

BACKGROUND NOTE 3

INNOVATION IN EDUCATION – COUNTRY EXAMPLES

OECD/Germany Workshop on “Advancing Innovation : Human resources, education and training”

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Session 7

Innovation in education has important consequences for the effectiveness of learning/teaching, equity, and the cost efficiency of education systems. This notes aims at outlining some examples of educational innovations.

Respondents were asked to provide brief examples of innovation in all educational subsectors using the Oslo Manual definitions of innovation: product (curriculum, learning object, textbook, educational software, etc.); process (pedagogy, assessment, stakeholder engagement, etc.); organization (student admission, administration, organization of work, etc.); marketing (advertisement, pricing, etc.).

The answers do not necessarily reflect the official country views.

The covered countries are:

- Australia
- Austria
- Belgium (Fl.)
- France
- Germany
- Hungary
- Norway
- Sweden
- Turkey

COUNTRY: AUSTRALIA

Respondent (or coordinator): na

Brief Summary of Australian Federal Government Initiatives

The Australian Federal Government Departments of Education, Employment and Workplace Relations and Innovation, Industry, Science and Research have pursued some programs to lift innovation skills development at the workplace level, although they are not explicitly directed at fostering high performance workplace practices through partnerships, collaboration, industry based research, workplace diagnostics and related programs, as seen for example Ireland’s National Centre for Partnership and Performance (see Section 4 for details). The Table below summarises key programs run by the Department of Education, Employment and Workplace Relations.

DEEWR - Examples of Programs
<ol style="list-style-type: none"><li data-bbox="232 644 1993 734">1. The Industry Skills Councils (ISC) deliver vocational education and training to eleven industry sectors, including, for example, the Manufacturing Skills Council, the Transport and Logistics Skills Industry Council, the Agri-food Skills Industry Council, and importantly, <u>the Innovation and Business Skills Australia</u>, which aims to develop innovation capability building in the workplace.<li data-bbox="232 785 1980 842">2. Skills Australia is part of the Government’s Skilling Australia for the Future policy. Skills Australia is a new statutory body established to provide advice on current and future demand for skills and investment of public funds in training.<li data-bbox="232 906 1904 963">3. Skilling the Existing Workforce Project¹ is a tripartite (industry-government-individual) arrangement, which targets knowledge and skills requirements in advanced workplaces known as ‘knowledge work’. It is led by the Australian Industry Group.

Source: SKE (2008b, p. 57), Enabling Innovation: Leadership, Culture and Management at the Workplace Level, commissioned by the Victorian Government.

¹ http://www.dest.gov.au/sectors/training_skills/programmes_funding/programme_categories/key_skills_priorities/skilling_existing_workforce.htm

There are also a series of programmes aimed specifically at lifting national innovation, research and development run by the Department of Innovation, Industry (see Table).

DIISR - Examples of Programs ²
<ul style="list-style-type: none">- Building Entrepreneurship in Small Business (BESB)- Commercialising Emerging Technologies (COMET)- Commercial Ready Plus (CRP)- Industry Cooperative Innovation Program (ICIP)- Enterprise Connect- Clean Business Australia- Climate Ready Program- Early Stage Venture Capital Limited Partnership (ESVCLP)- Innovation Investment Fund (IIF)- Pre Seed Fund- R&D Start- R&D Tax Concession- Re-Tooling for Climate Change- Renewable Energy Development Initiative (REDI)- Renewable Energy Equity Fund (REEF)- Several programs for Textile, Clothing and Footwear- Venture Capital Limited Partnerships Program (VCLP)

Source: SKE (2008b, p. 71), Enabling Innovation: Leadership, Culture and Management at the Workplace Level, commissioned by the Victorian Government.

² Please see the AusIndustry DIISR website for a summary of business assistance programs AusIndustry delivers: <http://www.ausindustry.gov.au/content/level2index.cfm?objectID=AEB901E5-7CB8-4143-A3BF33B2423F9DA6>

State and Territory Initiatives

The Australian States and Territories have pursued some programs directed specifically at developing innovation capabilities in the workplace. The following is a preliminary checklist of programs as derived from submissions to the National Innovation Review, 2008.

