

Rethinking Skills in the context of Europe 2020

**Report written by
Progress Consulting S.r.l. and The National and Kapodistrian University of
Athens.**

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Summary

There is general agreement that policy on education is importantly related to the determinants of growth, even though it is difficult to identify the resources and directions of intervention to optimise skill enhancement.

The local level is the level at which government policies can be effectively combined to tackle concrete issues by mobilising the public administration and the social partners. Since local communities that are recovering fastest from the crisis are those having a labour force that is adaptable to external trends and shocks, local and regional authorities (LRAs) can play a crucial role by addressing the less conventional, more modern skills as an important way to increase flexibility and adaptability of the labour force. These skills include basic skills, multilingualism and digital literacy, while the development of entrepreneurship becomes a key component for welfare as it may create occupation for the unemployed and new businesses. By the same token, media literacy is necessary for creating new jobs in the media industry and for school education to improve, in turn, the level of media literacy in society.

Four policy options to be implemented at local and regional level to improve the level of basic skills and entrepreneurship and to encourage skills anticipation and management have been identified in this file note:

Option 1 - Developing intelligence for strategic intervention. This is a primary task for all LRAs in order to identify and permanently monitor the adaptability, needs and quality of the local labour force. By addressing this challenge, every region may produce the necessary evidence to design and adapt appropriate policies for skills enhancement as well as to prioritise interventions.

Option 2 - Cooperating with the local business sector. LRAs liaise with the local business community to devise vocational training adapted to market needs and to tailor training to the commercial environment.

Option 3 - Cooperating with other local agents. LRAs incentivise local educational and training centres and local labour agencies for the introduction of new education techniques in e-learning, the enhancement of media literacy and multilingualism, and the provision of equal employment opportunities for the socially deprived population.

Option 4 - Seeking support beyond the region. When dealing with highly innovative pilot actions and/or problems common to more than one European region, it is advisable to go beyond local partners to join forces with regions facing similar challenges and, if possible, to mobilise EU funding.

Proposals for the promotion of rethinking skills at the local and regional level have been made on the basis of the review of ten representative initiatives undertaken by LRAs and of some main hypothesis, including: (i) every region needs the necessary evidence to design and adapt appropriate policies for skills enhancement as well as to prioritise interventions; (ii) generic skills are not of interest to the business sector; (iii) the business sector is more willing to cooperate for specific, company-related skills; and (iv) the inherent capabilities of LRAs and the ambitions of individual interventions determine whether there is the need for cooperation and synergies. In particular:

- ⇒ For the development of the right basic skills it is important to: ensure from the outset the commitment of teachers to the proposed initiatives; seek the approval of the local community for achieving social integration, for example of those being socially unprivileged or having a different cultural/educational background; ensure good liaison with the business community; and, if necessary, mobilise psychological support.
- ⇒ For the improvement of the level of entrepreneurship of students and adults, a cooperation framework with the local business sector needs to be developed. In this case, the likelihood of success improves if LRAs conceive this cooperation framework as a virtuous circle where: the delivery of training is tailored to the concrete needs of existing industry and/or commerce; the training institutions are collaborating closely with the private sector creating synergies and feedback mechanisms; and the enhanced skills of the trained students/adults are re-invested in the regeneration of the territory. With regard to young pupils, the improvement of the level of entrepreneurship in the long term may be targeted through the development of an 'entrepreneurship attitude'.
- ⇒ When coming to multilingualism and media literacy the specificity of the teaching needs and the rapidly changing curricula require expensive teaching infrastructure, broader partnerships and constant vigilance. This calls for LRAs to establish liaisons with the business and university sectors, to engage the local community to understand local needs and increase the likelihood of employment of the trainees, and to arrange for teachers to undergo continuous education.

Some horizontal recommendations contributing to the promotion of rethinking skills include: enhancing the knowledge of local employment market needs to better match skills to labour market requirements and to monitor changes; and using initial funding sources as catalysers only and not as permanent budget lines, to foster sustainability beyond the initial support.

Part 1: Set of policy options/hypothesis

1.1. Introduction

In the EU, as everywhere in the world, there is strong variation between local economies in terms of the business base, the skills level of the workforce, resources, and assets. Different economic models and doctrines interpret economic development and growth referring to these production factors but all tend to agree on one point: human capital¹ is the most crucial resource for competitiveness, growth and well-being. Overall, the models suggest that among the determinants of growth, policy on education is one of the most important². However, also type, quality and efficiency of education matter for growth³.

Skill development (formal and informal), basic and life-long education are regulated and implemented at various levels of governance. It is, however, increasingly recognised that *“the local level is the level at which government policies can be effectively combined to tackle concrete issues. It is not just public actors that can benefit from working together in this context. It is also necessary to mobilise representatives from the social partners (trade unions and employers) and the not-for-profit sector (voluntary associations and community groups), to work in partnership together on specific issues”*⁴.

By considering skills and jobs, empirical evidence suggests that communities recovering fastest from the crisis are those having a labour force that is adaptable to external trends and shocks. Cities are particularly well placed in this respect, given that they host a wide range of economic sectors and attract highly-skilled people who are more likely to be able to adapt to new economic opportunities as they arise. However, all localities can work towards making their labour force more flexible and adaptable to change. Addressing the less conventional, more modern skills is an important way to increase flexibility and adaptability of the labour force. Generic skills, multilingualism and digital literacy are crucial as a basis for adapting and retraining to gain new skills. At the same time, the development of entrepreneurship becomes a key component for welfare as it may create occupation for the unemployed and new businesses that, in turn, are at the basis of job creation. While in earlier periods of time entrepreneurship was considered as a talent, it is now increasingly proven that it can be taught, in two ways: through awareness raising and the promotion of the image of enterprise; and through learning concrete management techniques. By the same token, media literacy is also necessary for creating new jobs in the

¹Lucas R.E. (1988), Romer P.M. (1990)

²TempleJ. (2000)

³Sianesi B., Van ReenenJ. (2003)

⁴OECD (2010)

media industry and for school education to improve, in turn, the level of media literacy in society, as an important overall skill in everyday life and at every age.

