E4C "E-Skills for Innovative Cities"

Baseline study

BASELINE STUDY

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Introduction

The baseline study starts with a brief introduction to the E4C Thematic Network, an EU URBACT project aimed to support ICT-e-skills related jobs for competitive and innovative cities. The partnership includes representatives of 10 EU cities from 9 EU countries and it is leaded by Red Local (Spain). The project is aimed to tackle three major Challenges: digital illiteracy; e-skills gap and e-skills shortage. The baseline study is divided in three parts: State of the Art on EU ICT and E-skills; a description of the 10 Partners Profiles and a Synthesis.

Part I: State of the Art

Includes an assessment on the state of the art, particularly at European level, on the topic of e-skills and ICT jobs. It includes a systematic review of the existing knowledge, key findings, policy actions and the most remarkable experiences.

The study shows how ICT is present in all sectors of the economy and plays a significative role to create jobs. ICTs, together with globalisation, have already altered the economic structure of the world and labour markets, therefore the need for the EU to constantly adapt to compete internationally. Despite the economic crisis, ICT and e-skills related jobs are on demand. ICT user skills have to be spread out and improved, ICT practitioner skills are highly required and need to be constantly updated and e-business skills are not sufficiently covered while digital iliteracy is still persistent.

Chapter A deals with the "European Union Support to ICT", analyzing the role of the EU policy on the "Digital Agenda" and describing how ICT is an essential tool to achieve the objective of faster growth and more jobs. The ICT support from EU comes from different Directorates-General and programmes, within the role of the "Competitiveness and Innovation Programme", the "7th Framework Programme" and the Structural Funds.

Chapter B deals with "E-Inclusion", a key element in the battle to overcome social exclusion. There are groups under risk of social exclusion with no access to e-skills and consequently to jobs. ICT is a tool for social inclusion facilitating the provision of social services, healthcare and/or education. Progress has been done to reduce the digital divide but more is needed to achieve e-Inclusion. Fragmentation of efforts and lack of collaboration continue to persist while municipalities play an important role to overcome the digital gap.

Chapter C on "E-Skills, ICT and Human Resources: e-skills gap and shortage" deals with the e-skills gap (workforce not sufficiently qualified) and e-skills shortage (insufficient numbers of professionals to cover the labour market's demand. The chapter also shows how ICT affects employment and how work is organized and understood. The workforce needs to have multidisciplinary

capacities. ICT facilitates the creation of new business and growth but for such aims it is needed to improve and update ICT infrastructure. ICT is present in all economic sectors and activities and entails qualified jobs, but young people still show insufficient interest in an ICT career, specially amongst women. Young people need to develop digital competences needed in the workplace. The e-skills gap and shortage can be reduced through retraining and increased workforce mobility. ICTs also enables lifelong learning and makes new, innovative and flexible methods of learning possible..

Chapter D deals with "E-business skills and ICT: an e-skills gap and shortage", where ICT is an essential tool for new ways of business, like electronic business and e-commerce. E-business requires new leadership capacities and skills which are scarce and on demand. E-skills are an engine for innovation and ICT fosters business value chains.

Chapter E deals with the "Role of Municipalities to promote e-skills and ICT", describing how by maximizing the use of ICT the city can become more efficient. City councils promote the use and facilitate access to ICT tools and increase the e-skills of their citizens, while local e-government make municipal services more accessible. Municipalities support social groups to facilitate social integration and the development of the digital school through expanding educational tools. Municipalities determine the steps and speed of the stages undertaken to adopt ICT tools. ICT supports the development of smart digital cities, new ways for city service management and is contributing to change the city life. ICT business are supported by cities, cloud computing services provide flexible options for business, municipal open data   facilitates new opportunities for people to use the data to the benefit of their communities, broadband access opens opportunities and green cities provide sustainable perspectives. We anticipate and describe the 5 focus areas for the E4C project identified as a result of the intake visits paid to the 10 partners.

Part II: Partners Profile
These profiles cover the partner background, experience implementing activities related to the thematic issue, main economic challenges and trends, main gaps, on-going initiatives and lessons learned from previous projects and main expectations regarding the forthcoming local action plan dealing with the issue as well as the preliminary composition of their local support groups.

Part III: Synthesis
It brings together the issues arising from the analysis of the situation in the partner cities in relation with the State of the Art, providing a clear definition of the theoretical framework, a selection of a limited number of preferential sub-themes, the basis for focused and straight local action plans and a description of the contents of the main activities foreseen for the implementation phase.

0. PROJECT BACKGROUND

The contribution of the ICT sector and application of its tools to the European economy to boost productivity and the development of innovative products and services is of growing importance among all member states.

ICT-e-skills related jobs for competitive and innovative cities: In order for European cities to stay competitive and innovative and to reinforce the employability of their urban workforces, the E4C thematic network aims to promote employment related to ICT and e-skills through the joint definition of integrated urban strategies, policies and practices with a view of implementing the Europe 2020 Strategy. Additionally the E4C project will take into account the three **cross-cutting issues** to be addressed by URBACT projects:
- How to manage urban development in the context of the economic and financial crisis: since the beginning of the economic and financial crisis, the European unemployment rates have significantly increased, and one of the solutions proposed to create new jobs is to promote innovative jobs based on new technologies or R&D.
- How to foster integrated and sustainable approaches to urban development: the promotion of e-skills in urban areas will help fighting against new types of social exclusion and will foster both the e-inclusion and labour inclusion of citizens of urban areas.
- How to develop efficient partnerships and multi-level governance processes.

E4C is an URBACT project: this report summarizes the work undertaken by the thematic network during the Development phase, from May to October 2012, under the framework of the URBACT II Programme. E4C is one of the 19 thematic networks initially selected by Urbact to undertake the development phase. The present study provides a background and defines the scope of the thematic network's activities to be set up by the work programme for the second phase (implementation phase).

Members of the E4C Thematic Network: the partnership is leaded by RED LOCAL, a group of several Municipalities from Madrid metropolitan area, Spain and includes as initial partners the cities of SUNDERLAND (UK), GHENT (BE), PATRAS (EL) and AGUEDA (PT). During the development phase "Digipolis" (the telematics governmental organisation of the city of Ghent has taken the role of Ghent as a partner in this network as equivalent public authority. The partnership has been extended during the development phase to the cities of ALBA IULIA (RO), ARADIPPOU (CY), KIELCE (PL), TERNI and PALERMO (both in Italy). The Lead expert, Mr. Alberto Cerdá Micó with the active contribution of all partners and their local coordinators-project representatives and relevant stakeholders representatives, has prepared this study, which brings information collected from major studies and well recognized documents on the issue.

3 Major Project Challenges: the thematic network is addressing the following 3 challenges:

Challenge 1 Digital Illiteracy– improve the workforce's employability by overcoming digital illiteracy

Challenge 2 E-Skills Gap – update the workforce's e-skills to fight e-skills gaps on the labour market

Challenge 3 E-Skills Shortage– increase the number of ICT professionals to counteract the e-skills shortage

The E4C project is already promoting the activities undertaken by the network during the development phase and a mini site has been set up for such aim on the Urbact web site: http://urbact.eu/en/projects/human-capital-entrepreneurship/e4c/homepage /

1. Part I: STATE of the ART on ICT and E-Skills

Since the financial crisis began to hit labour markets in 2008, Europe has lost 5.6 million jobs. Recovering this loss is only èpossible if the EU returns to sustained economic growth, which in turn requires European industries and services to retain or regain international competitiveness. In this respect, the capability of industry and services to compete and evolve is becoming increasingly dependent on the innovative and effective use of information and communication technologies (ICTs) [1].

ICT jobs are significant: Employment in the ICT industry and employment of ICT specialists each accounts for up to 5% of total employment in OECD countries, but ICT intensive-users account for more than 20% of all workers in all branches.[2]
ICTs, together with globalisation, have already altered the global value chains and the economic structure of the world and consequently labour markets too. Whereas twenty years ago globalisation only affected the production of goods and touched blue-collar workers, it now permeates into every sector of the economy, specially affecting routine tasks.

EU needs to adapt to compete internationally: Faced with new emerging markets and rising competition from lower-cost countries with a fast growing and increasingly skilled workforce such as in China and India, European enterprises need to adapt to this new reality. In today's technological environment, innovation almost always involves embracing ICTs, which in turn allows for optimisation of business processes, efficiency gains and improved knowledge management processes and, consequently bigger market share.

ICT jobs are in demand: if European enterprises take full advantage of the potential of ICTs they will contribute to creating an important number of jobs and enhancing competitiveness. The demand for ICT professionals continues to grow whilst other jobs are disappearing. Ensuring that EU workers have the necessary higher end skills will help attract investment and prevent loss of key ICT employment to other regions of the world.

The European Centre for the Development of Vocational Training (CEDEFOP) distinguishes the following 3 e-skills types:
- ICT PRACTITIONER SKILLS: capabilities required for researching, developing, designing, strategic planning, managing, producing, consulting, marketing, selling, integrating, installing, administering, maintaining, supporting and servicing ICT systems.
- ICT USER SKILLS: capabilities required for the effective application of ICT systems and devices by the individual, they generally cover digital literacy.

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[1] "Exploiting the employment potential of ICTs", Communication from Commission to EU Parliament, Council, EU Social and Economic Committee and Committee of the Regions. Towards a job-rich recovery. 2012
[2] ICT skills and employment. New competences for jobs and greener and smarter economy, OECD 19.04.2012

- E-BUSINESS SKILLS: capabilities needed to exploit opportunities provided by ICT, to ensure more efficient and effective performance of different types of organisations; to explore possibilities for new ways of conducting administrative and organisational processes; and/or to establish new businesses.

ICT jobs concentrate in cities: Since ICT related enterprises geographically concentrate in cities, the demand for ICT practitioners and users is especially high in urban areas. Hence, European cities will be particularly affected by the foreseen excess demand for ICT practitioners (European Commission and the European e-skills Committee: "Evaluation of the communication e-skills 21",October 2010).

Digital illiteracy is still persistent: The persistence of digital illiteracy is still a common problem among European cities and one of the biggest challenges for the employability of workers. The acquisition of the adequate e-skills required by the labour market is crucial for improving the employability of individuals in order to access modern workplaces.[3] Since the persistence of digital illiteracy is especially affecting specific collectives of citizens (vulnerable groups) the diversity of the cities population requires specific approaches for cities in order to ensure a high level of digital literacy irrespective of gender, age, education level and provenance and thus be able to improve their employability.

Need to upgrade E-Skills to adapt to labour market demand and trends: According to the "European Communication on Industrial policy in an enlarged Europe" (COM (2002) 714 final), for the EU as a whole, the ICT sector share of total business value added is 8.5 % and the ICT sector employment constitutes 3 % of total business sector employment in the EU.
From technological change and the spreading of information society stems the need to maintain and constantly upgrade the workforce's digital skills. Therefore, on the one hand, it is important to tackle the E-SKILLS GAP between the current and needed competence levels of the staff within organisations in order to ensure that employees keep their employment.
On the other hand, in the context of globalisation it is important for the cities to dispose of a competitive workforce able to face the challenge of off-shoring. The European Communication e-skills for the 21 century states that 20% of total employment could potentially be affected by off-shoring.

More ICT users and practitioners are needed: The European Communication "e-skills for the 21st century: Fostering Competitiveness, Growth and Jobs" (COM (2007)496 final) has underlined the urgent need to address issues related to the DIGITAL ECONOMY in order to respond to the growing demand for highly skilled ICT practitioners and users and, thus, assure the digital literacy of all citizens.

Need to increase the number of ICT professionals to fill the E-skills shortage: In spite of the current crisis, the number of ICT practitioners in Europe has been growing over the past decades and the ICT sector is a significant sector offering employment opportunities. However, the image of the

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[3] The "Europe's Digital Competitiveness report 2010" has identified this challenge and the upcoming Digital Agenda (as part of the Europe 2020 strategy) will tackle the issue directly.

ICT sector seems to be deteriorating being reflected in the declining number of students starting ICT careers (COM (2007)496 final). An e-skills shortage is foreseen in Europe that will result in an excess demand of 348.000 ICT practitioners in 2015[4].

A) European Union Support to ICT

The Digital Agenda for Europe: The European Commission launched in March 2010 the Europe 2020 Strategy to address the economic crisis and prepare the EU economy for the challenges of the next decade. Europe 2020 sets out a vision to achieve high levels of employment, a low carbon economy, productivity and social cohesion, to be implemented through concrete actions at EU and national levels.

The Digital Agenda for Europe (DAE) is one of the seven flagship initiatives of the Europe 2020 Strategy. It defines the key role of Information and Communication Technologies (ICT) for Europe to succeed in its ambitions for 2020.

The objective of this Agenda is to chart a course to maximise the social and economic potential of ICT, most notably the internet, a vital medium of economic and societal activity: for doing business, working, playing, communicating and expressing ourselves freely. Successful delivery of this Agenda will spur innovation, economic growth and improvements in daily life for both citizens and businesses.
Wider deployment and more effective use of digital technologies will thus enable Europe to address its key challenges and will provide Europeans with a better quality of life through, for example, better health care, safer and more efficient transport solutions, cleaner environment, new media opportunities and easier access to public services and cultural content.

"Faster growth and more jobs": is the main goal of the policies that target advancing knowledge and innovation.[5] There is a strong consensus to strengthen research and innovation in Europe in general and in particular more effort is needed in order to broaden access of firms to finance, research and innovation and ICT's and to lessen the burden of red tape for small and medium sized enterprises[6].

ICT has been broadly embraced as a key element in the so-called renewed Lisbon strategy, which essentially is a growth and competitiveness strategy aiming at job creation and boosting productivity eventually determining EU's capacity to innovate[7] and compete.

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[4] The report "Anticipating the development and demand of e-skills in Europe 2010-2015" (European Commission, DG ENTR, December 2009).
[5] Sectoral Innovation Systems in Europe: the case of the ICT sector, quoted.
[6] Modern SME policy for growth and employment, COM (2005) 551 DD. 10.11.2005
[7] i2010: A European Information Society for Growth and Employment, COM (2005) 229 final, see for a theoretical underpinning of the impact of ICT on growth and jobs: Dunnewijk, Meijers and van Zon, 2006 and for the policy implications Barrios and Burgelman, 2007.

EU Directorates-General and programmes: EU policy support to ICT comes from several DGs (especially: DG Enterprise[8], DG Infso[9], DG Research[10] and DG Regio[11]), and many different programmes[12], e.g. the Competitiveness and Innovation Programme (CIP), the 7th Framework Programme for Research and Technological Development (runs from 2007 to 2013) and the Structural Funds programmes.

The Competitiveness and Innovation Programme: with small and medium-sized enterprises (SMEs) as its main target, the Competitiveness and Innovation Framework Programme (CIP) supports innovation activities (including eco-innovation), provides better access to finance and delivers business support services in the regions.
It encourages a better take-up and use of information and communication technologies (ICT) and helps to develop the information society while promoting the increased use of renewable energies and energy efficiency.

The CIP runs from 2007 to 2013 with an overall budget of € 3621 million.
The CIP is divided into three operational programmes. Each programme has its specific objectives, aimed at contributing to the competitiveness of enterprises and their innovative capacity in their own areas, such as ICT or sustainable energy:
- The Entrepreneurship and Innovation Programme (EIP)
- The Information Communication Technologies Policy Support Programme (ICT-PSP)
- The Intelligent Energy Europe Programme (IEE)

The 7th Framework Programme is composed of[13] bundles of research-related EU initiatives together under a common roof. The broad objectives of FP7 have been grouped into four categories: Cooperation, Ideas, People and Capacities. For each type of objective, there is a specific programme corresponding to the main areas of EU research policy. All specific programmes work together to promote and encourage the creation of European poles of (scientific) excellence. Universities, research organisations and industry are among more than 16.000 funding recipients.

The ICT theme in FP7 is one of the two main financial instruments in support of the i2010 initiative that is the Union's policy framework for the information society. The other main financial instruments are the ICT specific programme within the Competitiveness and Innovation Programme (CIP). ICT in the CIP aims at ensuring the wide uptake and best use of ICT by businesses, governments and citizens. ICT in FP7 and ICT in the CIP are therefore

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[8] http://ec.europa.eu/enterprise/ict/index_en.htm
[9] http://ec.europa.eu/dgs/information_society/index_en.htm
[10] http://ec.europa.eu/dgs/research/index_en.html
[11] http://ec.europa.eu/dgs/regional_policy/index_en.htm
[12] A comprehensive "Practical Guide to EU Funding Opportunities for Research and Innovation" can be found at:
http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_id=5784&lang=en
[13] For more information see: http://cordis.europa.eu/fp7/home_en.html

complementary instruments aiming at both progressing ICT and its applications14.

The Structural Funds (SF): are one of the financial tools set up to implement the Cohesion policy by the EC. The other financial tool is the Cohesion Fund15. The SF is composed of the European Regional Development Fund (ERDF) and the European Social Fund (ESF). Together with the Common Agricultural Policy (CAP), the Structural Funds and the Cohesion Fund make up the great bulk of EU funding, and the majority of total EU spending16.

Since 2010, the existing SF can be used for research and innovation projects. From 2013, SF programmes will have an increased emphasis on innovation and smart growth specialisation.

EU Member States designate a managing authority that is responsible within the country for selecting projects and monitoring their implementation17.

Despite the awareness of the importance of innovation, knowledge and ICT for productivity and competitiveness investment in R&D and ICT in Europe is persistently lower than in the US. To stimulate innovation in SMEs in general and lower the hurdles that SMEs face with regard to access to capital and finance the EU developed specific policies aimed at ICT SMEs along the following three lines:

· Policies aimed at improving access to markets and finance: cheaper and faster start-ups, better access to loans, more efficient taxation and less burdensome regulation.

· Policies aimed at boosting public and private R&D, technology development,

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14 Even though the Seventh Framework Programme is still operating, the European Commission is already working on the next European research programme: **Horizon 2020** which will provide a new framework for research and innovation in the current socio-political context which is marked by the globalization of knowledge and capacities for innovation, but also deep financial crisis and other global challenges such as climate change. Horizon 2020 will run from 2014 to 2020 with an €80 billion budget, the EU's new programme for research and innovation aims at integrating research and innovation funding schemes in one single programme. Horizon 2020 will tackle societal challenges by helping to bridge the gap between research and the market by, for example, helping innovative enterprises to develop their technological breakthroughs into viable products with real commercial potential. It will imply major simplification through a simpler programme architecture, a single set of rules, less red tape through an easy to use cost reimbursement model, a single point of access for participants, less paperwork in preparing proposals and fewer controls and audits. For more information see: http://ec.europa.eu/research/horizon2020/index_en.cfm

15 http://go.egi.eu/cohesion-policy
16 **The Funds**
The European Regional Development Fund (ERDF)
The ERDF supports programmes addressing regional development, economic change, enhanced competitiveness and territorial co-operation throughout the EU. Funding priorities include modernising economic structures, creating sustainable jobs and economic growth, research and innovation, environmental protection and risk prevention. Investment in infrastructure also retains an important role, especially in the least-developed regions.
The European Social Fund (ESF)
The ESF focuses on four key areas: increasing the adaptability of workers and enterprises, enhancing access to employment and participation in the labour market, reinforcing social inclusion by combating discrimination and facilitating access to the labour market for disadvantaged people, and promoting partnership for reform in the fields of employment and inclusion.
The Cohesion Fund
The Cohesion Fund contributes to interventions in the field of the environment and trans-European transport networks. It applies to member states with a Gross National Income (GNI) of less than 90% of the EU average. As such, it covers all 12 new member states as well as Greece and Portugal. Spain is also eligible for the Cohesion Fund, but on a transitional basis (so-called "phasing out").
17 See national contacts in http://go.egi.eu/sf-national-contacts. The application process is explained in the link http://go.egi.eu/sf-how-to-apply.

(technological and managerial) and innovation including absorption capacity of SMEs and top class SME support for these matters.
· Policies aimed at human capital: entrepreneurship[18], skills and training[19].

A large part of the public support is aimed at enhancing the diffusion and the society wide uptake of ICT. Apart from the myriad of individual policies and measures, cooperation and systemic forms of innovation governance for the ICT sector are deemed necessary to facilitate appropriate policy mixes, strategic agendas and a more thematic focus to research and innovation.

A good example is the cooperation in research and innovation stimulated by the creation of Technology Platforms and strategic initiatives which combine several projects and many type of stakeholders.[20]

B) E-Inclusion[21]

Digital literacy relates to the ability to grasp and use information as presented via diverse digital media (audio, video, text, etc.) and across all possible devices. Being digitally literate implies being able to search and retrieve information, to navigate and communicate on-line, to participate in digital, and virtual communities and to be able to improve one's situation through use of digital media (finding better prices for products, learning online or finding a job online are some examples of this). It is perceived as a key element in the battle to overcome social exclusion and divisions in European society.

Groups under risk of social exclusion: Effective e-inclusion policy pays attention to the integration of at risk and vulnerable target groups like low skilled workers, unemployed, young students, women, immigrants, senior workers, disabled persons, etc. Thirty-seven per cent of the EU population has no computer skills and more than sixty per cent of people not educated beyond lower secondary level have no basic e-skills (Eurostat, 2006). Across wider

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[18] In the Community Integrated Guidelines for Growth and Jobs especially guideline 10 call for a more entrepreneurial culture and create a supportive environment for SMEs. The SME dimension in EU's innovation policy is especially present in the Entrepreneurship and Innovation Programme (EIP)
[19] For an overview of these SMEs policy projects see:
http://ec.europa.eu/enterprise/entrepreneurship/support_measures/index.htm
[20] The technological platforms were created to bring together companies, research institutions, and any other organisations, with a view to defining, at European level, a common strategic research agenda which should mobilise a critical mass of national and European public and private resources to improve the impact of public and private research, to increase investment in European research, and to facilitate common approaches to technology progress and uptake.
The Technological Platforms in ICTs currently are:
☐Artemis (Embedded Systems Unit),
☐eMobility (Communication Technologies Unit)
☐ENIAC (Nanoelectronics and Photonics Unit)
☐EUROP (Future and Emerging Technologies Unit)
☐ISI (Communication Technologies Unit)
☐NESSI (Grid Technologies Unit and Software Technologies Unit)
☐Networked and Electronic Media (Networked Audiovisual Systems Unit)
☐Photonics21 (Nanoelectronics and Photonics Unit)
· EPoSS (Micro- and Nanosystems Unit)
[21] Brussels, 8.11.2007. COM(2007) 694 final. "European i2010 initiative on e-Inclusion"

Europe, almost 300 million people live in digital exclusion[22]. However it is critical to continue promoting initiatives focused on facilitating access and connectivity of all parts of society including training in the basic use of ICTs, but without ignoring the acquisition of more sophisticated and proficient digital skills (informational, media and technological literacy as well as e-awareness).[23]

ICT a tool for inclusion: Information and communication technologies (ICTs) have become of key importance for many people throughout Europe. Active use of ICT often means better prospects for work, information or social relations for individuals. ICT helps to realise major advances in social services, healthcare or education, is a major contributor to productivity growth, and opens up many business opportunities.

Inclusive information society: *e-Inclusion* refers to the actions to realise an information society for all. The aim is to enable every person who so wishes to fully participate in the information society, despite individual or social disadvantages. e-Inclusion is necessary for social justice, ensuring equity in the knowledge society. It is also necessary on economic grounds, to fully realise the potential of the information society for productivity growth and reduce the cost of social and economic exclusion.

Indeed, bridging broadband and accessibility gaps, or improving digital competences, translates into new jobs and services. Initial estimates indicate that benefits from e-Inclusion in the EU could be in the order of €35 to €85 billion over five years.

The importance of e-Inclusion was recognised in i2010 and Member States, the European Commission, industry, and NGOs representing users have undertaken several actions to advance e-Inclusion. A landmark was the 2006 Ministerial "Riga Declaration" on ICT for an inclusive information society[24], which set concrete targets for Internet usage and availability, digital literacy, and accessibility of ICT by 2010.

More has to be done to achieve e-Inclusion: However, despite all these valuable initiatives, progress is still lacking and fragmentation of efforts and lack of collaboration continue to persist. In today's knowledge economy, people without access to new technologies and the skills to use them risk being excluded from a world of opportunity. In Europe, it is estimated that nearly half of all citizens currently do not have the necessary skills to use new technologies with confidence in everyday life.

Given the importance of ICT, this failure to access or use ICT increasingly constitutes a major form of social and economic exclusion. Persistent digital divides affect cohesion and prosperity. Normally groups under risk of social exclusion are more affected by low or inexistent e-skills and digital illiteracy.

More must be done to achieve e-Inclusion and guarantee equal rights in the information society, internal market coherence and e-Inclusion co-ordination actions. Firstly, the visibility of e-Inclusion should be increased and the level of political and stakeholder commitment should be raised. Secondly, enabling

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[22] "The e-skills manifesto. A call to arms", by Ade McCormack, quoted.

[23] Strategies to Promote the Development of E-competencies in the Next Generation of Professionals: European and International Trends, Juan Cristobal Cobo Romani, Nov. 2009

[24] Riga Ministerial conference "ICT for an Inclusive Society"(11-13.6.2006).

conditions (affordable and accessible technologies and the competences to use ICT) must be put in place, where needed with legislative support. In addition, stakeholders' efforts to deliver effective and inclusive ICT-enabled services must focus on concrete priorities with increased coherence.

Municipalities play an important role to break the digital gap: city councils support different activities to facilitate access to e-skills by social groups in need, providing training and disseminating activities, free internet access, IT equipment loans, broadband access, digital schools, etc. as we will see in detail in this study (part D).

C) E-Skills, ICT and Human Resources: e-skills gap and shortage[25]

There are not sufficient numbers of highly educated people to cover the demand in the field of ICT related jobs. The problem has many aspects: e.g.: the declining numbers of students in scientific and engineering disciplines, the brain drain to the US, the shortage of experts with specific skills, the shortage of the absolute number of ICT-workers in general, the abundant supply of high educated labour in emerging economies, such as China and India.

The importance of the availability of high skilled labour is still a challenge for the sector. The ICT panel also called for more flexibility of the labour market, accompanied by re-training of employees in order to promote job mobility and knowledge diffusion. Besides the importance of skills development in general, there are also some more specific needs, such as the need to increase multi-disciplinary capacities of the workforce, the need for developing a more risk-taking entrepreneurial spirit, the need to enhance the managerial skills of ICT professionals. These needs should be addressed during education. After education the mobility of researchers should be promoted, e.g. between researchers in the public and private domain.