Table: Activities Underway or Proposed by Australian States and Territories

State	Leadership, Management or Culture focus	Activities Underway or Proposed
Victoria	Management Culture	<ul style="list-style-type: none"> • Proposed investigation into the management capabilities of Australian businesses. The review would be directed at improving Australia's education system. • Skills development proposals with innovation focus at the workplace, to become basis for modules in the VET system • Develop a national media strategy that builds awareness. In so doing, hoped to create a national culture that supports innovation.
South Australia	Management	<p>Recognition of need to connect national skills and workforce development policy (the COAG productivity agenda) in higher qualifications (e.g. Certificate 3 and above) and the wider VET sector with business and institutional innovation systems eg. VET in CRCs. VET providers should be included in all programs promoting collaboration across sectors and treated the same as universities.</p> <p>National support of training programs for entrepreneurs, with strong business input. Recognition of need to invest in skills and mechanisms for skills transfer that underpin the process of innovation i.e. creativity and entrepreneurship. Government supports a number of creativity and entrepreneurship initiatives at various levels and strongly believes that these innovation skills should be introduced from primary school age.</p> <p>New Training and Skills Commission just established with innovation as a key element, and Public Sector Performance Commission with new agenda to place emphasis on developing 'innovative capability' in public sector institutions and enterprises.</p>
New South Wales		<p>NSW has State Plan and broad innovation statement focussing on five industry sectors. Emphasis on training but no mention of LCM in their two submissions – one from Primary Industries and the other from State & Regional Development. Government has established an Innovation Council and a Manufacturing Council and is commissioning work on skills to build innovative capability in enterprises and workplaces as basis of further measures.</p>
Queensland	Culture Management	<p>'Smartstate' initiatives have focussed on research and technology intensive investments and associated skills and education. Now moving to next stage of building innovation system with following measures:</p> <ul style="list-style-type: none"> • Implement a targeted marketing campaign to stimulate public awareness and interest in the value and direction of innovation. • Initiate programs to achieve cultural change e.g. for leadership and entrepreneurship. • Put in place incentives to encourage innovative behaviour (e.g. financial, access to services and programs, in-kind assistance) • Greater emphasis on leadership, entrepreneurship, problem solving, creativity, strategic thinking, risk management and commercialisation skills in secondary, tertiary and training sectors.

Western Australia	Management Culture	<p>Department of Industry Resources calls for:</p> <ul style="list-style-type: none"> • Education programmes in areas of innovation, thinking, intellectual capital, entrepreneurial exploitation of innovation, • Overseas mentor programme • Build a community comfortable with risk taking – report on failures and successes in government research. • Appoint ambassador to communicate value innovation and innovators brings.
Tasmania	Management Culture	<p>Government commissioned comprehensive innovation census and audit of entire Tasmanian economy to inform future policy. Measure now include:</p> <ul style="list-style-type: none"> • The public sector needs to continue to develop leadership for individuals and invest in measuring the outcomes of this investment and its wider value to the innovation system. • Long-term remedies to training and skills shortages, including assistance and incentives for employers, need to be instigated widely and solutions discussed with business, government agencies and training providers. • Innovation by individuals, businesses and agencies need to be fostered through a culture of acknowledgement for trying something new, not criticised or punished for perceived failure.

COUNTRY: **AUSTRIA**

Respondent (or coordinator): Bernhard Chabera, BMUKK

Examples of innovation in the education sector

	Early childhood	Primary	Secondary	Tertiary	Adult training
<p>Product</p> <p>(New or significantly improved educational service product)</p> <p><u>Ex:</u> Curriculum Textbook Learning object Test Etc.</p>		<p>1) Education Standards (4th level) 2) Initiative “25plus” (reduce max number of pupils per class) http://www.bmukk.gv.at/schulen/pwi/25plus/index.xml</p>	<p>1) Education Standards (8th level) 2) “Neue Mittelschule” (“Renewed Highschool”, = comprehensive school) 3) Initiative “25plus”</p>	<p>Establishment of Teacher Training Colleges (replacing former Pedagogical Academies)</p>	<p>Leadership Academy for school leaders</p>
<p>Process</p> <p>(New or significantly improved pedagogy)</p> <p><u>Ex:</u> Pedagogy, Assessment, Stakeholder engagement, Study mix and study path, Use of new pedagogical tools</p>		<p>Quality Assurance, outcome-orientation; individualised learning</p>	<p>Quality Assurance, outcome-orientation; drop-out prevention/reduction of early tracking; individualised learning</p>		