1.2 Policy options for LRAs for rethinking skills

1.2.1 Analysis of education domains in a local perspective

*Developing the right basic skills*⁵

Because of the relevance of flexibility and adaptability of the labour force, in the first instance education policies need to ensure increasing quality of basic skills in primary and secondary schools. While in some countries curricula are developed at the national level, the local level still plays a crucial role in monitoring and adapting school performance. In modern educational systems curricula in secondary schools are enriched with digital formation and foreign languages. Basic computer literacy is a prerequisite for almost any job in advanced economies, while foreign languages increase employability and cognitive abilities. In addition, entrepreneurship and media literacy are increasingly adopted in secondary schools: at that level the curricula address awareness raising and an overview of key issues, but not specific techniques. Entrepreneurial training and media literacy are usually combined with interactive digital material, distance learning and digital-games learning⁶.

Besides their role in shaping primary and secondary school performance, in the development of basic skills LRAs have a direct role to play for early school leavers as well as for the alphabetisation of immigrants and life-long learning for adult literacy and numeracy. The latter initiative is gaining importance these days, as the global financial crisis has increased unemployment among people aged 50+ years and worsened their opportunities to re-enter the employment world. In fact, the share of the population in such need is not negligible in Europe (7.1% of total EU27 population, i.e. about 4,650,000 people⁷). Other instruments available to LRAs include legislation, funding, information campaigns, vocational training (often supplemented by psychological support for the unemployed), and designing of programmes of basic skills.

⁵ OECD (2012)

⁶ Petrakis P. (2012)

⁷Unemployment rates by sex, age and nationality (%) [table [lfsq_urgan](#)], accessed November 2012.

Improving the level of entrepreneurship

Entrepreneurship is formally developed in tertiary education in the form of master courses in business administration (MBAs) but also, increasingly, as individual courses complementing other degrees both at bachelor and master's level. The correlation between people having taken courses in entrepreneurship and people having started a new business is very high and statistically significant. Although entrepreneurship courses increase rapidly, it seems that 50% of students in Europe have no access to them⁸, notwithstanding the fact that these courses are highly standardised⁹ and are thus easy to develop and be offered if LRAs strategies address this issue in a systematic way. Besides, the business sector has a particular interest in increasing entrepreneurial skills to ensure better trained employees.

LRAs have a role to play in the provision of a cooperation framework between the educational institutions and the local community (pupils, adults and corporations) for better matching of skills and capabilities to the needs of the local business sector. Other instruments include: the organisation of professional seminars focusing on products/services particularly developed at the regional level; the implementation of regeneration initiatives for locals to grow their businesses through incubation; the establishment of expert centres and support programmes; or the creation of pre-incubation centres for coaching into early stages of professional development.

Anticipating and managing skills: the crucial role of digital and media literacy

Digital literacy is the ability to effectively and critically navigate, evaluate and create information using a range of digital technology and recognising one's own contribution towards developing the knowledge base both socially and academically. It requires a high working knowledge of current technology, its features and how it works. Digital literacy encompasses all digital devices such as computer hardware, software (particularly those used most frequently by businesses), Internet, and cell phones. These features have become an integral part of school curricula in the developed world. Further, there are many initiatives for digital training outside schools. Schools are continuously updating their curriculum for digital literacy to keep update with accelerating technological developments. In fact, as technology changes rapidly new skills are necessary and adaptation is needed. This is a particularly pressing problem, especially for the oldest and disabled people.

⁸European Commission (2009)

⁹ Kauffman Foundation, <http://www.kauffman.org/>

Marc Prensky invented and popularized the terms "*digital native*" and "*digital immigrant*". A digital native is someone who was born into the digital age. A digital immigrant refers to one who adopts technology later in life. These terms aid in understanding the issues of teaching digital literacy. Digital immigrants, although they adapt to the same technology as natives, possess a sort of 'accent' which restricts them from communicating the way natives do. Research shows that due to the brain's malleable nature, technology has changed the way today's students read, perceive, and process information. This means that today's educators may struggle to find effective teaching methods for digital natives. Digital immigrants might resist teaching digital literacy because they themselves were not taught that way. Prensky believes this is a problem because today's students are "*a population that speaks an entirely new language*" than the people who educate them¹⁰. A third category refers to digitally illiterate people, who are still abundant since 30% of the European population have never used Internet¹¹.

The role for LRAs in this case is precisely to address the needs of digital immigrants (ensure their life-long learning) and in particular the digitally illiterate. In this context, LRAs are expected to implement digital literacy policies tailored to the local circumstances to avoid their exclusion from the job markets. Empirical evidence is available as important input for building the appropriate strategies (e.g. evidence from Eurostat surveys on e-skills measurement). The availability of ICT-skilled intermediaries, such as public officials, social workers, volunteers and home carers, is fundamental for an effective and sustainable service delivery. Development of curricula and certification of skills of such intermediaries will allow the formal recognition of *de facto* professions and enhance job creation, especially in local markets (Digital Agenda). In the case of digital literacy there is ample European support in terms of both an enabling environment (standards and platforms) and financial incentives (through both the Structural Funds and the Information Society initiatives).

Media literacy represents the competence to access the media, understand and have a critical approach towards different aspects of media contents as well as create communications in a variety of contexts. Media literacy relates to all media, including television and film, radio and recorded music, print media, Internet and all other digital communication technologies. It is fundamental for active citizenship in today's information society, regardless of age.

Media literacy at the regional level may be enhanced through the creation of media labs and digital playgrounds addressed to pupils but also to adults aged 45+ years who did not have the chance to attain a proper level of media literacy

¹⁰ Prensky M. (2001)

¹¹ <https://ec.europa.eu/digital-agenda/en/our-targets/pillar-vi-enhancing-digital-literacy-skills-and-inclusion>

during their studies or later on in the job market. Further, investments in ICT training at primary and secondary level, both from local resources and EU funding, help raise media literacy awareness.

