



Policy briefs: Reports from the EU Workshops

Project NeMESI - Network of Mutual
Exchange for Supporting Innovation



The NEMESI project is co-funded by the Employment, Social Affairs and Inclusion DG of the EU Commission in the frame of the former PROGRESS programme (Call VP/2012/009, Grant Agreement nr. VS/2013/0455).

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INTRODUCTION

The present document encompasses all the policy briefs that have been drafted as final reports of the four EU workshops that were held in the four project partners' countries: Spain, Slovak Republic, Germany, and Italy, according to the project schedule.

Policy briefs include recommendations for SMEs and other institutions that may benefit from project outcomes and result from the presentation of best practices and the following discussion on the main project topics:

- How to identify skills gaps in SMEs through effective collaboration between the ICT and green economy sectors. Overcoming organisational barriers and obstacles for partnerships (workshop in Spain);
- Role of different sectors and organisations in identifying skills needs and skill matching. Developing a forward-looking HR and skills development policy through cooperation (workshop in Slovak Republic);
- Addressing current and structural challenges of competence development, such as the competition for qualified personnel (workshop in Germany);
- Unlocking financial and non financial means to improve skills needs identification and skill matching (workshop in Italy).

NeMESI Project

The NeMESI project is set within the framework of the flagship initiative “An Agenda for New Skills and Jobs – Equipping people with the right skills for employment” and the Employment Package Communication “Towards a job-rich recovery”, promoting mutual learning and transferability of the most effective policies, good practices and innovative approaches to manage skills in a low-carbon, resource-efficient economy (“green economy”), digital economy (ICT sector) as well as in the health and social care sector (“white jobs”).





POLICY BRIEF SPAIN

Location

Zaragoza, July 1st 2014 - 1st EU Workshop

Title

Identifying skills gaps in SMEs through effective collaboration between the ICT and green economy sectors. Identifying and overcoming organisational barriers and obstacles to partnerships between sectors.

Executive Summary

The skills gap affects all actors of the labour market, education and training systems. While employers have difficulties in finding employees with the right skills, workers and job seekers also find it frustrating that their education does not easily open the door to work.

An effective collaboration between all the sectors involved in the labour market will help to avoid this problem and reduce skills gap, especially in the shifting landscape of ICT and green economy.

Introduction

ICT and green economy are two sectors that are undergoing extremely rapid changes. Thus, companies from these sectors must be capable of remaining competitive in this demanding and changing environment. Professionals with the right knowledge and skills will ensure that these companies, especially SMEs, can adapt to these changes.

Nevertheless, companies have serious difficulties in identifying the suitable professionals for their activities.

There are different tools to adjust workers' skills to the real needs of companies. However, these tools require fluent communication and close collaboration between all the actors or





stakeholders of the labour market (learning community, businesses and public employment services).

Approaches and Results

The ICT and green economy sectors are extremely sensitive to the current economic crisis. Nevertheless, these are also sectors with high adaptability to change: not only economic changes (policy and regulatory changes, budgetary reductions, etc.), but also rapid changes from their own segments (new market trends, new market niches, new projects, etc.). This adaptability to change makes them sectors with strong growth prospects.

Both sectors need well trained professionals that have the right skills to be able to face the rapid changes on the market, to grow in a competitive environment and to contribute to job creation. Companies have detected a mismatch of workers' skills to real business needs.

This is especially important for SMEs, because they usually have no Human Resource Departments or staff responsible for identifying and solving skills gaps - unlike big companies that have more specialised resources. Besides, although there are private and public mechanisms to identify skill gaps, SMEs are not aware of them or do not think they need them.

The need that all the actors (stakeholders) involved – both from the business sector and from the public sector – act in a coordinated and effective way is vital to reduce the skills gap.

The education and training system as well as the business community make sustained efforts to improve this situation. Most of the time, however, these efforts are not coordinated and individual bodies or companies act separately without joining synergies and resources.

