion of the Recommendations
12.30 - 12:40	Closure of the Conference ***By Martin Rømer, ETUCE General Secretary***
12.40 – 14.00	*Lunch*

Annex 2: List of participants

Country	Organisation	Name	First name
Belgium	ACOD	Deckers	Hugo
Belgium	COC	Gregorius	Peter
Belgium	SLFP	Wargnies	Isabelle
Belgium	SLFP	Dehut	André
Bulgaria	SEB	Takeva	Janka
Bulgaria	SEB	Damianova	Kounka
Bulgaria	PODKREPA	Petrov	Julian Ivanov
Bulgaria	PODKREPA	Nalbantova	Elena Ivanova
Cyprus	KTOS	Kahraman	Aysun
Cyprus	KTOS	Ozden Ozhur	Mustafa
Cyprus	KTOS	Umit	Tanju
Cyprus	POED	Apostolos	Apostolides
Cyprus	KTOEOS	Eraslan	Adnan
Cyprus	KTOEOS	Arman	Olcan
Cyprus	OELMEK	Nicolaides	Pantelis
Cyprus	OELMEK	Constantinou	Theodoulos
Cyprus	OLTEK	Savva	Stephanos
Denmark	GL	Madsen	Peter
Denmark	DLF	Illum	John
Finland	OAJ	Arra	Olavi
France	SNES	Clair	Jean-François
France	SNUipp/FSU	Olivier	Michelle
Germany	BLBS	Kraft	Knut
Greece	OLME	Aggelikh	Fatourou
Hungary	FDSz	Szabó	Gábor
Hungary	FDSz	Kis Papp	László
Hungary	PDSZ	Kerpen	Gábor
Ireland	INTO	Kealy	Lori
Ireland	INTO	O'Sullivan	Tom
Israel	ITU	Almog	Liora
Israel	ITU	Tselon	Gabriela
Italy	UIL Scuola	Bernardino	Andreocci
Latvia	LIZDA	Berce	Aina
Latvia	LIZDA	Bensone	Aija
Lithuania	CTUEW	Staneviciene	Virginija
Malta	MUT	Wright	Karl
Malta	MUT	Germani	Elaine
Netherlands	Aob	Imminga	Bert
Poland	NSZZ "Solidarność"	Leszczynska	Elzbieta
Poland	NSZZ "Solidarność"	Rachwalska	Malgorzata
Portugal	FNE	Bragança	Maria Arminda

Portugal	FNE	Silva	Paulo Jorge
Romania	Alma Mater	Borzan	Marian
Romania	F.S.I. Spiru Haret	Andrei	Daniel
Romania	F.S.I. Spiru Haret	Hadambu	Stelian
Slovakia	ZPŠaV NKOS	Kubinová	Agata
Slovakia	ZPŠaV NKOS	Hustava	Stefan
Slovakia	OZPŠaV	Pavelková	Eva
Slovakia	OZPŠaV	Kovár	Vladimir
Slovenia	ESTUS	Modrijan	Sandi
Slovenia	ESTUS	Campelj	Borut
Spain	FETE-UGT	Novell	Elvira
Switzerland	SER	Rohrbach	Samuel
UK	NUT	Parry Williams	Andrew
Non-EU/EFTA/ candidate country			
Kosovo	SBASHK	Latifi	Fatzgim
Kosovo	SBASHK	Kelmendi	Esat
Speakers			
Belgium	European Commission	Van den Brande	Godelieve
Netherlands	Universiteit Twente	Plomp	Tjeerd
Netherlands	Universiteit Twente	Moonen	Jef
Steering Committee			
Sweden	External expert	Fredriksson	Ulf
Denmark	GL	Laugesen	Hans
Slovenia	ESTUS	Vehovec	Andreja
Poland	ZNP	Obidniak	Dorota
Poland	External expert	Gajek	Elzbieta
Sweden	External evaluator	Jedeskog	Gunilla
Latvia	LIZDA	Trapenciere	Ilze
UK	NUT	Robinson	Karen
Representatives of schools			
Denmark	Grantofteskolen	Graff Nystrøm	Troels
Denmark	Ørestad Gymnasium	Kjaer Andersen	Allan
Latvia	Auce School	Sarcevics	Fridis
Poland	School in Rogów	Strefel	Tamara
Poland	Czacki Secondary School	Stanowski	Marcin
Slovenia	Upper Secondary School of Electrical and Computer Engineering, Ljublijana	Tratar	Silvester
Interpreters			

	Interpreter	Herzet	Dominique
	Interpreter	De Keyster	Charlotte
Staff			
Belgium	ETUCE	Rømer	Martin
Belgium	ETUCE	Obretenova	Iva
Belgium	ETUCE	Flocken	Susan
Belgium	ETUCE	Hansen	Agnete

Annex 3: List of available PowerPoint presentations from the conference

Presentations given in the plenary:

- **Martin Rømer**, ETUCE General Secretary: Introduction
- **Borut Campelj**, Undersecretary of the Slovenian Ministry for Education and Sport: Opening speech
- **Godlieve Van den Brande**, European Commission, DG Education and Culture: Learning, innovation and ICT - A new discourse for eLearning
- **Professor Tjeerd Plomp**, Universiteit Twente: On ICT in education: some perspectives
- **Ulf Fredriksson**, Mid Sweden University & **Elzbieta Gajek**, University of Warsaw: ELFE 2 Draft Final report
- **Hans Laugesen**, ELFE 2 project cooirdinator: ELFE 2 Draft Policy Recommendations
- **Professor Jef Moonen**, Universiteit Twente: National Education Programs on ICT in Europe

Presentations given by schools and teacher unions at the pre-conference event:

- **Fridis Sarcevidis**, Auce Secondary School, Latvia
- **Tamara Strefnel**, Unit of Schools in Rogow, Poland
- **Silvester Tratar**, Upper Secondary School of Electrical and Computer Engineering, Ljublijana, Slovenia
- **Allan Kjaer Andersen**, Ørestad Gymnasium, Denmark
- **Bert Imminga**, AOB, Netherlands
- **Marcin Stanowski**, Czaki Upper Secondary School, Poland

All presentations are available for download at the ELFE homepage:

www.elfe-eu.net

They can be found under the headings "Events in ELFE 2" and "Closing Conference, Bled, 14&15 September 2009"

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