<p>Organisation</p> <p>(New or significantly improved non-pedagogical process)</p> <p>Ex: Student admission, Administration, Organisation of work, Etc.</p>				<p>Bologna-conformity (“Bachelor”), Increasing the quality of teacher training;</p>	<p>Empowerment of schools, organisational development</p>
<p>Marketing</p> <p>(New or significantly improved practices to “market” or “price” education services)</p> <p>Ex: New way of pricing education, Advertisement Delivery options Etc.</p>		<p>Professional PR and media campaigns to inform stakeholders and gain their commitment;</p> <p>Schulgipfel (national “School summits”) to gather all key players</p>			

COUNTRY: **BELGIUM**

Respondent (or coordinator): Karen Haegemans

Examples of innovation in the education sector

	Early childhood	Primary	Secondary	Tertiary	Adult training
<p>Product</p> <p>(New or significantly improved educational service product)</p> <p><u>Ex:</u> Curriculum Textbook Learning object Test Etc.</p>	<p>“Science kits”</p> <p>A box of 9 exciting scientific experiments for 6 to 12-year-olds for use in the classroom (primary schools), including clear assignment cards and all the necessary materials and equipment (tweezers, lamps, zinc plates, etc.) for up to 25 children working in classroom activity corners (thus enhancing teamwork). Between 1995 and 2001 a new series of kits was made each year, with five being produced in all.</p>	<p>“Science Festival”</p> <p>A sparkling family event, entailing a wide range of activities and entertainment for young and old alike, including interactive experiments and spectacular demonstrations, science theatre, and a science activity corner. The Science Festival takes place in even years as part of Flanders Science Week. Since 2004 the festival has been three days long and comprised the following elements: a School Day, for students in the fifth and sixth year of primary education and for students in the first stage of secondary education (1st and 2nd year of secondary education). The program is similar to that of the family event described above, but geared specifically to the target group and incorporated into educational activities. The family event for two days for the general public (see above).</p> <p>“Science kits”</p> <p>A box of 9 exciting scientific experiments for 6 to 12-year-olds for use in the classroom (primary schools), including clear assignment cards and all the necessary materials and equipment (tweezers, lamps, zinc plates, etc.) for up to 25 children working in classroom activity corners (thus enhancing teamwork). Between 1995 and 2001 a new series of kits was made each year, with five being produced in all.</p>	<p>“Flanders Science Week”</p> <p>A broadly-based S&T information campaign, including a wide range of activities and special projects based in various Flemish universities, colleges of higher education, scientific institutions and associations, museums, observatories, and libraries.. Around 30,000 youngsters (aged between 16 and 18) participate in activities organized by universities, colleges of higher education, and scientific institutions. All the initiatives fall under the heading "Science in the picture" and try to attract students to scientific and technological research, by allowing them to be researchers for a day.</p>		

<p>Process</p> <p>(New or significantly improved pedagogy)</p> <p><u>Ex:</u> Pedagogy, Assessment, Stakeholder engagement, Study mix and study path, Use of new pedagogical tools</p>	<p>“Chip, Chip, Hurray!” is a project for children in primary education that introduces the chip technology on which ICT is based in the classroom in an interactive way. The project entails problem solving, experimentation, and teamwork as well as teaching children how to communicate their findings.</p>	<p>TOS21 (Technology at school for the 21st century) Partners involved: Department of Education – Dienst voor Onderwijsontwikkeling and Science Division of the Ministry of Flanders. It was initiated on January, 1 2005.</p> <p>The project is both the continuation of two previous (but linked) projects, namely the TOBO (technology education at Primary level) and TOSO (technology education at secondary level) networks. These networks of teachers were intended as networks of expertise for the subject Technological education, providing a sort of helpdesk (of peers) for teachers who experience some problems with the subject under consideration. The TOS21 project will provide the framework for better education in technology, a framework that will be used in other projects in order to better co-ordinate and structure the activities. As a consequence the essential building blocks (both with respect to knowledge and skills) for the curricula of the subject will be made available in the framework, thus allowing the educational networks to better structure their curricula within the agreed framework.</p>			
<p>Organisation</p>					
<p>Marketing</p>					

COUNTRY: FRANCE

Respondent (or coordinator): David Jasmin

Examples of innovation in the education sector

Early childhood and primary:

The example described encompasses product, process and organisational innovations. Launched in January 2006, for 3 years and half, the POLLEN project has implemented a seed city for science in 15 European countries. A seed city is an educative territory that support Inquiry based science education (IBSE) in primary schools through the commitment of the whole community (families, education authorities, scientific and industrial partners, municipalities, museums and cultural centres, etc.). The inquiry process proposed to the children is structured through questioning related to their everyday life and surrounding world. In a working session, investigations carried out by children can be supported by experiments, object or model constructions, direct and indirect observations, documents, surveys and visits. During their investigations, the children argue and reason, pooling and discussing their ideas and results, and building on their knowledge.