It is necessary to create **discussion platforms** where SMEs, the learning community and other stakeholders meet. At these discussion platforms, SMEs could present to other stakeholders the skills they need for their current and future employees, so that this information could be known in advance, and curricula and policies could be adapted to the business reality. SMEs need also to make an effort to anticipate their future skill requirements according to their latest activities, projects, etc., and communicate them to the learning community in a timely manner. These platforms must be organised periodically and should have a moderator that leads sessions and summarizes the main points.





The results of the discussion platforms must be available for all stakeholders. It could be a good idea to create a **skills report** that reflects the shortages and future needs for the benefit of job seekers, students, employees, employers, governments, and the learning community. It would help individuals make more informed choices, and enable other stakeholders to better address future skills gaps.

Moreover, it is particularly important to **improve lifelong learning** for employees and jobseekers. Companies and employees agree on this point. Updating knowledge, renewing skills, discovering the new trends of the work environment, as well as learning about clients' new demands: these are all vital requirements for ICT and green economy to be able to adapt to change. However, SMEs may not be aware of the full range of training programmes delivered, or that these programmes are not suitable for the employees or specific circumstances of SMEs. Lifelong learning must be a mutual process that helps work-life balance and is adapted to SMEs' real needs.

Significant efforts must be made to improve **awareness raising and dissemination** among companies, especially SMEs, of all the means available to detect skills gap and anticipate future needs so as to optimise resources.

Finally, during the last years, **new market niches** have opened in both business sectors, especially in green economy. Many of them were traditionally sub-sectors that had experienced a reduction in their business activity due new technologies and trends, and that are now re-opening. That is the case of organic farming, forestry, and biomass, to name a few. The establishment of **public-private partnerships** to foster these new market niches will encourage job creation and, as a result, the deployment of new skills.

Implications and Recommendations

- Establishing discussion panels to create connections between SMEs, the learning community and other stakeholders.
- Enhancing lifelong learning systems to make sure that both employers and employees are aware of the training programmes delivered and can benefit from them.
- Improving awareness raising and dissemination among companies, especially SMEs, of all the mechanisms available to detect skills gaps.





- Creating public-private partnerships to foster new market niches that demand traditional and new skills.
- Encouraging core skills, like key competencies, which are highly demanded by the majority of SMEs.
- Designing policies to retain talents in order to avoid brain drain.

Conclusion

Sharing experience and practice from different regions and countries helps gain a better understanding of other successful ways to detect skills gaps and encourage effective cooperation between different actors and stakeholders. The knowledge of successful practices could inspire new programmes and instruments in other regions and countries, and even in other business sectors.

The key point is promoting fluent communication between stakeholders, in order to foster regular and well-organised information exchange on skills needs and future trends. The commitment and involvement of all stakeholders – from companies and business associations to the learning community (universities, training centres, etc.) as well as public administration (at regional, national and European level) – will make the difference in trying to solve the skills mismatch that exists in the ICT and green economy sectors.





POLICY BRIEF SLOVAK REPUBLIC

Location

Bratislava, August 6th 2014 – 2nd EU Workshop

Title

Role of different sectors and organisations in identification of skills needs and skill matching. Developing a forward-looking HR and skills development policy through cooperation.

Executive Summary

The globalisation of markets is accelerating the diffusion of technology and the pace of innovation. New occupations are emerging and replacing others. Within each occupation, required skills and competencies are evolving, as the knowledge content of production processes and services is rising.

A major challenge in all EU countries is simultaneously to enhance the responsiveness of education and training systems to these changes in skill requirements and to improve access to training and skills development.

Ultimately, each country's prosperity depends on how many of its people are in work and how productive they are, which in turn rests on the skills they have and how effectively those skills are used. Skills are a foundation of decent work.

Introduction

The cornerstones of a policy framework for developing a suitably skilled workforce are: broad availability of good-quality education as a foundation for future training; a close matching of skills supply to the needs of enterprises and labour markets; enabling workers and enterprises to adjust to changes in technology and markets; and anticipating and preparing for the skills needs of the future.





When applied successfully, this approach nurtures a virtuous circle in which more and better education and training fuels innovation, investment, economic diversification and competitiveness, as well as social and occupational mobility – and thus the creation of more but also more productive and more rewarding jobs.