ICT is present in all economic sectors and activities: The pervasiveness of ICT skills implies that most jobs nowadays already require some kind of computer related knowledge. Whilst ICT specialists account for 3.2% of EU employment, advanced ICT users account for six times as many, i.e.18.5% of employed persons[26], ranging from 9% to 31%, depending on the Member State.

It is difficult to think of a job in the present day economy that does not require some degree of ICT knowledge[27]. At the same time as routine jobs are being replaced by ICT solutions, other jobs become more complex and require more ICT knowledge. The emphasis of the demand from European enterprises is

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[25] "Exploiting the employment potential of ICTs", quoted

[26] http://ec.europa.eu/information_society/digital-agenda/scoreboard/docs/pillar/digitalliteracy.pdf

[27] Almost all areas of the public sector also now demand e-skills. Business leaders, government personnel managers and market analysts continue to warn of an impending e-skills shortage, with between 41% and 56% of firms in all sectors reporting that they are regularly recruiting IT specialists, with the implication that many of these positions are "hard to fill" vacancies. "The e-skills manifesto. A call to arms", by
Ade McCormack.

increasingly focusing on higher level problem-solving and entrepreneurial skills to address the needs emerging from cloud computing, cyber-security, green technologies and eHealth applications. Yet, despite the many efforts over the last years, ICT training as part of other (either university or vocational) training programmes is lagging behind the fast-moving development of technology. Moreover, it is necessary to ensure that workers already in the workforce adapt new ICT applications to their work as they emerge[28].

It has been forecast[29] that, by 2015, 90% of jobs will need at least basic computer skills. Acquiring those skills is thus rapidly becoming a precondition for workers to become and remain employable.

ICT affects employment and the world of work in many ways: On the one hand, ICTs allow many tasks which had been previously carried out by humans to be automated, thus potentially leading to job losses, in particular with regard to routine tasks. This has a negative impact on the labour market for medium-skilled white collar workers. Although it is difficult to quantify the specific role of ICT in this regard, it forms part of a general long-run trend towards more automation[30]. In any case, as ICT is a global technology this impact is felt everywhere in the world: postponing ICT investments is therefore not an option for Europe. On the other hand, more and better qualified ICT practitioners, researchers, entrepreneurs, managers and users are needed as the demand for ICT professionals continues to grow. Indeed, ICT practitioners were one of the very few employment categories which continued to grow (at around 3% per year) even during the current economic crisis.

As a result, by the end of 2010, 4.1 million Europeans worked as ICT practitioners in the narrowest definition (programmers and computer assistant staff), up from 2.7 million ten years earlier, with another 1.1 million in closely related occupations. It is also important not to confuse the work of ICT practitioners with the ICT sector – 55% of practitioners work in user industries rather than in the ICT industry itself.

The employment of ICT practitioners is growing so fast that there are not enough workers to fill all the vacancies available in the sector. According to a recent estimate[31], there will be up to 700 000 unfilled ICT practitioners' vacancies in the EU by the year 2015. These developments offer excellent job opportunities for workers who are willing to pursue a career in this field.

Need to improve infrastructure for ICT: Finally, one should not forget that ICT has the potential to provide even more employment in the future if the network infrastructure is improved. Jobs in ICT nowadays, whether as an ICT practitioner or ICT user, typically require access to the Internet, i.e. the presence of broadband networks. Yet many of the areas with persistently high

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[28] Jobs and their skills requirements are constantly evolving. Concepts such as critical thinking, multi-tasking, collaboration and team work are increasingly strategically relevant. E-skills can provide the opportunities to meet these fast-changing requirements of the knowledge-based society and achieve a better position to overpass global competitive challenges.

[29] IDC White Paper "Post Crisis: e-Skills Are Needed to Drive Europe's Innovation Society" (November 2009).

[30] On the other hand, ensuring higher productivity and competitiveness thanks to the new technologies also means preserving jobs in Europe in the future.

[31] Report for the European Commission "Anticipating the Evolution of the Supply and Demand of e-Skills in Europe (2010-2015)" Empirica and IDC Europe, December 2009. Updated forecast presented at the European e-Skills Conference on 13 December 2011 in Brussels.

unemployment have only limited broadband deployment (e.g. rural and remote areas), which limits the potential for future ICT careers for people in these areas. Also, flexible ICT working arrangements such as tele-work are typically only possible where there are high-speed connections, as is cloud computing[32].

ICT skills gap and shortage: The labour market for ICT practitioners has been characterised for a number of years by a shortage of supply, i.e. a lack of skilled workers. As a result, there has been a persistently large number of unfilled vacancies, which is often referred to as the "ICT skills gap". The financial crisis has barely affected ICT practitioners: their unemployement rate rose by a mere 0.6% to 1.8% in 2010[33]. A substantial shortage of IT workers seriously jeopardizes the success of the European economy. It affects the development of high-tech industries and slows down the velocity of innovation, which in turn influences employment and productivity in the related industries.

Young people show insufficient interest in ICT career: Surprisingly young people still show low interest in a career as an ICT practitioner. Recent statistics on the number of ICT graduates in the EU give rise to additional concerns. Although their number increased from 71 000 per year in 2000 to 127 000 in 2006, it decreased again in the following years, down to 114 000 by 2009.

An additional complication arises from the increasing number of ICT graduates leaving the work force due to retirement: the number will increase from around 80 000 per year in 2010 to about 120 000 in 2015. As a result, the number of ICT graduates in the labour force could soon actually drop, while the number of ICT vacancies continues to rise.

It is intriguing that the number of young people choosing a career in ICT remains so low. On the one hand, there has been a great deal of activity in Member States in terms of stepping up provision for ICT skills and digital competence. This has included curriculum reform, extra funding and resources, new programmes, the creation of virtual learning environments, and the use of ICT in communication, administration and management[34]. On the other hand, Internet usage surveys show that regular Internet usage by 16-24 year olds ranges from 87% for the low-educated to 97% for the highly-educated[35].

In other words, most young people now have at least basic ICT skills and many are familiar with a number of internet applications[36].

Yet, the number of them who make the jump from 'cool' ICT, such as installing a webcam or converting a song into a different format for their personal listening, to 'boring' ICT, such as entering a graduate ICT programme, a vocational ICT education, or creating their own web company, remains limited. Despite the good employment prospects in the sector labour supply is scarce particularly

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[32] To enhance improved coverage of broadband connection and ICT applications, the European Regional Development Fund (ERDF) provides about EUR 15 billion to ICT priorities (or 4.4% of total cohesion policy funds) to ensure access to basic Broadband (EUR 2.3 billion) and supporting ICT applications and services for citizens and SMEs (EUR 12.7 billion) in the programming period 2007-2013.

[33] Empirica presentation at European e-Skills conference, Brussels, 13 December 2011

[34] See the 2010 joint progress report "Key competences for a changing world" of the Council and the Commission on the implementation of the "Education & Training 2010 work programme" provides the evidence of SEC (2009) xxx and SEC (2009) xxx. Similar results have been obtained through the EURYDICE study 2011.

[35] http://ec.europa.eu/information_society/digital-agenda/scoreboard/docs/pillar/usage_content.pdf

[36] See also "Eurostat, Survey on ICT usage in households and by individuals, 2011" data on skills related to using office applications, e.g. using excel, presentation software, creating a web page etc.

among youngsters and this reticence to take a career in the field of ICT remains a serious challenge for policy-makers. Often, the difficulty of entering the ICT sector is overestimated. A recent survey in the UK[37] showed that 36% of students thought that in order to work in ICT they would need a degree in ICT.

Digital competence: Another important reason for this mismatch is that today's youngsters might be 'digital natives', but they are not yet digitally competent[38] in the sense that they are not able to use ICT in a professional, collaborative, critical or creative way. Despite the many initiatives undertaken at European, national and regional level, formal education and training systems have not systematically integrated innovative pedagogical strategies supported by new technologies[39]. Recently, some efforts have been made to build bridges between formal education, training and accreditation systems and these new ICT industry led initiatives.

Women are not sufficiently attracted to ICT jobs: In addition, we have to deal with a gender issue related to the ICT career. Among ICT specialists in the OECD, women still account for a relatively low share of the total workforce and only represent 20%[40] of the overall figure. Women are underrepresented in entrepreneurship, SMEs leadership, sciences and research. Society still has too many stereotypes discouraging women from being attracted to IT careers and jobs.

Need to retrain and increase mobility: A major alternative source of skilled ICT workers has always been unemployed mid-career workers from related fields such as engineering, mathematics or sciences, with adequate retraining, as they usually share the same basic bodies of knowledge.

Moreover, for more basic digital technology jobs (such as web site designers, call centre or network administrators) skills can be acquired by those who have a certain aptitude but lack previous formal education in this field. Such courses are often available through informal training centres and non-formal community groups. However, this is not happening as much as it could be, as is shown by the simultaneous existence of ICT vacancies and persistent unemployment among workers in related fields. This can be explained partly by a problem of geographical mobility, as job vacancies and unemployed workers may be in different areas, and partly by reluctance on the part of either workers or companies to invest the necessary retraining resources in terms of training cost and adaptation period. Progress has been done to ensure that basic skills are of comparable quality across labour markets so that employers can know better what the capabilities of applicants are, but more can be done. There is also the question of whether the wage premium for ICT skills is sufficiently high to make such retraining profitable. Additionally if more people are to be encouraged to

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[37] CompTIA survey

[38] Digital competence is one of the 8 Key Competences identified under the "European Reference Framework on Key Competences" (2008); OECD, PISA results on Digital reading, 2011. IPTS, *Mapping Digital Competence: Towards a Conceptual Understanding*, Sevilla, European Commission, and JRC 67075, 2011. http://ipts.jrc.ec.europa.eu/publications/pub.cfm?id=4699.

[39] Key Data on Learning and Innovation through ICT at School in Europe: Eurydice, 2011; Pisa Digital reading (2011); STEPS survey (2010). Ferrari, A., Cachia, R., & Punie, Y. (2011). *Educational Change through Technology: A Challenge for Obligatory Schooling in Europe*. Lecture Notes in Computer Science, 6964, 97-110.

[40] OECD IT Outlook 2010; http://www.redstor.com/downloads/cloud-dividend-report.pdf

acquire these skills then they will need to be able to see that their employment conditions are commensurately improved.

ICTs support lifelong learning and new educational methodologies: In the EU, jobs held by highly-qualified people in all sectors are expected to rise by 16 million between now and 2020, while those held by low-skilled workers will decline by around 12 million[41]. This enormous task of increasing high level skills and up skilling existing skills, including the digital competences of users can be facilitated by ICTs. For example, by enabling education and training through open and easily available learning resources, open educational practices or the use of open networks.

New educational practices like virtual mobility can support collaborative methods preparing for new forms of work and at the same time support the development of eLearning, as well as open educational resources.

Multidisciplinary capacities are required: advanced ICT professions require a graduate degree in a computer related field or a training certificate provided by an ICT vendor. For many other ICT occupations, a shorter and/or on the job training period will be sufficient, especially for workers with experience in technical or scientific areas. ICT professions are multidisciplinary and extend beyond technical requirements necessitating soft skills such as communication and business related skills (project management, problem solving, creative thinking, team working etc.).

D) E-business skills and ICT: an e-skills gap and shortage[42]

Basic ICT infrastructure, such as simple computer networks and access to the internet, has become a commodity for a majority of enterprises in all sectors.
These technologies have become so widely used that they are now essential for doing business. By contrast, advanced information infrastructures and services have a critical role in tomorrow's economy far beyond the systems and technology itself: they enable and trigger new ways of managing business relationships, and new models for doing business in the advancing digital economy. While large companies are well-placed to take on and develop these models, smaller companies either need to follow suit, or risk being excluded from supply chains.

ICT as essential tool for e-business: While ICT continues to be an effective resource for cutting existing costs, it is increasingly embraced as a tool for innovation and for increasing revenues by enabling new services and ways of working within value chains and networks.
ICT and e-business are used in all sectors of the economy, but the reasons for their use, and their focus can differ widely. This depends on the nature of a company's offer, the scale of the market and the marketing strategy. Electronic business enable the companies to link their internal and external data

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[41] "An agenda for new skills and jobs: A European contribution towards full employment"
http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/1541&format=HTML&aged=0&language=EN&guiLanguage=fr
[42] ICT and e-business trends in 2008. A summary of study results of the Sectoral e-Business Watch

processing systems more efficiently and flexibly, to work more closely with suppliers and partners, and to better satisfy the needs and expectations of their customers. E-commerce seeks to add revenue using the internet facilities to build and enhance relationships with clients and partners and to improve efficiency.

ICT favor the creation of new business: Moreover, the emergence of new digital applications creates the potential for entrepreneurial and talented ICT practitioners to start up their own companies. Since ICT is a global technology and digital services tend to be easily scalable, start-ups in this field usually have a higher growth potential than other start-ups, and thus a significant employment potential as well. Unfortunately, however, so far, most of the start-up and growth activity of ICT and Internet companies worldwide has taken place outside the EU.

ICTs make it easier to create a new business, thereby enabling more would-be entrepreneurs to pursue their ambition. It does this in two ways. On the one hand, e-Government services (where offered by Member States) can facilitate and greatly speed up business creation processes. On the other hand, emerging cloud computing services reduce financial stress for new companies by removing the need for up-front investment in any additional ICT hardware other than a terminal[43]. These developments can help speed up payments and establish a payroll thus enabling a business to take off quickly and easily whilst also reducing its risks of failure. The emergence of cloud computing has been estimated to provide an additional 400 000 jobs per year in the EU from 2010 to 2015.[44]

E-business/e-leadership and ICT skills: successful take-up of e-business requires new skills sets and new ways of using them. E-Leadership skills have been defined as a hybrid of business and IT-skills. University graduate studies that specialize in this hybrid (which are offered under names such as "computer management information systems", "business information systems", "business informatics") have existed for some time, however it appears that jobs with a required e-leadership profile are not yet mainly being filled by recruiting graduates of these subjects.

E-leadership skills are on demand: they are increasingly expected from decision makers in managerial and business professional jobs regardless of their formal educational backgrounds. E-Leadership skills are especially increasingly required of decision makers and leading professionals. The target groups include entrepreneurs, managers, ICT practitioners and advanced users.

EU policy has been extremely conscious of the importance of ICT and related skills, yet companies face persistent difficulties trying to find these skills among

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[43] Cloud computing is a network access to a shared pool of computing resources, including networks, servers, storage and software. Businesses accessing an available computing cloud can increase capacity or capabilities in a more flexible and cost efficient way.
[44] "The Cloud Dividend: Part One. The economic benefits of cloud computing to business and the wider EMEA economy"; centre for economics and business research; OECD IT Outlook 2010
http://www.redstor.com/downloads/cloud-dividend-report.pdf

the workforce. There are three key aspects to be addressed: educating ICT professionals, educating ICT users, and providing adequate information about ICT and e-business to management to enable strategic planning. There may also be a need for sector-specific approaches to tackling these challenges.

E-skills and innovation: E-skills also play a pivotal role in enabling the design and development of innovative products, processes and services thanks to both users, entrepreneurs, academics and in some cases government. On one side, IT users enhance innovation by displaying their e-capabilities in researching, developing, designing and maintaining IT. On the other hand, entrepreneurs and managers use their e-business skills to ensure a more efficient performance of different types of organisations, to explore possibilities for new ways of conducting business and organisational processes, and to establish new businesses. The ultimate results of all these activities are the enhancement of innovation and the creation of new jobs

Fostering ICT value chains: ICT and e-business are key drivers in developing a company's value chain: procurement, production, marketing, sales and distribution. The studies show there is much room for improvement, as many companies feel that their suppliers and customers are not ready for e-business. This is usually cited as the main reason for not using e-business more intensely.

The EC and Member States need to strengthen projects to facilitate e-business in industry supply chains, perhaps paying particular attention to those supplier or customer industries which are themselves important customers, but which have a low level of e-business applications.

E) Role of Municipalities to promote e-skills and ICT

Municipalities are interested to offer their residents, students, business and investors an open, accessible and connected place to live, study, work and invest.

The role of the city administration[45]: Cities employ a large amount of people at all levels of the administration. Maximising their use of ICT means that the city can become more efficient. One means to achieve this is to organise ICT awareness and training sessions for employees giving basic ICT training to workers at all levels of the administration. ICT training classes can be held anywhere in a city, such as around public access terminals (if available) in libraries. Computer classes can also be held in mobile buses.

E-Inclusion is not something that can only be dealt with by a city administration – there are many actors who can help citizens develop their IT skills. Encouraging all the possible stakeholders to get involved and work together is a great way to ensure that the e-inclusion message is received. Cities can take a

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[45] "From crisis to e-Inclusion". Eurocities, Working group on e-Inclusion, March 2012

lead role in this area by developing city wide digital strategies ensuring that digital inclusion is integrated in all activities.

Cities work on both the offer and demand sides, on the one hand offering services and applications (app's) via multiple channels and on the other hand harnessing/creating demand.

City administrations invest heavily in ICT technology. They should consider how their investment and vision for ICT can be used city wide. This can be from simple projects such as providing cost effective access to software in the home to major technology investments that can act as a catalyst for regeneration within the city. Online tools such as translation programmes can help reach citizens that might otherwise be left out.

Municipalities play an essential role to promote the use and facilitate access to ICT tools and e-skills to their citizens by providing a wide range of activities like IT courses for youth, aged persons, communities-associations and their representatives, groups under risk of social exclusion, teachers and local government employees, etc. They can facilitate citizens access to technology providing free access to Internet, consultations and individual support, short-or long-term seminars and trainings on using ICT, dissemination activities about ICT advantages of using ICT in daily activities. They also play a role providing professional training to students and workers to acquire the e-skills required by the labour market, very often with the support of ESF.

Stages for municipal involvement:[46] ICT infrastructure and applications will be adopted at different stages by a given municipality, with policymakers shifting their goals from indirectly supporting the ICT market, to deploying and operating access infrastructure (can include building and running a network that supports a range of services to end users), to supporting municipal competitiveness (include the efforts of local governments to bolster their competitiveness and firm-level productivity gains through increased ICT utilization and streamlining local services), and finally to the development and adoption of ICT-sector clusters (includes the creation of a critical mass of ICT firms and expertise, which can benefit the economic development of the municipality). Municipal ICT goals cannot be static, but instead must be flexible enough to adapt to the changing technological and economic conditions to achieve an optimum policy outcome.

Local e-government: E-government is information or services provided on-line by local governments to individuals using the Internet. It ranges from simple Web sites conveying only basic information to very complex sites that transform the customary ways of delivering local services.

Some Municipalities have already managed to provide electronically all or most of public services through internet protocols and other ICT methods, including delivery by telephone. There are several types of interaction provided by the local authority: providing information; collecting revenue; providing benefits and

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[46] Creative Urban Regions: Harnessing Urban Technologies to Support Knowledge City Initiatives, Chapter VI: Municipal ICT Policy Goals and Technology Choices, A Decision Framework, by Nicholas C. Maynard

grants; consultation; regulation (such as issuing licences); applications for services; booking venues, resources and courses paying for goods and services; providing access to community, professional or business networks; procurement.

Support community groups[47] : City administrations should tap into the IT skills its inhabitants have and encourage them to share what they know with others. People could be encouraged to get involved through their social networks. Working with these groups, finding out who they are and what interests connect them, can assist in this process. This information can be used to explore what prevents people from going online, why they want to do it and encourage and help them to do so. It is important that cities find a way to involve various groups through skill sharing, training-the-trainer, honorary teachers, mediators, computer advisors and so on. Successful projects all include organised activities that focus on the interests of specific groups in public places such as at the market or grocery shop where people naturally congregate. By focusing on non-ICT activities such as hobbies (family ties, crafts, gardening, cooking) people can understand how developing their ICT skills can enrich their experiences. Whilst focusing on social aspects, it must also be remembered that mediated or adapted access must always be considered, particularly for the disabled or elderly, so that they may also benefit from ICT through assisted living, specific tools or adapted hardware.

Municipalities can run or support social centers where they offer free access to ICT for local people, very often developed in partnership with community organisations to improve the e-skills of those who don't have access to the new technologies. Municipalities will provide IT equipment (PCs and laptops, data projectors and screens, digital cameras), to community groups and social enterprises via loans, sometimes free of charge, to fight the digital gap. These measures include the provision of training and technical support, sometimes including the development of web pages to promote the community groups and its members.

Local telecenters provide access, skills training and skills certification to people who are otherwise hard to reach through formal learning channels. Telecentres are typically located in public libraries, schools and community centres, and often run by voluntary or community organisations. Telecentre (also known as Community Technology and Learning Centre - CTLC, eCentre, iCentre, IT Training Centre, etc) can be described as a publicly accessible place where people can get help to access computers, the internet and other digital technologies that enable them to gather information, create, learn, and communicate with others.

The European region contains an estimated 100,000 telecentres with more than 250,000 staff and 100,000 volunteers. Average usage numbers suggest that these telecentres work directly with at least 25 million digitally excluded citizens per year across the European region.

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[47] [47] "From crisis to e-Inclusion". Eurocities, quoted.

Digital schools: Municipalities and their department of education is a natural partner when it comes to developing e-skills. All schools should have an e-strategy through which they guarantee the maximum integration of ICT in lessons. School buildings can be used after school hours and at weekends to host neighborhood projects such as ICT courses. This additional use of the buildings can bring about employment for local people.

Schools can also be pivotal in reaching students' extended family. By engaging with parents and guardians they can encourage people lacking digital skills to participate in learning programmes either with or without the child.

Schools can embrace the advances of new technology by adopting new devices such as iPads to facilitate new ways of learning. Cloud based technologies can be used to extend the learning environment beyond the physical boundaries of the school building.

Municipalities can provide:
- Support for access to reliable, safe, fast and secure IT facilities for every student, in school and at home.
- Support for teachers and access to innovative teaching resources, embedding IT skills across the curriculum
- Access to multi media channels, social networks, software and infrastructure that allow students to expand their knowledge and develop the new skills they will need in the future.

Smart Digital Cities:[48] they make maximum use of ICT to manage city operations. They anticipate the evolution of public and private needs and support it through the deployment of ICT. Sustainability is an essential part the smart concept and ICT is utilized optimize urban management and meet the goals of environmentally, economically and socially-minded development.

ICT supports city service management [49]: Urban management approaches are becoming more strategic, integrated and participatory. In this context, GIS as well as simulation and 3D modeling tools are increasingly being mobilized to better coordinate urbanization, housing, transportation and environmental policies. 3D images help people imagine, design, discuss and manage urban projects that are more in line with sustainable development. Digital tools such as GIS are actually becoming information sharing and negotiation tools for development proposals and work-plans. These tools provide efficient support for new approaches to managing cities that reduce public spending (energy expenditures), optimize the use of transit networks (sustainable mobility) and improve the efficiency of public services for citizens and businesses (information portals, shift from paper to digital procedures).

ICT supports a changing way of city life: [50] Laptop computers, mobile phones, PDAs, GPS…Urbanites' ICT gear behavior and activities. Mobility and nomadism are central to this lifestyle. ICT actively helps users make the best choices in transportation methods (geo-positioning, access to multimodal transportation information in real time, navigation systems), consumption

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[48] The Sustainable City & ICT. How does ICT contribute to the development of sustainable cities?. IDATE NEWS 448 January 1st, 2009.
[49] The Sustainable City & ICT, quoted.
[50] The Sustainable City & ICT, quoted.

methods (e-commerce, pay-by-mobile), communication practices (social networks), working methods (nomadism and teleworking) and connection to urban institutions (participatory democracy). Networks of smart sensors and mobile devices (cell phones, PDAs, etc.) become tools for collecting data on the city. Once they have been processed using algorithms by a centralized hub, these data are distributed to connected inhabitants. Citizens become information producers for the community, thanks to their communication devices. Residents thereby have access to information on traffic conditions, air quality in various parts of the city…and they can adapt their behavior or mobility accordingly.

Support e-business, industrial and technological parks: these facilities are encouraged by local governments, in order to attract new companies to towns, and to expand their tax base and employment opportunities to citizens. Land and other taxes are usually waived or reduced along a number of years, in order to attract new companies. Businesses and organizations in the technological parks focus on product advancement and innovation as opposed to industrial parks that focus on manufacturing and business parks that focus on administration.

Besides building area, these parks offer a number of shared resources, such as uninterruptible power supply, telecommunications hubs, reception and security, management offices, restaurants, bank offices, convention center, parking, internal transportation, entertainment and sports facilities, etc. In this way, the park offers considerable advantages to hosted companies, by reducing overhead costs with these facilities

Provide cloud computing services: cloud computing has a key role to play in helping the transformation of cities and communities. Cloud computing is an "on-demand" network access to a shared pool of computing resources, including networks, servers, storage and software. This is a way to support businesses, city services and social organisations as they can increase capacity or capabilities without investing in new infrastructure, training new personnel or licensing new software facilitating their access to low cost, secure computing and other services.

Open data: Municipalities can provide open access to their data, with appropriate privacy protection, providing more transparency in the operations of the council facilitating new opportunities for people. More open access to data supports digital innovation and public accountability and drive improvements in public services. Making public data available enables people to reuse it in different and more imaginative ways than may have originally been intended by collecting pieces of related information from different sources. Open Municipal Data sets up interactive websites providing core information and statistical figures of the city. The user can generate maps and statistics on the city, economic areas, city areas, etc. [51]

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[51] Ghent and Sunderland are advanced examples implementing such policies

Provide fast broadband access: Municipalities can facilitate better internet coverage for their residents. The demand for higher speed internet access is increasing as lifestyles focus more heavily on technology. The improved communications network can help the economy to grow as businesses benefit from better connectivity, as new services and applications emerge, quick internet access enable quicker transactions and a more flexible delivery of services.