The concept of *multilingualism* stands out as one of the most prominent symbols of European historical, political and cultural diversity¹². In addition, there are significant needs of foreign language skills in enterprises. While early learning language (at school) is available in all Member States, motivating adult language learners is more difficult. Languages and multilingualism play an important role in the European economy, while speaking more languages improves mutual understanding and communication.

1.2.2 Possible set of policy options for implementation at the local and regional level

At all levels (school¹³ and adult education) the following policy options may be derived:

Option 1-Developing intelligence for strategic intervention: this is a primary task for all LRAs in order to identify and permanently monitor the adaptability, needs and quality of the local labour force. A skills' observatory would enable to benchmark skills, identify early weaknesses and changes in the labour market, and suggest early actions.

Option 2 - Cooperating with the local business sector: LRAs liaise with the local business community to devise vocational training adapted to the market needs and to tailor training to the commercial environment. The local business sector is interested in particular in entrepreneurship and e-literacy and is willing to invest in such skills development of the adult population, thus enriching the local labour force. This option is more appropriate for LRAs in areas with a prospering business sector.

Option 3 - Cooperating with other local agents: LRAs incentivise local educational and training centres and local labour agencies for the introduction of new education techniques in e-learning, the enhancement of media literacy and multilingualism, and the provision of equal employment opportunities for the socially deprived population. The private educational establishments, NGOs and employment agencies have every interest to join forces for synergies. This

¹² European Central Bank (ECB) (2006)

¹³ The school level may or may not be an LRA responsibility. It can be tackled with regular educational policies and/or specific LRAs projects, intervening directly for innovative vocational training and linkage of the school education and the labour market.

option is more appropriate for areas where the business sector is unlikely to co-fund training activities.

Option 4 - Seeking support beyond the region: when dealing with highly innovative pilot actions and/or problems common to more than one European region, it is advisable to go beyond local partners to join forces with regions facing similar challenges and, if possible, to mobilise EU funding. In this case, LRAs employ their own resources for engaging in social innovation actions addressing educational aspects; they can even profit from such experiences beyond Europe.

1.3 Testing hypotheses for rethinking skills

The above mentioned options are not generic; they can be implemented through different interventions depending on the age and qualifications/aspirations of the target population and the abilities of each LRA. Four broad hypotheses can be outlined:

Hypothesis 1: Every region needs good evidence to design and adapt appropriate policies for skills enhancement.

There are different ways to tackle evidence but each LRA needs to invest in this cross-cutting and across-the-board intervention in order to better design a portfolio of initiatives and allocation of resources¹⁴. Hence Option 1 needs to be advanced by all LRAs.

Hypothesis 2: Generic skills are not of interest to the business sector. Interventions for basic skills at school age, which are more generic, contribute to higher productivity in general¹⁵ but this is a long term process not likely to attract the interest of the business sector. Hence, cooperation is more likely to succeed with local public agents (Option 3). This applies to some extent to multilingualism as well as generic media skills.

Hypothesis 3: The business sector is more willing to cooperate for specific, company-related skills.

Entrepreneurship and e-literacy for adults are more likely to be of interest for cooperation with the business sector (Digital Agenda¹⁶, Business Europe¹⁷) since they directly increase the supply of labour force offering a pool of skills needed by companies. The business sector can contribute both to curricula development

¹⁴ OECD (2012)

¹⁵ Psacharopoulos G., Patrinos H.A. (2002)

¹⁶http://europa.eu/legislation_summaries/information_society/strategies/si0016_en.htm

¹⁷<http://www.businesseurope.eu/content/default.asp?PageID=650>

and partnering for employment (Option 2). This applies also to specific media skills.

Hypothesis 4: The inherent capabilities of LRAs and the ambitions of individual interventions determine whether there is the need for cooperation and synergies. For large or innovative actions where more resources are needed, the interest of cooperation beyond individual regions, with or without EU funding, becomes important. The same applies for any intervention an individual LRA wishes to test, not having sufficient own resources to do so (Option 4). The interest for the EU in this case is the need to test new ideas in different environments.

These hypotheses lead to some preliminary suggestions for intervention with respect to the three main education domains and the age class:

(i) To improve the level of basic skills.

- For pupils engaged in formal education, direct interventions at the school level (primary and secondary) through enhanced curricula and the introduction of innovative techniques. The local educational agents (NGOs or public agencies) are the most likely alliances (Option 3); however, if really large and innovative new curricula or techniques are to be tested, Option 4 has to be investigated.
- For population aged 45+ years and for the socially unprivileged (immigrants, Roma), enhancement of existing skills and their adaptation to the needs of current job market such as e-literacy and, in specific cases, multilingualism (for example, if the local business sector deals with export markets). In this case both the business sector (Option 2) and local educational agents can be approached to investigate their interest and willingness to join for curricula development and on-the-job training.

(ii) To improve the level of entrepreneurship.

- For pupils in primary and secondary education, introduction of new courses that enhance creativity, independence, openness, responsibility, and communication skills. This can be achieved through simple changes in educational curricula. Cooperation with the business sector is to tackle the development of an entrepreneurial culture rather than of skills, for example by inviting entrepreneurs to present the vision of individual enterprises and their role for society.
- For young entrepreneurs, pre-incubation centres offering coaching into their early stages of professional development (Option 2, in cooperation with the

business sector). Youth apprenticeship schemes could be introduced with EU funding.

- For adult entrepreneurs, professional seminars addressing the employment needs of the local market and combining entrepreneurship with innovation policy. Training programmes for the unemployed could also be devised using both Options 3 and 4.
- For population aged 45+ years and for the socially unprivileged (immigrants, Roma), vocational training and incubation centres offering technical expertise and guidance for new business start-ups. Cooperation with the EU, in particular through the European Social Fund, is a promising starting point for such interventions (Option4).