Good-quality primary and secondary education, complemented by relevant vocational training and skills development opportunities, prepare future generations for their productive lives, endowing them with the core skills that enable them to continue learning.

Young women and men looking for their first jobs are better prepared for a smooth transition from school to work when they are given adequate vocational education and training opportunities, including in-work apprenticeships and on-the-job experience.

Working women and men periodically need opportunities to update their skills and learn new ones. Lifelong learning for lifelong employability captures the guiding policy principle here.

Robust training policies and systems are grounded in the characteristics and institutions of each country. Nevertheless, a number of common building blocks can be identified. A good skills development system will be able to: anticipate skill needs; engage employers and workers in decisions about training provision, including in specific sectors; maintain the quality and relevance of training; make training accessible to all sectors of society; ensure viable and equitable financing mechanisms; and continuously evaluate the economic and social outcomes of training.

To keep training relevant, institutional and financial arrangements must build solid bridges between the world of learning and the world of work. Bringing together business and labour, government and training providers, at the local, industry and national levels, is an effective means of securing the relevance of training to the changing needs of enterprises and labour markets.

Institutions to sustain the involvement of employers and workers and their representative organizations are critical to keeping training relevant and ensuring that training costs and the gains of productivity improvement are shared equitably.

Approaches and Results

In all countries the implications for ICT skills development are momentous. Many of the jobs that will be generated over the next two decades do not exist today; yet most of the





workforce of those years is already in education and training. Even so, the need to upgrade skills applies not only to young people in schools, universities and training institutions, but also to the current generation of workers.

Climate change is a major driver of technological change and innovation in the search for measures and policies to mitigate or help adjust to its effects. Sustainable development and the integration of environmental protection into economic and social development objectives are among the most challenging issues on the national and international policy agenda. The notion of “green jobs” has become an emblem of a more sustainable economy and society. Jobs in all economic sectors are subject to “greening”, but six sectors have particular salience in this respect: energy supply, especially of renewable energy; construction; transportation; basic industry; agriculture; and forestry.

Alarming, the lack of relevant skills may turn out to be a bottleneck in the “greening” of economies. There is an urgent need for training in the full complement of skills required across a broad range of jobs so that economies can both continue “greening” and realize the potential growth in employment the process offers.

Lessons from previous experiences of transition suggest that the transition to cleaner energy requires proactive steps to facilitate the adjustment of labour markets, both to maximize opportunities for new jobs and to address the problems associated with potential job losses. Skills development will play a prominent role in both aspects of this endeavour.

One of the main challenges of public policy is to foster institutional arrangements through which government departments, employers, workers and training institutions can respond effectively to changing skill and training needs, and indeed play a strategic and forward-looking role in anticipating future needs.

Countries use a variety of coordination mechanisms: national inter-ministerial bodies; sector-based bodies bringing together training institutions and providers with employers’ and workers’ representatives; and decentralized local bodies. These mechanisms involve substantial investments of time and money, and they work when, and only when, all stakeholders can see their own objectives supported by others.

The effective utilization of skills in the workplace both depends on and contributes to conditions conducive to innovation and enterprise development; effective labour market orientation and mediation services; and well-informed decisions about education and training policies.





Labour market information systems generate, update and disseminate information on current and future skill needs. This supply of critical information on an ongoing and timely basis is half the story. The other half is the transmission mechanisms that make this continuous flow of timely information available to education and training institutions, private market trainers, employers, trade unions, young people and their families, and displaced workers.

Public employment services have a critical role to play in making information available in the form of career guidance, vocational counselling, and material on access to training and job-matching services. Public employment services help workers and employers make transitions in the labour market through job-matching services, information and access to labour market programmes (on, for example, skills training or retraining, self-employment and starting a business); and they help jobseekers choose the best options to improve their individual employability, through dissemination of reliable labour market information, career guidance and counselling, and a spectrum of tools and techniques to assist in searching for jobs. Many public employment services also administer unemployment insurance programmes as a means of providing temporary financial support to workers.

