Learnovation Vision Paper 1

"Inspiring young people to become lifelong learners in 2025"

November 2009

A Vision for 2025:
"Being a Lifelong learner becomes a condition of life. Technologies, due to their massive and common use in everyday life, acquire an emancipating power on people's opportunity and ability to learn, favouring a spontaneous tendency towards meta-cognition and ownership of their learning process"

1. Introduction

This Paper presents the Learnovation vision for 2025 within and around the formal education system, including primary and secondary schools as well as Vocational Education and Training. There are a number of characteristics shared by these three Lifelong Learning areas (or territories):

- Normally, all or most of a school system's elements **are institutionalized, controlled and regulated by the state**, irrespective of whether they are operated by the state or other public bodies or by private initiatives. The same is true for VET in almost all developed countries, where an institutional framework characterizes the respective processes, at least for initial VET and increasingly also for continuous VET. The training of teachers is almost completely institutionalized and the training of trainers is partly institutionalized.
- This area is "**shaped by formal learning**". Although informal learning constitutes an important part of system flexibility and it is acknowledged to contribute substantially to the achievement of learning results, the dominant concept here is that of formal learning.
- Schooling, VET and the employment of teachers and trainers is mostly funded by **public money** or in some cases through public privileges, such as exemption from taxes, public subsidies, etc.
- All three territories are usually assumed to be the **core structural "engine" of a society**, which will deliver equal opportunities for living, through equal opportunities for learning. Therefore, we rarely find unregulated markets serving only individual needs in this case as society meta-needs, such as social inclusion always play a role.
- All three territories **rank highly in public debate**, as they are crucial for shaping the future and the goal-setting processes of society

The Vision Paper is structured around **three main blocks**: state of the art of innovation, expected future and recommendations to reach the desired future scenario, which consists of long- term recommendations for 2025 and a short- term agenda on urgent actions to be taken as of 2010 to enable the desired scenario(s) to be put into practice.

The paper must be seen as a component of the whole Learnovation effort to refresh the EU's vision of innovation and ICT for learning and is based on a number of research results that can be accessed through www.elearningeuropa.info/learnovation.

2. Formal education state of the art of innovation in learning

If one had to provide a visual metaphor about the current status of innovation in formal education, it would be individuals (or groups of individuals) walking forwards while looking backwards. A strive towards innovation has been the permanent status of education systems for decades and the introduction of new technologies for learning has implied increasingly higher pressure on education systems to innovate. The implicit and utopian belief that innovation in education could occur as fast as technological innovation has pervaded our mindsets, but we still have to confront scattered innovation in this area. The good part is that innovation is shifting from pilot successful cases within EU countries to systemic innovation in (some) EU countries, but the phenomenon cannot yet cover the European dimension. Below, some insights are provided on "wrong beliefs" from the last decade in the area of formal education, with a strong influence on innovation and linked both to the issue of technology for learning and to the broader policy issue.

Beliefs in shortcuts from consensus to success - At the beginning of the so called e-Learning action plan there was a strong implicit belief that synchronising the aims and goals of all actors would automatically lead to the launching of actions that would enable these goals to be achieved. This assumption failed, as it underestimated the amount of rhetoric within these promises as well as their potential to activate all types of resistances.

Beliefs in indicator-led consensus and policy definition - This is typical for the way the Lisbon goals were originally defined, with a rather syllogistic model of interdependencies, e.g. if all citizens engage in lifelong learning, the Union will become (almost automatically) the most competitive and most inclusive society worldwide. These approaches, based on a certain historical amount of shared enthusiasm, turned out to be too simplistic to be workable, and in particular mixed up possible mainstream solutions with procedures, which had proven their functioning only at pilot level.

Beliefs in global benchmarks - The period was characterised by serious attempts to introduce benchmarking instruments to the field of educational institutions. These comparative global benchmarks (such as PISA) offered a high potential in alerting the public by triggering intensive discussions on education and its role in society and on the national position within an international framework. However, in many ways they failed to offer guidance in a systematic, comparative manner using effective processes, in order that innovation in education could be based on a proper, professionally analytical use of benchmarking results.

Beliefs about "buyable" policy aims and policy success - Over the last decade, various strategies originating from the economic sector have been directly transferred to the educational field, including the assumptions that money and the allocation of funds are the most successful and suitable policy tools for achieving goals. This type of process has ended up limiting success, as it has led to the conclusion that non-monetary policy measures necessary or suitable for successful innovation (such as non- monetary incentives and rewards, awareness raising, attitude change within society, different levels and considerations on life priorities etc.) are no longer necessary for effective educational policies.