(iii) To encourage skills anticipation and management in e-literacy, media literacy and multilingualism.

- For pupils in primary and secondary education, introduction of a second or third language as well as ICT training in basic curricula providing the basis for a more advanced training and specialisation in undergraduate studies or a level playing field in the job market. Media labs could be introduced at the undergraduate level of studies. Local educational policies, support at the national level, or EU opportunities are ways to organise these interventions (Option 4).
- For adults, including immigrants, language seminars enhancing their competitiveness in the local job market or facilitating their prospects in export-oriented companies. Digital competence centres could offer ICT training to adults. Options 2 and 3 are both suitable for addressing these types of intervention.

Overall, evidence from the literature and the case studies indicate that, while education is a crucial factor for development and well-being, its cost-effectiveness is very difficult to assess, let alone to quantify, not only because it is indirect but also because it takes time to manifest. LRAs are not in a position to intervene massively and they need to focus on the maximum leverage they can obtain with their resources.

Part 2: Inventory of local and regional initiatives/case studies

Examples of implementation of the four options outlined in section 1.2 have been selected on the basis of availability of information and geographical balance across Europe. They are presented according to the progressive option's order (from option 1 to option 4).

Name	London Skills & Employment Observatory (UK)
Option addressed & Education domain	Option 1 - Developing strategic intervention and intelligence Education domain: all domains (ref: section 1.2.1, Part 1)
LRA involved	Greater London Authority
Other stakeholders	Alliance of Sector Skills Councils, European Social Fund, Department for Work and Pensions, Job Centre Plus, London Councils, London Skills and Employment Board, London First, Office for National Statistics, London Voluntary Service Council, Skills Funding Agency, Young People's Learning Agency.
Implementation period & Description	Work on the Observatory started in September 2009 but data, research and information were available starting from February 2010. This 3-year project has now been extended to March 2015. The London Skills & Employment Observatory (LSEO) serves 32 London boroughs and the City of London by: providing professionals with knowledge about the skills sought after in London labour market; assisting organisations and individuals engaged in skills training or professional selection to expand their clientele; identifying research gaps in the London labour market; and serving as benchmark for employment issues in London.
Target groups	Professionals looking for employment in London or working in the employment business in London, researchers and analysts providing labour market information.
Implementation procedures	The project is managed by the Centre for Economic & Social Inclusion. A Practice and Research Forum, open to the public, meets on a monthly basis to stimulate discussion on employment skills in London. The Observatory research delivers projects on specific areas related to the employment market; for example, one of the first two projects was on youth unemployment.

Difficulties encountered	None reported.
Financing	Over the period 2009 – 2012: GBP 273,236 from the European Social Fund (ESF) Technical Assistance, matched by funds from the London Development Agency ¹⁸ (LDA). The Greater London Authority (GLA) has now replaced the LDA and will provide GBP 450,000 of funding to the project over the period 2012-2015; matching funds will be sought from the ESF.
Total Costs	Not available.
Sustainability	Depending on the results, the project may be extended after the lapse of its second period of operation.
Evaluation	Over the period January 2011 - March 2012, the LSEO website had over 22,000 visits, 15,419 of which were unique users. On average, there are around 3,000 unique visits per month. Data pages are the most popular. Its newsletter (London Story) has over 150 subscribers, while its forum meetings are attended on average by 35 to 40 people. LSEO work is supported and supervised by a Steering Group chaired by the LDA and made up of key stakeholders among which The London Skills and Employment Board (LSEB), the Skills Funding Agency, Job Centre Plus and representatives from employers, the voluntary sector, and the Office of National Statistics. In September 2010, LSEB set out an evaluation framework (toolkit) for assessing the impact of its 5 years strategy (<i>The Skills and Employment Strategy for London 2009-2014</i>) and analysing the costs and benefits of its employment and skills programmes. Up to date, the LSEO has not been assessed.

References: London Skills & Employment Observatory [website](#); [ESF-Works case description](#); [Paper](#) by the London Enterprise Panel (LEP), Skills & Employment Working Group, 2012; London Skills and Employment Board, [An Evaluation Framework](#)

¹⁸<http://www.dwp.gov.uk/docs/ta-london.pdf>

Name	Cap'Ten (BE)
Option addressed & Education domain	Option 2 – Cooperating with the local business sector Education domain: Improving the level of entrepreneurship
LRA involved	Region Wallonia
Other stakeholders	Region Brussels, Chimay Foundation, Boost Your Talent (joint initiative of Brussels Regions and EU), LE SOIR (newspaper).
Implementation period & Description	2004 – on-going. The Cap'Ten project was developed to stimulate entrepreneurship in primary school for children aged 10 to 12. Pupils are allowed to develop and exploit their own skills and competences using resources that sharpen their creativity, independence, openness, responsibility, and communication capacities.
Target groups	Pupils aged 10-12.
Implementation procedures	Pupils are allowed 10-24 weeks to complete their projects. They are given a toolkit; they can work alone or in small groups, inside or outside school, with or without their parents, either on a specific topic or on any topic they choose. The training package (information, toolkit and other training support material) is made available to schools and teachers through an Internet platform developed by the training centre of Catholic Institute of Superior and Commercial Studies (ICHEC PME).
Difficulties encountered	None reported.
Financing	Private and public funding.
Total Costs	Not available.
Sustainability	The project is still on-going.
Evaluation	Since the project launch, more than 30,000 pupils in the French-speaking Community of Belgium have been involved and some 95,000 users have been registered to the project website. Although the project started from Wallonia, it created a new pedagogical framework that is expected to surpass regional boundaries. The project received the award of best European practice in 2008.