Existing training infrastructure needs constant innovation to keep up with new technologies and learning methods. Flexibility and agility are vital to ensure that institutions remain able to respond to the evolving challenges posed by dynamic labour markets. Training institutions must have the capacity to periodically adapt curricula and update teachers' and trainers' skills to the changing needs of the world of work.

Good-quality training outcomes further depend on maintaining a high quality of training contents, methods, facilities and materials. Apprenticeships, and more generally the combination of classroom-based and work-based training, produce the best results.

Skills standards should be set and tested by involving stakeholders in the process.

Lifelong learning critically depends on a strong integration between education, training and work. A skills-based qualification system can accommodate multiple pathways through education, and between education and work.

People working in small enterprises and in self-employment, including those in rural areas and in the informal economy, as well as people in irregular work and precarious employment, should also have access to skills development and lifelong learning programmes. "Second chance" programmes, as well as drop-out prevention at an earlier stage, contribute to social inclusion. Vocational guidance and employment services can





often be improved to match people with training opportunities and to get trained people into jobs. Specific and targeted policies are required to assist small enterprises in investing in the skills required.

Implications and Recommendations

- Use sectorial councils to match sectors' demand for skills with training provision, anticipate future labour market and skill needs, and assess the quality and relevance of training programmes.
- Recognize the roles, rights and responsibilities of all stakeholders in promoting a lifelong learning approach to meet the skills needs of sectors.
- Embed sectorial approaches to skills development within long-term national growth strategies, thus linking (national) top-down and (sectorial) bottom-up training strategies.

Conclusion

The building blocks of any skills strategy must be solid foundation skills and stronger links between the worlds of education and work. This in turn requires good-quality education in childhood; good information on changes in demand for skills; education and training systems that are responsive to structural changes in economy and society; and recognition of skills and competencies, and their greater utilization in the workplace. To be effective, policy initiatives in these areas will also need to be closely linked with economic and social policy agendas.



POLICY BRIEF GERMANY

Location

Mainz, October 7th 2014 – 3rd EU Workshop

Title

Addressing the current and structural challenges of competence development, like competition for qualified personnel

Executive Summary

The ICT and green economy sectors will be facing major challenges in the future. In particular, skilled worker shortage is to be expected. This phenomenon will be caused by several factors and will mainly affect SMEs.

Addressing the lack of skilled workers will be a coordinated task of the political, economic and education systems. Examples from Australia, Italy, Germany, and Slovakia show that corresponding regional initiatives are being implemented.

A further task will be to follow these courses of action and meet these challenges together. One option is the setting up of regional or sectorial "clusters" where the various stakeholders can pursue common aims and activities.

Introduction

The ICT and green economy sectors have to manage big common challenges caused by the expected skilled worker shortage:

Many companies experience difficulties in recruiting the skilled workers they need due to the following reasons:

- In some countries, vocational education is not focused on professional practice while, in parallel, further differentiation of job profiles has taken place.





- The shortage of skilled workers, on the other hand, leads to increasing personnel costs due to high demand and low supply. Thus, in both sectors, the competition for qualified personnel or competition for talents has started.
- The segregation of economic sectors, which is not reflected in school education, has also led to challenges in terms of matching employers to jobseekers. For instance, there are more than 700 official occupational profiles. At the same time, this segregation causes skills gaps. The high degree of specialisation does not allow workers to switch from one sector of the economy to another because they lack the required competencies.
- These specific competencies already require special further training and skills enhancement. In both sectors, there is a high demand for further education, which is not met at the moment.
- These challenges concern SMEs to a greater extent, especially in rural areas. While global players and big companies can rely on effective HR Departments, SMEs cannot.

Green economy is faced with a major political challenge, in that the whole sector directly depends on political decisions. In particular, the changes to the German “Renewable Energy Law”, with sudden and drastic financial cuts, hit the sector very hard. As a consequence, in fact, the green economy is rather firing than hiring.

Approaches and Results

In order to meet these challenges, a mix of several structural, political, entrepreneurial, and educational measures is to be implemented. A holistic approach is needed, but it can only be possible if all relevant stakeholders make coordinated efforts. Very often, however, this is not the case and the major building blocks of this holistic approach are missing. Some best practices are reported below.