In each seed-city, Pollen offers teachers and trainers material, methodological and pedagogical resources and tools that have already been tested, as well as support for the daily work at school, compatible with the framework of the local curriculum. The seed-city is not limited to schools. All cultural, scientific, economic, political, leisure and other resources are mobilised to improve the community's development. Beyond these current activities, each seed city is focusing on a key issue creating and animating centres of excellence on one aspect of IBSE such as science education and children with special needs, family involvement in science education, gender issues and science education, science education and the transition from primary to secondary school, involvement of the scientific community...

Pollen is supported by a group of pedagogical and scientific organisations from 15 European countries. Pollen is therefore a network, not only on a community level, but also at European level, bringing science closer to society through schooling.

During the project, transversal tools have been developed and used by these partners (guides for teachers, trainers or coordinators) , learning units, booklets on local activities, resources database. All this material is available on the following website : pollen-europa.net

A team of evaluators has defined the frameworks for the entire project assessment, focusing on the following three topics: students' attitudes towards science, teachers' attitudes, and community participation. In addition, a continuous evaluation is made by the local staff, with the participation of the community board and occasionally with representatives of the different stakeholders.

Secondary:

This example would mainly fit as process and organisational innovation. The complementarity of science education and technological education in early years of junior high schools has been highlighted in an experimentation³ conducted over the past two years within thirty French schools, converging with several European orientations⁴⁵. One of its objectives is to smooth the transition from primary school to secondary school, having noted that, in primary school, children make little difference between what their teacher calls science and what he calls technology, and they have little awareness of the distinction existing between subjects⁶. Conducted by the French Academy of Sciences

3 Information on this experimentation can be found at: <http://science-techno-college.net/>

4 Science education now: A renewed Pedagogy for the future of Europe, Michel Rocard *et. al.*, 2007

5 Encouraging student interest in science and technology studies, OCDE report, in preparation.

6 *Avis sur l'enseignement scientifique et technique dans la scolarité obligatoire: école et collège* . Académie des sciences, report. 2005.

and the Ministry of National Education, with the partnership of the French Academy of technologies⁷, this experiment allows teachers of science and technology to build together a coherent teaching bringing forward the continuity between science and technology as well as the continuity between techniques and business. By providing means to carry out complex projects in classrooms, students are facing real problems often engaging several disciplines. They are led to argue their points of view and then realize that this argumentation is not possible without the contribution of science and experimental evidence. One of the objectives of this original action is to extend the hands on project “La main à la pâte” developed in primary schools⁸. It shares most objectives such as giving a rewarding image of techniques and scientific approaches, so that students can find in it the interest that might lead them to related careers, not to forget citizenship education. A primary positive assessment⁹ has invited teachers to continue this experiment in the following grade to move progressively towards diversification while maintaining the natural links between taught disciplines, by the mean of multidisciplinary subjects recommended by the French curriculum, “thèmes de convergence”¹⁰. This experimentation planned for another two years is not aimed at extending over the second year of junior high schools (grade 7).

Tertiary:

School of engineering, Ecole des Mines de Nantes has been involved for the last 12 years in building an original partnership with local primary schools and educational institutions. This partnership aims at encouraging and facilitating inquiry-based science learning at primary and secondary school. It consists of :

- primary school teachers coaching by engineer students and professors,
- workshops for primary school teachers training,
- secondary teachers coaching by PhD students.

The central goal is to get primary teachers more self-confident in scientific teaching, after working in pairs during a few months, and to help secondary teachers carrying out experimental inquiry in their classroom.

The Ecole des Mines simultaneously developed since 1996 hands-on learning for its own students : learning by doing, problem-based and project-based learning ... all ways of teaching that were strongly impacted by Main à la Pâte experiences.

The organisation, rules and requirements, main data, advantages and outcomes of this partnership cannot be described here in details. These include new skills for engineer students and for Ecole des Mines’ educational methods.

The main conclusion is that both primary and secondary schools, on one side, and universities and engineer schools, on the other side, could gain a lot if bridging a little the gap that naturally exists between them.

7 *Avis sur l’enseignement des technologies de l’école primaire au lycée.* Académie des technologies, report. 2004.