References: Project [website](#)

Name	<i>Intotalo (FI)</i>
Option addressed & Education domain	Option 2 – Cooperating with the local business sector Education domain: Improving the level of entrepreneurship
LRA involved	Kainuu (Kajaani town)
Other stakeholders	University of Oulu (Kajaani Unit), Kajaani upper secondary school, Kajaani University of Applied Sciences, and eight key enterprises in the Kainuu region from various sectors such as publishing, retail trade, advertising, energy, telecommunications and the paper industry.
Implementation period & Description	2003 - 2005. <i>Intotalo</i> (“Into-house”) was a three-year program to enhance entrepreneurship among young people through the creation of a pre-incubator for new business projects. The focus was on entrepreneurship and project training within secondary level schools, learning environment for entrepreneurship in tertiary education, and coaching and business in the early stages of career development.
Target groups	Students and other people interested in entrepreneurship.
Implementation procedures	The project addressed all levels of education and was open to all industry sectors, technology or academic disciplines. In order to gain acceptance prior to its establishment, seminars of 50 people were organised among stakeholders (entrepreneurs, local educational institutes and even members of Parliament). The original developer of the project (a young entrepreneur) was nominated as project manager while monitoring was performed by a steering group including 9 people from the Town of Kajaani, the regional authority, educational institutes and enterprises.
Difficulties encountered	Key challenges were the lack of experience in similar projects in the region and a weak dialogue between the public and the private sector. Entrepreneurs, schools and selected officials questioned the feasibility of the project, therefore a detailed plan and a careful concept development had to take place before the project could be launched. Patient negotiations and a feasibility study were carried out within a 2-year preparation period.
Financing	EU contribution: EUR 253,687. National budget: EUR 120,586. Regional budget: EUR 133,097. Private contribution: EUR 27,192.

Total Costs	EUR 534,562
Sustainability	The follow up of the project exists today as a separate unit of the Kajaani Technology Centre, owned by the town of Kajaani. Other Finnish towns followed the project's example.
Evaluation	<p>By 2007, entrepreneurship within the region increased significantly through the creation of new business activities and training. More specifically, results include:</p> <ul style="list-style-type: none"> ◆Business development and entrepreneurship: 31 companies were supported/created by the project; 17 new enterprises were created directly through the incubator facility, compared to an initial target of 11 (5 in software, 6 in business services, 6 provided training services, nursing services and leisure services); 76 joint projects with enterprises were initiated (initial target 60);and a cooperative, <i>Intotalonosuuskunta</i>, was established to organise and manage the business development projects of the <i>Intotalo</i> entrepreneur students. ◆Enhanced training possibilities in entrepreneurship: 513 people participated in various training activities (initial target 350) and a total of 840 people participated in different events (initial target 800); ◆Organisational and social innovations in the area through the project's innovative learning environment and a close collaboration with the local educational institutes.

References: DG REGIO [project description](#)

Name	Ashfield Training Centre (UK)
Option addressed & Education domain	Option 2 – Cooperating with the local business sector Education domain: Improving the level of entrepreneurship
LRA involved	Nottinghamshire County Council
Other stakeholders	Businesses that have established apprenticeships within Ashfield Training Centre or offer workshops and training: RAC, Charnwood Academy, Derbyshire and Nottinghamshire Chamber of Commerce, Cisco Academy, Apple Europe.
Implementation period & Description	2006 – on-going. Ashfield Training Centre has been established within Ashfield School to offer training in a context of real industry and commercial environment.
Target groups	Students, professionals and businesses in Nottinghamshire.
Implementation procedures	Training is combined with real time professional experience in the form of apprenticeships. There are also workshops in construction, engineering, hospitality and catering given by industrial training providers such as RAC, Carillion and Charnwood.
Difficulties encountered	None reported.
Financing	EU contribution: EUR 2,500,000
Total Costs	Not reported.
Sustainability	The Centre is an on-going project.
Evaluation	The program offers good match between training skills and entrepreneurship. The Centre helped 1,500 people in Nottinghamshire to enhance their skills, created 50 jobs, provided assistance and advice to 67 businesses to grow and develop, and supported the setup of more than 200 new apprenticeships. Employment prospects in the region improved since students and professionals have the possibility to become more adept to the local professional needs. In addition, successful synergies were achieved between the Centre and a broad range of public and private partners, providing a unique approach able to foster entrepreneurship in the community and regeneration of the area. The initiative was among the finalists for 2009 RegioStars award.

References: Ashfield Skills Centre [website](#); DG REGIO [project description](#)

Name	Gesamtschule Ückendorf - GSÜ (DE)
Option addressed & Education domain	Option 3 – Cooperating with other local agents Education domain: Developing the right basic skills
LRA involved	District of Ückendorf
Other stakeholders	Gesamtschule Ückendorf, Stadtteilbüro Südost (the district development office), and 'Förderverein' ('Friends of the Gesamtschule Ückendorf').
Implementation period & Description	2006 - 2008. The project offered advanced vocational training to improve pupils' prospects in the labour market, while establishing at the same time a social and cultural centre in the district. The school is located in an area severely affected by the collapse of local industries; further, about 70% of the pupils attending the school are from immigrant families and do not use proficiently the German language.
Target groups	Pupils aged 10-19, teachers and the school as an institution.
Implementation procedures	The project included three actions: the revamping of the school auditorium, the renovation and reorganisation of the school cafeteria and the introduction of a vocational training program with enhanced instruments such as the 'Kids-firms' approach simulating the world of businesses for educational purposes. At first, a series of workshops took place between GSÜ, Stadtteilbüro Südost and local stakeholders, analysing the situation of the school and of the district and identifying appropriate measures to solve problems and serve the purposes of the citizens of Ückendorf. The project was led by a steering group made of representatives from the Stadtteilbüro Südost, GSÜ and the Förderverein.
Difficulties encountered	There was a delay in the acceptance of the project proposal and about two years elapsed from its submission till a funding decision was taken. As a consequence, the project had to be completed in less than two years, while originally planned for three. In addition, the commitment of the teachers to the new programmes of vocational training was not ensured beforehand and extra time was needed before acceptance could be achieved.
Financing	EU contribution: EUR 234,000
Total Costs	EUR 468,000
Sustainability	Scheduled to finish at the end of 2008, earnings from the cafeteria and donations raised by the Förderverein

	werethereafter sufficient to support the operating expenses of the school. Revenues were also expected from the revamped auditorium, serving as a cultural centre.
Evaluation	As an example of social innovation, the project improved graduates' qualifications, revived cultural life in the district, and enhanced the school reputation.