Political Level

Policy makers - especially in rural or structurally weak areas - can help raise the attractiveness of businesses and the community where they are settled. However, this must take place through the agreement of companies and stakeholders (such as the education system, training institutions, NGOs, etc.). A good demonstration of how this mix of





initiatives could work is to be found in the State of Victoria (Australia), where the line of action has focused on the three main areas:

- Career awareness – to address some misperceptions about ICT careers and encourage young people to follow ICT courses and work in this sector
- Skills building – to enhance the quality and scope of tertiary ICT courses and improve the job readiness of ICT graduates
- Growing the workforce – to develop a skilled ICT workforce, building on the supply of ICT workers from non formal learning

As regards the third line of action, which is the most important support for SMEs, actions have been taken in three areas:

- Overcoming misconceptions about and increasing awareness of ICT education and careers
- Optimising the support that ICT offers to businesses
- Improving skill matching in the ICT sector in order to better respond to business requirements

Economic Level / Business Level:

Entrepreneurs, however, should not lean back and merely rely on political action. Below is a set of measures that are viable:

- Creating stable and secure jobs
- Promoting attractive working conditions: fair pay, health and safety management, employee motivation, attractive location, leisure and training opportunities
- Improving life-work balance
- Establishing a personnel strategy that is more closely oriented to employees
- Taking into consideration the potential of women, older people, and people with a migration background
- Holding regular interviews with employees with a view to long-term human resource planning
- Promoting diversity and establishing a culture of acceptance





- Fostering close cooperation between regions and businesses (the term "region" here has a wider meaning than just a regional administrative body)
- Emphasising unconventional forms of learning such as blended learning and e-learning as important forms of further education. These do not require prolonged absence from work. Furthermore, on-the-job training is more favourably welcomed by SMEs.

(Vocational) Education System:

Also the education system should help mitigate the consequences of skilled worker shortage in the future. Many concepts have already been developed to intensify the relations between businesses and the education system.

(In this respect, many initiatives have been carried out worldwide on "staff retention" and a number of significant connections have been established between businesses and the education and VET systems).

The goal must be to strike a balance between the business community on the one hand and the education system with the demands of apprentices on the other hand.

Implications and Recommendations

In order to face the skilled worker shortage, the various stakeholders (first and foremost political and economic actors) must work together. This demands coordination rather than conflict.

The tasks of political institutions should be to support regional development by means of agreed-upon measures in the fields of economy, education, and labour market, as well as to raise the attractiveness of key factors in the sectors of ICT and green economy. Here are some practical recommendations:

- Setting up of regional clusters in the sectors of ICT and green economy.
- Raising the attractiveness of these sectors by establishing good social and economic conditions for young people (such as liveable space, leisure activities)
- Creating a regional information and knowledge management system.





- Establishing communication platforms between the different actors of the public administration, economic and education system.

The setting up of clusters plays an important role for the development of a region. These clusters mainly support SMEs through exchange and corporate initiatives to overcome the lack of HR Departments. Because many SMEs cannot fund in-house skill development or training programmes, the integration into existing networks or the establishment of such clusters is recommended and demanded by SMEs.

Another important role of policy-making is promoting the relations between businesses and the education system. In this challenging arena, it is important to strike a healthy balance between economical and educational interests and approaches. In order to provide better solutions for companies, activities should be developed to enable apprentices and employees to have access to new virtual learning methods.

Also businesses should do their homework as emphasised above. They can choose from a wide ranging set of tools that have already been designed to make their companies more attractive for young people and skilled workers.

Conclusion

The shortage of skilled workers has already affected some regions. The specialisation and rapid pace of change in both sectors requires joint efforts now and in the future. The success will depend on whether or not solutions will be found on both the political, economic, employment and educational levels.

Political institutions should give clear and distinct signals that they will "walk the talk" and support these two sectors. Businesses too should give signals that they will follow new and innovative courses of action.

One option is the creation of (regional and sectorial) clusters with decision makers from politics, the business community, public administration, and the scientific community with a view to implementing coordinated activities to achieve agreed upon goals.