8 Léna, P. *Avec la main à la pâte, rénover l’enseignement des sciences.* Réalités industrielles, mai 2007.

9 Fabien Romanens, Béatrice Salviat, Pierre Léna, Yves Quéré, André Pineau, Dans le sillage de *La main à la pâte*, Expérimentation, au collège, d’un enseignement intégré de science et technologie, *Article publié dans les revues des associations de professeurs de lycée et collège – Udppc et Assetec Juin 2007- APBG Octobre 2007.*

10 Thèmes de convergence, Annexe 5, BO n°6 du 19 Avril 2007 Hors-série.

COUNTRY: **GERMANY**

Respondent (or coordinator): Jana Wolfram

Examples of innovation in the education sector

General comments about the following table:

1. the table is not covering vocational education and training for countries with “dual systems”
2. the table is traditional in fragmenting education sectors, whereas innovation is – and should be – driven more along cross-cutting issues like: lifelong learning; permeability within education; transition from school to training to work; gender; equity.

	Early childhood	Primary	Secondary	Tertiary	Adult training
Product (New or improved educational service product) Ex: Curriculum Textbook Learning object Test Etc.	"Haus der kleinen Forscher": Its mission is to give children under 6 years the opportunity to experience nature and technology, and to further train staff in day-care facilities.		Film-Making of young people with immigration backgrounds in socially difficult city areas incl. presentations at larger events.		"Bildungsprämie" – new instrument for cofinancing further education measures Studies on cultural interests and activities for older citizens. Tools for local organizations to improve their programmes for seniors and foster quality of life. "Senior's Culture Barometer"
Process (New or improved pedagogy) Ex: Assessment, Stakeholder engagement,	Fostering language skills in Early Childhood: Holistic language training with special linguistic support for second-language-speakers.	Language assessment for school beginners, fostering of migrants and socially disadvantaged	Deutscher und Europäischer Qualifikationsrahmen (DQR, EQR): national/European programme within the OECD-activity „recognition of non-formal and informal learning“	Bologna Process	"Grundbildung" – basic education: fostering of reading and writing skills to enhance employment of adults

<p>Organisation</p> <p>(New or improved non-pedagogical process)</p> <p>Ex: Student admission, Administration, Organisation of work, Etc.</p>	<p>Expansion of child-care services by 2013:</p> <ul style="list-style-type: none"> • Creation of childcare places for every third child under the age of three • Implementation of a legal title of external childcare at the age of one year. <p>Program “Day Childcare”: Promotion of 200 municipalities, which implement new strategies in order to recruit and to qualify day mothers and fathers.</p>		<p>Modularization of the VET system</p>	<p>“Technikum” pilot activity: grant to encourage young people to study maths and sciences</p> <p>The German universities’ admissions organization (ZVS) is being changed into a service agency for universities as well as students</p>	
<p>Marketing</p> <p>(New or improved practices to “market” or “price” education services)</p>	<p>Program “Day Childcare”: Hosting of a Website which provides a platform for information, qualification and networking in the field of childcare</p>		<p>I-MOVE, EDVANCE: international marketing of the German VET system</p>	<p>“Komm mach MINT” is aiming to enhance the share of women studying maths, sciences and engineering</p>	

COUNTRY: HUNGARY

Respondent (or coordinator): Gabor Halasz

Examples of innovation in the education sector

	Early childhood	Primary	Secondary	Tertiary	Adult training
<p>Product (New or significantly improved educational service product) <u>Ex:</u> Curriculum Textbook Learning object Test Etc.</p>	<p>The introduction of a standard national educational program for kindergartens</p>	<p>The development and testing of program packages aiming at the development of competences for lifelong learning</p>	<p>The creation of an internet based content delivery system allowing schools/teachers to download digital teaching material</p>	<p>The development of new learning outcomes oriented master level training programs</p>	<p>Modularised, competence-development oriented training programs in vocational training</p>
<p>Process (New or significantly improved pedagogy) <u>Ex:</u> Pedagogy, Assessment, Stakeholder engagement, Study mix and study path, Use of new pedagogical tools</p>	<p>The application of the “step by step” program (aimed at supporting the integration of disadvantaged children) in kindergartens supported by national innovation programs</p> <p>The application of project method in kindergartens</p>	<p>The development of integrated services for children with special educational needs</p>	<p>The development of tasks aiming at preparing students for the new competence-oriented maturity examination</p>	<p>The development of a new bachelor level program in teacher education as a learning process in one Hungarian universities (“BABE”)</p>	<p>Portfolio based assessment in adult education</p>