Green cities: EUROCITIES[52] has launched the Green Digital Charter,[53] as part of a wider Green Shift Europe initiative. One of the greatest means for innovation lies in exploiting information and communication technologies to contribute to a greener digital world. EUROCITIES and the European Commission have acknowledged the important contribution ICT can make to increasing energy efficiency, reducing emissions and generally realising a sustainable, low-carbon society.[54]

Greener ICT and ICT for greener jobs is a growing sector. There is potential to create new jobs in the green ICT sector, like writing software or developing and manufacturing environmentally efficient semiconductors and other products for instance. Other green jobs will be related to greening the economy, for example working on the systems that operate wind farms or installing and maintaining the equipment that smart buildings use to control lighting and temperature.
Given the potential of ICT to boost both green growth and employment, it's surprising to learn that only a minority of governments are explicitly promoting green ICT-related skills and jobs according to an OECD survey[55].

The role played by the E4C partnership: The following Part of the baseline study will describe the partners profile and will show the findings from the intake visits to the 10 members of the network.
We will see how there are areas very much advanced in the field of municipal involvement to support ICT tools and the development of e-skills but as well that there is still big ground to explore new methodologies to improve the efficiency and impact of such policies while guarantee their continuity.

We have found out that **e-government services** are in general well or even very well developed by the network partners but they are not fully used to their potential by the ordinary citizen. The fact that E4C partners have developed e government services will be used as a tool to encourage and support the access to e-skills for persons who are digital illiterate and **fight digital exclusion.**

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[52] http://www.eurocities.eu/

[53] http://ec.europa.eu/information_society/events/ict4ee/2010/docs/charter/green_d_charter.pdf

[54] The Charter brings European cities together in order to:
• Exploit ICT as a technical solution and enabler of behavioural change to reduce emissions, including those from ICT themselves;
• Encourage leadership from public municipal authorities in adopting innovative technical solutions and building new partnerships to deliver on climate change commitments and
• Share public and private sector experience and expertise in deploying ICT to address climate change, in cooperation with national, European and international initiatives.

[55] http://oecdinsights.org/2012/05/09/green-and-smart-ict-jobs-for-tomorrow/

We have found as well that the partners are very much concerned about the need to guarantee the adequacy of the **e-skills provided to young persons/students and to the unemployed** as they have to be updated, upgraded and practical as it is required by the labour market demand in a dynamic process.

The intake visits also found that a lot has been done by the partners to **train their own municipal staff**, including the **teachers at local schools**, but the ICT tools are not fully used to their potential to increase the effectiveness of the provided municipal services. Thus there is ground to explore innovative measures and methodologies to train the staff to provide them with the right e-skills and favor maximum use of the (expensive) hardware provided.

The intake visits also showed the need to explore examples to design and implement innovative **cooperation projects with other partners** to undertake activities of common interest with the Municipalities, an issue that can help to continue with e-skills development in times of budget constraints, which are affecting all partners to different degrees .

The intake visits also showed that there is room for most partners to promote the development of **e-business skills** as a tool to promote economic growth and job creation.

2. PART II: Partners Profile

The E4C project started to collect information about the initial partners from the time the application was elaborated and the Declaration of Interest provided All partners filled a questionnaire which served as a basis for a first insight and construction of the partnership.

The questionnaire requested the partners to provide information on their citie's background related to ICT and e-skills development and support, describing past and future trends on the issue and asking for their expectations about their participation in the E4C partnership. The same questionnaire was used later to select the new members of the partnership from a long list of applicants who showed interest in participating in this Urbact thematic network. The new members were selected after answering the questionnaire and in agreement with the initial partners taking into consideration the balance among competitiveness and convergence criteria and the potential contribution of each partner to the network.

The lead expert undertook intake visits to the initial partners (in June) and later to the new members. All partners were sent a more detailed questionnaire and a structure for the "Partners Profile" including issues related to the future definition of a local action plan, potential members of the local support group, instructions about the elaboration of a SWOT analysis on the strong and weak points of respective organizations to tackle the three challenges and on the expectations about the E4C project and potential contributions to other partners.

The round of visits to the partners was undertaken by the lead expert to elaborate the Partners Profiles included in this baseline study and the following activities were undertaken with support and participation of partners representatives:
- Introduced the URBACT framework and the E4C objectives to the local stakeholders of the host city, namely: the local support group.
- First review of the local situation in relation with the support of employment related to e-skills and ICT support,
- Identified the challenges/issues the partner intends to address through the E4C thematic network and in particular in its Local Action Plan.

During the visits meetings that were held with the project local representatives (coordinator and other city representatives), visits were made to municipal services related to the issue and relevant organizations dealing with active employment policies and training, to NGO's and community groups supporting the acquisition of e-skills, Universities and research organizations dealing with ICT and e-skills and, in some cases a visit was paid to the Managing Authority (Patras).

During the visits to the partners a workshop was also held with the attendance of Municipal representatives and members of the future Local Support Group (in Agueda the Managing Authority attended the workshop). During the workshops a SWOT analysis was undertaken to identify strong and weak points for the

Municipalities and concerned organizations to support e-skills development and ICT sector and preliminary ideas for a future Local Action Plan were discussed developed and reflected in the Partners Profile. The intake visits also served to get support from several Managing Authorities to the E4C initiative (Alba Iulia, Agueda, Aradippou, Kielce, Palermo, Patras, Red Local and Terni).

After the visits the local coordinators produced their own profile following the guidance provided, they were revised by the lead expert integrating all relevant information collected during the intake visits, the received answers to the questionnaires and from other sources, like web pages and city analysis.

The Lead expert would like to thank all partners for their support during the intake visits, for the patient work and revision of their profiles. The profiles include information which is an indispensable basis for work programme to be implemented in phase II.

The 10 partners profiles are presented bellow following an alphabetic order.

AGUEDA

1. Main characteristics of the town and its economy

- Basic overview

Águeda is an industrial municipality with a great diversity of small businesses predominantly in the areas of mechanical engineering and construction materials. Geographically it is located 24kms from the coast, 46kms north of the city of Coimbra and 70 Kms south of Oporto. With 49,000 inhabitants and 360 km2, more than half the area of its territory is occupied by forest.
The municipality has twenty parishes and of these Águeda is dominant for having the biggest urban centre and for being the Council capital.

Águeda is managed by the municipality, which in turn is managed by a Municipal Executive. This Executive is lead by the Mayor and a team of six elected councillors. The municipal executive is overseen by the Municipal Assembly that consists of 41 elected councillors. The Municipal Executive has a mandate related to social-economic, environment and territorial development and to financial investment management in the Municipality.

The economic structure of Águeda is dominated by the metal processing industry, representing 55% of industrial employment and 33% of total employment in the municipality overall. In addition the sectors of textiles, clothing and materials for construction of ceramic and articles of stoneware and earthenware are significant for Águeda in employment.
Between 1991 and 2001 the city has seen a growth in employment in furniture with reductions in employment in textiles, metallurgy and agriculture. Alongside this manufacture of motorcycles and bicycles which has been a dominant feature of the Águeda economy has been restructured, leading companies to diversify their activities in particular into the manufacture of components and accessories for motor vehicles.

The city of Águeda is home to two Higher Education institutions, the University of Aveiro and the School of Technology and Management of Águeda. These have played a key role in Águeda's development and growth, through knowledge transfer, entrepreneurial development and the development of a student community within the city.

The city has been highlighted at national level, due to the quality of its services, the use of new technologies, the administrative simplification and modernization, the speed of responses to citizens and able to establish an excellent relationship through Internet services, facilitating access to all processes in a transparent and open way.

With many organizations dedicated to culture, Agueda has a cultural offer above the average in the region, cultural events take place regularly atracting growing number of people.

- General trends

Águeda has traditionally showed a great capacity for entrepreneurship. The establishment of an Industrial and Commercial School in the city, provided training and support to business development, which in many cases were successful.

Collaboration between the municipality, university and businesses lead to the development of "Eco-Sustainable Enterprise Parks" to promote local entrepreneurship through the development of enterprise incubators with access to common services.

The Cooperation Network for Innovation and Competitiveness in Águeda, led by the Municipality of Águeda aims to create conditions for boosting the innovation capacity of local business through the creation of partnerships around common objectives, involving companies from different economic sectors and knowledge centres. The main objective of the network is to increase the participation of local business and business support intermediaries through the creation of a cooperation platform to help identify and implement actions and innovative projects.

The Municipality of Águeda is characterised by an industrial tradition with entrepreneurial capability, which are the major factors that have contributed to the economic success of the city during the twentieth century. However, changes in the demand patterns of international markets, as well the economic crisis that took place due to these changes, affected Águeda's economic environment forcing it to rethink its approach to economic development and innovation. Águeda as a result has supported initiatives to stimulate innovation and competitiveness

Águeda was, and still is, known as the "Land of the Bikes", as a large number of bicycle manufacturers have settled in the local territory. The brick and ceramic industry had a large representation in the municipality, as well as the metal industry, including the production of metal furnitures for offices.

The forest is one of the great resources of the county and represents a very important source of income for small farmers to ensure a better quality of life with the income from eucalyptus timber for paper industry.

The local industry began to be threatened by the arrival of products manufactured in Asia producing a unbalanced market with higher imports. The bicycle industry has felt the impact of the entry of oriental products and many of its activities and production has being progressively reduced.

The crisis in the construction sector also caused an inversion of values and some unemployment. This is confirmed by the number of building permits

issued, which between 2007 and 2011 decreased about 70%. Like most industries in the city worked with products for construction, many of the local companies were affected immediately by the reduction of contruction sector.

However, because they are small and medium enterprises, many of them were able to take timely decisions that avoided a major crisis and realigned its activities to other sectors where they managed to survive.

The bike industry has been reconverted. Now there are many examples of success in manufacturing accessories for vehicles with two and four wheels (with good international references), been able to export bicycles for public use to the main European capitals (Paris has imported thousands of bikes manufactured in Águeda).

The lighting industry has also proved to be promising and innovative, with the design, development and production of new environmentally sustainable lighting systems, including integrated solutions for intelligent lighting. The municipality has provided "test spaces" using the methodologies of LIVING LABSc, so that the developed solutions are those which best meet the needs of sustainability and final users.

- Specific issues related to the thematic partnership

In the framework of the rapidly developing information society and a relatively high unemployment rate, the demand of e-skills on the workplace is a fact. Employers organizations report that it is difficult some times to find workers with the suitable e-skills and ICT knowledge, especially among the unemployed ones.

In this context, the city of Agueda has already initiated strategies and activities in order to improve their citizens' digital skills. The city carries out a project that transmits ICT user skills to their citizens and public servants through training seminars and workshops.

Some years ago, the Municipality of Águeda developed some actions to improve basic skills in ICT for the population in general, with the creation of 17 spaces for free Internet use, located in various parishes. The experience did not achieved all expected results due to the difficulty to hire technical staff to support the training activities, due to legal constraints to hire staff and the volunteer collaboration of the Parishes's staff was not always satisfactory. Indeed, it was found that many young people and adults took the first steps in the development of basic skills and, even, obtained certificates of attendance, but it was also found that younger persons wanted to access internet services in order to use games and entertainment services.

The lack of technical support, the outdated equipment and its maintenance costs compared to results obtained led to the progressive abandonment of the project, and, today, only remain some of the original places, but without much dynamism.

These initiatives on digital literacy and e-skills are endorsed by the national programme "ligar Portugal" (Connecting Portugal) which defines the national strategy for the Information Society and the promotion of access to the broadband telecommunications network.

The Municipal administrative services are fully digital, with no physical movement of documents and paper, all decisions are taken in digital format and all processes are controlled by work-flow, linking tasks to the responsible department with deadlines for their execution. Citizens submit their requests through the web, receiving e-mail or an SMS informing about the process of their request.
As a result up to 10.036 proceedings are decided at the moment, up to 180.048 km not driven, 72.259,20 € of fuel savings and a total reduction of 24.984 tons of CO_2.
Nevertheless it has been found that many citicens are not using the new e-adminstrative services and prefer to come to the municipality to solve their matters. The E4C project could contribute to increase citicens use of available e-administrative services.

The meetings of the Municipal Executive are fully digitalised and Municipal Assemblies are transmitted directly through the Agueda channel (www.agueda.tv) allowing civic participation to even those who have no possibility to attend the sessions. However, digital illiteracy is still persistent among some parts of the local population being a barrier for them to fully exploit the opportunities that a digital economy offers. Namely olders, unemployed persons, inmigrants and women.

Most unemployed people in our Municipality have great difficulties in finding new placement as a result of their lack of qualifications or inadecuate to what the labor market is demanding. The crisis has made uunemployment to increase rapidly (although Agueda has one of the lowest unemployment rates in the central region). Many companies still in operation are adapting to new processes and require skilled labor with expertise in the area of new technologies. In this area, the official teaching has not been able to follow the market requirements. Entrepreneurs find difficulty in contracting labor in this area and, very often, have to resort to internal training or hiring technicians from other municipalities. The reduction of the unemployment rate - which in the case of young people is very high – requires to provide them specific technical training and knowledge to enable them to use high-tech machinery and solutions. According to the reports of Águeda's Job Centers the vast majority of the unemployed people have no qualifications to work with a job that requires e-skills.

The Urbact project "RunUP", where Agueda was a partner, identified as a very serious problem the need to requalify unemployed workers to facilitate their integration in the labor market. The project also found that a deeper cooperation among employers, educational institutions and employment services were needed to facilitate the workers have the right skills.

More recently, Agueda has participated in "PARNE-TIC", an INTERREG-SUDOE project, aimed to facilitate the access to digital services by the rural population. This project, which included two villages of our county, promoted the provision of public services through the Internet. The Municipality itself increased the number of digital services and included it in the e-government modernization project, facilitating citizens access to municipal services in a flexible way. The project activities included training in ICT use as it is proved that citizens increase their e-skills when they are familiar to use the new tools.

The evaluation report on the implementation of the European communication e-skills for the 21st century (European Commission and European e-skills Steering Committee, October 2010) states a high e-skills gap reported by the interviewed enterprises in Portugal: e-skill gap indicator 3 (on a scale form 1-7). In this context, the city of Agueda is facing the same challenge and need to promote the DIGITAL ECONOMY and encourage a higher number of corresponding digitally skilled graduates.

- Policies developed by the city in order to tackle the thematic challenges?

General policies
− digital services to improve access for all citizens, facilitating and providing services closer to the citizen to the local public administration, besides giving greater transparency to the process;
− spaces with free Internet access;
− a network of hot spots in the city, from which citizens can access the Internet;
− access to Municipal services via e-government tools

Specific policies for the thematic topic

− reduction of fees when an administrative procedure is submitted electronically;
− adoption of new technologies and new submission processes for the citizens requests to the municipality, encouraging the increase of knowledge in the field of ICT;
− implementation of a project aimed to give basic training to citizens in the use of new technologies (electronic mail, skype, word processor, etc..). Registration and participation is free.
− creation of hot spots to provide internet access free of charge;
− encouraging the use of ICT as a repository of useful information to all citizens.
− Several thematic workshops have been implemented addressing entrepreneurship issues, with particular emphasis on innovation, creativity and competitiveness

2. Approaching the ULSG: members of the ULSG.

The ULSG was already set up on preliminary basis for the discussion of the SWOT analysis and approximation to LAP while the lead expert visit to Agueda. For the project it is expected to involve as Local Support Group (LSG):

Training area:

The town High School (which is already developing training in ICT), the Vocational Training Center and the Superior School of Technology and Management of Águeda (that belongs to The University of Aveiro);

Employment services area:

The Institute of Employment and Vocational Training, that through The Employment Centre of Águeda holds the basic information about the register of unemployed and of the solicitations of companies;

The municipality:

The Municipality of Agueda,
Agueda TV (Municipal service)engaged in providing training in multimedia issues;

Business area:

- The Águeda Business Association (AEA – Associação Empresarial de Águeda) that will bring to the project the knowledge of the reality of companies and their needs in terms of staff;
- The ABIMOTA, as representative of a group of companies linked to the specific sector of the two wheels that also contribute to the actual knowledge of the needs of its members;
- Companies HFA, S.A and Globaltronic S.A., as employers who need trained technicians in ICT for development of their activities.

3. SWOT Analysis

Strengths and Opportunities

- Schools and VET training centers are well equipped, with access to internet
- VET school in Municipality providing a wide range of training on ICT, including the School of Technology and Management of Águeda (ESTGA) and at very short distance the University of Aveiro (UA)
- Long tradition of cooperation among City and relevant partners to progress on e-skills support
- City implements modern e-government policies
- Employers are applying new technologies in their processes
- Opportunities: capacity to develop successfully projects by companies / schools: if the company has a need the school can develop a technology

/ solution involving students in the implementation to increase their employability
- Existence of a WI-FI / WIMAX network in the municipality

Weakness and Threads

- The workforce is reluctant to mobility (which reduce capacity to cover vacancies)
- Scarce number of qualified manpower to satisfy higher ICT demand. The e-skills are not always appropriate to labour market demands
- Low retention of highly talented youth (they might move to Aveiro, Lisbon, etc)
- Training is not always addressing market needs
- Employers do not always recognize the need of new qualifications and provide insufficient support
- Vocational training is stigmatized compared to educational curricula
- Public transport insufficient (cost, lines, schedule, etc.)
- People are not using to the most the e-government policy applied by city
- Room for deeper cooperation and trust among companies to increase partnership is needed
- The business sector is highly dependent on subcontracting
- Technological changes are fast and it is difficult to provide quick solutions

4. Approaching the Local Action Plan: what would like to be done

- Streamlining a bank of volunteers to carry out training and disseminating actions for e-skills development among population;
- To promote partnerships with associations, parish councils, private social solidarity institutions (IPSS's - Instituições Privadas de Solidariedade Social), etc., to carry out the actions of "basic" training and "upgrade" of existing knowledge;
- Develop an electronic platform for the dissemination of existing training courses provided by various organizations to target different groups to increase use of existing capacities;
- ICT training at different age levels, taking into account the needs of people;
- Undertake a market survey in order to know the needs of companies and people (unemployed, workers, etc.) in terms of training, adapting actions to the training needs of business;
- Realization of tutorial videos in the studio of ÁguedaTV;
- Wi-Fi / wimax network - increase the coverage of Wi-fi / wimax;
- Successful projects developed in the companies for demonstrating best practice;
- To build networks of work to change information and experiences, giving capacity to all partners to promote business opportunities
- To promote the "Creative Business"

− To build a web platform to promote the social responsibility and news styles of life
− To promote the industrial Tourism and the creation of 3D tours

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

Agueda is already participating in several international initiatives as an active partner.

URBACT – Agueda participated in **RUnUP** thematic network, and a Local Action Plan was developed, recognizing the need to upgrade the existing skills of the human resources in the territory as a challenge and stated the need to prepare them to adapt to future changes in labour marked.

Interreg Sudoe – Agueda participated in the **Parnet-TIC** project. The project has reinforced e-administration and citizens participation.

Grundtvig – participated in the **LIFELONG LEARNING** project in partnership with *Huelva* (ES) (Leader Partner); *Latina* (IT) and *Talence* (FR).

Living Lighting lab, an EnoLL initiative, which has developed several actions related to business, with particular emphasis on lighting and energy. The Living Lab Agueda, integrated in ENoLL, is supporting a public participation process in order to make Águeda be part of a great space for experimentation and develop new methodologies with a Smart City approach, where sharing public participation and enterprises involvement is aimed to find new solutions for needs. The initiative wants to create basic conditions for the development of new businesses, more innovative and more able to become international. Agueda is also part of Energy Cities's initiative where some projects have been produced by the city

BeÁGUEDA is providing services to use electric bicycles in the city (shared), an initiative with strong entrepreneurial tradition in the city (http://www.cm-agueda.pt/beagueda)

Carbon Zero Integrated initiative, where Agueda has signed the Charter of Mayors. The charter is so far one of the most ambitious initiatives in the fight against global warming. This European Commission initiative establishes a commitment by 2020, reduce by at least 20% the emissions of greenhouse gases (GHGs). This is a formal commitment by the cities and municipalities adhering to overcome the energy policy goals set by the EU to reduce CO2 emissions through increased energy efficiency and a production of cleaner energy (http://www.cm-agueda.pt/PageGen.aspx?WMCM_PaginaId=49022)

LOCAL AGENDA 21, which is one of three pilot projects supported by the Portuguese Energy Agency which involved hundreds of active stakeholders. It

includes the development methods and tools used by local governments to implement sustainable development for their communities.

PARTNERSHIPS FOR URBAN REGENERATION involving the City and 5 local partners (non-profit associations), which aims to redevelop public spaces and collective amenities of the city (http://www.cm-agueda.pt/pru)

Rede   CIUMED,   where   Agueda   is   an   active   member   (http://www.ciumed.org/PT/membros_PT.htm)

6. Potential contributions and demands within Thematic partnership

- Expectations about the E4C project.

For Águeda, the E4C network provides a mechanism for developing activities that stimulate capacity and innovation, know-how and human resource support for local businesses.
The focus of the Municipality of Águeda in the E4C network is:
- The re-qualification of human resources, including unemployed graduates,
developing new skills in essential areas for economic development e.g.
ICT, e-skills development, environmental management. The aim is to enhance skills, adapting them to market needs to act as a catalyst.
- The creation of a new generation of entrepreneurs, with better skills and knowledge on e-business, focusing on new market opportunities, related with state-of-the-art ICT and environmentally sustainable technologies, creating new local and regional clusters.

The promotion of acquisition of e-skills and access to ICT tools will have the priority to address the target group of those who lost their jobs, provide technical training to those seeking a first job but their skills are not appropriate to labor market demand and provide technical expertise to generate self-employment with ICT tools and e-skills development.
Linking training opportunities with the actual needs of the labor market is one of the main objectives to be achieved under this partnership, adjusting the available training to the needs of companies.

- What are strong points on offer to other partners

Agueda experience in e-government and provision of digital services, that helps the city council to get closer to the citizen and flexibilices relations facilitating the creation of business and growth;

Águeda TV studio experience, ran by technical qualified personnel ready to provide services for the community and spread out the use of ICT tools through tutorial videos and examples.

- What are the demands to receive support from other partners

Learn on more efficient means of information / communication;

Learn from successful projects and best practices.

Learn on more efficient methodologies to address the needs of unemployed persons.
Learn on low cost methodologies to increase impact of activities addressed to

increase community level of knowledge on ICT tools and e-skills

7. List of REFERENCES

http://www.cm-agueda.pt/

http://www.agueda.tv/

http://www.parnettic.eu/es/index.php

http://geoportal.cm-agueda.pt/

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ALBA IULIA

1. MAIN CHARACTERISTICS OF THE TOWN AND ITS ECONOMY

BASIC OVERVIEW

Alba Iulia is located in the center of the Transylvanian region, 100 km away from Cluj-Napoca International Airport and 70 km from Sibiu International Airport. It is a well-known historic city with a strong identity carved through two millennia of history, and a symbol of the unification of the Romanian provinces.

Alba Iulia is the capital of Alba County. It has a population of aproximately 60.000 inhabitants and is located on the Mureș River. It is historically important for Romanians, Hungarians and Transylvanian Saxons. The Municipality is a strong promoter of the cultural activities and aims to increase the visibility of the city among the tourist destinations at national and european level. One of the positive results in this regard has been the nomination of Alba Iulia by the European Comission as a European Destination of Excellence in 2012

Alba Iulia is twinned with 12 other European citiesThe purpose of the twining is to promote the collaboration between administrations in various domains from tourism to cultural and economic activities and to strengthen relationships in order to exchange knowledge, experiences, good practice examples related to local government activities and urban development.

SPECIFIC TRENDS RELATED TO TOPIC

Useful information – statistics

Romanians are below average users of the internet with 37% of them using the internet regularly, compared with the EU average of 68%. As for people who have never used the internet, they account for 54%. Internet connections in households reach up to 47% of the population while the EU average is 73%. Among European internet users who bought or ordered goods or services for private use over the internet, Romanians are situated in the last place with a mere 12% while the EU average is 57%. The most popular activities among Romanians are to find information about goods and services. Other activities include the participation in social networks, reading and downloading online newspapers, making travel and accommodation arrangements, entertainment activities etc. A new type of activity is developing at a fast pace recently – the practice of selling of goods and services.

Unemployment in Romania has risen to 7,3% lower than the EU average of 10,5% but still on an upward trend compared with past months. According to Eurostat, Romania was behind the Czech Republic, Germany and the Netherlands, having seen its unemployment level rising from 6,1% in 2007-2008 to 7,3% in 2012. The most affected are the young people until 25, of which 24% are unemployed and the number is on the rise.

In terms of operational computer and internet skills, Romania lags far behind the EU average on computer skills (EU-67%, Ro-39%) and internet skills (EU-73%, Ro-45%).

Internet usage is more frequent in the urban areas compared to the rural areas while internet broadband connections are more affordable for urban inhabitants.

The lack of e-skills is a general problem for people trying to find a job in the current economic period and affects especially people over 35 as well as people from the rural areas. The need for improvement in the field of e-literacy is of utmost importance in order to create the necessary measures for improving people's access on the labor market and to develop the economy in a sustainable manner.

2. ULSG: MEMBERS OF THE ULSG

Organisation involved in the ULSG	Department	Web page
Regional Development Agency (Managing Authority)	-	http://www.adrcentru.ro/
University 1 Decembrie 1918 Alba Iulia	Science and Engineering	http://www.uab.ro/
PAEM ALBA FOUNDATION	Professional Training	http://www.paemalba.ro/
Xerom Service	-	http://www.xeromall.net/
County Employment Agency	-	http://www.alba.anofm.ro/
City Hall of Alba Iulia Municipality	IT Office	http://www.apulum.ro/
BOSCH Rexroth.The Drive & Control Company, Linear Motion and Assembly Technologies	ICO	http://www.boschrexroth.com
Chamber of Commerce and Industry Alba	Strategy	http://www.cciaalba.ro/

3. SWOT ANALISIS

STRENGTHS
- A well appreciated University governed by public law is present in Alba Iulia ("1 Decembrie 1918 University Alba Iulia"), with thousands of students that benefit from the diverse educational programs specialized in different fields, among which one of the most important is the ICT curricula

- The local public authorities are interested to invest in the ICT infrastructure development of the City

- There are several projects implemented by the City Hall of Alba Iulia Municipality, meant to combat ICT and E-skills illiteracy and to promote the use of innovative technology for the local community development

- A very good collaboration between the City Hall of Alba Iulia and the important actors interested in the local community development (with the University 1 Decembrie 1918 Alba Iulia ad other public institutions, The Chamber of Commerce and Industry Alba, NGOs, Economic Agents, etc.)