Underestimation of institutional and structural inertia and its self-organisation and stabilisation potential - Given the prevailing beliefs regarding consensus building, contrasting processes of institutional inertia were not fully understood and their impact was therefore broadly underestimated. Initial methodologically consistent approaches to address the dynamics of inertia and to manage its change in parallel to supporting innovation have only just started to appear in the educational field over the past few years.

Too short-term expectations for success - Linking the perspective for successful change in educational policy to the periodicity of elections led policy makers at regional, national and European level to offer short-term perspectives (over three, four, or five years) for the achievement of substantial changes in educational institutions. This perspective completely underestimated the strong interdependencies between education and other society subsystems where a certain rigidity has a stabilising function in social change processes .

Underestimation of resources necessary for sustainable systemic change in educational institutions - Almost all resources (not only money but also time, prerequisites in changing functional processes in education, patience with the slow processes of attitude change, adjustment, etc.) were underestimated in terms of the amount required to achieve sustainable change.

3. Looking ahead: expected future developments

By looking at latest developments in terms of innovation in schools and teacher training we see trends emerging, which are believed to have an influence on future developments in the area:

- From top-down (as a long-standing educational institution/policy tradition) to general, bottom-up, learner-driven initiatives - The current model of a democracy governed by competence hierarchies contrasts with the increasing potential of individual decisions and bottom-up consensus and/or co-acting processes open to all citizens. These processes are obviously facilitated and speeded up by technological innovation (amongst other factors). Particularly, the example and evidence of user-oriented social software, used within the framework of what we call "Web 2.0", demonstrate the dynamic unleashed by these processes. If we compare statistical data on indicators for the slow take-off of technology-triggered innovation in schools, VET and teacher training in the last 10-20 years with the speed of diffusion of use of typical Web 2.0 applications like Amazon, eBay, Google, Wikipedia, Facebook, YouTube and many others, we are given an impression of the different range of existing dynamics. Therefore, this shift from top-down triggered innovation to bottom-up supported/demanded/prepared innovation would appear to be one of the key elements in the transition from the last decade to the coming one.
- **Decreasing intergenerational gap between "demand" and "offer" of formal education** – we are still in an era where intergenerational gaps matter and hinder innovation supported by ICT for learning. Policy makers on one side and teachers on the other are not digital natives, and this plays a role in determining the way policies are designed and developed as well as in the way they are implemented by teachers. Nevertheless, it will not take long before digital natives become policy and decision makers or teachers themselves, and we often seem to forget this…
- **Increasing role of local stakeholders in determining the success of ICT for learning in formal education** – decentralised education systems where local stakeholders have a role in the design and development of actions related to the exploitation of ICT for learning turn out to be more successful than systems where the organisation of formal education is centrally controlled. When management is also decentralised (with a high if not total degree of school autonomy) public private partnerships are increasing.

There are two core tensions emerging from the above listed trends: **top-down vs. bottom-up innovation (including, in a way, intergeneration clashes) and centralised vs. decentralised management of innovation processes**.

The DELPHI Survey run by Learnovation to investigate the future of learning (in terms of innovation in learning and contribution of learning to innovation) led to some interesting results which are relevant for envisioning the future of learning in formal education. Somehow in line with the core tensions identified above, respondents to the DELPHI identified social networking on-line, a decrease in public funding, globalisation and multiculturalism as among the main external factors that will produce the most important changes in the way people learn. Technological progress was also mentioned (actually at the top of the list). Technological progress and social networking lead us to the main top-down/bottom-up and intergenerational tensions identified above. Also, the issue of multiculturalism suggests an additional core tension featuring national education systems in Europe as well as being strongly related to ethical and social inclusion aspects of education. A key challenge in most European countries is how to effectively integrate migrants into school systems, respecting their values and cultures and at the same time preserving national (or European) historic patrimonies, cultures, values and beliefs. Finally, a drop in public funding for education is believed to have a strong influence on the way people learn and will learn. As indicated previously, this might reinforce the (incorrect) belief that non-monetary policy measures necessary or suitable for successful innovation (such as awareness raising, attitude change within society, different levels and considerations on life priorities etc.) are no longer necessary for proper educational policies.