POLICY BRIEF ITALY

Location

Rome, November 14th 2014 – 4th EU Workshop

Title

Unlocking financial and non-financial instruments to improve skills needs analysis and skill matching.

Executive Summary

The challenges of overcoming skills gaps has been variously addressed at a global and – particularly – European level. The use of EU funds has widened the range of initiatives aiming to solve the issues of skills shortage and skills mismatch. Nevertheless, the use of such funds has been seldom mentioned as a possible concrete solution to the main concern.

Skills shortage in the ICT and green economy sectors is becoming a hard test for companies in these two sectors, which are mostly made up of Small and Medium-Sized Enterprises (SMEs) that, in most cases, have no HR Department.

In companies where they exist, these HR Departments manage the payroll and, at best, personnel training (chiefly on technical issues related to companies' internal business). This means that the HR staff in SMEs are often unaware of the financial and non-financial instruments that companies may choose from in order to address skill matching issues.

Introduction

Making skill management become a real and effective mission for the SMEs in the ICT and green economy sectors is a real challenge.





As a first hurdle, the two sectors constantly undergo rapid and significant change, both in technologies and working processes, thus making it urgent to find people with the right skills to be employed when the need arises.

In addition, while the ICT industry has quickly adapted to change by creating new (and often codified) professional profiles, green economy is still far from having a comprehensive portfolio of all the professional profiles and skills that could be employed in the sector.

Moreover, both industries have a high turnover rate, due to strong competition for qualified personnel. As a consequence, companies in these sectors need to face high personnel costs to hire skilled workers.

A main topic is the use by companies in these two sectors of financial and non-financial instruments made available by the EU, as well as by other national bodies, to improve skills needs analysis and skill matching.

The use of financial instruments is quite well known and widely spread - although companies in these sectors sometimes find it hard to manage the funding application process. Non-financial instruments, instead, may consist of different kinds of initiatives carried out both by companies themselves and by main national institutions or local bodies, in the form of help-desks, public-private networks, direct involvement of businesses in education and training.

Non-financial instruments are hard to single out, since they are mostly related to local initiatives, specific issues, or small market niches. This makes it more complicated in the ICT and green economy sectors to identify good practices in terms of finding and using the above-mentioned instruments, as well as in terms of creating new ways to tackle the problem.

Approaches and Results

As stated above, while the ICT industry is managing to keep pace with innovation and skills development - although it still suffers from skilled worker shortage and competition -, green economy is lagging behind.

Local public-private networks, involving the education and training system as well as large enterprises, are among the initiatives that try to foster the education and qualification of highly-skilled personnel for the ICT sector.





Though it may be reasonably stated that the support provided by large enterprises tends to be more inward-looking and that they have the capabilities to “make a change”, it is also true that by deploying new professional profiles (thus laying the foundations for new or higher skills), their efforts may end up improving the whole supply chain.

The “*WALQA technological park*” is a model to improve skill matching that was established in Huesca, in the Northern region of Aragon, Spain. The park comprises around 50 companies for a total of 800 job positions, including about 600 ICT-related jobs.

The park is under the responsibility of INAEM – the regional Public Employment Service – and aims to recruit ICT engineers for companies located in the park. A specialised training course combined with traineeship has proved to be the best way to improve skill matching.

Since the Walqa park itself was striving to find qualified professionals, it imported the CTA (*Centre de technologies avancées - Advanced Technology Centre*) model to attract qualified workers, re-train Walqa employees and achieve business excellence, with the financial support of INAEM. The CTA model consists of specialised training validated by major ITC corporations and multinational companies: Microsoft, Oracle, Cisco, Linux, SAP, Sun Microsystems, Google, etc. Training is based on extremely high quality standards and, in most cases, ends up in direct job opportunities.

This example of good practice shows that a financial instrument may also lead to a non-financial initiative that, by fostering personnel training and re-training in the ICT sector, may enhance professional expertise for the benefit of the whole supply chain.

The CTA managed to get 73.8% of people from ICT training into work in the Zaragoza province in 2014, notwithstanding the economic crisis. Similarly, Walqa is expected to reach a job placement rate of almost 70% in 2015.