- Alba Iulia Development Strategy refers also to the use of ICT and E-Skills for the local development

- A lot of green public areas where people can access free internet provided by the City Hall of Alba Iulia and a local private partner, Wi-Fi provider

- Well trained professionals in the field of ICT at Alba Iulia Municipality level

- The economic agents in the territory (from small-medium enterprises to large factories) are using machines that require specialized knowledge for operating CNC Machines

- In the city there are operators which facilitate the access of citizens to internet and digital information services providing also high quality of services, like optical fiber and other technologies with a very good price-offer

- The presence in Alba Iulia of the Regional Development Agency and the Managing Authority for the Regional Operational Program in the Center Region of Romania

WEAKNESSES

- Not very well connected with Europe - Alba Iulia doesn't have an Airport (although there are 2 airports in the region, one at Sibiu (70 km away from Alba Iulia) and another at Cluj Napoca (100 km away from Alba Iulia)

- Some of the standard study curriculum imposed from the central government are not adapted to the needs of the labor market so the Educational Programs existent in the 1 Decembrie 1918 University Alba Iulia are not very well adapted to the real needs of the local labor market

- Obsolete mentalities, resistance to change, persistent fears of leaving the comfort area to which most of the citizens and employees are used to

- High level of unemployment

- The stimulating program designed for young entrepreneurs is not well defined.

- The low number of people using Computer at home

- The lack of awareness of the local community with regard to the benefits of E-skills and Information and Communications Technologies

OPPORTUNITIES:

- The benefits of being a EU Member State

- Exchanges of experience and know-how transfer from more developed European cities through transnational networks in different programs like Intelligent Energy Europe IEE, INTERREG, URBACT, etc.

- The possibility of accessing EU funds for Competitiveness and Innovation

- The multinational companies which are looking for attractive places to invest

- The EU Multiannual Financial Framework for 2014-2020

THREATS:

- The competitivity coming from the larger cities which provide incentives for the students who graduated in Alba Iulia to leave and work in larger cities considering the larger number of opportunities on the labor market

- Political Instability at Central Level

- The advanced development of the ICT field at global level which generates disparities between the current level of ICT knowledge and the real knowledge degree required for an efficient use of ICT

4. THE LOCAL ACTION PLAN: WHAT WAS DONE AND WHAT CAN BE DONE

PAST ACTIONS:

Alba Iulia has a local development strategy which covers the area of ICT. Moreover the Integrated Plan of Urban Developing and the Development Strategy of Alba Iulia Municipality, mention the city "Digital Alba Iulia".

The City Hall of Alba Iulia Municipality participated in a program meant to help elderly living in the local Retirement Home to use the computer in order to communicate at distance with people they know, to read the news or to play their favorites games through the Europe Direct Center Alba Iulia.

Moreover, the City Hall of Alba Iulia Municipality participated in several programs meant to strengthen the ICT sector: Effective Services of E-administration and Territorial Development for Alba Iulia City Hall "Heritage solution"; Approval of the Professional Development Plan for Public Servants; The Implementation of the Management Model for Relationship with the Citizens (CRM) in local government through modern electronic services; Sectorial Operational Programme Increasing Economic Competitiveness 2007-2013 Priority Axis III – Information and communications technology for private and public sector – DMI "Development and efficiency of electronic public services".

As result for the past projects implemented by the City Hall of Alba Iulia Municipality, Alba Iulia since 2005-2006 is online through web cameras in 3 public places, where on real time, people all over the world can access real time online images with the city. Two are provided and managed by the City Hall of Alba Iulia and one is managed by a private local internet provider.

Another important result of the past actions of Alba Iulia Municipality in relation with the TIC is the collaboration with a private internet provider who guaranties free WiFi access in 3 public areas of the city (2 parks and one beside the City Hall building) .

Moreover, a very important achievement of the TIC instruments used in Alba Iulia Municipality is the fact that The Communitarian Police subordinated to the Local Council Alba Iulia is implementing a project which guaranties the live monitoring of several zones in the Municipality. 7 live cameras are installed, connected to the internet, with server and capacity to keep the information registered for a period of time. .

The City Hall of Alba Iulia Municipality also has GIS. One component is already implemented, focused on public services like urbanism, heritage, etc. and the other component is under implementation, dispatch, which will help the citizens complain about incidents, or to mark on the map the place and the issue which was noticed in different areas of the city.

All the relevant actors from the local Community preoccupied with the local community development (local authorities, economic agents, NGOs, educational institutions) already had a contact and implemented some projects in the ITC field in order to stimulate the access of citizens to E-services, to combat ITC illiteracy and to promote the employability based on E-skills and innovative technologies. For example the "University 1 Decembrie 1918 Alba Iulia" through a project financed by the Communication and Informatics Society ensures 2 WiFi hotspots in the campus and complex ITC systems.

However, not each innovative approach will have a positive reaction in the society. For example, some economic agents from Alba Iulia working in the field of ICT tried to donate some IPads to one school in Alba Iulia in order to replace the ancient evaluation register and conventional studying materials but unfortunately the action was not a successfully due to the ICT illiteracy of some teachers in the schools but also due to the skepticism of the personnel working in that school.

ACCORDING TO THE FIRST INFORMAL MEETING BETWEEN THE ULSG MEMBERS, THE LOCAL ACTION PLAN SHOULD BE FOCUSED ON:

- E-government and E-citizenship for the public institutions in Alba Iulia

- Extending the wireless hot spots in Alba Iulia in the public areas

- E-health integrated in the national programs

- Digital info kiosks

- Facilitating the access to ICT tools in order to increase the efficiency of local resources

- Increasing the use of the ICT resources to their full potential

- Creating an IT urban observer in order to evaluate the local resources

- E-skills and ICT training according to people needs

- Creating a Business Portal to promote Alba Iulia abroad in order to attract investors

- Creating databases with books and articles at the University which will be available for all students

- Creating an e-service for paying taxes at city level

- Intensifying the use of mobile data and switching technologies (such as smart phones) and mobile services (3G internet, streaming music and webmail)

- Facilitating the access to ICT technologies for people with visual disabilities

- Improving the quality of existing services and adopting European standards in terms of technology

- Providing a video monitoring system on the main access routes in the Citadel Vauban Alba Carolina and on the square where the public social-cultural events are organized. In order to increase the safety of the citizens in the area but also to ensure the security of the cultural

heritage of Alba Carolina Citadel, moreover to increase the visibility of the events organized within the Citadel, abroad or at national level online. This visibility could contribute at increasing the number of tourists choosing to visit Alba Iulia but also the number of potential investors.

- Another useful utility of ICT within Alba Iulia Municipality could be related to the promotion to the touristic products of Alba Carolina Citadel through the special systems helping the tourist to find out more about the things they discover on the territory. It could be a system established on the tourist products, a bar-code which could be read by using the telephone to scan the code and to get directed on a special site where the information about the products could be found in different languages.

5. EXPERIENCE IN TERMS OF WORKING THROUGH TRANSNATIONAL EXCHANGE IN E-SKILLS AND ICT PROMOTION

Alba Iulia does not have any relevant experience in working through transnational exchange in E-skills and ICT promotion. Nevertheless the city has implemented several relevant transnational EU financed projects on several areas:

Implemented project within Intelligent Energy Europe (IEE):

Achieving Energy Sustainability in Peripheral Regions of Europe (ASPIRE) (01/10/2006 – 31/03/2009)[56]

Intelligent Energy Europe in implementation process projects:
An inclusive peer-to-peer approach to involve EU CONURBations and wide urban CONURBANT (10/05/2011 – 09/05/2014)[57]

Move goods by cycle – CYCLELOGISTICS (21/04/2011 – 21/01/2014)[58]

Energy efficiency in City Logistics Services for small and mid-sized European Historic Towns (ENCLOSE) (01/08/2012 – 06/07/2015)[59]

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[56] http://www.eaci-projects.eu/iee/page/Page.jsp?op=project_detail&prid=1436
[57] http://www.eaci-projects.eu/iee/page/Page.jsp?op=project_detail&prid=2432
[58] http://www.eaci-projects.eu/iee/page/Page.jsp?op=project_detail&prid=2443
[59] http://www.eaci-projects.eu/iee/page/Page.jsp?op=project_detail&prid=2527

Other transnational projects developed by Alba Iulia Municipality derived from the participation as partner within 2 major URBACT II projects for creating Developing European Networks:

CoNet (Cohesion Network)[60] project - finalized in 2011 - was focused on education, employment and community life and approaches to strengthen social cohesion in neighborhoods. This project gathered 11 partner countries, Romania being represented by Alba Iulia Municipality during the implementation phase of the project. Another project within URBACT is ***Nodus[61]*** - finalized in 2010 - which gathered 7 European partner countries.

VI. POTENTIAL CONTRIBUTIONS AND DEMANDS WITHIN THEMATIC PARTNERSHIP

EXPECTATIONS ABOUT THE E4C PROJECT

One of the expectations about the E4C project is to stimulate the interest of the employers, workers, leaders, managers and communities to acquire new abilities like ICT and "e-skills" and acquire a measurable level of competence. The benefits would range from increasing the productivity and the competitiveness by creating a more competitive workforce and more employment opportunities.
 Another expectation about the E4C project is to find the most appropriate ways of sharing knowledge which can help people in their search of finding the opportunities on the labour market.

WHAT ARE THE STRONG POINTS THAT WE BRING TO OTHER PARTNERS

Due to our previous experiences (such as URBACT and other transnational projects) we consider that we could bring an added value to the network by having the experience and knowledge regarding the URBACT implementation rules, while also being used to work with the Presage system, etc.
It is very important to engage Universities in a more appropriate role in developing a research base to support the e-skills agenda and to provide meaningful input into a range of e-Skills projects. In this respect, Alba Iulia Municipality has a very fruitful collaboration with "1 Decembrie 1918 University" on several projects meant to stimulate the development of the local community.
It would be very useful to share experiences and good practices examples of researches, studies and collaboration between the local public authorities and the actors involved in the educational processes. Due to the good cooperation with the County Council, the University, NGOs and other relevant actors, we could benefit of a considerable technical expertise.
Moreover, we have the organizational capacity for ensuring a good organization of conferences, workshops and seminars. So far we have organized several transnational meetings within International programs but also other international

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[60]   http://urbact.eu/en/projects/disadvantaged-neighbourhoods/conet/homepage/
[61]   http://urbact.eu/en/projects/metropolitan-governance/nodus/homepage/

events such as the Business Forum Danube Strategy and the International Rural Tourism Conference.

Regarding the project activities, Alba Iulia Municipality will host one transnational meeting on how to "***Tackle Digital Illiteracy by Promoting the Use and Access to Municipal E-Government Policies and Services".*** The City Hall of Alba Iulia Municipality together with the Employment Agency, the University "1 Decembrie 1918" and other relevant local shareholders in this field have already implemented several projects meant to promote the use of E-Government instruments.

WHAT ARE THE DEMANDS TO RECEIVE SUPPORT FROM OTHER PARTNERS

Experience shows that it does not really matter just how big or small you are in this new "E-skills" world, as more important is how you can improve your current situation while accepting that you have a lot of things to learn about from other organisations which are more experienced in this field. It is very important to take advantage of all the opportunities and to share experiences and knowledge, while for us the highest demands and expectations are to learn new practices and to adapt this good practices examples and solutions implemented with success by the more experienced partners of the Consortium to the local development needs in the field of ICT. This opportunity will help our community to promote the employment based on innovative technologies and to raise the awareness of the people concerning the importance of acquiring ICT and e-skills.

VII. **LIST OF REFERENCES (LINKS TO WEB PAGES RUN BY THE MUNICIPALITY OR OTHERS RELATED TO THEMATIC ISSUE)**

www.apulum.ro
www.turism.apulum.ro
www.uab.ro
www.adrcentru.ro
http://www.xeromall.net/
http://www.google.ro/search?hl=en&newwindow=1&q=camera+de+comert+si+industrie+alba&oq=camera+de+comert+si+industrie+alba&gs_l=serp.3..0i30l2j0i8i30.18859.19318.0.19518.5.5.0.0.0.0.118.338.4j1.5.0.les%3B..0.0...1c.1.I2xRLgRboMU

ARADIPPOU

1. **Main characteristics of the town and its economy**

   a. **Basic overview**

Aradippou is located in the south of Cyprus, a short distance from Larnaca International Airport. Traditionally Aradippou was an agricultural village, but the Turkish invasion of 1974 along with the land and building development boom that followed in Cyprus, the village demography has changed and its economy has been developed dramatically.

Today Aradippou has a strategic position as a hub for the national road network because the main Cyprus cities are connected via the Rizoelia round about, known to every Cypriot. Aradippou was declared *a* Municipality by a referendum in May 1986and has gradually established itself as a vigorous urban centre. Once declared a municipality, Aradippou determined its municipal limits and is the second largest municipality in Cyprus land with 42,982 square governmental acres. Its population today Aradippou reaches 20,000.

Aradippou hosts within the municipal boundaries the most of the industrial districts that serve the region's urban cluster and throughout Cyprus. These are: the Free Trade Zone, south of Larnaca-Limassol highway, Industrial Zone limited degree of nuisance(Zone Ba3) south of Larnaca motorway at Kofinou and the government industrial area of Larnaca that although is included in the municipal limits of Larnaca, in terms of geographical location its within Aradippou area.

Residents of Aradippou are always distinguished for the social solidarity among themselves but also for the all people who need social, financial and or moral support. The Municipality helps such voluntary organizations to achieve their goals to help and support residents.

Aradippou Municipality is already twined with two Greek Municipalities. The purpose of these twinnings is to further develop and strengthen the fraternal relations and the cooperation amongst them to promote exchange of knowledge, experiences and development in issues like urban development, local government and to know better the differences in lifestyle and culture.

   b. **Specific Trends related to topic:**

Useful information – statistics

- Cypriots are below average users of the internet with 54% of them using the internet regularly. As for people who have never used the internet, they account for 41%. The most popular activity among individuals in Cyprus is finding information about goods and services with a rate of 48%, below the EU average of 56%. Cypriots are also using the internet largely to read and download online newspapers (36%, 4 p.p. below the EU average), participate in social networks (33%, 5 p.p. below the EU

average) and to make travel and accommodation arrangements (31%, 8 p.p. below the EU average). Among the least popular activities is selling goods or services (1% as opposed to the EU average of 17%).

- In terms of operational computer and internet skills, Cyprus exhibits rates 56% of citizens with some level of computer skills and 58% have internet skills. These rates are well below the averages for the EU of 67% and 73%, respectively.

Unemployment in Cyprus climbed to 10.9 per cent in July, representing the third highest year-on-year rise in the European Union, it was announced yesterday. According to the eu's statistical service, Eurostat, Cyprus was behind Spain and Greece, having seen its jobless rate rise from 7.7 per cent in July 2011 to 10.9 per cent this year.

The age on which internet become available and affordable to the public (only 15 years ago) and the lack of the e-skills are the main reasons of the slow transition of the ICT world within the government, local authorities operation and people in general.   With no ICT skills people over 35 years old are unable to find a job and it's difficult to get trained for computer and internet use. Therefore, those people are either in their position but non-productive as required and replaced by new employees or either are becoming redundant.

Also there is no University or college dedicated to IT in order to provide the facilities, promote research and development or organise with the local authorities events or training for mature people.

i. Challenge 1: overcoming digital illiteracy

- Training
    - There are around 4 private computer centres in Aradippou which can be used
    - Training – seminars can be offered for free by Aradippou ICT Professionals
- Enforce the daily use of computer and internet
    - Local authorities may enforce non-office workers to start using computers to their daily activities
    - Citizens can be changed to e-citizens and get priority on services when paying bills online, when reporting issues online, receive statements online. This way will help to get more people interested in the e-government services   and off course they will improve their e-skills.
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ii. Challenge 2: fight e-skills gaps on the labour market

It is necessary to conduct surveys and measure the people e-skills and then request feedback on how they can be improved in this sector.

iii. Challenge 3: fight e-skills shortage

Expert IT can be organised in professional groups and engage their companies facilities, experience and knowledge in order to be involved in the people training and also to develop system s for e-skill improvements and people training.

c. Describe the policies developed by your city so far in order to tackle these challenges?

Challenge 1 &2 & 3: For tackling these challenges, the Municipality has set different strategies aiming in the same direction of fostering ICT skills and contribute to the innovation and competitiveness of the City:

- The Municipality installed a computer to all the offices and it connected them to a central server. Furthermore it installed at all the computers the Outlook logistic and it created an email for each employee. Basic information is communicated through emails, thereby inducing them to make use of the tool and be able to meet the requirements for its use.
- In addition to these, the Municipality is undergoing a process of upgrading its Call Center in order to make it more efficient.
- A series of seminars are organized for this September – October, aiming to help the personnel of the Municipality to acquire the necessary knowledge for using ICT technologies, having as a theme "How much ICT counts, in the operation and work of the Municipalities?".
- And finally, the application of the e-government system, which is in progress and it will at first place facilitate the citizens by giving them the option of the direct payments of their municipal depts.

Many of these policies have been accomplished by external contractors that are ICT professionals.
By gradually applying all the above strategies, the Municipality is aiming to enable and facilitate the acquisition and upgrading of the personnel's e-skills, and hence overcome digital illiteracy, e-skills gaps, counteract the e-skills shortage, create new ICT jobs and ameliorate its services to the citizens.

2. ULSG: members of the ULSG

ORGANISATIONS/COMPANIES/SERVICES	WEBSITE
Municipality of Aradippou	www.aradippou.org.cy
iSPIRAL IT Solutions Ltd	www.i-spiral.com
T& M Engineering Services Ltd	
RESULCO LTD	www.resulco.com
Aradippou Lyceum	http://lyk-aradippou-lar.schools.ac.cy/

ORGANISATIONS/COMPANIES/SERVICES	WEBSITE
Novatex Solutions LTD	www.novatexsolutions.eu/
CYTA- Cyprus Telecommunication Authority	www.cyta.com.cy
Public Employment Service of Cyprus, Ministry of Labor & Social Insurance	www.mlsi.gov.cy

3. SWOT Analysis

STRENGTHS

People: Motivated & educated , commitment to: arts, education, business , environment, animal friendly,(Dog shelter) strong involvement and support to the municipality events and other citizens .

Youth communities and involvements in EU programmes

Volunteerism: philanthropic and visionary people. – Larnaca Antidrug Alliance & Vasoula Eleftheriou Fund

Natural resources/Geography: hub to Cyprus cities, 5' from the airport, 10' from beach

Old Town/Identity: Many old churches arts & culture, loft spaces and restoration.

Presence of City: Clean roardds, Traditional taverns, shops, banks, Traditional agriculture products

Cooperation/Collaboration: Social events, Connections with local businesses, and football teams

Community: Strong arts Community, Costas Kaimakliotis Folklore Museum , Municipal Chori , Theatrical Workshop

Education: 5 Primary Schools, 1 Secondary, 1 high School, 2 Private Schools, 1 College

Business: Strong business Community – industrial states

WEAKNESSES

Employment Opportunities: few opportunities for higher educated people

Technology/ICT: low percentage of e-skilled people, lack of technology investments, low productivity due to digital illiteracy within the municipality, citizens are below average computer/internet

Transportation/Pedestrian Accessibility: limited & inefficient, not pedestrian friendly, poor pedestrian access, limited Parking spaces

Housing: expensive housing – not affordable for young people nowadays

Social Issues: Drug & alcohol use of a small % young people

Funding sources Lack of public funding, freeze employment by govt due to crisis

Diversity: Lack of cultural diversity

Miscellaneous: unable to upgrade staff and complete projects quickly, no investment in research and collaboration with college/universities, Lack of community facilities, Sports venues, conferences, hotels and football stadium.

SWOT ANALYSIS ARADIPPOU MUNICIPALITY

OPPORTUNITIES

Development/Opportunities: Land available for development, both for houses and also business premises due to the strategic location for logistics purposes

Alternative Energy: many opportunities for invest in green power and especially solar panel

Willingness for partnership: New partnerships & relationships, Opportunity to learn from one another while upgrading the community and the municipality infrastructure

Technology/ICT: invest in technology transformation, go paperless, improve-skills

Attractions/Events: Festivals, , Park, Theater, Stadium, Athletic centers

Arts & Culture: collaborate & utilize local talents and expertise to promote projects

Miscellaneous: Enhance connections between businesses in Aradippou area with Aradippou

THREATS

Implementation/Vision: Thinking too small – don't think based on what is, but instead what could be.

Too many ideas, not enough action to follow-through.

Social Issues: increase in crime, drugs & alcohol.

Funding/Economics: Continued loss of public funding, especially from economic crisis,

Transportation: Lack of parking, No changed mindset of alternative transportation.

Regional Issues:

Miscellaneous:

Approaching the Local Action Plan: what was done and what would like to be done

Past Actions

- Transform manual work to digital using software systems (civil marriage for example)
- Create a dynamic website with many functionalities
- Electronic bank payments integrated with the municipality taxation system
- Reporting system for citizens complains management
- Library management system for incoming/outgoing books
- Social Media (Facebook fun page)

What we want to do

⇒ E-skills and ICT training according to people needs

⇒ Promote the e-ticketing system for citizens support

⇒ Increase familiarity of municipality staff with ICT tools.

⇒ Increase people awareness on information security and apply technical barriers for information leakage prevention

⇒ Create an online network of Aradippou emigrants around the globe

⇒ Create a database with business operating within Aradippou area and promote them for employment of local people

⇒ Conduct surveys and receive feedback on ICT proposals from citizens and other expert (students/schools/professional) advice.

⇒ Create the first e-bill platform for online payments, email and sms reminders

⇒ Create a professional business network by expertise for knowledge sharing and employment opportunities

⇒ Conduct surveys for people who travel daily to other cities and travelling options for CO2 emissions

⇒ Change to virtual desktops and virtual infrastructure for less maintenance, power consumption, cost saving and productivity with teleworkers

⇒ Provide training and facilitate access to ICT tools to persons with disabilities and others under risk of social exclusion

⇒ Conduct Information Security policies and apply them for citizens data protection and compliance with legal requirements

⇒ Create disaster recovery site for business continuity

⇒ Engage schools and college for research and development

⇒ Setup wireless connectivity in the main areas of the town

⇒ Promote" http://www.go-e.mcit.gov.cy/mcit/trade/go e.nsf/eco01_gr/eco01_gr?OpenDocument" to companies in Aradippou. «Επιχειρείτε Διαδικτυακά».

⇒ The "free tools" http://www.kepa.gov.cy/Diktiothite/Uploads/Documents/DE-draseis.pdf

⇒ use of e-government where ever possible

1. Communication/reminders for upcoming municipality fees/taxes etc (via email, sms)
2. Register details of people in Aradippou along with their EMAIL + TELEPHONE

4. Experience in terms of working through transnational exchange in e-skills and ICT promotion

INTERREG IIIB ArchiMed 2004-2006, Project MULTIGATE, Partner-to investigates the impact of ICT Actions for the Passenger Transport integration of the urban environment of key travel gateways in its area (www.multigate-project.eu).

5. Potential contributions and demands within Thematic partnership

a. Expectations about the E4C project.

To help the municipality to choose and develop the most appropriate ICT tools for service efficiency to the citizens (internal to external) and also to provide new methods for people connection, knowledge sharing and possibly to create new employment opportunities with the engagement of people with all the level of skills. At the same time, citizens shall appreciate the ICT capabilities with the correct use first of all from the Municipality.

b. What are strong points on offer to other partners

- Experience on ICT and able to provide training
- Technical expertise on systems feasibility study and implementation
- Creation of employment opportunities
- Cost saving and productivity increase with ICT

c. What are the demands to receive support from other partners

Demonstration of systems and usage in order to lower the risk before proceeding to any investment for ICT at the Municipality.

6. List of REFERENCES (links to web pages run by the Municipality or others related to thematic issue)

- http://ec.europa.eu/information_society/digital-agenda/scoreboard/countries/cy/internet_services/index_en.htm
- www.aradippou.org.cy
- http://www.mof.gov.cy

GHENT - DIGIPOLIS (taking the role of GHENT as a partner in the network as equivalent public authority)

1. Main characteristics of the town and its economy

- Basic overview

Ghent is the second largest city in Flanders stretching out through 15,643 ha and with a population of 247 262 (2011). 16,6% of the population are immigrants. It is a melting pot of more than 155 different nationalities.

Ghent is a mix of various operational functions: port city, university city, city of knowledge (famous knowledge industries), culture in a historical city, enjoyable shopping city, congress city (ICC, Flexpo,…), many sports facilities (over 3000 sporting clubs),…

The city also has many assets amongst which in the field of knowledge and innovation. As the largest education city in Flanders the city counts 66.000 highly skilled students spread through 11 faculties and 10 colleges. The University of Ghent is amongst Belgium's top ranking institutions. Many spin-off companies are present in Ghent.

University and Municipality combined efforts in developing "Flanders Biotech Valley" (cradle of biotechnology & bio-energy). Ghent is also big in creativity with Ghent BC, a platform that brings together the city, the province, the university, researchers, entrepreneurs, funders and authorities. A network, Ghent Web Valley, was also formed around webcompanies.

The city has a workforce of 166 599 and a jobratio of 104,8% (1% in the primary sector, 21% in the secundary sector, 40% in the tertiary sector and 38% in the quaternary sector). Due to the economic crisis unemployment has been increasing to 11,7% (2012).

- General trends (past and future)

The history of Ghent begins in the year 630, when St Amandus chose the site of the confluence (or 'Ganda') of the two rivers, the Lys and the Schelde, to construct an abbey. Nearly 1400 years of history are still palpable in the city today: a medieval castle surrounded by a moat, an imposing cathedral, a belfry...

From the year 1000 to around 1550, Ghent was one of the most important cities in Europe. The 60,000 inhabitants it had in the 14th century clung forcefully to their rights: earls and princes discovered that the proud and rebellious people of Ghent would not relinquish their hard-won privileges and freedoms without a fight.

Today, Ghent has many faces and assets, combining every single facility of a metropolis with the atmosphere of a provincial town. This unique combination makes Ghent the ideal place to live, work and visit. Ghent has 246.719 inhabitants.