Results of the survey lead to a learning world in 2025 characterised by the following trends:

- specialisation of the learning offer
- increasing adaptation of learning systems to individual needs
- a slow shift from "Supply" oriented education (in which most education is still organised by education and training providers) to a "demand-led" education, in which individuals and groups are the main organisers of their own learning experience
- increasing experimentalism and changes in learning driven from the bottom.

In this general context, what scenarios can be expected for formal education learning?

Learnovation identified four macro scenarios graphically represented below and asked experts to rate their likelihood in each lifelong learning area, including those related to the field analysed in this document.

Convergence

Inertia	**"Mc-learn"** Hyper- competition of providers on a global scale will lead to a "striving for survival" by learning providers	**"Babelogue"** The world becomes a global network of learning occasions/spaces available any time, anywhere	**Innovation/ pro-activity**
	"The monad" Education becomes more and more insulated from the context and is unable to explore emerging innovation practices in learning environments.	**"Civitas"** Education improves its "profile", its "relevance" to the context, i.e. the learning patrimonies of local communities and "responsiveness" to stakeholders' needs	

Context

Learning in schools: Civitas and the Monad - The most likely scenarios both fall in the contextualisation rather than convergence trend, proving the still perceived need for education to be strongly related to context requirements and not to be too standardised at global level. Interestingly, the prevailing scenarios obtain exactly the same rating, presenting the two facets of contextualisation: the Monad being more linked to an attitude of inertia (thus representing a more "negative" scenario) and Civitas (the more positive, or optimistic scenario) implying increased relevance to contextual needs and to the concerns of stakeholders.

Learning in Vocational Education and Training: Mc Learn - The need to shape tomorrow's generation skills according to the needs of the business world is probably at the origin of VET expectations, which has resulted in the dominance of the Mc Learn Scenario. In fact, analysis of comments provided by respondents does not support the idea of "fast food learning ", but rather the need to:

- foster public / private and school/company partnerships
- ensure public and private funding and stakeholders' involvement
- ensure bridges and information flow between ICT for learning providers and institutions able to anticipate skill shortages.

Mc Learn is therefore interpreted as a scenario where the VET systems operate increasingly closely and in synergy with the business world, with standards and customisation co-existing through smaller learning units rather than a scenario where quantity prevails over quality or where learning supply is uniform. Instead, priority is given to personalisation of learning strategies.

Training of Teachers and Trainers: Civitas - In line with school education results (but not with those on VET), the CIVITAS scenario is expected to prevail in the future in terms of teacher training. The following recommendations are provided to reach this scenario, which implies a shifting role of teachers and trainers towards becoming intermediaries and catalysts of change and innovation:

- educate teachers to creativity, innovation, self-management, learning facilitation;
- encourage exchange and networking within teacher communities and between teachers and the local community;
- ensure differentiation of teachers' learning processes according to their specialisation and to the support function they will endorse (curriculum teacher, learning facilitator);
- support teachers in the use of ICT for learning " as a conscious choice" rather than an imperative defined elsewhere.

4. Towards a desired scenario: LEARNOVATION recommendations

When analysing the free comments provided by the experts consulted with the DELPHI one can argue that the desired scenario for formal education learning is Civitas, a scenario where Education improves its "profile", its "relevance" to the context, i.e. learning patrimonies within local communities and "responsiveness" to stakeholders' needs. Education and training become increasingly plural in an increasingly plural society, responsive to individual and society needs and consequently reflecting the diversification of learning and living patterns. There is a multi-directional, multi-versus integration of E&T systems (in terms of informal and formal learning, education, training and labour market…) as education and training providers become more and more intermediaries and catalysts of regional clusters of knowledge. They promote regional development by investigating and addressing regional learning needs, thus becoming part of the regional innovation systems. Lifelong learning becomes a fundamental right and duty for all members of communities and widespread learning networks foster the enforcing of this duty.

What actions should be implemented to support the realisation of this vision?

Based on the analysis of learning innovation in all Lifelong Learning areas, Learnovation drew up a set of 26 "statements" on urgent actions for change in order to implement innovation in learning and to make sure that learning supports innovation in European society and economy. Originally, five main statements were linked to the area analysed in this vision paper:

Increase focus on learning processes and attitudes
Disciplinary contents are important, but more emphasis should be placed on explaining and demonstrating processes, such as problem solving, self assessment, information search and filtering, teamwork, evaluation, critical thinking and networking to develop higher level competences and to root learning in a context and thus add meaning. ICT may help make each of these processes more effective and efficient.