Initiatives based on the creation of networks using both financial and non-financial instruments to improve skill matching can also be found at a transnational level.

The project “*Vocational Education and Preparation for Labour Market*” – supported by the Swiss – Slovak Cooperation Programme within the enlarged European Union – is an example of how international organisations, education and training systems may exchange models and tools to tackle the issue of skill matching for SMEs.

The project, implemented in 2012, will be run until 2016 under the coordination of ŠIOV (the Slovak State Institute for Vocational Training), in cooperation with the Government Office of the Slovak Republic and the Embassy of Switzerland.



The Swiss project partner is the EHB – a government centre of competence for the provision of tertiary basic and continuing education to VET practitioners, for the development of professions and for VET research.

The project target group consists of students from 10 secondary vocational schools that have been selected for project pilot activities, VET teachers, professional organisations, other VET providers, and employers.

The project is mainly targeted to the VET system, in order to improve its effectiveness by fostering development among specific VET stakeholders and employers, updating curricula in line with labour market requirements, and promoting VET.

Project outcomes mainly consist in the description of the full range of skills, expertise, and abilities that employers in specific sectors of particular regions may demand for specific job positions.

This initiative fosters the review and update of education programmes for targeted subject matters as well as State education programmes for particular groups of specializations. Moreover, employers are directly involved in making their demands known in the training design phase, providing practical education, and participating in the final examination of trainees.

The whole VET system benefits from project activities since teachers are directly involved in the training aimed at enhancing their own competencies, with special emphasis on actual trends in each sector of interest, non-traditional methods and forms of education.

Although it does not specifically focus on ICT or green economy, the project is strictly connected to the NeMESI project objectives since it fosters the upscaling, upgrading and development of the whole education system. The aim is to provide businesses with the skills they need by directly involving them since the earliest steps of education and training.

The private sector is also finding solutions to bridge skills gaps with the direct support of businesses. Although the following initiative is not specifically related to ICT and green economy, it offers a wide range of options to enterprises – mostly SMEs – that need to enhance their employees' skills and competencies.

The RKW “Rationalization and Innovation Centre” is an initiative by the German Economy Association, which provides both financial and non-financial support and assistance to companies. Securing qualified staff and funding SMEs are the most important aims of the RKW connected to the NeMESI project.





In this case too, the need for networking is met, since the RKW competence centre cooperates with SMEs, social partners, associations, policy makers and the scientific community. This implies that the concepts and tools designed by the competence centre are strongly oriented to practice and can be quickly implemented and used.

Several projects supported by the RKW have been – and are still – carried out to address the shortage of skilled workers. It is worth mentioning that the RKW is fully supported by institutions, both at a local and national level, especially by the Federal Department of Economy and Energy.

In Italy, another good practice of networking and cooperation has been singled out, which places specific emphasis on the ICT sector while also focusing on the gender issue.

The *Donne@Work* (Women@Work) desk is an example of how the public and private sector as well as NGOs can cooperate to promote employment with a gender perspective in a particular economic sector.

The desk acts like a job placement agency, by providing free-of-charge staff recruitment services – namely preselection of female ICT professionals – to companies mostly located in the province of Milan.

The desk supplies services to companies of any size, sector and market segment, with a particular focus on SMEs. The desk staff are capable of identifying the best expertise to meet the needs of target companies, but they also provide guidance both to women seeking jobs in the ICT sector and to businesses.

The mission of the desk mainly consists in organising recruitment campaigns, matching skills to demand, interviewing and selecting applicants who meet companies' requirements.

The desk is the result of a public-private partnership sponsored by the Chamber of Commerce of Milan, involving several institutions and organisations such as the Municipality of Milan, the “Women Entrepreneurs” working group of ASSINTEL (Italian association of ICT companies), the “Women Managers” working group of Manageritalia (Italian association of managers and senior professionals in the tertiary sector) and PrimaDonna (an Italian NGO promoting the participation of women in the workforce).

Its activities make the *Donne@Work* desk an example of how non-financial instruments can be implemented to support SMEs (either from a specific sector or across different sectors) in matching skills to jobs, while also addressing a gender issue, which is an added value compared to other similar initiatives.