Thanks to the presence of Ghent University, various University Colleges and an extensive range of other educational institutions, Ghent became the largest student city in Belgium, with 66.000 students.

Ghent has a differentiated economic profile:

- Port of Ghent: centre of industry (automobile, steel, chemicals, paper and cardboard, food) with strong distribution niches.
- Knowledge economy: famous knowledge industries such as bio-technology and bio-industry.
- Services: Ghent has a central function in the region. The main employers are active in the non-commercial services.

- Specific Trends related to topic:

Ghent has an unemployment rate of 11,7%. The evolution in the past years can be visualized on the graph below. Currently there are 3 879 unfilled jobs and 12 707 job seekers[62].
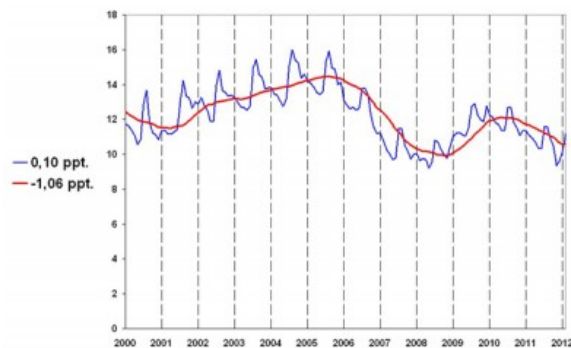
Bron: VDAB-arvastat

Challenge 1: overcoming digital illiteracy

The lack of sufficient or mismatch of e-skills are seen as one of a combination of factors through which unemployed and youth have difficulty finding work.

As in all large cities, the city of Ghent has a higher rate of citizens in poverty than the smaller cities in Flanders. We have an unemployment rate of 11,7% in 2012 and the OCMW (Public Welfare Office) registered 5999 citizens entitled to a life wage in 2010.

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[62] www.gent.be/gentincijfers

The city of Ghent recently conducted the First European study on e-Inclusion at city level (MIDIS). 9 out of 10 of the respondents had internet at home. Yet 30% of the Total of respondents do not use computers on a regular basis. 70% of the total users regularly needs help with ICT.

Challenge 2: fight e-skills gaps on the labour market

Research suggests that e-skills are mostly developed at school and work.[63] In work setting, the investment on the development of e-skills are especially done for the highly educated and not for manual laborers or less-educated employees. This is also felt within our own city organization. Through this phenomena digital exclusion is held in place.

Many employees do not possess the necessary e-skills to teach others (in an educational setting), to make use of digital hardware, software and applications. This entails that they are not able to keep up, waste time (4% productivity loss per day), have lower productivity and an inability to evolve to a more creative usage of ICT.

It is necessary to assess the digital competences and help employees of all levels to evolve constantly in the development or improvement of their digital skills. If not, our competitively is at stake.

Challenge 3: fight e-skills shortage

IT professions such as IT-specialist, IT-project leader, System manager… are recognized in Flanders by the VDAB (Public Employment Service of Flanders) as being professions that are more difficult to fill (taking more than 90 days). According to figures from 2009 we can state the following: The IT, media and telecom sector is one of the smaller sectors in Ghent region representing between 1,4% and 2,3% of the jobs. In June 56 IT jobs were listed with the VDAB, at the end of the month 148 vacancies were still open. Especially men (69,8%) of middle age are active in the it sector. Between 5,1 and 8.2% of the IT employees are younger than 25 and between 14,2% and 23,8% are older than 50.[64]

- Describe the policies developed by your city so far in order to tackle these challenges?

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http://www.samenlevingentechnologie.be/ists/nl/pdf/rapporten/digitale_kloof_finale_versie23092010.pdf
64 http://vdab.be/trends/sectorrapporten/informatica_media_telecom.pdf

The City of Ghent has developed a long-term strategy reaching out till 2020. This strategy comprises 5 strategic goals that are taken account of through all the city's actions. By 2020, Ghent will be an internationally renowned centre for innovation and experiments and a pioneer in the evolution towards a learning and creative society. Ghent commits to sustainable development with a social approach, so that for every citizen of Ghent, equal access to a qualitative living, working and educational environment is guaranteed. The city will develop a dynamic and diversified economy with a strong focus on the maritime. The economy is stimulated by partnerships that bring together people, means and ideas. By 2020, Ghent will offer its inhabitants a healthy and qualitative living environment and will have reduced its ecological footprint.

The city has undertaken actions to combat the "digital divide". "Digitaal.Talent@Gent" is a strategic programme, coordinated by Digipolis for the city of Ghent and set up to achieve e-Inclusion in the city of Ghent. Through the programme the city has undertaken many initiatives such as: 97 free computer spaces spread through the city, train-the-trainer computer courses for non-profit organisations, the digital week, a digital fair, various educational projects with children and free computer loans for e-inclusion projects within the city.

Since 2003, Digipolis is the telematics partner of the Cities of Ghent and Antwerp (Belgium). Close and intense cooperation on telematics between the two largest Flemish cities creates important benefits. Synergetic effects assure that a lot can be realised with the input of relatively few means. This is crucial, given the rising pressure on the budget of local governments. During the development phase "Digipolis" has taken the role of Ghent as a partner in this network as equivalent public authority

Digipolis creates opportunities for both cities: sharing know-how, optimal usage of technical means and personnel, bulk discount thanks to joined purchasing, cooperation on future challenges such as e-government, etc.
As a local intergovernmental organisation, Digipolis can speak on behalf of the public partners involved. It can operate autonomously and flexibly, which is crucial in the fast evolving ICT-sector.

Digipolis develops, implements and supports software applications for the City of Ghent. Also, Digipolis offers all-round ICT-support: purchasing and installation of pc's/laptops, servers and other hardware, management of telephone systems, network and system management, management of the network of photocopiers and helpdesk support.

Digipolis is the partner of the city of Ghent in many European projects such as "Shaping 24" and "SmartIP".

In 2011 an e-strategy cel was put in place which has developed many interesting initiatives in a short period such as "Apps for Ghent", "Ghent Living Lab".

"Apps for Ghent" is a periodic event which brings developers together to build applications based on the open data provided by the city of Ghent via it's open data portal.

The "Ghent Living Lab" focuses on these key areas: (1) e-inclusion; (2) e-government and e-participation; (3) digital innovation through developing future internet enabled services for smart cities; (4) green digital development including ICT enabled energy efficiency, smart energy and specific initiatives such as the Green Digital Charter.

Ghent LL is working closely with the local research and innovation communities to take R&D out of the research labs and into real-world test-beds to create use-cases for future applications and services.

Ghent is a pioneer in 3D-visualisations for urban renewal projects. With support of EU funds Ghent has developed services providing a virtual tour of the city (online or in a 3 dimension "cave") and for spatial research. The services are used for the assessment of urban projects, allow the participation and contribution of the citizens and are also used for architects' online applications for a building license (http://www.gent.be/eCache/THE/1/66/725.html).

The Ghent LL acts as a facilitator between the different parts of the collaborative network that has been established between the research community, businesses, the public sector and the citizens. Its primary focus is on Smart Cities and the development of Future Internet related services to support the further development of Smart Cities. Critical success factors and risks include: Navigating the current financial crisis; Building the capacity of users to be active co-creators and co-producers; Maintaining collaboration between different communities: research, business, public sector, citizens.

2. ULSG: members of the ULSG.

It is foreseen the ULSG will be composed of the following organizations:

- City of Ghent, www.gent.be

- Digipolis, www.digipolis.be
- Ateljee vzw, www.ateljeevzw.be
- VUB (IBBT-SMIT), www.ibbt.be
- "Gent Stad in werking", www.gsiw.be
- Wonderwijs, www.onderwijsvoorvolwassenen.be
- Leerpunt Gent-Meetjesland, www.cbe11.be
- Universiteit Gent (IBBT-MICT), www.ugent.be
- OCMW Gent, www.ocmwgent.be

3. SWOT Analysis

Strengths & Opportunities

- Artevelde school currently is giving more attention to ICT skills in teacher training;
- Many inspirational People are present through the city and in the city organisation;
- Current possibility to rent ICT by organisations could be broadend with sponsoring help such as in Oostende;
- Increasing parental role in helping children with ICT;
- Many projects in schools;
- Basic ICT skills can be taught at a sufficient level for the testing currently used for job promotions during a relatively short session of a few hours;
- Some testing is being done when evaluating potential new employees (but nu Digital skills testing);
- "recup pc" (a project which help spoor people through providing them with a second hand computer and help) could be broadened;
- The city could help or promote Online communication/promotion for Local sme's;
- Integrating innovative ideas;
- Innovative working space, interesting environments that encourage creativity;
- Computer rental/ loan idea;
- Demo centre idea (Tallinn), a place where new Technologies can be tried out in a relevant setting;
- Ghent living lab room, a room where new ideas can be developed and tested;
- New library : " Waalse krook", our new library of the 21st century where technology is key; "Apple shop idea";
"digivaardig digibewust" (Dutch initiative) collaboration between businesses and Local actors;
- Bundeling of ICT initiatives, getting organisations working on ICT initiatives to work together;
- Many Companies have created room for social projects;
- Innovative time " lummel tijd", time reserved to spend on new ideas;
- E-learning provided
- Gent2020 strategic plan
- Changes via work services;
- Starters (or start-ups) have enough demand;
- Lots of new ideas (e-strategie);
- Many ICT believers spread through city and" infecting" others;
- Companies like "wijs" have Many innovative ideas to contribute;

Weaknesses & Threads

- The speed of evolution of ICT is extremely fast (also for ICT professionals). We have trouble keeping up;
- Companies have enough candidates to choose from and therefore do not invest in training and skilled of new workers. They might get too confident
- VDAB (Flemish employment services) does not say it recognizes the problem;
- Many citizens are worried about possible wi-fi danger for health;
- ICT material is provided but without explanation or proper training as it is expected that the user already know;
- We have no knowledge of current level of Digital skills of employees;
- Teachers without (enough) ICT skills;
- Online job application (people are ONLY allowed to apply online);
- Costs (heating, internet…) of having employees working at home;
- Time is lacking to work on innovative projects;
- Many citizens have a mismatch or no digital skills;
- Many individuals are not able to use ICT without assistance;
- Literacy issue (some citizens cannot read, understand what they read…);
- Language issue;
- No social internet tariff (prices are high);
- Difficult policy integration in BELGIUM: Cultural differences
- Financial problems of citizens (they do not have the means to purchase ICT or internet services);
- Difficulty working together between Flanders and Wallonie?

4. Approaching the Local Action Plan: what was done and what would like to be done

The city of Ghent has defined a long-term strategy, Gent2020, elaborated with the active participation of all relevant local stakeholders.

A Local Digital Agenda is being elaborated. During the project Ghent would like to consolidate its Local Digital Agenda with the future LAP coming up with operational plans that are innovative and truly answer present or upcoming needs.

The future Local Action Plan will have an internal and external focus where the first is seen as within the city organisation and the second within the city borders (eventually with external actors or governmental organisations active in the city).

Internally

- gather more information on the situation of the e-skills within the municipality and of the applicants;
- identify the gaps between desired and present e-skills;

- set up measures to not only bring the e-skills level to the desired level but also to help all employees to constantly evolve in their skills (for ex.: "start to e", lunch sessions, different form of Digital help within the organisation, putting a spot light on inspiratonal examples, the possibility to lend devices for experimentation, e-learning and instructional video's on het use of new devices)
- move towards a more innovative organisation, which encourages and makes room for innovation;

Externally

- Attract applicants with potential and offer them the possibility to gain the necessary e- skills;
- Help citizens in need via schools to gain ICT skills;
- Set up actions in the field of Education to provide the pupils with the skills they need;
- Collaborate with Local Companies and organisations to help citizens gain new e-skills and experiment with Technology.

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

Digipolis and the City of Ghent are involved in numerous projects and project proposals under the FP7 (CIVITAS ELAN: a mobility project), Interreg (Portico (Culture), Shaping 24 (Culture), ROI (Urban development), Tackling Social Exclusion), EFRD-Objective 2 (e.g. Gent in 3D (3D simulations of Ghent)), URBACT, IEE and other Programmes. All these projects have an ICT aspect.

The initiative "Smart-IP" and the city living lab are especially worth mentioning.

The SMARTiP project is based on the experience developed by a wide range of existing user-driven, open innovation initiatives in Europe, particularly those developed through Living Labs, and applies this experience to the challenge of transforming public services by empowering 'smart citizens' who are able to use and co-produce innovative Internet-enabled services within emerging 'smart' cities. The aim is to enable to adoption of open platforms for the co-production of citizen-centric Internet-enabled services in five test-bed sites, Manchester, Gent, Cologne, Bologna and Oulu. The objective is to enhance the ability of the cities to grow and sustain a 'smart city' ecosystem which can support new opportunities emerging for a dynamic co-production process resulting in more inclusive, higher quality and efficient public services which can then be made replicable and scalable for cross-border deployment on a larger scale.

SMARTiP has set up pilot experiences aimed to act as a catalyst to stimulate citizen engagement in becoming active generators of content and applications development, as well as being more informed and involved users of the developing Internet-enabled services in 'smart' cities. 'Smart cities' require 'smart citizens' if they are to be truly inclusive, innovative and sustainable. The promise of the information society, to create new ways of empowering people to play a fuller and more equal role in emerging governance systems through their access to dynamic Internet-enabled services, is also proving to be its biggest challenge, as not everyone is getting equal access to the skills and opportunities that are supposed to be there.

Furthermore Ghent is member of the Executive Committee of EUROCITIES and is the current vice-chair of the Eurocities Knowledge Society Forum. Ghent is also chair of the working group on e-Inclusion within that forum.

Eurocities brings together the local governments of more than 140 large cities in over 30 European countries. Through six thematic forums, a wide range of working groups, projects, activities and events, Eurocities offers members a platform for sharing knowledge and exchanging ideas helping o shape the opinions of Brussels stakeholders and ultimately shift the focus of EU legislation in a way which allows city governments to tackle strategic challenges at local level.

6. Potential contributions and demands within Thematic partnership

- Expectations about the E4C project.

- help the city of Ghent build up and carry out a Local action plan (part of Local Digital agenda);
- help identify and anticipate possible funding mechanisms for actions;
- Share with all partners Ghent knowledge on e- inclusion and measurement methodology;
- Broaden the city European network;
- Interested on methodologies to train Municipal staff on e-skills and ICT use to to increase efficiency and multiply results

- What are strong points on offer to other partners

- the long-term strategy "Gent2020"
- the e-inclusion program Digitaal.Talent@Gent

- the Local digital agenta
- experience with "Ghent Living Lab" (www.ghentlivinglab.be)
- Share knowledge and experience with participative methodologies
- "Midis" measurement of e-inclusion in cities
- Help to promote the E4C project via Eurocities

- What are the demands to receive support from other partners

- Share experiences
- Reiceve Urbact experience

7. List of REFERENCES

City of Ghent: www.gent.be
Digipolis: www.digipolis.be
Digitaal.Talent@Gent, our e-inclusion program: www.digitaaltalent.be
GhentLivingLab, Local recognized living lab: www.ghentlivinglab.be
Apps for Ghent: http://appsforghent.be/
Actual Local statistics of the city of Ghent: www.gent.be/gentincijfers.be
IBBT: www.ibbt.be/en
GentM, Digital creative sessions in Ghent: www.gentm.be
Netwerk of organisations working around poverty:
http://www.lokaalsociaalbeleidgent.be
Ghent Open Data: http://www.gent.be/open
Eurocities (Network of large cities accross Europe): www.eurocities.eu

KIELCE

1. Main characteristics of the town and its economy

Kielce is a town with a very convenient location in the south of Poland, situated less that 200 km from a few major cities: Warsaw, Krakow, Lublin, Katowice, Łódź. The population of the town is currently 200000 people.

Kielce is the biggest city and a capital of the Holy Cross Region (Świętokrzyskie Region). Together with adjacent 14 communes Kielce establish a Kielce Metropolitan Area, which has approximately 332 thousand inhabitants.

In the recent years Kielce has been developing as a regional economic, touristic and a trade centre. Due to its major function in the region the city attracts a lot of people from the entire region to work, study or carry our other activities here. On the other hand, the citizens of Kielce benefit from the advantages of the surrounding municipalities, having water supply, agricultural goods and recreation opportunities there.

There are 10 public and private higher education institutions in Kielce, inclusive 2 universities with over 30 years of history. Kielce has some key business and employment sectors like construction industry, electro-machine industry, food industry and manufacturing industry. It is a significant player in Polish trade market due to the trade fair centre running a big number of exhibitions in the city each year.

Despite its convenient location in the central part of Poland, Kielce is out of main EU communication routes. There is no airport in the region (the nearest airport is 130 km away), no highway and the deficiency of express roads, despite vital investments in transport launched in last 5 years. The airport is one of the priority investment planned in the region, however with very limited financial resources and lack of political support for the idea the chance to build an airport within the next 5 years are rather small.

Kielce with the surrounding areas has in offer many tourist attractions. One of the essential touristic sectors is agrotourism due to unpolluted environment and nature preservation present both in the region and in the city. Thanks to the Kielce Trade Fairs, a private company owned by the City more than 40 international events are held each year and 210000 visitors from Poland and abroad visit Kielce.

- General trends (past and future)

Kielce is the city with the lowest unemployment rate in the region. The rate for the entire region is 16% which is the 6th biggest unemployment among 16 Polish regions (average for Poland 13,2%). Kielce attracts employees and companies to concentrate their activities in the city. Nevertheless the unemployment rate has been growing gradually since 2008 when it was the lowest in the last 20 years (9,1%) in Poland. There are numerous reasons for the growth of unemployment:

economic slow-down, big number of graduates entering the labour market each year and migration of most talented or entrepreneurial people. There are 2 main directions of migration: to bigger and better developed Polish cities like Warsaw or to EU countries that opened their labour markets a few years ago.

Although there are 10 universities in Kielce, out of which 4 offer IT training in the form of Bachelor's degree, Master's degree or post-graduate studies, there is not sufficient number of IT specialist available for the labour market. Another issue is that the curriculum provided by universities is not always in line with the market trends and requirements. The students must follow a theoretical training with a big focus on examination and theory, while practical skills and ability to solve problems and search for solutions is very often neglected by academics.

The graduates when entering the labour market are hardly aware of what are labour markets demands and future employers' expectations. The companies when needing an employee are not willing to take someone with no professional background or experience and they are not eager to waste their resources to give him/her proper support. The general trend is to take on young but experienced specialists in the majority of professions. This is why young people, not only IT professionals, find it so difficult to get their first job.

- Specific issues related to the thematic partnership: Describe the related local challenge/problem your city is facing in relation to the topic the project is addressing?

- Challenge 1: enable the acquisition of e-skills: ICT users skills, ICT practitioner skills and e-business skills,

Kielce suffers from digital exclusion and it has a crucial impact on economic development. The city is the last place in the country as for the number of computers per household. Just 52,5% of households have the computer. The city is in better situation then the countryside. More people have an access to broadband and wireless Internet. However a lot of effort must be made to let people use computers in everyday life/ work / school. In order to be more cometetive we need to promote innovative IT companies that will create jobs for IT specialists. There are some groups of people that are excluded from the use of IT tools. One of such group is the over 50 population that is less eager to learn and gain computer knowledge. Those who are still on the labour market had to adapt themselves to the requirements of computerised word. However there is still a big group of people over 45 or 50 who lost their jobs and motivation to increase their vocational competences. It is more difficult for them to return to the labour market as they do not have up-to-date skills and IT qualifications. They are also reluctant to use IT tools provided by authorities and social services institutions, which makes digital excusion of this group even deeper. Sometimes people are unaware of such services or

reluctant to benefit from them online. It is necessary to ensure common Internet access and better promote the e-government services. General ICT skills in the society need to be developed and updated constantly, especially in relation to the digitally excluded groups. It is essential to encourage businesses to use software and hardware tools in running their activities as it is an opportunity to maintain competitiveness at a high level.

- Challenge 2: facilitate the upgrading of e-skills

In Kielce there are 2 public and 2 private universities providing training on IT skills (in general number of 11 universities). The University of Kielce and the Technical University of Kielce are the major players on the local education market and have 3 times more IT students than the private ones. In 2011 214 students graduated from IT departments at public universities and just 84 students graduated from 2 private higher schools. The education provided by public institutions is believed to be better quality and is ranked much higher by students. Thus there is a particular role for public institutions in outlining the curriculum and adjusting it to the labour market needs. Introduction of changes in the educational programs should be done on a central level but the universities have to be more open and innovative in launching new and market-driven faculties. Also the training provided by lower level education institutions (primary, secondary and vocational schools) needs to be more in line with the progress in information technology. This means that not only pupils but also teachers require continuous training to update their IT skills. An essential part of every training is the opportunity to use the new skills and abilities in practice. Today schools concentrate much on theoretical training while there is not sufficient practical exercise of the knowledge and skills. The employers from the IT sector organizing apprenticeship claim that the students and graduates have little knowledge of currently used applications and programs in private companies or even basic computer knowledge is too poor to carry out the duties at work. Managers of such companies often prefer to employ a specialist with a few years of experience rather than to invest their time and knowledge in a graduate looking for the first job. It is possible as the wages on the market are not competitive due to quite high unemployment (15,3% for the whole Świętokrzyskie Region at the end of 2011). On the other hand, some of the bigger IT sector companies based in Kielce employ external IT professionals from other regions rather than look for a local specialist. They are willing to pay them better wages plus additional cost of accommodation and subsistency allowances, although it increases running costs of a company. The reason is that the management is not satisfied with the local workforce competences in the IT field.

- Challenge 3: promote creation of new or better ICT jobs

The number of IT graduates in Kielce is around 300 each year. This would be sufficient to cover the local market demand. However many IT graduates leave our region after they finish the studies and move to bigger cities or even abroad. In 2011 a survey was

carried out among IT students of Kielce University of Technology. It showed that 68% of students do not want to stay in Kielce after graduating the studies. 78% said of the questioned said that they look for a job „which gives opportunity for development". 69% said that „financial expectations" are the most attractive in a job offer.

In this context, the job opportunities in Kielce are not in line with the IT specialists' expectations. Local market offers very low wages for IT sector in comparison with other cities. The number of vacancies for IT specialists in the region is relatively low and most of them are concentrated in Kielce. The IT specialists, having no professional background, are forced to accept low-paid jobs, even though the wages are below their expectations. On the other hand, the companies, as they have limited financial resources, reduce the amount of money spent on new technologies, software, staff training or innovations.

Many graduates and young students are disappointed when they enter such a labour market. If they do not find an ambitious job or satisfactory wages, they decide to leave the region in order to find a better job at another place. Statistics show that even 70% of IT graduates depart after they finish their studies. This is the weakness of the region as more and more investors find Kielce a perfect location to open a branch or a new department. The Investors Assistance Centres run by the Kielce City Hall and the Marshals Office of Świętokrzyskie Region make a lot of effort to win new investors, however the problem of losing the most ambitious and enterprising individuals is the region's huge disadvantage. There are good chances for Kielce to become a significant player on the Business Processing Outsourcing (BPO) market and host outsourcing companies and advanced help-desk service providers, however it is a must for the city to create attractive conditions to keep young, well-educated people in the region.

- Describe the policies developed by your city so far in order to tackle these challenges?

Kielce has a leading role in attracting and stimulating innovations and information technology. The city has a "Strategy of Computerisation of Kielce 2007 – 2020" in place. The document focuses on investments in infrastructure, indicating the needs and activities to be taken. It indicates 3 basic areas that should be enhanced for the benefit of information society. These are:
1. Developing infrastructure as a basic tool to transmit information,
2. Developing the content and services available through this infrastructure,
3. Developing of knowledge and skills allowing to create, share and use information and electronic services.
The access to the UE funds enabled implementation of various soft and infrastructural projects in Kielce Municipality.
The project "E- Świętokrzyskie – building of fiber networks and devices in the City of Kielce" allows to lay 79,36 kilometers of fiber network in the Kielce area. The aims of the project are: construction of the information society infrastructure in Kielce for 150 organizational units; reduction of the cost of telecommunications services for public entities; and establishment of public Internet access points for

residents of Kielce in the form of 20 hot spots. The project's value is approx. 7 250 000 EUR and the works are planned to be completed in December 2013. "Spatial Information System of Świętokrzyskie Province" is another project dedicated for information society development. The project's aim is to ensure common access to updated reference and thematic databases providing information about the Świętokrzyskie Province (in particular to spatial database).

There is a project titled "Broadband Network for Eastern Poland" dedicated for the entire region, inclusive Kielce. The project is to ensure access to broadband services for 90% of the population and 100% of public institutions and businesses in 5 provinces of Eastern Poland, including Świętokrzyskie, by the end of 2014. As a result of the project a broadband network consisting of five regional networks will be laid in the areas at greatest risk of "digital exclusion". Apart from infrastructural projects there is a number of other activities carried in the Kielce area.

Challenge 1)

A project "The world in my house" was developed by the Kielce municipality and now is being implemented by the City Office for Family Assistance, which is supervised and financed by the municipality. The project was created in response to the growing digital exclusion of certain groups under the risk of social exclusion. Those two, according to the City Office for Family Assistance, is very often linked with each other. The project is now in the implementation phase. It allows to provide personal computers to 154 households with free Internet access for 8 years. Additionally training in information technologies and basic software is assured. All the project activities were financed by the ERDF and they appeared to be very successful and appreciated by the granted families. There were 2 basic groups of beneficiaries selected for the project: the families with a child / children and the disabled. In both cases families had to prove that their income was below a certain income limit. In practice, the computers were given to the households that were supported by the City Office for Family Assistance for certain time.

Challenge 2)

In the recent years some E-government services and facilities have been developed and made available to the public. E-learning has become much more popular in terms of courses and regular studies. In some cases e-learning is used as a complementary aid in the teaching process. A lot of information for students and individuals is available online. At primary and secondary schools communication between parents and teachers is possible via electronic systems introduced by schools. Such systems are not common at schools yet but there is a growing demand from the society to introduce them into the everyday life.

These activities are covered by the Operational Programs that are being implemented now in Poland and financed from the EU funds. During the last programming period 2006 – 2013 a great number of IT infrastructure projects started and numerous training projects on ICT skills were implemented with ESF support. The training projects were directed to the businesses, unemployed, disabled, students and teachers, women, country dwellers and in the last 2 or 3 years to the people over 45 years old. Their aim was to help people excluded from the labour market to improve their professional qualifications and return to work. These projects did help to improve general IT skills and competences, however they were of smaller impact on creation of new jobs or reduction of unemployment.