<p>Organisation (New or significantly improved non-pedagogical process) <u>Ex:</u> Student admission, Administration, Organisation of work, Etc.</p>	<p>The merging of pre-schools and primary schools by local authorities</p>	<p>An experiment aiming at developing adaptive pedagogy in schools (the "MAG project")</p>	<p>The merger of smaller vocational secondary schools into larger integrated training centres (TISZK)</p>	<p>The establishment of career advice centres in some TEIs</p>	<p>The adaptation of the Danish "production school" model in Hungary as a second chance model for young adults who had dropped out of normal schools</p>
<p>Marketing (New or significantly improved practices to "market" or "price" education services) <u>Ex:</u> New way of pricing education, Advertisement Delivery options, etc.</p>	<p>The implementation of quality management in kindergartens</p>	<p>Marketing as a (popular) subject in the training of school leaders</p>	<p>The introduction of a centrally developed information management system aiming at regulating the transfer of pupils from primary to secondary education</p>	<p>The introduction of surveys in TEI aiming at following the labour market career of graduates</p>	<p>The introduction of an accreditation system for adult training programs and institutions</p> <p>The European network of learning festivals</p>

COUNTRY: NORWAY

Respondent (or coordinator): Bjørn Eggen-Hermansen/ Christine Meling

Examples of innovation in the education sector

	Early childhood	Primary	Secondary	Tertiary	Adult training
<p>Product (New or significantly improved educational service product)</p> <p><u>Ex:</u> Curriculum Textbook Learning object Test Etc.</p>	<p>Development of tests to assess cognitive achievement</p>	<p>Web based network sites where teachers can interact and share teaching methods and materials. http://www.matematikk.org/</p> <p>Development of national tests to assess cognitive achievement in reading and mathematics to identify individual learning needs.</p>	<p>Web based network sites that where teachers can interact and share teaching methods and materials. http://www.matematikk.org/ http://www.naturfag.no/</p> <p>Development of national tests to assess cognitive achievement in reading and mathematics to identify individual learning needs.</p>		
<p>Process (New or significantly improved pedagogy)</p> <p><u>Ex:</u> Pedagogy, Assessment, Stakeholder engagement, Study mix and study path, Use of new pedagogical tools</p>	<p>Transparency of results and indicators on learning environment at school level, based on national tests since 2006. http://skoleporten.utdanningsdirektoratet.no/default.aspx</p> <p>Introduction of learning management systems in many schools (It's Learning, Fronter)</p>	<p>Transparency of results and indicators on learning environment at school level, based on national tests since 2006. http://skoleporten.utdanningsdirektoratet.no/default.aspx</p> <p>Introduction of learning management systems in many schools (It's Learning, Fronter)</p> <p>Allowing guest teachers from businesses to give classes in science and mathematics.</p>	<p>Introduction of learning management systems in many universities and colleges (It's Learning, Fronter)</p>		

<p>Organisation</p> <p>(New or significantly improved non-pedagogical process)</p> <p><u>Ex:</u> Student admission, Administration, Organisation of work, etc.</p>			<p>Allowing lower secondary pupils to try various higher secondary VET-subjects, so they can make more informed career choices.</p> <p>Introducing entrepreneurial skills and training pupils to start their own enterprise.</p>	<p>Creating pathways to higher education building on VET , <i>Y-veien</i></p>	
<p>Marketing</p> <p>(New or significantly improved practices to “market” or “price” education services)</p> <p><u>Ex:</u> New way of pricing education, Advertisement Delivery options, etc.</p>					