It should be noticed that any gender-specific initiative may somehow be considered as a form of reverse discrimination. Nevertheless, the Donne@Work desk has been implemented on the basis of research studies carried out in the ICT sector, which showed that women are under-represented among ICT skilled workers.

Implications and Recommendations

Different solutions focusing on the use of financial and non-financial instruments to improve skill matching have been tested and may be recommended:

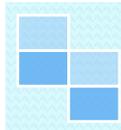
- Establishment of more PPPs (Public–Private Partnerships). These partnerships try to find solutions to the shortage of qualified workers in the sectors considered, by overcoming the lack of public financial means.
- A specialised training course combined with traineeship has proved to be the best way to improve skill matching in the Walqa technological park (Aragon, Spain), in an effort to find new ways to recruit qualified professionals for the companies located in the park.
- It is of vital importance to encourage dialogue and cooperation between universities and employers on the design of innovative curricula and tools in post-graduate programmes that respond to labour market needs, since traditional VET and high education systems appear unable to adapt to the rapid changes brought about by technological innovation in the ICT and green economy sectors.
- The gender perspective may be an added value for non-financial instruments that try to tackle skills mismatch by offering specialised services (like the “Donne@Work” desk). In fact, women are often under-represented in the so called “technological sectors”, which have traditionally employed more men than women (at least in EU Southern countries).
- It is imperative that all initiatives – at a local, national, and European level – be widely accessed by SMEs. While institutions need to boost communication and dissemination, SMEs should act proactively to find and collect information about existing means to solve their skill shortage.



Conclusion

ICT and the green economy are two of the most rapidly changing and demanding sectors nowadays, due to very fast and continuous technological innovation that causes skills shortage and skills mismatch in the labour market. Besides, traditional VET and high education systems appear unable to adapt to these rapid changes. For this reason, all stakeholders need to adapt themselves to different market trends and act in closer cooperation. As a matter of fact, the lack of qualified workers appears all the more unreasonable when set in the context of the economic crisis while, on the other hand, the increasingly meagre State funds should be invested in the few existing cases of real “Best Practice”.





Project partners and contact information



**Camera di Commercio
 Roma**



IRFI
 Azienda Speciale

IRFI is the designated training agency of the Rome Chamber of Commerce and acts in compliance with its institutional mandate given by the Chamber of Commerce itself.

Its main activities are research, consultancy, development and management of training activities which further its business members' interests and encourages business and economic growth in the region.

www.irfi.it



CREA
 CONFEDERACION
 DE EMPRESARIOS
 DE ARAGON

CREA is a non-profit employers organisation located in the Autonomous Community of Aragon, Spain.

CREA represents more than 30.000 enterprises through its associates made up by territorial and multisectorial businesses associations as well as biggest local companies operating in the region, offering a wide range of services to associates and other targets.

www.crea.es



RDA is a public organisation belonging to Slovak integrated network of RDAs. It operates on the territory of Bratislava Region and cooperates with public, SMEs and NGO sectors in Slovakia and similar bodies from EU and third countries.

Main activities relate to VET in the LLL context, consultancy and support service for elaboration of socio-economic strategies, project management and tailor-made VET training.

www.rrasenec-pezinok.sk



ISM provides consultancy for public authorities, NGOs and enterprises.

Other activities are project development and management, Ism is responsible for some local and regional networks e.g. labour market actors in the city of Mainz, labour market actors in the county of West-Pfalz and for a nationwide network of professionals for entrepreneurship of ethnic minorities, statistical inquiries, social research and planning.

www.ism-mainz.de

www.nemesi-project.eu

Contact info:

Applicant Partner – Istituto Romano per la Formazione Imprenditoriale

00154 Rome (IT) - 116, Via Capitan Bavastro

Ph. +39 06 571171 – Fax +39 06 5779102

www.irfi.it – info@irfi.it – LinkedIn group: Project Nemesi – Facebook: nemesiproject

Contact person: Mrs. Delia Petacchi – d.petacchi@irfi.it