Challenge 3:

One of the major investments realized in Kielce in the recent years was the foundation of the Kielce Technology Park co-financed from the European Regional Development Fund and the City budget. The park has several modern buildings inclusive greenfields, offices, production area, storage, laboratories with an up-to date equipment and software. They are located in the industrial part of Kielce within the Special Economic Zone. For these reasons the Kielce Technology Park is attractive for businesses that can benefit from the infrastructure for a cost below average market prices. The park is open for entities with a special focus on introducing new technologies or any other type of innovations. It serves as an incubator for new business. The large number of the Park tenants are IT, outsourcing, design or advisory businesses. Having a business in the Park offers an opportunity to profit from new technologies, software, support services, etc.

Business are supported by other units established in Kielce, such as the municipal "Investor Assistance Centre". The Centre organizes promotional events, provides comprehensive information about economic conditions and legal requirements for a potential investor and support the investment process at every stage.

LSG: members of the LSG. List members

Kielce City has some experience in terms of how to establish and work with a Local Support Group as the city participated in another URBACT II project called "The role of cities in the integrated regional development" "URBACT II. The full list of the partners forming the URBACT Local Support Group includes:

- Kielce City Hall, Department of Structural Projects and City Strategy
  www.um.kielce.pl

- Kielce City Hall, Department of Services and Computerisation
  www.um.kielce.pl/zoum

- Świętokrzyskie Regional Development Office *www.sbrr.pl*

- Marshal's Office of Świętokrzyskie Province *www.sejmik.kielce.pl*

- Kielce University of Technology, Department of Electrical Engineering, Automatics and Informatics www.tu.kielce.pl

- Kielce University, Department of Mathematics and Information Technology *www.ujk.edu.pl*

- Kielce Technology Park *www.technopark.kielce.pl*

- Association Education by the Internet (NGO) *www.epi.prg.pl*

- Adecco Poland (HR sector) *www.adecco.pl*

- City Office for Family Assistance *www.mopr.kielce.pl*

- IT Professional Training (training company) *www.interpsi.ok.pl/*

The core group will be based on the City of Kielce, the Marshal's Office and the Świętokrzyskie Regional Development Office (called SBRR) as the institutional partners of the project. This allows to work in a more coherent way, to transfer the solutions from the projects outside the Kielce City and to have some impact on how the EU funds are used.

3. SWOT Analysis

Strengths

- Well developed net of schools and universities, availability of IT training at different levels of education and e-learning
- Availability of free of charge IT courses co-finances from EU money from Structural Funds dedicated for unemployed, businesses, local authorities, teachers, students or others
- Large number of students and graduates educated locally
- High qualifications of IT specialists and employees in private companies
- Affordable prices for access the Internet as a result of the providers being more competitive
- Growing access to social services provided online by businesses, local authorities and other public and private institutions
- Interest of foreign companies to invest in Kielce in outsourcing and help desk services

- Developing network of institutions and businesses interested in ICT promotion and usage like Kielce Technology Park, Centre for Innovations and Technology Transfer, Design Centre etc.

Opportunities

- Growing Business Outsourcing Sector (BPO) and other companies that implement and develop IT competences in their activities
- Upgrading the level of IT education of Kielce citizens
- Support of EU funds given to new technologies, human resources development and information society
- Growing need and interest in ICT use in the companies, schools, administration authorities
- Iincreasing availability of the Internet via fixed lines and radio transmission
- Better access to social services provided over Internet by businesses, local authorities and other public and private institutions
- Increase of e-jobs offered to employees and promotion of e-learning

Weakness

- Low profitability of businesses that results in relatively low salaries offered to IT employees
- High level of unemployment especially among young people and people over 50
- Relatively small flexibility of universities in elaborating courses and curriculum in line with the labour market needs
- Low level of technical, social and transport and infrastructure (the region suffers from digital exclusion due to insufficient access to broad band internet and optic fibers)
- Lack of staff qualified in innovation and technology transfer in the business support institutions
- Low ability of businesses to create and implement new technologies
- Inadequate use of ICT information technology in the economy, science, education and administration (platforms like e-government, e-learning, e-health are underdeveloped and insufficiently used),
- Low ICT qualifications of some of the teachers, academics and other professionals responsible for education in general
- Part of the society is reluctant to use e-services and update their ICT skills which deepens digital exclusion
- Lack of practical knowledge of IT application among graduates entering the labour market.

Threads

- Local authorities budget constraint

- Termination of additional funds from the EU to support technical infrastructure development and ICT skills improvement in the society
- Strong migration and escape of talented people to other parts of the country and abroad due to lack of satisfactory operation in the region
- Growing post-productive population that is not willing to use information and computer technologies and resistant to go back to professional activity
- Digital exclusion of certain group of people (disabled, with low income, with basic education or those without job) will deepen the gap between IT users and people resistant to apply IN skills and technologies

Approaching the Local Action Plan: what was done and what would like to be done

The need to elaborate a comprehensive Local Action Plan has already been discussed with ULSG members, each of whom focused on a different issue related to their specialisation. The future plan should reflect the objectives and measures recorded in the "Strategy of Computerisation of Kielce 2007 – 2020" and the "Regional Strategy of Innovations for the Świętokrzyskie Province".

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

Kielce City Hall does not have a lot of experience in exchange at transnational level related to the thematic issues. The projects we have been supporting so far were done locally with some influence and co-operation with partners from the other part of Poland.

Nevertheless Kielce has had the opportunity to take part in numerous European projects, like:

- *Autumn University* financed from the Europe for Citizens ref. no 05/2291
- *Hand in hand* financed from Europe for Citizens ref. no 08/2426
- *The role of cities in integrated urban development* financed from Urbact ref. no 1190 between April 2008 and July 2011
- *I am entrepreneurial – I have my own company* financed from ESF ref. no WND-POKL.06.02.00-26043/08 between January 2009 and April 2011
- *Economic Promotion of Eastern Poland* financed from ERDF ref. no POPW01.04.01-00-001/09 between 2009 and 2015
- *Creation and Development of the Cooperation Networks of Investor Assistance Centres* financed from ERDF ref. no POPW01.04.02-00-002/09 between January 2010 and June 2015

Kielce is an active member of a national organization called Association of Polish Towns and Cities and has a lot of contacts with the City Region net resulting from

previous URBACT projects. Since 2005 the City has been part of the network established by Polish Agency of Information and Foreign Investments to consolidate Eastern Poland cities.

6. Potential contributions and demands within thematic partnership

- Expectations about the E4C project.

Kielce City Hall is keen to benefit from learning about existing solutions in other European countries and is eager to implement them locally. Kielce needs to develop the capacity to overcome digital illiteracy due to the fact that the city suffers from digital exclusion. The use of e-government services needs a lot of promotional activities and the tools provided online must be improved continuously. It is vital to use the know-how from other international partners and it is necessary to develop a partnership network with local players. So far co-operation with universities has been rather weak. The project provides a great opportunity to improve relations with the universities and other partners that have not had very close co-operation with the City of Kielce so far. The results of the project will be disseminated in our partnership network so that they can take advantage of good examples and practice elaborated by others. The expectation is to elaborate the Local Action Plan, indicate the tools to implement it and possibly search for possible sources of financing the measures.

- What are strong points on offer to other partners
Kielce strong advantage is the co-operation with businesses and business support institutions. There is an Investor Assistance Centre separated from other divisions of the city hall which is keen to share their experience in how to attract businesses to the project and benefit from them. Also Kielce is willing to tell what promotional and educational activities were implemented in the city in order to promote ICT among young and unemployed people as we had implemented successfully such a project dedicated to how to integrate socially excluded citizens. (project "World at my home").

- What are the demands to receive support from other partners

The support to be received from other partners includes the opportunity to learn and observe best practices, to obtain the know-how, adapt existing models to local needs in order to overcome similar challenges. It is useful to have external help in identifying strong and weak sides of the local economy and policy and what else can be done to improve the current situation. The idea of open municipal data, cloud computing, and innovative co-operation with private partners will be of particular interest for Kielce. The main impact from the partner's contribution will be the opportunity to improve the acquisition of e-skills: ICT users skills, ICT practitioner skills and e-business skills.

7. List of REFERENCES (links to web pages run by the Municipality or others related to thematic issue)

www.um.kielce.pl City Hall of Kielce
www.sejmik.kielce.pl Marshal's Office of Świętokrzyskie Province
www.invest.kielce.pl Investor Assistance Centre
www.technopark.kielce.pl Kielce Technology Park
www.mup.kielce.pl City Labour Office
www.pup.kielce.pl District Labour Office
www.wup.kielce.pl Regional Labour Office

PALERMO

1. Main characteristics of the town and its economy

- Basic overview

Palermo, the capital of Sicily, is an historic city very much noted for its rich history, culture and architecture. As a consequence, its economy mainly relies on tourism and services, but also commerce, shipbuilding, trade and agriculture.
The city has a population of 670,000 inhabitants, with the metropolitan area of Palermo home to 1,200,000 people. The population is declining, because of relocation to the suburbs and emigration: during the last ten years about 20000 people has leaved Palermo, mostly to go to northern Italy.

The City of Palermo lives a situation common to most of the major urban settlements in the South of Italy. They base their livelihoods on a variety of economic, cultural and institutional factors: a strong trading system, a port strategy yet undetermined, the tourism system that grows at high speed, the extraordinary architectural heritage and cultural, the presence of centers of excellence in education, scientific research and health care, the dense network of presences in the area of professions and consulting[65].

A major problem is the lack of adequate job opportunities for the young generation. Inner city areas have suffered from economic decay, the abandonment of historic buildings and the concentration of poor people.

The City Council considers the processes of territorial development as a prerequisite for the achievement of social cohesion and for overcoming the gaps within the citizenry of Palermo. The local networks will have a strategic role in propelling economic and social context, as well as new ICTs can be a turning point that will contribute in achieving such objectives.

In the city are located several public and private Universities, research and training centers, as well as cultural institutions[66].

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[65] According to the latest report SVIMEZ 2012, Palermo is one of the so-called "areas of interrupted development", that is those in which the challenge of the coming years of growth and decline is faced up to, marked in many cases by the crisis of industrial sector and/or by the degradation of the urban framework. Moreover, the difficulty in identifying a new possible development path between local talents and external investments is still a relevant obstacle to be overcome.

[66] □ The University of Studies of Palermo, established in 1805, with 60.000 enrolled students
□ Polytechnic of Mediterranean, founded in 2008
□ LUMSA- *Libera Università Maria Santissima Assunta* – a private University with 2 relevant Departments: the Law Faculty and Training Sciences Faculty
□ The University of Studies "*Guglielmo Marconi*", with one of its 10 regional branchs in Palermo;
□ The "*Telematics University for audio-visual management*" (TEL.M.A.)
□ The Papal Theological Faculty of Sicily "*San Giovanni Evangelista*", created in December 1980
□ CERISDI– Centro Ricerche e Studi Direzionale (Research and Management Studies Center)
□ ISIDA– Superior Institute for entrepreneurs and companies managers: a no-profit organization in 1956;
□ *Libera Università della Politica,* association created in 1994 to foster politic training of future managing class;
□ Superior Institute of Journalism of Palermo, founded in 1953
□ National School of Cinema– Experimental Center of Cinematography: established in 2008
□ Academy of Arts

- General trends

In the last years it has been activated a fruitful transversal collaboration among the local administration of Palermo, the Universities and the training centers to develop and encourage entrepreneurship and support the creation of business incubators.

The local administration of the city aims at creating the optimum conditions to expand the innovative capacity of urban entrepreneurs through the setting up of Public-Private Partnerships (PPPs), focused on common objectives involving stakeholders from different sectors of the economy.

The gap in e-skills and, more in general, in ICT investments has caused a dramatic skill shortage of up-to-date competencies in new technologies. Since the International Conference on E-Government for Development (ICEGD) held in Palermo on 10 and 11 April 2002, it has been recognized that e-government could foster good governance and promote a wider use of ICT.

The city of Palermo intends to provide easy access to public information, improve transparency and allow effective involvement of citizens and businesses in the policy-making process. In this sense, the Regional city has started several proven-effective initiatives to reduce the existing digital divide involving key city stakeholders: with the aim of providing an innovative device of interaction between government and citizens, in September 2012 the Municipality inaugurates the Urban Park D'Orleans "Ninni Cassarà", the first realization of a town "Digital Park", as a platform for the development of new services for citizens and businesses as well as to facilitate the monitoring of the administration through a more diffused use of ICT. Connected to this initiative, the University of Palermo proposed and won a national grant for the project "WIFI4UNIPA" geared to have enhanced e-services for students, faculty and administrative staff.

Additionally to this, it is to mention the "LivingLabCamp Palermo 2012" an open initiative highly supported by the current Mayor for launching the Living Lab Palermo, which allowed citizens, businesses and administrative personnel to express and exchange ideas. This participatory event focused on relevant discussions on subjects such as agriculture and urban green, sustainable mobility, e-democracy and participation, Water and Energy, Open Data, culture and tourism, by exploiting the potential of co-production in terms of innovative oriented to-and-from citizens' services and applications.

☐ Academy of Music *Vincenzo Bellini*
☐ National Research Council
☐ ISMETT- Istituto Mediterraneo per i Trapianti e Terapie ad Alta Specializzazione (Mediterranean Institute for Transplant sand High-Specialisation Treatments)
☐ Zooprophylaxis Experimental Istitute of Sicily "*Adelmo Mirri*"
☐ Astrophysics Istitute and Cosmic Physics of Palermo.

Notwithstanding the public efforts, consistent with the EU e-Government Action Plan 2011-2015 "Harnessing ICT to promote smart, sustainable & innovative Government" and the "e-Gov 2012 Plan" launched by the Italian Ministry for Public Administration and Innovation, the city of Palermo is still experiencing a low level of use regarding administrative services. Beyond the fragmentation of single initiatives together with the lack of investments in ICT services and infrastructures, the digitalisation process meets cultural barriers rather than technological: for this reason it is necessary to make different stakeholders engage for real investments in training at all levels (ICT users and ICT practitioners) to bridge the actual digital divide gap.

- Specific issues related to the thematic partnership

The City of Palermo is strongly oriented towards evolutionary strategies of its information system in the direction of an explicit and direct provision of services to citizens, businesses and other administrations, for some years has been already implemented the project **MAIA - Improved Applications Application and Infrastructure for the government of the city of Palermo,** is currently under construction project "Portal online services", financed within PO ERDF Sicily 2007-2013.

The technological infrastructure of the project is built on the e-government platform carried out as part of MAIA project, on which some services of level 4, deemed essential for the competitive development of the urban system, will be expanded: public administration □ citizens □ companies such as tax services, demographics, education, municipal police as well as those of the horizontal application, such as payment services and systems for application interoperability.
In this sense, the future system will make available to citizens and businesses a range of level 4 services of online interaction, according to the scale ANAO, accessible via the web portal MAIA.

In reason of its architecture and functionality, this online services platform is deeply integrated in the context of Information System and the Electronic City (SITEC), consolidating the capacity of front-office through a structural and effective interconnection to the complex back office system. The SITEC therefore represents a tool for the dissemination of information for citizens as well as an interconnection gear among the municipal, provincial, regional and central structures.

The Electronic Ring (funded POR 2000-2006) is an ICT infrastructure based on broadband connectivity town for providing services. Its realization has a double nature: it is composed of a first physical system of containment and "physical" protection and of a second virtual part, a telematic metropolitan network (MAN: Metropolitan Area Network) in single mode optical fiber built in to the first system.

The Electronic Ring, distributed in the city center, reaches out for a total of 32 km. In 2007 the Region of Sicily launched initiatives aimed at encouraging the development of the information society in the Sicilian territories via the RAN project, through a broadband network infrastructure (fiber optic) to connect MAN of the 9 capitals provincial of the region. In 2008 the Municipality of Palermo signed with Sicily and e-Innovazione Spa a framework agreement for providing an infrastructural network for telecommunications[67].

- Policies developed by the city in order to tackle the thematic challenges? General policies

Palermo is traditionally a dynamic reality of the Southern Italy, as far as cultural, economic and tourism fields. Service industries are the mainstay of the city of Palermo's economy, with both commercial and industrial businesses usually being in the medium to small range. While the traditional economic assets - agriculture, fishery and industrial sectors (main areas: housing construction, shipbuilding, engineering, food manufacturing and textiles) - are still suffering from the effects of the global financial crisis, tourism has in recent years started to deeply increased.

The urgent need to revive the city entails to undertake creative and sustainable policies in a context of co-participative decision-making processes and renewed public-private partnerships. The goal is to provide the local area of infrastructures, services and functions necessary to perform effectively the role of **capital city of the Euro-Mediterranean area**, exploiting all the potentialities of the city of Palermo.

To face the historical and most recent challenges, necessarily the city of Palermo needed to define an innovative integrated approach able to boost the economic local growth: in 2011 Palermo adopted the Strategic Plan for Palermo Capital of the Euro-Mediterranean, structured on 4 strategic topics: environment, culture, infrastructures (facilities to people and enterprises), mobility. This Plan represents an opportunity to reorganize the development of the city, by establishing a united strategy, avoiding duplication, and enhancing the role of public-private partnerships[68].

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[67] The City Council, with the aim of adopting and diffusing the *Smart Cities* model, has foreseen to use the Electronic Ring potential for further development projects. Below are some of the areas which could exploit this strategic device:
1. Infrastructure – Creating a radio network and the broadband access in the Metropolitan Area of Palermo, in order to provide advanced broadband connectivity services to government and distributed to users located in the area.
2. Security – Wireless monitoring the unsafe buildings in the historic center of Palermo. 3. Mobility – Creating an Integrated Operations Centre of the mobility, operating as a collector of information from the territories to aggregate, process and structure the data acquired to make them accessible to the community through wired and wireless networks.
[68] The interventions foreseen will lead to 9 "different cities" inside the city: *interconnessa*, as a dynamic opportunity to implement connections needed to acquire a primary role in the Mediterranean and Europe; *metropolitana*, intending the essential involvement of other municipalities belonging to the metropolitan area to create new sustainable and smart paths towards the scientific, cultural and economic progress; *internazionale*, entailing an effective range of international initiatives and tools to boost an increasing visibility and participation of the city at a EU level; *produttiva*, enhancing the entire business system: manufacturing, financial devices, tertiary sector, mobility (transports and logistics) in order to

In relation to this global and extensive-breath vision, 4 focus areas have been identified: ***mobility, environment, culture, infrastructure - services to individuals and businesses***. Following the final elaboration of the Strategic Plan, has started the preparation of sectorial strategic plans, among which the local administration particularly considers of interest the specific plan related to ICT the field.

Specific policies for the thematic topic

Palermo marks out for its socio-economic background with a strongly reduced demand for ICT professionals in the market, limited almost exclusively to the public sector. In this situation the most appropriate measures linked to the project's purposes appear to be those related to the possible extension and development of areas of ICT application in line with the Smart Cities concept to increase access to e-competencies to professionals and facilitate computer literacy of the local community.

In this context, the Municipality of Palermo has already worked in the field of innovation in services for citizens and businesses. With projects Wire (Electronic) Ring, Local Marketing, Network and ATM Companies and MAIA, sound achievement have been realized both in terms of infrastructure and direct services to citizens and businesses. Currently the City, with the project of the Online Services Portal, is improving the safety of these services, by raising the usability level 4, through the strong authentication with health card and/or other authentication systems.

Here are some of the most important issues characterizing the work already done:

GOVERNANCE Information System for monitoring interventions CSF (Municipal Strategic Framework): a system for monitoring and evaluating the effectiveness of actions undertaken, the compliance of the actions with their goals and the presence of any critical issues. The monitoring system involves the use of Geographic Information Systems (GIS) for the representation of projects with territorial impacts and evaluation of their interactions, constituting a proven-effective tool in the decision process.

attract capital, entrepreneurs and investment harnessing the extraordinary Sicilian potential; *creativa ed innovativa*, boosting a process of global renewal to create value from the local creative and intellectual skills, the humanistic and cultural resources and the high rate of schooling; *città turistica*, with the huge heritage of the city offering great possibilities of increasing and improving all the tourism-oriented services and structures; *città della cultura*, providing alternative cultural models able to integrate tradition and innovation; *città di loisir*, to improve the citizens quality of life by acting on physical environments, health, safety, to swell recreational opportunities and well-being of local and touristic people; *città dell'integrazione*, designing proven-effective actions to ensure social cohesion and tailor inclusive and innovative interventions to targeted beneficiaries, thanks to the active engagement of different stakeholder (local authorities, businesses, employment centers, educational institutions, voluntary associations, etc.).

LAND AND ENVIRONMENT. Computerized platform for the organization of gathering and processing the acquisition, elaboration, validation and use of data on municipal solid waste collection: computer-based system to support initiatives to renovate waste collection in the city of Palermo, developed on the evaluation and dynamics of land use (load specific demographic, business location, government offices location, etc ...).

DATABASES. Land registry for the streets of Palermo: a database able to represent, organize and geo-reference detailed information on roads structures in its entirety, endowed with models analysis, planning and control concerning the programmatic maintenance of paved surfaces, scheduled supervision of particular importance works, traffic monitoring, traffic safety, management and design of signage, work authorization and map of road works; request of intervention on the road network.

SOCIAL INCLUSION. Multimodal desk: a counter capable of overcoming communication barriers through: multimodality, augmentative multimodal communication towards immigrants and people with disabilities; the communication takes place not only using text, images, graphics, audio and video (as in multimedia), but also through the techniques of expressive punctuation, style, emoticons, animations explanatory, facial moves, feelings, communication through an e-tutor virtual.

MOBILITY Informed Mobility System: Integrated Operations Centre Mobility with functions of information collector from the individual territories and to aggregate, process and structure the data collected to make them accessible to the community through the use of wired and wireless networks. The themes are: detection of traffic flows based on tracking and satellite tracking, tracking and control of heavy vehicles in the access to the city center, *real time* Travel planner with itineraries generated in *real time*, payment system and passes' issue, a system of resource management "car sharing" available in various parking lots.

TOURISM Information System for Urban Transport - Public transport and integrated information services: a system capable of representing through GPS connections the level of service for public transport fleets, integrating information on places and tourist and cultural opportunities, available through communication systems (totem, internet, electronic boards).

CULTURE Cultural and literary map of the city of Palermo: interactive map of the township, which allows users to access and insert cultural and literary information on the territory referred to art works providing places indication, historical/archaeological references, anecdotes about the city, reconstruction of the urban tissue in different historical periods.

SECURITY Monitoring unsafe building in the historic center of Palermo with wireless sensors: A protection system of cultural heritage through sensors of last generation, integrated with the geological and engineering traditional techniques and the multidisciplinary studies for reconstruction of geological and environmental dynamics, acting in specific areas where located archaeological, architectural, artistic assets. The topics include: hazard static-structural (seismic risk, landslides, floods), the danger related to human activities (intrusion, tourist pressure, susceptibility to theft).

INFRASTRUCTURE WirelessMAN - Integration of Electronic Ring and wireless systems for broadband connectivity services of the territory: Radio Network Distribution and broadband access in the Metropolitan Area of Palermo, geared to provide advanced broadband connectivity to public administration and end-users living in Palermo metropolitan area. The network integrates and extends the Ring Telematic

TECHNOLOGICAL INNOVATION. De-materialisation and De-centralization of services: Districts, multipurpose desks, technological renewal: distributed infrastructure based on the paradigm of cloud computing and decentralization, both of the processing capability and capacity of storage. In the cloud model users do not need to have knowledge, expertise or control over the technology infrastructure supporting the cloud, but they see the resources deployed as services on the network..

SERVICES TO THE COMMUNITY. Portal Services Cemetery: an application platform designed to give greater transparency of the administrative practices and in particular the exercise of judicial review, in order to allow an effective market opening for cemetery services and ensure a more competitive structure of the sector to protect the interests of users. As part of the evolution process of the Public Administration started with projects for e-Government, the de-materialisation of workflows involving the public administration and key actors of the sector will produce instruments of particular relevance to the control and monitoring actions of the public body, as well as they will define a new channel of communication more streamlined and efficient.

2. Approaching the ULSG: members of the ULSG.

Training area:
- SISPI Spa: in-house corporate managing services for technical management of the Municipality informative system and related training activities dedicated to employees.
- CNR – National Research Council
- University of Palermo

Employment services and business area:
- Confindustria (Italian employers federation – local offices)

- CCIAA (Chamber of Commerce, Industry, Crafts and Agricolture) of Palermo
- Confartigianato (Italian handicraft companies and entrepreneurs – local office)
- Confesercenti (Italian association of third sector business – local office)

The municipality:
- Region of Sicily
- Regional Assembly of Sicily
- Regional Province of Palermo
- Amat Spa(mobility and transports local company)
- Amia Spa (municipal waste company)
- Amg Spa (energy utility local company)
- Amap Spa (water utility local company)

3. SWOT Analysis

External Factors: Opportunities and threats
- relevant presence of public and private Universities and of Cultural Institutions;
- strong presence of training and research centers;
- Strong interest among young people in ICT;
- A considerable number of young people needs to be trained on ICT;
- Several difficulty among adult workers in using ICT;
- Scant endowment of ICT equipment.

Internal factors: Strengths and weaknesses
- Consolidated relations between Municipality Administration and local stakeholders, thanks to previous positive partnership experiences;
- Possibilities of access to public financing finalized to the adjustment of ICT infrastructures in the public administrations;
- Increasing demand of application of new technologies in the working process finalized to improve the quality of public services and its efficiency and to the containment of public expenditure through the elimination of paper certifications
- Inadequate ICT infrastructures compared to new needs;
- Lack of trained professionals according to the new labour market needs;
- Professionals not always able to understand the need of up-grading courses in order to be in line with the current changes in ICT sector.

4. Approaching the Local Action Plan: what would like to be done

- Promote partnership with associations and citizen committees in order to realize
- training actions for the acquisition of basic and new skills and upgrading the existing ones;
- Realization of training courses on ICT differentiated according to the participant age and taking into consideration the different needs of the population;
- Arrange market analyses finalized to the comprehension of enterprises' and population's (employed and unemployed) training needs trying to adapt necessities and actions;
- Increase WI-FI structures;
- Job opportunities promotion through ICT in culture, tourism and SMEs related to these sectors;
- Build networks for sharing information, practices and experiences finalized to job promotion.