Re-integrate education into real life
Education curricula and teaching/learning practice should come closer to society needs and the habits of digital natives and digital immigrants, in a real, multidisciplinary fashion.

Turn diversity into a learning asset
Observing diversity has always been a stimulus for learning: trying to explain diversity and to integrate diversity in our mental model helps develop analytical skills and openness. Education should be exemplary from this point of view.

Ensure that assessment supports learning
Examination practice should be changed, including specific training for those who assess, in order to allow for: differentiation of learning paths; review and recognition of skills and competences developed. This would provide substantial room for innovation in contents and methods

Enhance teachers' innovation capacity
Teacher training should include creative and innovative approaches to teaching/learning able to develop the motivation to learn and the joy of learning in future lifelong learners.

These statements were subject to a multilevel consultation involving (in chronological order):

- the 100 or so experts and policy makers participating in the Learnovation Open Forum held in Brussels in May 2009;
- the 1200 or so practitioners participating in the on-line consultation launched through the Learnovation website
- the 50 or so experts and decision- makers involved in the DELPHI consultation.

The drawing up of the ratings and comments and proposals for new urgent actions to be included led to the following "imperatives for change" to be implemented by 2025:

Imperatives for change- Horizon 2025

Given the strong role played by initial and vocational education in developing future Lifelong learners, a number of imperatives where considered relevant for change. The list is presented below, according to a set of identified "clusters" of recommendations.

An overarching call for action

Openly face the issue of current learning provision relevance: change is urgent
There are many good reasons why change in institutional education may not be too quick; one of them is stakeholders' concern. However, the general perception of decreasing relevance that are closer to social needs and that encourage creativity and innovation, and it needs them now.

Cross sector & structural recommendations

Re-integrate education into real life
Education curricula and teaching/learning practice should come closer to society needs and the habits of digital natives and digital immigrants, in a true, multidisciplinary fashion.
Devolve responsibility and governance to community and stakeholders and share a common vision of learning
Local stakeholders should become increasingly involved and committed to education governance with a decentralisation and autonomous perspective aimed at making the education system increasingly in tune with local needs.

Focus on the learner

Increase focus on learning processes and attitudes
Disciplinary contents are important, but more focus should be placed on explaining and demonstrating processes such as problem- solving, self- assessment, information search and filtering, teamwork, evaluation, critical thinking and networking to develop higher level competences and to root learning in a context and thus add meaning. ICT may help to make each of these processes more effective and efficient. Cooperation between content experts and process experts is crucial.

The key point of assessment

Ensure that assessment supports learning
Examination practice should be changed, including specific training for those who assess in order to allow differentiation of learning paths and review and recognition of skills and competences developed. This would provide substantial room for innovation in contents and methods, without dismissing feedback against objective standards. Both summative and formative assessment should be promoted to encourage innovation rather than conformance and control.

Teacher training and informal learning

Enhance the innovative capacity of teacher training systems
Teacher training should include creative and innovative approaches to teaching/learning that are able to develop a motivation to learn and the joy of learning in future lifelong learners. Creative people should be stimulated to become teachers. Teachers should be educated for self-development and for learner creativity, innovation and self-management
Help teachers and trainers recognise and respect the value of informal learning
Teachers and trainers should be supported in using the potential of informal learning to complement and enrich the "institutional" teaching and learning process and in recommending to learners ways to do so autonomously, with specific attention on a multi- language and multi-cultural approach. Incentives and rewards to ensure educators will undertake further development for informal learning might help.

Recommendations – Agenda 2010

In order to implement the above imperatives for change, the following action lines are suggested, in the form of recommendations, as short-term instrumental actions to be put forward by policy and decision makers, teachers and trainers and researchers in the field:

Policy:

- Attract younger policy makers to the field of educational policy in order to include their views in the discussion, thereby exploiting the potential of "digital nativeness heterogeneity" in the process of educational policy making.
- Aim for continuity beyond election periods in regional/national/European educational innovation policy and policy implementation.
- Promote decentralisation and involvement of local stakeholders in the design, development and implementation of innovation policies.
- Shift the focus of teacher training from ICT skills to digital skills and enable teachers to facilitate (not teach) ICT use for learning by guiding students on how to safely cross Internet roads.
- Put in place (where not existing) reward mechanisms for innovative teachers and trainers.