COUNTRY: SWEDEN

Respondent (or coordinator): Mats Ekholm

Examples of innovation in the education sector

	Early childhood	Primary	Secondary	Tertiary	Adult training
<p>Product</p> <p>(New or significantly improved educational service product)</p> <p><u>Ex:</u> Curriculum Textbook Learning object Test, etc.</p>	<p>There is a curriculum for Early childhood education and care</p>	<p>The use of digital technology as a working tool as well as a tool for learning.</p> <p>Instruments for follow-up studies of results with a high degree of public openness. SIRIS and SALSA</p>	<p>The use of digital technology as a working tool as well as a tool for learning.</p> <p>Instruments for follow-up studies of results with a high degree of public openness. SIRIS and SALSA.</p>	<p>The use of digital technology as a working tool as well as a tool for learning.</p> <p>Distance education constitute a substantial part of the total number of courses taken at higher education level</p>	<p>The use of digital technology as a working tool as well as a tool for learning.</p>
<p>Process</p> <p>(New or significantly improved pedagogy)</p> <p><u>Ex:</u> Pedagogy, Assessment, Stakeholder engagement, Study mix and study path, Use of new pedagogical tools</p>	<p>The Ministry focuses on aims and results rather than pedagogical methods/innovations.</p> <p>Yearly quality review of each pre-school</p>	<p>The Ministry focuses on aims and results rather than pedagogical methods/innovations.</p> <p>Individual learning plans for each student.</p> <p>Yearly quality review of each school.</p> <p>Larger freedom in the time use for teaching and learning in the schools and thereby a larger responsibility demanded by the schools to produce better results.</p>	<p>The Ministry focuses on aims and results rather than pedagogical methods/innovations.</p> <p>Individual learning plans for each student.</p> <p>Yearly quality review of each school.</p> <p>Larger freedom in the time use for teaching and learning in the schools and thereby a larger responsibility demanded by the schools to produce better results.</p>	<p>At higher education level, the Ministry focuses on aims and results rather than pedagogical methods/innovations.</p>	<p>Individual learning plans for each student.</p> <p>Distance learning.</p> <p>Work Place training.</p> <p>In general, much has been done in Sweden in the process of going from fixed settings regarding when and where the learning takes place to a more individualised system.</p>

<p>Organisation (New or significantly improved non-pedagogical process)</p> <p>Ex: Student admission, Administration, Organisation of work, etc.</p>	<p>Large possibilities for any actor to arrange a pre-school.</p> <p>Individual salaries</p> <p>Team work and formal working teams among teachers and childcarers.</p> <p>The municipality is responsible for the budget of the schools and the preschools act rather independent with the budget within given frames.</p>	<p>Individual salaries among teachers negotiated with the local school leader.</p> <p>Team work and formal working teams among teachers.</p> <p>The municipality is responsible for the budget of the schools and the schools act rather independent with the budget within given frames.</p> <p>Large possibilities for any actor to arrange a school.</p>	<p>Individual salaries among teachers negotiated with the local school leader.</p> <p>Team work and formal working teams among teachers.</p> <p>Kommuns responsible for the budget of the schools and the schools act rather independent with the budget within given frames.</p> <p>Large possibilities for any actor to arrange a school.</p>	<p>The resource allocation system to universities and university colleges has been proposed to be based on results to a higher extent than today.</p> <p>Implementation of the System of Qualifications facilitates international comparisons.</p>	<p>There are many possibilities for other actors than the state to arrange adult training.</p> <p>The timing of the admission for studies is flexible, and does not need to be bound to regular semesters.</p> <p>“Learning centers” , which gathers several actors (functions), the municipality, local business, educational actors etc.</p>
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COUNTRY: TURKEY

Respondent: Prof. Dr. Ibrahim OZDEMIR, Member of EDPC and CERİ Governing Board

Examples of innovation in the education sector

	Early childhood	Primary	Secondary	Tertiary	Adult training
<p>Product</p> <p>(New or significantly improved educational service product)</p> <p><u>Ex:</u> Curriculum Textbook Learning object Test Etc.</p>	<ul style="list-style-type: none"> - e-school project - Preschool curriculum (for children between 36-72 months) - Teacher Guide Books for the implementation of preschool curriculum 	<ul style="list-style-type: none"> - e-school project - New curriculums are developed for 23 different compulsory and elective courses - New guide books for teachers, study books for students and text books for all subjects have been written and distributed throughout the country. - Listening texts as learning object for English course have been prepared. - Planned School Improvement Model-Strategic Management at School - Performance Management Model at School - Student-centred Application Model of Education 	<ul style="list-style-type: none"> - e-school project - Laboratories supported by Information Technology - Planned School Improvement Model-Strategic Management at School - Performance Management Model at School - Student-centred Application Model of Education - Curriculums of 50 areas and 224 sub-branches of vocational and technical secondary education. - 50 area and 224 sub-branch module booklets - Text books for subjects curriculums of which are updated. - Individual learning materials are prepared for Framework Teaching Programmes of 50 areas and 224 branches. - Teaching materials for 18 different area subjects of sports high schools have been developed - Representation and orientation modules for vocational areas, academics, sports and arts. - Representation and orientation CD's. 		<p>Centres of Public Internet Access</p>
<p>Process</p> <p>(New or significantly improved pedagogy)</p>	<ul style="list-style-type: none"> - All school administrations and teachers are using e-school software at the schools 	<ul style="list-style-type: none"> - All school administrations and teachers are using e-school software at the schools - Planned School Improvement Model: This model has been improved in accordance with strategic management understanding to manage rationally and fruitfully the human capitals and financial resources, to bring the idea of planned 	<ul style="list-style-type: none"> - The bidding process of constructing "science laboratories supported by information technologies" continues. - Planned School Improvement Model: This model has been improved in accordance with strategic management understanding to manage rationally and fruitfully the human capitals and financial resources, to bring the idea of planned and sustainable improvement 		<ul style="list-style-type: none"> - With the project of "centres of public internet access" everybody is able to access internet wherever and whenever they want.