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

URBACT II - CoNet: In the framework of CoNet the activities of Palermo has focused on young people: the reinforcement of their sense of belonging to the city and the development of a better system of governance to connect and match the steps from education to vocational training and education.

LIFE "Sun&Wind": it is a LIFE Environment project. It has developed a Geographic Information System as a basis for the drafting of a Knowledge Framework shared between the actors involved in the redevelopment of the environmental system of the Oreto river.

LivingLabCamp Palermo 2012: it is the initiative to launch the Living Lab Palermo as to provide an opportunity to all citizens, businesses in the territory, and all those who work within the government sector, to express and exchange their ideas with those who possess technologies that can help realising them.

6th Framework Programme: URBAN MATRIX is a four year led project which provides a knowledge transfer platform designed to support European in learning about projects and policies related to Sustainable Urban Development (SUD). It allows the exchange of best practice, expertise and application of sustainable urban development solutions.
Palermo has recently received the approval for the starting of the implementation of the project "Overgrid" within the programme "Smart Cities and Communities and Social Innovation", promoted by the Italian Ministry of Research. A project valued 15 million € will involve some research centers, public subject and companies from Sicilian Region.

UDIEX ALEP – URBACT I: Palermo under the URBACT program I joined the network UDIEX ALEP (Urban Diversity and Inclusion Exchange - Action Learning Exchange Programme) for the exchange of experiences on the themes of urban diversity and social inclusion, together with twenty-six partner cities including Venice as lead partner.

LIFE ENVIRONMENT: Palermo has been lead partner for the development of the experimental bioclimatic architecture project **"Sun & Wind"** with an international partnership composed of 12 members.

CAPITAL BLEU – INTERREG IIIB MEDOCC: The Municipality of Palermo took part in the project CAPITAL BLEU aimed to encourage the reception for cruising tourism through the strengthening of the services in the port area and the implementation of actions for improving cruisers' accessibility and autonomy of cultural routes easily identifiable, making use of car sharing service with electric cars equipped with GPS.

CULTOURMED – INTERREG IIIB MEDOCC: Municipality of Palermo participated in the project addressed at the realization of tourist routes and actions for promoting the territory and thematic seminars for tour operators.

PIT "Palermo Euro-Mediterranean Capital" POR Sicily 2000 - 2006 (ERDF / ESF): PIT- integrated territorial Plan "**Palermo Euro-Mediterranean Capital".** PIT objective which aimed to organize the Palermo internationalization global process was translated operationally into the functional re-organization of the city, in order to provide urban area with basic infrastructure, facilities and added-value services necessary to support this role.[69]

PIR "Palermo Euro-Mediterranean Metropolis": PIR 8 "Networks for Local Development"- Pilot Project "Palermo Euro-Mediterranean Metropolis"" - POR Sicily 2000–2006 - Internationalization of the local system: international marketing plan.

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[69] The following actions have been carried out within the project:
☐ Financial support to entrepreneurial initiatives (with particular attention to young entrepreneurs and female) for the revitalization of *Cantieri Culturali della Zisa*;
☐ Information System territorial marketing creation;
☐ Territorial and internationalmarketing studies
☐ Information desk for enterprises internationalization for the Chamber of Commerce
☐ scientific researches and enterprises technological innovation cofinancing;
☐ Creation of laboratories for enterprises technological innovation;
☐ Electronic City Ring Implementation;
☐ Aid to local handicraft: cofinancing of entrepreneurial interventions in historical center area to support handicraft strategic sectors;
☐ Aid to trade sector: entrepreneurial interventions cofinancing for revitalizing historical local markets;
☐ First job placement of graduated young people through internships and training activities in companies;
☐ Students Scholarships for the development of experimental thesis within local companies;
☐ IFTS Training sectionsin the field of visual arts and image for highly qualified professional profiles;
☐ Educational initiatives for disseminating legality culture in schools.

PISU/PIST "Territorial joint: Palermo, Ustica, Villabate": O. P. ERDF Sicily Region 2007-2013: Urban Development Integrated Plan- Axis VI of the ERDF O.P. "Sustainable Urban Development" and Program Integrated Local Development Program (all of the Axes of the OP ERDF)[70].

AGENDA 21: The municipality of Palermo participates in the action plan "Agenda" aimed at contributing to the sustainable development implemented at global/ national/ local level, involving the highest number of stakeholders operating within the territory.

6. Potential contributions and demands within Thematic partnership

- Expectations about the E4C project.

Palermo is facing several challenges that need to be addressed in a dynamic way, in order to ensure a sustainable and integrated growth of its whole community.
Through the active involvement in the E4C network the city of Palermo intends to promote the acquisition of e-skills and improve access to ICT tools, in order to start valuable measures to address the population in search of employment to training courses in the field of ICT, qualifying personnel's profile with consistent technical skills appropriate to the demand of the labor market, as well as profitable experiences susceptible of generating self employment through ICT and the development of e-skills. The objective is designed to integrate the training opportunities with the current needs of the labor market, so contributing to better match the training offer with the business needs.

- What are strong points on offer to other partners

The city could offer its expertise in designing strategies aimed at creating integrated systems for R&D, as an effective tool to bridge the gap between R&T Development (i.e. coming from the local University) of new services/products and their diffusion in the civil society. Furthermore Palermo has strong competences in initiatives to foster business incubators and innovative enterprises' (ICT oriented) start-ups, so it could bring a concrete contribution to the definition of joint policies and could surely benefit from E4C Network results on relevant e-skills demanded by the labour market. The network that the Municipality of

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[70] Among the most relevant achievements and objectives are:
• Portal for Online Services - authentication system and on-line of level 4;
• e-Democracy and Educational Institution;
• Schooling and socialization for disabled students;
• S.O.S.S. - Hospitality Services in Situations of Social Disadvantages
• PROJECT S.I.G.I.S.A.S. Computerized System of Integrated Management of Social, Health and Welfare Services and creation of a single point of access;
• "BRIDGE". Inclusion, Responsibility, Intergenerational Dialogue and Personal Human Development • DOMINA;
• Project for the installation of a 20kWp photovoltaic system for the production of electricity and of a lighting system specifically designed to the squares in front of different local schools

Palermo will be able to involve in the project's activities will allow to test the scalability and the sustainability of the proposed actions

Within the Department of Culture, thanks to the continuous engagement of Sispi(in-house company for information technology) from the end of the 1990s, a static culture of conservation, always anchored to the old paper-based tools, has been replaced gradually by a more dynamic conception, breaking through technical as well as psychological difficulties and slowly leading to concrete results: for instance, the computerization of *Museum Pitre* catalogues (still in progress) and the inclusion of the Historical archive's inventories according to the SIUSA program descriptive standards ("Unified System for Archival Superintendents"), used by the Ministry of Heritage and Culture and provided free of charge to the City. Today, the inventory of the Archives are available online (www.signum.siusa.it). It is worthwhile to mention also the project, realized by SISPI again to upgrade the municipal public library central part of the national library system: from the website www.libr@rsi.it it is possible to access and look through all the city libraries' catalogs.

Another important recent initiative set up at the city of Palermo through the municipal company AMAT SpA is the *car sharing* service (www.amat.pa.it).

Thanks to the "Urban Mobility for Sustainable Environment – MUSA" project, it is expected to realize a computerized system detecting, in the monitoring phase of the exhaust gases of vehicles, the data related to the concentrations of the measured pollutants. The data will be stored in a dedicated database which will make appropriate statistics. As well is operative the network for air quality monitoring in the city of Palermo, managed by the municipal company AMIA, with 10 measuring stations connected by Internet to a database collecting and processing data, which are daily performed to citizens through the site AMIA (www.amianet.it).

The design of the Mediterranean bioclimatic house "Sun & Wind" - Strategies and innovative ways to intervene in the territory - is likely to become a model of possible sustainable development intervention, with the specific objective of integrating environmental strategic issues into the planning and development of the territory through the use of integrated innovative techniques and methods.

- What are the demands to receive support from other partners

The support that the City Administration hopes to receive from the other E4C partners is a great positive contribution in terms of experience and use of ICT and e-skills aimed at the enhancement of all the relevant fields of action of Palermo local administration.

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PATRAS - Municipal Enterprise for Planning and Development (taking the role of Patras as a partner in the network as equivalent public authority)

1. Main characteristics of the town and its economy

- Basic overview
- General trends (past and future)

The City of Patras with a population that exceeds the 200.000 people is the capital of the Region of Western Greece and Achaia Regional Unit. The city is located in northern Peloponnese, 215 km (134 mi) west of Athens. The city has always been a sea-trade hub due to its strategic position. The port manages more than half of the foreign sea-passenger transportation in Greece, and has excellent car-ferry links with the Ionian islands and the major Adriatic ports of Italy. Additionally, a new port is operating in the southern section of the city to accommodate the increased traffic and relieve the city centre from port operations.

In line with the economy of Greece international sea transportation and commerce are important elements of the local economy with transportation accounting for 7.2% of gross value added recognising the importance of Patras as an important gateway to Italy and the markets of the European Union. Activities in agriculture and manufacturing remain of significant importance although activities in these primary and secondary sectors have declined by 2% and 7.5% respectively between 1995 and 2001.

The primary sector while having the lowest Gross Value Added in the Achaia region, remains important as it employs 20% of those people who are economically active. The sector of fishery is also important in the wider Patras area. Its professional fishing fleet is comprised of 243 vessels for medium and coastal fishing, which are active in the areas of the Patraikos and Korinthiakos gulfs, as well as in the Ionion sea. The sale and distribution of fish is done in the fish-pier of Patras. The fish-pier is also used as a place for the reception and distribution of imported fish from the EC countries or other countries, as well as of fish from other areas of the Greek territory. In the fish-pier of Patras more than 3.000 tonnes of fish are annually distributed.

Agriculture in the coastal area and in Western Achaia is well developed due to the good fertility of the territories and climatic conditions, which makes possible the production of an important number of agricultural products with possibilities of export e.g. oil production, the viniculture, the citrus fruits, the horticultural, the spring potato, etc.

The manufacturing sector in Achaia has undergone significant recession in particular between 1984 and 1992 with significant impact in Patras and in addition overall economic activity in the secondary sector has declined by 7.5% between 1995 and 2001.

Despite this significant deindustrialisation the secondary sector in Achaia remains the 3rd largest in Greece, producing 3.4% of the Greek Gross National Product in manufacturing. The sector of manufacturing is particularly developed

in Achaia and especially in the area of Patras and the wider region, with a focus on the sectors of food and beverages, textile, clothing, non metal minerals and in the sector of machinery and equipment. In addition the construction sector is a significant industry accounting for 8.7% of gross value added. Importantly Achaia consists of 17.4% of manufacturing businesses in sectors that have been developing dynamically during the last 5 years, while 40% of manufacturing businesses in the region are concentrated in sectors that are in recession at the National level. As a consequence, the majority of the manufacturing industries of Achaia do not belong in sectors with current growth potential.

The tertiary sector is the largest in the economy in Achaia, with growth from 61.6% to 71.1% between 1995 and 2001. In line with the economy of Greece international sea transportation and commerce are important elements of the local economy with transportation accounting for 7.2% of gross value added recognising the importance of Patras as an important gateway to the markets of the European Union.

In parallel with these sectors, Patras shows a great development in the sectors of health services, education, research and development, as well as in the productive services. An analysis of Gross National Product per Capita region in Western Greece highlights that it is lagging behind, both on a national and European level. In particular, for the year 2003, the regional GNPPC for Western Greece corresponded to 77.3% of the Greece GNPPC and to 62.7% of the average European GNPPC in PPP (EU-25=100). Nevertheless, this region grew (GNP shift) at a higher rate than the community average (both EU-25 and EU-15) for the period 2000-2003, and consequently the per capita product difference with the European Union has gradually decreased[71].

The Achaia regional unit has good potential for the further development of research and technology services and the provision of innovative services to the local SMEs in particular linked to the University of Patras, the Technological Educational Institute of Patras and Patras Science Park. There are also important Research Centres and Institutes that contribute to the production of knowledge and innovation to the benefit of the local productive companies (e.g. BIC of Western Greece, CTI, etc), and have scientific and research potential with a specialization in sectors of high-value adding technologies.

The Municipality has its own "Municipal Enterprise for Planning and Development, S.A.", which is in charge to develop the city engagement of environmental strategic issues, waste and water management, sustainable development in the urban environment, energy management (RES, Energy-savings, Attitudes) and scientific support to the Municipality of Patras.

- Specific issues related to thematic partnership

The city of Patras is the third biggest city in Greece and it is considered as one of the most important cities activated in ICT field, since it has the oldest polytechnic departments of Informatics and Computer Engineering in the whole

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[71] European Territorial Cooperation Programme Greece – Italy, Programming Period 2007 – 2013, Athens, October 2007

country. Consequently, during the last thirty years, a lot of highly skilled engineers have graduated from University of Patras or Technical Institution of Patras and the ICT industry invested in sectors like electronics, telecoms, e-government, mobile services and others.

However, the deindustrialization of the 80s and the fiscal crisis of the last four years have influenced very deeply the local economy, increasing the unemployment rates up to 22%, closing more than 2.000 businesses only at 2011 and create a new generation of isolated and disadvantaged social groups. Moreover, the ICT sector itself and the related e-skills are rapidly changing and demanding while new means, applications, ways of communication and working methodologies are introduced.

More specifically, in recent studies (e-government assessment in the city of Patras, January 2010, Reorganization and restructuring study of Municipality of Patras 2010) that measured the e-skills of the local citizens and employees of the Municipality of Patras, the digital illiteracy presence was very strong. More than 40% of the local people were not using internet/computer at all or over and among the internet users only a small subgroup of less than 10 % were used their exploited the applications and e-services of their computers and internet (desktop applications, complete internet transactions, e-payments, e-shopping etc.). At the same time a small group of 8% was accessing internet through different means (computer, laptops, smart phones tablets etc.), had very high electronic skills and was capable to work and cooperate through internet. Nowadays, the evolution of social media and the presence of smart phones have definitely increased those numbers but not necessarily enrich the actual e-skills of the people.

The local economy is trying to recover after the four years of economic crisis and a possible recovering path is to increase the exports of the city of Patras and productivity of the local market. Within this concept the local businesses should transform the traditional working way and include the internet and e-services as a new way of working, collaborating and improving theirselves. For this purpose the local labour should adopt new working mentality and invest on acquiring new e-skills in order to be more competitive and valuable for the economy of the city of Patras, but also for the global economy and modern working demands.

In this dynamic environment the challenge is to foster the capabilities and e-skills of the local labour, to attract investments, to increase the competitiveness of the local economy by elaborating new plans and initiatives to enhance the knowledge and capabilities of the population in ICT fields.

- Describe the policies developed by your city so far in order to tackle these challenges?

General

The Municipality of Patras together with its Municipal Enterprise for Planning and Development has already adopted strategies and initiatives in order to handle with the digital divide and the skills of the population. In important reference documents of the Municipality, (e.g. Technical Programme 2012,

Business Plan 2009-2010), specific policies of improvement of the e-skills of the citizens but also undertaken initiatives to target specific social groups under risk of social exclusion (unemployed, separated mothers, low-income groups).

The central government also has recently voted the Law 3979/2011 for the regulation of the E-government in Greek pubic sector but also for the improvement of the current existing capabilities of the people in the field of ICT.

The Ministry of Administrative Reform and E-Governance developed an integrated policy called "National Strategy for E-Government" (March 2012), outlining the priorities and activities of central Government but also Regional and Local Authorities in the fields of Telecommunications and Information Technologies.

The Ministry of Employment and Social Protection is in charge of development of the Operational Programme "Development of the Human Capital 2007-2013", where several activities in the field of ICT training and development of eskills of special social groups are financed.

Municipality of Patras along with its Development Enterprise have been participated or managed activities related with ICT training or participation in e-skills courses like:

- "Digital Municipality" & "Educational Programme for Elected members"

They were two programmes that developed from Central Union of Greek Municipalities along with the Institute of Local Adiminisation, aiming at the education and awareness of the politicians of Greek Municipalities on e-government and new technologies. The target group of these initiatives was 914 Mayors, 120 presidents of local communities, 16.682 Municipal councilors that attended several ICT courses in an annual programme that lasted from the beginning of 2006 to the end of 2008.

- "AdepNet"

It is an initiative of Patras Development Enterprise for Planning & Development, that launched at the beginning of 2000 aiming at the familiarization of the citizens with the new technologies and internet. Several courses were organized annually in deifferent fields (Office Applications, Internet and Security, Data Base Development etc) and until today more than 1.000 people have attended these courses.

- "Drasyna"

It was an intervention of the Municipality of Patras in selected areas of the upper town that suffered from unemployment or underemployed people. Different activities have developed during the project development (from 2004-2010) including Consultation courses, People networking, awareness activities and educational activities in basis e-skills.

- National Centre of Public Administration & Local Government educational Programmes

The NCPE is mainly focusing on civil servants training and specific educational programmes for improving their knowledge or skills in several sectors. Among to these programmes there are several courses that organized often that civil servants can attend and learn how to change their working attitude, enhance their e-skills and trained in new or existing applications of the public sector.

2. Approaching the ULSG: members of the ULSG.

In order to allow an effective impact of E4C network activities on local policies, the City of Patras has set up an URBACT Local Support Group including key local stakeholders concerned by the issues addressed within the network and by the city's future Local Action Plan.

Patras ULSG Composition
A local support group has been established:
- Patras Municipal Development Enterprise for Planning & Development S.A. (www.adep.gr)
- Patras Municipaity
- University of Patras (www.upatras.gr)
- Achaia Chamber of Commerce (www.e-a.gr)
- Patras cience Park (www.psp.org.gr)
- Hellenic Open University (www.hou.gr)
- Technical Educational Institute of Patras (www.teipat.gr)
- Institute of Employment GSEE (www.inegsee.gr)

3. SWOT Analysis

Strengths
- City is committed at political level to consider the importance of support to ICT and e-skills
- Good cooperation among City and relevant partners reinforced by previous EU projects to progress on e-skills support
- City implements modern e-government policies although the citizens do not use it fully
- Previous experience on Urbact projects (My Generation and Run-Up) can multiply benefits from new project
- The Open University of Patras and its E-CoMet Lab produce sophisticated software programms for distant education and promote internet related jobs. They also do analysis on technological change and anticipation

Opportunities
- Good relation and cooperation with Managing Authorities who support the project and will consider LAP inputs in coming new Operational Programme
- VET school and 2 Universities in Municipality providing a wide range of training on ICT issues to qualify professionals

- Existence of several financial Instruments from ERDF or Social FUNDS

Weakness
- There is still room for deeper cooperation and trust among stakeholders to increase partnership
- Very high unemployment rates (specially among young) and very often they miss required e-skills despite efforts to provide them by VET centers
- Low levels of investment on R+I+D
- Groups under risk of social exclusion are now closer to digital divide
- Technological changes take place fast and are a challenge to anticipate
- Low rates of ICT usage and e-services development compared to other EU countries

Threats
- High level of brain drainage as young qualified people are looking for jobs abroad (low opportunities in the region and country)
- Economic crisis is reducing available budgets to improve situation and the city will rely on EU funds
- Economic crisis will affect the number of students following training on e-kills and professions related to ICT

4. Approaching the Local Action Plan: what would like to be done

Past Actions

Municipality of Patras has already participated or implemented activities related with the e-skills improvement. More specifically, for all the ICT infrastructure or e-services (E-Government services, G.I.S. services, digital culture services, Fiber Optics etc.) developed during the last six years it has organized training workshops or demo kiosks to educate the local citizens on all these new developments.

The Municipal enterprise focused on specific areas or social groups in the city of Patras, organized seminars for unemployed people in basic or advanced e-skills during the period 2005-2009, a project funded by the European Social Fund through the Regional Operational Programme of Western Greece (Drasyna, ADEPNet).

Municipality of Patras participated in programmes like "Digital Municipality" or "Educational Programme for Elected members" that operated from Greek Institute of Local Administration and annually ICT educational programmes of the National Centre of Public Administration in order to enhance the skills of its employees and politicians.

What we want to do

In the near future it is intended to develop new activities for strengthening the e-skills of the local population and increase the empoyability of the weak social groups:

⇒ E-skills and ICT training at different age levels, taking into account the needs of people;
⇒ Promote partnerships with associations and community groups to undertake actions (fairs, training and disseminating activities) with cooperation of volunteers to provide basic and upgraded e-skills.
⇒ Promote among all members of the Local Support Group and related organizations the effective use of the e. government tools provided by the municipality to increase their familiarity with ICT tools.
⇒ Undertake specific training addressed to Municipal civil servants to improve work performance and increase impact of ICT tools at local level
⇒ Undertake intensive training to unemployed persons (basic and high e-skills), youth (upgrade skills when required by labour market) and workers who might loose their jobs due to unsuitably e-skilled
⇒ Provide training and facilitate access to ICT tools to persons with disabilities and others under risk of social exclusion

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

Municipality of Patras along with its Development Enterprise can contribute significantly in disseminating the results of the project in both Local and European level. The city of Patras is a member of the European Council initiative "InterCultural Cities", a member of the Forum of Adriatic cities, associated city with ALDA (Association of Local Democracy Agencies), twinned city with 22 European and International cities. In National level, Municipality of Patrras is a member of the Greek Local Authorities Association, a member of Association of Municipalities of Western Greece etc.
The Development Enterprise of Municipality of Patras (ADEP S.A.) has a long experience in EU programmes and translational cooperation. It has managed more than 100 EU-funded projects covering the fields of Urban Planning & traffic Management, Environmental Management and Climate change, Economic development, Culture and Tourism Development, linking the city of Patras with more than 1000 other European cities, regional authorities or other organizations. A large number of these projects included activities based on ICT Usage and enhancement of e-skills of the population or end users.
Nowadays, a new communication strategy is studied that based on the usage of social media for the communication of activities of the Municipality of Patras. The project Interreg IVC e-citizen 2.0 is providing the opportunity to study and adopt examples of usage of social media for communication with the citizens and stakeholders.

6. Potential contributions and demands within Thematic partnership

- Expectations about the E4C project.

- **What are strong points on offer to other partners**

Municipality of Patras during the last years has developed several tools and infrastructures in ICT field in order to enrich the efficiency of the public sector and increase the competitiveness of the private sector. At the same time several activities or courses have been undertaken for improving the e-skills of the population and employees of the Municipality of Patras.
Along with its development enterprise it has been involved in development two Urbact II projects "RunUP" and "MyGeneration" and several local stakeholders have been aware of Urbact programme and methodology.

- What are the demands to receive support from other partners

- Experience on e-skills and ICT training courses
- Experience related to the development of digital strategies
- Appropriate promotion of the ICT usage and effectiveness of e-government tools
- Focused training programmes for civil servants, disabled or unemployed persons
- Exchange of good practices against the economic crisis

7. List of REFERENCES (links to web pages run by the Municipality or others related to thematic issue)

Municipality of Patras official site
www.e-patras.gr

Patras Municipal Development Enterprise for Planning & Development S.A.
www.adep.gr

Career Advisory & Information Office – University of Patras
http://www.upatras.gr/index/page/id/104/lang/en

Career Office – Hellic Open University
http://career.eap.gr/

Institute of Labour GSEE
http://www.inegsee.gr/kalwshlthate.html

Manpower Employment Organization
www.oaed.gr

RED LOCAL (Lead Partner)

1. MAIN CHARACTERISTICS OF THE TOWN AND ITS ECONOMY

Basic overview

Red Local Consortium is a public entity created in April of 1.995 for the promotion of the economy, employment and education in Madrid Region. It is formed by 7 city councils of the of the metropolitan area of Madrid: Arganda del Rey, Coslada , Mejorada del Campo, Rivas-Vaciamadrid, San Fernando de Henares, Torrejón de Ardoz and Torres de la Alameda.

The Consortium objectives are:
- Social and/or labour inclusion of vulnerable groups
- Development of training and job placement programs.
- Modernization of Public Administrations and its relationship with the public.
- Promotion of equal opportunities between men and women in the work environment supporting the development of actions to reconcile work and family life.

General trends (past and future)

The municipalities that are part of Red Local are characterized by a high percentage of employment in the Business Services sector, which is closely related to ICT and technologies. Among them those towns with larger populations, such as Torrejón de Ardoz, highlight because of their rates.

The main activities included in the Business Services sector :
- Hardware consultancy
- Software consultancy and supply of computer software.
- Data processing and Activities related to databases.
- Maintenance and repair of office, accounting and computer equipment.
- Legal, accounting, bookkeeping, auditing, tax consultancy, market research.
- Architectural and engineering
- Research and development

Specific issues related to the thematic issue
- Challenge 1: Promote job creation through the e-skills.

In the regional area of Red Local as in the rest of the country, unemployment rates are very high, especially among youth. For this reason Red Local try tries encourage training programs to enable young people to enter in the labor market in the ICT sector, giving them the tools to do so. In the same direction, training programs have been developed using the e-skills as a tool

for insertion in other fields than ICT, offering training in basic and more specialized e-skills.

- Challenge 2: Extend the use of new technologies.

With the extension in the use of new technologies, these have become an essential toolkit to interact with the world. This means a revolution in the way we understand the world, however this process of social change is not occurring in a balanced way, which is generating new social risks such as an interclass and intergenerational digital gap. First try to extend these new technologies among the entire population through training in the use of ICT and the provision to the population of Internet connections through public Wi-Fi networks.

- Challenge 3: Improving public services through new technologies

In the same sense, new technologies represent a great innovation in how the public administration connect and get in contact with citizens, which is especially important for a proximity government as the local governments. For this reason we are implementing various policies such as management of administrative affairs online, creating digital job banks, installation of new citizen security devices or the promotion of citizen participation in public affairs, pretending with it an improvement of democracy and the citizen's satisfaction.