References: DG REGIO [project description](#)

Name	Supported employment model for people aged 45+ years (PL)
Option addressed & Education domain	Option 3 – Cooperating with other local agents Education domain: Developing the right basic skills
LRA involved	City of Elblag
Other stakeholders	Local businesses, Elblag's Disability Advisory Council (Erkon), Elblag's Poviats Labour Office.
Implementation period & Description	2009-2012. The program offers unemployed people aged 45+ years the possibility to enhance their competences through vocational training. Participants are also provided with psychological support. The programme follows a Finnish model and a close cooperation with Finnish partners is sought, including through study visits and the exchange of experts.
Target groups	Unemployed aged 45+ years and businesses.
Implementation procedures	Under the Individual Employment Paths project, Elblag's Disability Advisory Council and its Poviats Labour Office cooperated with Finnish partners from Turku for the transfer of know-how from Finland to Poland.
Difficulties encountered	None reported.
Financing	ESF Human Capital Programme: EUR 393,700 and Elbag Advisory Council: EUR 42,480.
Total Costs	EUR 436,180

Sustainability	The know-how from the project has already been transferred at national and regional level in Poland and may be taken over by other EU Member States since it requires minimum legislative action.
Evaluation	The project enhanced significantly the employment prospects of citizens aged 45+ years and of the unemployed; 80% of participants found jobs and 90% of them were still employed after 15 months. Some 60% of the employers involved in the project stated that their interest in recruiting people aged 45+ increased. The programme is nominated for the 2013 Regio awards.

References:DG REGIO [project description](#)

Name	Porto Digital (PT)
Option addressed & Education domain	Option 3 – Cooperating with other local agents Education domain: Anticipating and managing skills: the crucial role of digital and media literacy
LRA involved	Porto City Council
Other stakeholders	University of Porto, Portuguese Business Association, and the Porto Light Rail Company. Thirty-three other partners joined the project and were responsible for several activities within Porto Digital's 10 sub-projects.
Implementation period & Description	2005-2007. Key objectives of the project were: to increase the broadband connection; to provide e-services in the context of central administration; to provide a hub of information on employment opportunities, vocational training, e-learning and telecommuting; to provide updated information related to traffic conditions, transportation, parking spaces, pollution and noise; and to promote the city of Porto as a leisure destination. Within this context, 10 sub-projects in five main categories were implemented: Infrastructure, Promoting the use of Internet, Improving virtual accessibility, e-Government, and Sectoral subprojects.
Target groups	Key public institutions and citizens of Porto.
Implementation procedures	At the inception phase, project partners held meetings with the local authorities in order to define the scope of the project. Priority sub-projects were selected and invitations sent for partnership to more than 50 public and private organisations. Finally, 38 partners agreed to participate in Porto Digital and to provide funding. The project design and planning phase was undertaken by technical staff of the four project's promoters supported by private consultants. The Porto Digital Association was established to monitor the project.
Difficulties encountered	The project was realised within the context of the Portugal Digital programme and thus delays in the approval of payments and in the subsequent disbursements occurred. Bank loans had to be taken by the Porto Digital Association in order to overcome fund shortage in the short run.
Financing	ERDF contribution: EUR 4,107,150. National budget: EUR 2,738,100. Private contribution: EUR 2,281,750.
Total Costs	EUR 9,127,000

Sustainability	The Porto Digital Association is still existing and supporting the implementation of several projects of the municipality of Porto and of the Metropolitan Area of Porto.
Evaluation	Broadband connection increased considerably in the city of Porto to cover more than 55 sites of local, regional and national administration as well as the City Park, cultural places, educational institutions and the chamber of commerce. In 2009, the network was expanded to connect more than 500 social housing buildings. A resource centre with about 150 computers, 100 laptops, 100 interactive whiteboards, 15 video cameras, 45 digital cameras and 12,500 information technology magazines enhanced, overall, digital literacy in the area. In 2008, 100 interactive whiteboards were also placed in 50 primary schools together with additional help-desk and training services for about 500 teachers spread all over the city.

References: DG REGIO [project description](#); Capelo J.P., Porto Digital Association, 2010 ([slide presentation](#))

Name	Institute of Digital Innovation, DigitalCity (UK)
Option addressed & Education domain	Option 3 – Cooperating with other local agents Education domain: Anticipating and managing skills: the crucial role of digital and media literacy
LRA involved	Middlesbrough Council
Other stakeholders	Middlesbrough Town Centre Company, the Tees Valley Partnership, OneNorthEast (Regional Development Agency), Tees Valley Regeneration and Government Office North East.
Implementation period & Description	2003-2015. The project aims at establishing a hub offering fellowships and liaisons with the business sector, digital skills development, events' organisation and innovative school courses. Digital City Innovation (DCI) and DigitalCity Business located at the centre of Middlesbrough are the flagships of the project. The project is part of the "innovation connector" approach developed by OneNorthEast to facilitate, among other things, business-university collaboration.
Target groups	University students, businesses.
Implementation procedures	Initially, the project started as a pilot initiative of Teesside University which later evolved in the DigitalCity project, a