<p>Process cont'd.</p> <p><u>Ex:</u> Pedagogy, Assessment, Stakeholder engagement, Study mix and study path, Use of new pedagogical tools.</p>		<p>and sustainable improvement in education institutions and to increase the quality and performance of the school.</p> <ul style="list-style-type: none"> - Performance Management Model at School: This model includes different aims like restructuring the inspection system upon performance based evaluation approach, getting the evaluations about individuals clearer with participation of parties etc. It also includes performance evaluation process of teachers, school principals and the institution. - Student-centred Application Model of Education: This model has been developed to restructure the training process according to the individual qualities of students. Turning the academic outputs into practice is one of the main targets of this model and it also tries to reshape the methods, techniques and strategies used for this end. - Mathematics and Science Project Performance for Primary School Students - "This is My Product!": This is a project competition which is designed for primary school students (6th, 7th and 8th grades) to train the future scientists and to duly orient the talented students. It was aimed by this competition to expand and spur scientific activities of this kind by raising the concern and the participation among students. 	<p>in education institutions and to increase the quality and performance of the school.</p> <ul style="list-style-type: none"> - Performance Management Model at School: This model includes different aims like restructuring the inspection system upon performance based evaluation approach, getting the evaluations about individuals more clear and participatory etc. It also includes performance evaluation process of teachers, school principals and the institution. - Student-centred Application Model of Education: This model has been developed to restructure the training process according to the individual qualities of students. Turning the academic talents into living talents is one of the main targets of this model and it also tries to reshape the methods, techniques and strategies used for this end. - Mathematics and Science Project Performance for Primary School Students - "This is My Product!": This is a project competition which is designed for primary school students (6th, 7th and 8th grades) to train the future scientists and to duly orient the talented students. It was aimed by this competition to expand and spur scientific activities of this kind by raising the concern and the participation among students. - Participation of stakeholders, including NGO's (trade, labour and teacher unions) into programme development works. - Modular training technique. 		
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<p>Organisation</p> <p>(New or significantly improved non-pedagogical process)</p> <p>Ex: Student admission, Administration, Organisation of work, Etc.</p>	<ul style="list-style-type: none"> - Board of Education - General Directorate of Education Technologies - Department for Educational Research and Innovation - Department for Projects Coordination Centre 	<ul style="list-style-type: none"> - Mathematics and Science Project Performance for Primary School Students - "This is My Product": A web-based software is developed for this project. All operations are being realised web-based until the scientific jury evaluation level is reached. Working groups are created in cities and regions for evaluation and regional exhibitions. These working groups are carrying out the evaluation and organization issues with respect to their own task definition. - Board of Education - General Directorate of Education Technologies - Department for Educational Research and Innovation - Department for Projects Coordination Centre 	<ul style="list-style-type: none"> - Enabling students to choose their own area and branch of study. - Board of Education - General Directorate of Education Technologies - Department for Educational Research and Innovation - Department for Projects Coordination Centre 	<ul style="list-style-type: none"> - The Centre of Public Internet Access - Board of Education - General Directorate of Education Technologies - Department for Educational Research and Innovation - Department for Projects Coordination Centre
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<p>Marketing (New or significantly improved practices to “market” or “price” education services)</p> <p>Ex: New way of pricing education, Advertisement Delivery options Etc.</p>	<ul style="list-style-type: none"> - e-school project software (student registration programme, school carnets etc.) 	<ul style="list-style-type: none"> - e-school project software (student registration programmes, school carnets etc.) 	<ul style="list-style-type: none"> - Brochures, posters and CD’s introducing areas and branches. 		<ul style="list-style-type: none"> - Accessible internet centres to everybody
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