Research shall**:**

- Monitor contexts and processes in institutional educational innovation more systematically.
- Place more emphasis on policy impact assessment and based on this, build incremental learning policy quality loops.
- Develop further studies on informal learning by digital natives in order to highlight successful mechanisms to be transferred and adapted to formal education (such as peer learning as a means to enhancing empowerment and creativity of learners)

Annex: Background

The LEARNOVATION project

In the period 2008-2009, the LEARNOVATION project, supported by the European Commission's Lifelong Learning Programme, has worked to stimulate a consultation process aimed at leading to a collective and consensus-based new vision of eLearning (or technology-enhanced learning) in Europe. The rationale of the exercise is to inspire full exploitation of its potential to implement lifelong learning strategies and to support innovation in Europe, also beyond the borders of education and training systems.

What is behind this Vision Paper

LEARNOVATION has organised a number of activities involving a high number of European decision makers, experts ad practitioners in the field of ICT for learning, with the aim of reaching a set of recommendations that may contribute to guiding EU E&T policy in a long-term perspective by increasing the level of innovation and creativity of EU LLL systems.
This document presents the results of these activities and the construction process that has led to LEARNOVATION Recommendations, through the following steps:

1. *Desk research and EU networks consultation.* An intense desk research phase has led the LEARNOVATION consortium to identify a number of learning-related areas that need specific attention in terms of innovation and creativity. The work concentrated on four main areas related to school education, higher education, work-related learning and informal learning. The results of this work, available in four Cluster Reports at www.elearnineuropa.info/learnovation, were then discussed with some of the most relevant European networks in the field of ICT for learning[1] in March and in November 2008, as well as with key European and national policy makers[2].

2. *LEARNOVATION Open Forum, Brussels, 27 May 2009.* The result of the previous phase has been condensed into 26 "imperatives for change" (presented in the next paragraph), a list of actions that should be taken in all the four areas tackled by the project, plus some general transversal imperatives. These 26 statements have been discussed and improved in small workshops and then voted in terms of relevance during the **LEARNOVATION Open Forum**, organised in collaboration with the European Commission in Brussels on 27th May 2009. The main result of the Open Forum was a list of the 10 most important imperatives according to the selected stakeholders present at the event.

3. *Online consultation (July-September 2009).* Following the Open Forum, with the aim of involving all interested European stakeholders in the consultation (targeting in particular E&T professionals and practitioners), the 26 statements were at the centre of a broad online consultation, conducted through the eLearning Europa Portal and promoted through the main networks in the field /EDEN, EFQUEL, etc…). The consultation involved more than 1100 participants and resulted in a new list of 10 top imperatives for change, plus in a high number of bottom-up comments, ideas and concerns.

4. *Delphi Consultation (July-October 2009).* To complete the consultation, the 26 statements were included in the DELPHI Survey LEARNOVATION conducted in the period July -October 2009, focussed on the future of European E&T in terms of ICT, innovation and creativity. This enabled a restricted number of selected experts to give their view on the 26 imperatives "with an eye on the future".

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1 This was possible thanks to the Learnovation Roundtable, an informal cooperation platform that gathers 8 key European networks in the field of ICT and innovation in learning. For more information see www.learnovation.eu.

2 The proceedings of these events are available at www.elearnineuropa.info/learnovation

The results of these four phases were then analyzed by the Learnovation consortium, with the aim of transforming them into a set of practical recommendations that may contribute to shaping future learning and learning-related policies at the EU and at national level, by instilling the required level of innovation and creativity, discretely but substantially supported by ICT, in E&T settings. Chapter 3 of this Report presents these recommendations, together with some very practical ideas that could contribute to increasing the level of innovation and creativity in E&T settings.

The LEARNOVATION Commitment

Finally, given the interest raised by the exercise and the relevance and potential impact of the resulting recommendations, LEARNOVATION commits to make this open consultation a permanent exercise rather than an exceptional event. In this regard, the Learnovation consortium and the Learnovation Roundtable (www.learnovation.eu) will explore partnership possibilities with European and national stakeholders to ensure that the 2009 consultation is remembered as the first important step of a systematic bottom up policy agenda definition process involving stakeholders in the debate on the role of learning for innovation and creativity and shaping the future of Europe.