	<p>hub for digital technologies. Strong collaboration with Middlesbrough Council was crucial for its success. Monitoring is by individual project boards and by the DigitalCity Governance Board. Additionally, two operational sub-committees exist: the DigitalCity Executive and the DigitalCity Operations panel which includes key staff from both the DCI and the DigitalCity Business.</p>
Difficulties encountered	None reported.
Financing	<p>Funding is provided by Teesside University, Middlesbrough Council and OneNorthEast, UK Learning and Skills Council, UK National Endowment for Science Technology and the Arts. ERDF provided a total of GBP 1.98 million over the period 2007 - 2012¹⁹; in July 2012, the project was awarded additional GBP 1.9 million²⁰. Funding is currently sought from the private sector.</p>
Total Costs	GBP 4.11 million up to 2008.
Sustainability	The project is intended as a continuous process meant to evolve and be up-to-date with technology advancements.
Evaluation	<p>DCI achievements from April 2008 to the end of March 2011 include: ♦211 fellowships awarded♦184 businesses created²¹♦96 businesses collaborating with the knowledge base♦265 new jobs in digital industries²². Since 2008, DCI has been creating record numbers of fast-growing businesses and jobs with important social and economic impacts on the Tees Valley region such as: (i) retaining and attracting more graduates in the region to boost their digital skills and job prospects; (ii) showing to more traditional industries how digital and media literacy can help their business to grow and gain competitiveness. In addition, there is <i>'...the identification of DigitalCity as a regional innovation connector. This includes promoting the establishment of new world-class facilities, new business-university collaboration approaches and community engagement which was especially important. This has provided a medium to long-term development perspective attracting a variety of funding sources and with</i></p>

¹⁹<http://webarchive.nationalarchives.gov.uk/20120919132719/www.communities.gov.uk/documents/regeneration/pdf/2016410.pdf>

²⁰http://www.tees.ac.uk/sections/news/pressreleases_story.cfm?story_id=4055&this_issue_title=July2012&this_issue=230

²¹<http://www.tees.ac.uk/sections/about/dci.cfm>

²²<http://www.unialliance.ac.uk/site/2012/10/12/digitalcity-innovation/>

	<i>achievements being realized through a strong core stakeholder partnership</i> ²³ . Over the period 2003-2008, the business growth rate in Middlesbrough (6.6%) exceeded that of the UK (2.9%) and the North East (4.1%).
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References: [30 good practice case studies in university-business cooperation](#), Part of the DG Education and Culture study on the cooperation between higher education institutions and public and private organisations in Europe, 2011; Teesside University's [project description](#); The DigitalCity project [website](#)

Name	Roma Net project (ES)
Option addressed & Education domain	Option 4 – Seeking support beyond the region Education domain: Developing the right basic skills
LRA involved	Municipality of Almeria
Other stakeholders	Other project's partners include: Budapest (Hungary) as Lead Partner, Torrent (Spain), Bologna, Udine (Italy), Glasgow (UK), Heraklion (Greece), Karvina (Czech Republic), Kosice (Slovakia).
Implementation period & Description	2009-2013. Roma Net is an interregional project for the enhancement of social and economic integration of Roma, in an effort to avoid discrimination, unemployment or informal exploitative work, dependency on social assistance, low or no educational attainment, poor health and inadequate living conditions. Activities are based on three tiers: (i) education; (ii) employment; (iii) showcasing cultural values. The project is funded by the URBACT II programme.
Target groups	Roma community.
Implementation procedures	Within the project, the key challenge of the city of Almeria, Spain, is to enhance Roma inclusion, and in particular young Roma adults, in the workforce by improving their overall level of education. Young Roma women are also encouraged to continue their education career rather than opting to stay at home. Education is one aspect of the overall effort to address physical isolation and exclusion towards the regeneration of the area occupied by the Roma community, along the overall improvement of living conditions (housing, communication and transport

²³ 30 good practice case studies in university-business cooperation, Part of the DG Education and Culture study on the cooperation between higher education institutions and public and private organisations in Europe, 2011. (p. 66)

	infrastructure).
Difficulties encountered	Financial costs, social changes and a systemic character of actions. These problems were overcome by closely cooperating with the local community.
Financing	ERDF: EUR 476,787
Total Costs	EUR 644,850
Sustainability	In March 2011, a new Action Plan extending the project to other regions was drafted.
Evaluation	The implementation of the project in Almeria resulted in the improvement of living standards and in the implementation of social initiatives to better integrate Roma community into the local employment market. In particular, young Roma adults have been supported in their transition into socially included, active citizens also through education. Roma-Net has been selected as a Fast Track project by DG REGIO.

References: DG REGIO [project description](#); [URBACT case study](#); [Roma Net Integration of Roma population](#); [Roma-Net March 2011- Newsletter 1](#); Roma-Net Integration of Roma population [website](#)

Name	The Empowering Minds project (IE)
Option addressed & Education domain	Option 4 – Seeking support beyond the region Education domain: Anticipating and managing skills: the crucial role of digital and media literacy
LRA involved	Dublin City
Other stakeholders	The programme was developed in close partnership with St. Patrick's College of Education, Dublin City University, The National Centre for Technology in Education, The Higher Education Authority, Media Lab Europe, and the MIT Media Lab Laboratory, Boston.
Implementation period & Description	The initiative aimed to raise IT literacy in Dublin by introducing digital technologies in primary school classrooms, along with a framework for teacher professional development.
Target groups	Teachers, pupils in Irish primary schools.
Implementation procedures	The Empowering Minds project began in October 1998 with an open call for participation to all Irish primary schools and run for three distinct phases. In the first phase (1999-2000), four schools were selected to participate from all school types: large middle class suburban, inner-city disadvantaged, medium-sized semi-rural, and two-teacher

	<p>rural. In the second phase (2000-2001), more small rural and disadvantaged schools were included in the project as well as some single gender schools and children with special needs. The project introduced LEGO Mindstorms technology (i.e. a construction kit enabling children to build models that interact with the physical world through sensors and motors) as an alternative learning tool.</p>
Difficulties encountered	<p>At the very beginning of the project, the problem of communication and sharing across schools was reported due to the lack of: (i) technological fluency with the web-authoring software; (ii) teacher's time to devote to the task of developing a site (also taking into account that all the teachers in the project are volunteers); and (iii) Internet access in most classrooms. These difficulties were overcome by installing wireless technology in each of the schools and by beginning to develop a database-backed web service, the Empowering Minds Learning Network (EMLN).</p>
Financing	<p>Funding is provided by The National Centre for Technology in Education (NCTE), the Higher Education Authority's (HEA) Multimedia Research Programme fund and the newly formed Media Lab Europe.</p>
Total Costs	<p>Not available.</p>
Sustainability	<p>Further to the enthusiasm of both students and teachers taking part into the project, in the first two years of implementation (1999-2001) an interesting amount of material became available to feed the EMLN. Such web service is still working and is continuously updated for sharing sounds, pictures, videos and discussing reflections on the project.</p>
Evaluation	<p>Although the project was short-lived in its first two phases of just 1 year each, it developed the EMLN, currently involving 13 schools, 29 teachers (24 classrooms) and over 500 students (age range: 6-13). A huge increase of the activity of the website has been recorded after the first wave of classrooms was brought online, with several hundred media and document objects uploaded. Further, teachers efficiently used the site even for problem solving 'forums', most of which were initially focused on configuration problems of the new wireless networking hardware. At regional and even extra-regional level, at least four user groups took advantage from this education-oriented web-based environment: (i) education researchers – within the</p>

	<p>region (i.e. the Dublin City University), the country (i.e. the NCTE) and internationally (i.e., Media Lab Europe and MIT Media Lab, Boston) - through information and insights gathering on teachers' interests, attitudes and usage of digital technologies; (ii) teachers, through raised awareness on their new role of digital users for educational purposes, leading them to strictly share application troubles and learning attempts with their students; (iii) students, through the enduring record of their accomplishments (e.g. project demonstrations, and technological and digital skills improvements); (iv) the school's community (i.e. student's families and friends acting as 'multipliers'), through the sharing of a greater knowledge and appreciation of school initiatives.</p>
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References: Project [website](#); St Patrick's College 's [project description](#); [A Web-based Environment for Assembling Multimedia Learning Stories in Irish Primary Education](#) (2002); <http://empoweringminds.spd.ecu.ie/>

Part 3: Recommendations

Proposals for rethinking skills at the local and regional level build on the evidence provided by in this file note; they are structured around the three main educational domains of basic skills, entrepreneurship, and skill anticipation and management. Further, these proposals add to the preliminary suggestions for intervention highlighted under section 1.3.

- **Developing the right basic skills** is an important challenge for achieving social integration of both the socially unprivileged and the people from different cultural/educational backgrounds. It requires LRAs to:
 - ⇒ Ensure from the outset the commitment of teachers to the proposed initiatives, or else delays could seriously affect implementation (GesamtschuleÜckendorf, Germany).
 - ⇒ Seek the approval of the local community in order to overcome barriers related to potential social changes (Roma-Net Project, Spain).
 - ⇒ Foster good liaisons with the business community for better addressing the needs of the eldest persons (45+years old) and ensuring that their employment prospects are improved within the market (Supported employment model for people aged 45+ years, Poland).
 - ⇒ Facilitate the implementation of a multidisciplinary approach, possibly mobilising psychological support for the eldest persons or for isolated communities having to face a transition into socially included, active citizens (Supported employment model for people aged 45+ years, Poland).

- Among the approaches implemented by LRAs to intervene on the **improvement of the level of entrepreneurship**, the provision of a cooperation framework with the local business sector is especially fostered with regard to students and adults. When young pupils are concerned, LRAs efforts are more likely to be supported by civil society. LRAs should:
 - ⇒ Conceive a functioning cooperation framework for the improvement of the level of entrepreneurship as a virtuous circle(Ashfield Training Centre, United Kingdom), where: (i) the training of students and adults meets the concrete needs of existing industry and/or commerce, i.e. training is tailored to the local situation; (ii) the institutions involved in the delivery of training are collaborating closely with the private sector, thus creating effective synergies and feedback; (iii) the enhanced skills of the trained students/adults add value to the regeneration of the territory in terms of new jobs and ideas.

- ⇒ Pursue acceptance by the concerned community if their education-related initiatives involving the local business are to be impacting on local development (Intotalo, Finland).
 - ⇒ Foster the development of an ‘entrepreneurship attitude’ through a pedagogical framework sharpening creativity, independence, openness, responsibility, and communication skills of young pupils (Cap’Ten, Belgium).
- When coming to **anticipating and managing skills** (i.e. multilingualism and media literacy), the specificity of the teaching needs and the rapidly changing curricula call for expensive teaching infrastructure, broader partnerships and constant vigilance. This particular aspect can be enhanced at the regional level through training programs, digital centres and media labs. In particular:
 - ⇒ LRAs achieve more if they succeed in establishing liaisons with the business and university sectors, in order to secure funding and ensure the sustainability of interventions in the long run (DigitalCity, United Kingdom).
 - ⇒ LRAs engage the local community to design and implement programs that address local needs and increase the likelihood of employment of the trainees (Porto Digital, Portugal; DigitalCity, United Kingdom).
 - ⇒ Teachers undergo continuous education as new technologies are constantly introduced in this domain (The Empowering Minds Project, Ireland).

Horizontal recommendations refer to the improvement of knowledge of local employment market needs and to the sustainability of interventions.

Monitoring the local employment market changes and needs to better match skills to labour market requirements is a key step for all LRAs. The creation of observatories engaging all relevant partners would also contribute to identify possible tools for intervention in a synergic effort. Besides, a professional agency to implement the observatory and a good governance plan are means to make such monitoring and interventions successful and sustainable (London Skills & Employment Observatory, United Kingdom).

Additional dimensions from the case studies raise the issues of sustainability beyond the initial intervention. Successful projects can flourish and grow through donations (as in the case of Gesamtschule Ückendorf, Germany) or may be transferred to new beneficiaries taking advantage of the innovation potential and opportunities offered by the digital technologies (as in the case of the Irish Empowering Minds). It is thus strongly recommended that LRAs select their most successful projects and identify funding and sustainability schemes beyond

the initial funding sources, which should be used as catalysers and not as permanent budget lines.

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