Policies developed by the city in order to tackle the thematic challenges

Among other actions, Red Local municipalities have developed the following actions:

ACTIONS	RESULTS
Digital Literacy Courses (last 3 years)	- Number of Courses: 280 - Number of hours: 4.400 - Beneficiaries: 2.000 Internet Access Public Center (CAPI)
Action Plans for the promotion of e-skills	Digital literacy training, job search on the internet and social networks. "Arganda formación 2.0 " aims to carry out training activities through the use of ICT.
Local Training Plan for the promotion of ICT professions	Training for employment trhough the new technnologies and digital literacy courses. Specific IT courses: Google tools; Blog creation; Image Editing with GIMP; Creating websites with JIMDO; Digital

ACTIONS	RESULTS
	certificate and electronic ID Card.
Activities for the promotion of ICT jobs	New Technologies week, thematic sessions with partner companies, Career Expo. E-skills Project transnational meeting. Labor orientation about the occupations with more job options. Counselors through the job search courses.
Training courses for ICT professionals	• Number of courses: 27 • Number of hours: 4.600 • Beneficiaries: 475

Moreover, Red Local have made analysis of risks and opportunities, like for example a report of diagnosis of the economic and employment situation of the territory of Red Local, this is part of a larger study to explore potential needs for training for employment of young and unemployed with special difficulties. This study was framed in the European Project: Local Pact for Youth and Socially Responsible Employment. Detailed data are available from the Red Local partners

2. APROACHING THE ULSG: MEMBERS OF THE ULSG

For the Consortium Red Local, the Local Support Group is formed by the following organizations and entities. Some of them have participated in previous local support groups organized by Red Local and other are planning to be incorporated.

These entities are listed sorted by their geographical scope:
At **local level** the main organizations which form the Local Support Group are:
- Councillorships of Employment, Training and Information Society of the Red Local Municipalities:
· Arganda del Rey
· Coslada
· Mejorada del Campo
· Rivas-Vaciamadrid
· San Fernando de Henares
· Torrejón de Ardoz
· Torres de la Alameda

- Association Virtual Educa (ASIVE), multilateral initiative for training and education based on e-skills: Jose Maria ANTON, Department of Technical Coordination
- University of Alcalá - Computer Science Department

At **regional level**, which includes the whole area of Madrid province, the interested entities are:
- Madrid Region - Department of Education and Employment, Region of Madrid
- Regional Centre for innovation and training of lecturers "Las Acacias" (Centre subscribed to the DG of Quality improvement of teaching, Region of Madrid)
- Chamber of Commerce and Industry of Madrid
- UNICEM- Business organisation of the Entrepreneurs of the East of Madrid
- Trade unions - CCOO Madrid.
- Foundation Tomillo – Dept of Entrepreneurship
- Associated Managing Authority, Region of Madrid

Finally, at a higher **national level** representatives from the Ministry of Education and Science- General Directorate for Vocational Training could participate in the Red Local Support Group as well.

3. SWOT ANALYSIS

Strengths
Red Local has experienced a very constant and interesting learning process in which Red Local municipalities, thanks to the shared efforts, have experienced that objectives are easier to achieve through a cooperative process in which value added product and high interesting processes are generated.
Wide experience in managing different types of projects, especially in European projects
Red Local has many contacts with all kind of stakeholders from the civil society from member cities like unions, professional organizations, NGO's, neighbor associations, women associations, political parties, companies, etc.
There are positive experiences, like Rivas "Ecopolis" (smart environmentally friendly city concept) and Arganda Training 2.0

Weaknesses
Although it is difficult to summarize the difficulties that must be faced in developing such kind of projects, some of which are natural because we work in an international environment, it may be remarkable that for the staff assigned to the project is difficult to develop all assigned tasks because the pressure that is not positive, because often deadlines are very limited and work to be developed requires a time consuming dedication and very high concentration.

Investment on Research and Innovation is very low compared with the EU average

Digital gap is increasing

Opportunities
Availability of transnational cooperation projects and exchange with EU partners from which Red Local can take a significant advantage.

Good cooperation and experience among concerned stakeholders.

Availability of European funding measures, such as ESF or ERDF.

Threats
The main thread faced by all municipalities of Red Local is unemployment. Important measures have been aimed at reducing unemployment and especially youth unemployment which represents a problem at local, regional and national level.

National, Regional and Local financial restrictions which can affect the implementation of the Regional Action Plan.

4. APPROACHING THE LOCAL ACTION PLAN: WHAT WOULD LIKE TO BE DONE

Past Actions
The various local governments collaborating in the Red Local have different degrees of development in the policies related to e-skills, there has been a great concern in this area. For example, the establishment of the cooperative Red Local consortium shows that effort. Red Local has developed various projects related to the challenges mentioned above. Obviously, these activities are framed in local action plans for each of the municipalities participating in the Red Local, in this way is intended to optimize the use of the resources available by councils in collaboration with the other levels of government, regional and national, and civil society actors such as unions or professional or neighbors associations.

The City of Arganda del Rey, through the Department of Equality, Training for Employment, Tourism and Responsible Consumption, started a new training space for unemployed workers who are actively seeking the incorporation a job, either in active workers who want to consolidate or improve their current situation. TRAINING ARGANDA 2.0, aims to carry out training activities through the use of new information technologies and communication, creating programs and services that meet the needs of citizens, and the business community.

What we want to do
Red Local action plan is intended to be used as tool in broader geographic scope rather than the local level. Therefore, this Regional Action Plan will cover all the seven municipalities included in the Consortium. Due to their common characteristics a common Regional Action Plan will be elaborated instead of

seven different Local Action Plans. However, this Regional Action Plan will consider all the specificities from each of the consortium members.

Red Local´s goal to develop and implement a specific Regional Action Plan seeks to improve results of previous and future projects implemented in the ICT and e-skills area in which transnational knowledge and good practices exchanges could have a higher impact on local policies.

Support provided to tackle digital illiteracy will continue with the inclusion of initiatives in the LAP.

Red Local seeks essentially to find new ways of creating jobs through ICT and thus wants to know new best practices for the creation of job through ICT, improving-updating workforce e-skills and increasing the number of qualified professionals.

Red Local is particularly concerned about the high levels of unemployment experienced by the younger population, which undoubtedly has a negative impact on their lives and the future possibilities that they have.

Therefore, Red Local Regional Action Plan will seek to develop as many cooperation ways as possible with other entities or public administrations among Europe from which we intend to learn and we hope to bring knowledge derived from our experiences.

5. EXPERIENCE IN TERMS OF WORKING THROUGH TRANSNATIONAL EXCHANGE IN E-SKILLS AND ICT PROMOTION

Since the creation of the Consortium in 1.995 Red Local has participated in several transnational projects related with the support of e-skills and the Information and communications technology. Most of these projects have founded by Europeans funds and at the same time many other European partners have been involved facilitating and making easier a transnational exchange of knowledge, good practices, methodologies, procedures, etc.

Among these mentioned projects it is possible to highlight the following:

- EQUAL Community Initiative, Adapt-Time project: Encouraging adaptability of businesses to new technologies and new models of management and organization.
- Avanza Plan, Inmigra-red project: developing and launching a digital service aimed at promoting integration and accessibility for foreign citizens living in the municipalities involved.
- Red Local Digital 1.0 Project: Process of evolution towards e-Government, through activities such as creating Citizen Websites, computerization of the management processes, improvements in hardware and communications and online Job Banks.
- Progress Program, e-Skills Project: Creating of a common space of interaction and mutual learning between local, regional and national in several European countries, aims to develop an Action Plan that will face employment policy, social inclusion and quality of work and the ICT sector.

In 2011 the Consortium Red Local led the transnational PROGRESS VP/2010/005 project "E-SKILLS: Mutual learning for the improvement of employment opportunities for young people in the ICT sector. A transnational approach". In the context of the economic crisis, the project aims to improve the access of young people to the e-employments through the exchange of experiences and mutual learning at European level. Both public authorities and private non-profit institutions are working to present a set of concrete measures be able to improve ICT employment opportunities for young people by transmitting the relevant skills matching labor market demands and, thus, meeting the objectives of the European Employment Strategy. In the framework of the project, first events to sensitize youth on the employment opportunities that the ICT offers have been organized.

6. POTENTIAL CONTRIBUTIONS AND DEMANDS WITHIN THEMATIC PARTNERSHIP

What are strong points on offer to other partners

Red Local has developed multiple projects over an extended period of time, to name just a few examples: Project EQUAL, E-SKILLS, INTERGROW, Educa Emprende, Pacto Local, HORIZON, YOUTHSTART and others. Red Local experience can serve to make interesting contributions to other project partners and thus contribute to a collective improvement of working methods used to achieve objectives that may be similar.

As an example, there is a recognized technology center located in Rivas Vaciamadrid, one of the municipalities that form the Red Local. In this place it is possible to observe how New Technologies can contribute to the cities improvement and development, making easier the citizens lives, empowering them and making aware about their civic and environmental responsibility.

What are the demands to receive support from other partners

Red Local might learn a lot from E4C partners about formulas of collaboration with the private sector to develop projects of mutual interest, to which Red Local is very interesting about the dissemination of successful projects by the partners.

Red Local is interested to know what are the innovations introduced by the Governments from other cities in Europe in order to improve their relationship with citizens by using ICT. It is also interested to know the impact of this on the quality of democracy and citizen accountability of public administration.

Finally the Consortium is concerned about being advised on how to involve the population in the use of ICT and to know some successful cases in which significant progresses has been achieved and the impact of it.

7. LIST OF REFERENCES

➢ Red Local Consortium: http://www.redlocal-madrid.org/
➢ Arganda del Rey: http://www.ayto-arganda.es/

- Coslada: http://coslada.es/
- Mejorada del Campo: http://www8.madrid.org/gema/goc/084/
- Rivas-Vaciamadrid: http://www.rivasciudad.es/
- San Fernando de Henares: http://www.ayto-sanfernando.com/
- Torrejón de Ardoz: http://www.ayto-torrejon.es/
- Torres de la Alameda: http://www.torresdelaalameda.es
- E-skills Project: http://www.eskillsprogress.net/

TERNI

1. Main characteristics of the town and its economy

With a population of 120.000 and an extension of 211 km^2 , Terni is the second largest city located in the South edge of Umbria, a region famous for its well preserved tourist destinations and landscape and for housing the highest artificial fall (Marmore), at once a piece of hydraulic engineering work created by the Romans and later on part of the 1800s Romantic Grand Tour.

Terni's origins are dated back 672 B.C. while the city takes its name from INTERAMNA, the Latin term for *between 2 rivers*. Terni is positioned some 100 km off Rome (the capital) and some 70Km from Perugia where regional government has its main headquarters.

According to the Italian Financial daily Sole24h Terni's territory fared 20th in the 2009 "List of Best Italian territories with highest GDW" (Gross Development Welfare, index inspired by the theories of John Stiglitz). It also fared 4th in the 2012 List of Italian cities with the best and diffused cultural offer.

Terni is located at the cross road of main mobility infrastructures of national importance thus closer to 2 main international airports (including Rome's Leonardo da Vinci hub) and sea ports such as that of Civitavecchia.

In administrative terms Terni Council is divided in 12 technical and administrative Divisions and has a total personnel of 900. Its major competences range from town planning, health and social welfare, refuse collection, green urban renewal and regeneration, public transport and mobility, education and culture in particular integrated extracurricular activities for primary and secondary schools (non formal education). The Council has one of the most advanced IT and virtual library (BCT) with several events taking place each year. The Council owns directly a number of public pharmacies and has a large share in several public-private companies such as Audiovisual and Multimedia Agency (CMM), the Municipal Energy and Multi-Service Consortium (ASM) that manages also refuse treatment.

In political terms the City Council has a Mayor elected in 2009 and has 10 chancellors (appointed by the Mayor) and 40 council's members all of them directly elected by citizens.

- General trends (past and future)

The past

Terni's extensive availability of energy, huge potential and exploitation of Marmore and the River Nera have long served as boost and competitive advantage to the city so as to make its main industries (steel, weapons, chemical, hydro-plants, mechanical) the most strategic and profitable up to late 1800s and prior to WWII. Such assets explains why Terni, a small middle-sized city, was the target of massive bombing during the past conflict while extensive urban voids in its central areas persisted up to mid 1990s due to the high cost

and restrictive laws of conservation and to the somewhat unfit and obsolete functionality/accessibility of historic centres.

Today Terni retains among one of the largest industrial archaeological assets in Italy and probably one of the most relevant in Europe. Such legacy has been the strength of the future development with its multinational and national corporation (i.e. Thyssenkrupp and Novamont) shifting to remarkable chemical sites' innovation programmes such as high-end stainless steel and green plastic.

However the city's future has been marred by a slow and progressive decline of its main industrial production whose effects have been apparent only in the recent past with consequent brain drain and other large socio-economic impacts.

This negative situation has been centre of preoccupation and high in the agenda of local administrations that have however reacted positively, by re-inventing a new development model.

In the 1990s the city has indeed launched a series of ambitious projects aimed at reconverting its economic drivers both along the Valnerina route and in the city centre's main dismissed industrial sites. Among the preconditions of public successful policies were:

- Acquisition of the city's main industrial archaeological assets directly acquired by the Council in distinct periods;
- Experiments on complex urban sustainable plans and regeneration programmes based on farfetched principles of sustainability including bio-architecture or experiments of district heating using industrial combustion;
- Promotion of PPP either in the construction process (project financing) and or in the management of its major reconverted assets.

Major experiments were driven by huge public fund (ERDF, National bids, regional and Council's sources), and PPP investments in urban regeneration and restoration, setting interesting public private cooperation in a way that the 2009 report on Jessica produced by European Investment Bank has mentioned the city of Terni as a relevant case study for the implementation of EIB's JESSICA at national levels. In all bids Terni had to compete with major metropolitan cities, proving however that experience, quality and synergies can make the difference and can go beyond size and geographical advantage.

All the above investments, the proximity to the capital region and the role played as well by the large financial resources allocated by the Region Umbria, have seen the emergence of a new economic value chain that has somehow been less dependent from the heavy industry. Such a rich and diversified SMEs (tertiary) have come to specialize among other things in sectors such production of organic fertilizers, high end wood and plastic furniture, organic food production and green products to be used by the construction industry. However poor propensity to investing in new technologies and innovation on the part of companies has made such process quite slow and less satisfactory than expected in term of creation of new jobs and growth.

The future

Whilst maintaining a strong industrial identity, in the past 2 decades Terni has been invested by a complex economic transition. Such transition has seen the

shift from a model based on heavy industrial poles to an integrated model based on innovation, research, culture, environmental sustainability and quality of life.

In that respect Terni has a strong role to play representing a European city retaining one of the largest industrial archaeological heritage largely reconverted to new use by the Council to become new economic driver and attractors.

Among them the Multimedia Centre (centre of digital and filming post production), the multi-culture centre (CAOS) which hosts museums labs and runs annually an international niche festival of modern performing art attracting artists from EU and beyond.

Another important asset is the Papigno Filming Centre. Once a large chemical and hydro plant compound up to early 1900s, it was largely renovated by the Council of Terni to become a film production compound where Benigni's awarded set of la "Vita è bella" (Life is beautiful) was shot. The site is now managed by Cinecittà Group.

An important role is also played by the University of Perugia with faculties of Medicine, Economics and Engineering based in Terni and located in buildings constructed anew or renovated by the City Council. Terni has also some important research labs and centres of excellence in sectors such as the bio-technologies, nanotechnologies cancer, aero spatial mechanics.

In the course of 2011 the economy of the city showed signs of a persisted and prolonged crisis that affected the territory despite a timid recover registered in 2010. Such negative situation has had a direct impact on SMEs affected by difficulties in paying out pension and security benefits to employees and on the other hand massive recourse to *off the book* labour.

In the course of the second semester of 2011 the number of enterprises present in Terni's territory contracted (datum compared to the previous year) while exports (data as of 2010-2011) have increased reaching a total of 9.4%. Among sectors with the best performance are food (+ 11,2%), textile and clothes (+26,1%), wood, paper and printing (+79%).

Terni general unemployment rate is 4.5%. By the end of 2011 companies operating in ICT and related sectors present in the territory totalled 358 representing only a small fraction (1.85%) of the total number of enterprises.

Based on the data surveyed by the Centre for Employment by the Province of Terni the number of unemployed in the field of ICT refers to 250 people while new contracts only in the year 2011 reached a number of 178.

Specific Trends related to topic:

The Municipality of Terni for many years independently manages the City Council's information systems, initially through the support of centralized systems. Since 1999 Terni has launched a substantial revolution which began

with the design of the corporate website for citizens and business and the implementation of new Internet services on departmental servers and ethernet. This transformation, over time, has enabled the city to provide new information services, paving the way to the challenge of e-government. To date, the municipal network has over 1000 personal computers with over 90% of the personnel making use of them.

Since 2000 Terni took part in innovative projects funded by the Italian Government and aimed at strengthening the e-government and online services for citizens and businesses. In this field Terni was one of the first public administrations in Italy to broadly adopt digital archives, digital signature, certified electronic mail and to draw up a map of the major flows and also administrative procedures in order to facilitate the exchange of data between Administrations. In this regard, the municipality of Terni was beneficial and lead partner in two projects where he coordinated a partnership extended to the cities from different regions, provinces and Italian consortia. In both initiatives, the main topic was to improve cooperation through ICT, interoperability between government agencies.

Challenge 1: overcoming digital illiteracy

In many cases, the exclusion is due to a lack of competence by the user, literacy and computer media, which affects not only the ability to find a job but also to learn, create, participate and use with security and awareness digital tools.

For example, with regard to the digital illiteracy, the City was able to see how this affects the diffusion of e-government. Although the e-government services are already available, there is in practice a lower propensity for use by both the local citizens and businesses. For example, the service of certified electronic mail, of which the City Council has for some time now, could be an excellent means of communication between citizens, businesses and public administration, but is instead mostly unused. The City believes that such case should be attributed, in large measure, to a still too widespread digital illiteracy that therefore there is an urgent need to fill, if not significantly lower. On the other hand, it must be said, that the City is confident that, beyond this initial difficulties, e-government services, for their potential interest, can become a significant driving force for the spread of computer culture base.

Challenge 2 / 3: fight e-skills gaps on the labor market / fight e-skills shortage

In reality, it is found that jobs specialized in ICT, that for which competences support the growth of competitiveness, especially for businesses, are not fulfilled or are only partially or after a certain period of time, due to the fact that educational processes cannot reach the different groups that would benefit from access to digital technology.

Describe the policies developed by your city so far in order to tackle these challenges?

The Municipality of Terni, to promote the overall development of e-skills, is deploying both actions for the development of telematics infrastructure and development of broad impact "online application services ".

The most recent projects include the construction of a new local ICT infrastructure, which involves the laying of a network of fiber optic cables and in the preparation of decentralized hot spots, in order to achieve a wireless connection widespread in the city area (Wi-Fi). Currently working hot spots are available at the media library of the town, in the most important museums of the city, in the multicultural center CAOS, in the three main squares in the city. The projects were largely funded by national/regional and European calls, first-PO FESR 2007-2013 of Umbria Region in the line of credit "Sustainable development of the built environment."

Among the EU funded projects Terni is partner in an Interregivc project namely E-Coop funded under the sub-theme of ICT. In Europe a difference still remains between the territories in order to adequate access to the Information Society. In this regard, many local authorities in Europe in recent years have developed Digital Public Areas such as telecentres, CyberSpaces, Multimedia Libraries, where the conditions of physical access to the network are guaranteed to all and where users are provided training on ' use of computers and the Internet. Indeed these are privileged places responsible for promoting digital inclusion (e-inclusion).

In this context, the project "E-coop", which brings together 13 partners from 12 EU countries, mainly representatives of local authorities in the involved countries, aims to support the interest of all partners, to evolve and improve the services of their Public Digital Spaces.

Taking an active part in the Public Digital Areas, the project aims to set a new generation of digital mediation centers, which enable users to participate in the network not only as consumers of public services, but also as a co-designers of innovative solutions.

The project will produce knowledge and materials useful for knowledge transfer (such as brochures, methodological guides ...), that can deal with the practical aspects of the definition and implementation of cooperative paths. The project partners will indeed have to test the validity of the indications of E-coop through concrete micro-implementations.

The objectives of the project are summarized as follows:
~ Improve the knowledge of policy makers in the field of ICT, the user needs and expectations regarding Digital Intermediates;
~ Transferring good practices and new uses;
~ impact on public policies aimed at reducing the digital divide;
~ Promoting innovation through the participation of local citizens.

In particular Terni, in close cooperation with the other 12 partners of the project, will design and implement a digital platform through which citizens can exercise a kind of creative participation: a virtual space where citizens can submit individual and /or collective ideas in multimedia form on the main needs of the territory, the general expectations, identities and cultures in the region. These grants will be available in various forms of expression (traditional and innovative with citizens

called from time to time to express their opinion on issues that the local government wants and needs to share with the local community. Such tool will be used to open an active debate and a collective participation, strengthening local governance and territorial cohesion.

2. ULSG: members of the ULSG

City Council of Terni Department for Economic Development, Department for Innovative Services and ICT, Department of Culture and Office for EU funding opportunities and international cooperation
Province of Terni
Region Umbria
ASPASIEL
LUG
ARCI NA Terni
SISTEMATICA
CENTRALCOM
ECNP - European Centre for Nano Technologies
USI – Umbria Innovative Services
Chamber of Commerce of the province of Terni

3. SWOT Analysis

Strengths
- Use of advanced ICT and e-government infrastructure (including web tools of e-democracy);
- Availability of wide net and diffused net of WI-FI;
- Past experience with tele-centres;
- Good integration with ICT development policies of the Region Umbria;
- Good experience of the City council in the implementation of EU funded initiatives;
- The city has a 10 year strategic plan that places a strong emphasis on innovation setting as well a strong and permanent cooperation with stakeholders.
- Availability on the territory of the university and some labs and centres of excellence focused on research and innovation;
- Availability of the City's Multimedia Library that operates through advanced ICT and which carries out on a permanent basis basic ICT courses open to various users;
- Presence in the territory of an advanced ICT and tertiary centre (Umbria Servizi Innovativi – one of Terni's stakeholders in the E4C project) with major shares owned by the City of Terni ;
- Awareness on the part of the City administrators of the strategic role of a wide diffusion and penetration of ICT;

- Large investments made by the Council in ICT ;
- Presence in the territory of a specific Linux users group (LUG – one of Terni's stakeholder) that supports Open Sources providing information and technical assistance ;
- Presence of various ICT companies of excellence;
- Presence of a diffused, lively and active net of associations;
- Presence of a University for Aged people which provides various level of ICT courses;

Opportunities

- Increase exchange of transnational experience;
- Enhance the capacity of the Council's personnel to take part to EU funded initiatives with a specific added value;
- Enhance the way a public administration can dialogue with citizens, companies, business and other public administrations;
- Boosting the use of ICT in everyday life (e-commerce; e-business);
- Possibility of an effective re-fictionalisation of Hard Ware no longer in use on the part of disadvantaged and poor citizens;

Weaknesses

- Lack of Exchange of experience among the Council and companies in the field of ICT;
- Scarce capacity of the local schools to provide ICT skills to students;
- Lack of monitoring indicators;
- Financial constraints;
- Lack of standard diffusion of ICT knowledge within PAs;
- Complex access to the WEB and to WI-FI which which holds up down diffusion of hotspots;
- Excessive bureaucracy due to the convoluted legislation in any administrative field (especially regional and local codes and internal regulations) that represents a concrete constrain in any attempt of reengineering of administrative procedure and thus participation and transparency towards citizens;

Threads

- Fast evolution of ICT technology;
- Loom economic prospect ;
- Fake expectations in a possible re employment of under 40s;
- Objective difficulty to overcome bureaucratic procedures on the part of local, regional authorities.

4. Approaching the Local Action Plan: what was done and what would like to be done

While the effectiveness of action should be guided also by a steady statistical analysis of the labour market and by a steady monitoring of the effectiveness of the tools used, so that the development and implementation of a functional structural model related to data collection would be more confident with the actions carried forward , and ensuring ,at the same time, the opportunity of introducing revisions on the going on process, this , in time, could be our achievement and assumption of interest for the future development:

- Construction of a local businesses network and an internet site, with advanced sharing tools capable to ensure mobility and facilitated an exchange of workers between firms in the ICT sector. This action is advocated in order to properly manage a very flexible labour market and linked the logic of the project;
- Implementation of innovative training tools capable to reach widely territory and citizenship. Format of skills training, based on the target to be reached (the elderly, children, unemployed, training for the employed) due to the exploitation of distance learning, computer based training and e-learning combined with frontal specialized seminars Analysis of the results designed by algorithms assessment and selection, focus of personal profiles based upon the grade of learning achieved
- Involvement of local companies specialized in training courses, aimed at creating professionals needed for the firms. The pre-qualification to get into the selection process for these courses (along with other "classic" components) may be based in part about attitudes shown in the FAD (above);
- Strengthening of ICT services provided by government bodies as a driver of computer literacy;

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

The ICT Division is partner in an approved Interreg IVC (E-coop) focused aimed at establishing new a intermediation role and ICT web 2.0 services to citizens on the part of European Public Authorities. The ICT Div. of the Council and the Council itself has not so far taken part or promoted any EU project in the specific field of ICT, although ICT was a transversal topic usually informing past and recently admitted projects (see the list) in terms of added-value and innovation. As concern specifically e-skills in the frame of EU (OP ESF), national and regional funds the Council, through its Multimedia Library, has a wide portfolio of initiatives focused on users' education, personnel e-training, life long learning. Some courses are aimed at kids and adults with dyslexia or related problems and make use of advanced ICT technologies.

6. Potential contributions and demands within Thematic partnership

Expectations about the E4C project.

With E4C in a wider perspective the City council of Terni would like to enhance the awareness of local administrators but in general local decision makers in various fields on potential and opportunities offered by ICT . In particular with E4C Terni intends to give more practical application and to address digital divide, simplification procedures through ICT tools and access. It intends to provide more innovative training opportunities for citizens and various users.

In particular the City Councils intends to:

- Work and cooperate at interventions that might have a direct beneficial effect on creating jobs and growth and that might really favour engagement of local companies, setting a favourable process and synergies that would outlive the project completion;
- Widely diffuse a new and shared knowledge of the opportunities offered by ICT;
- Increase both the quality and quantity of jobs generated by the ICT;

What are strong points on offer to other partners

- A long term strategy already in place in the Council's 2010-2020 Strategic Plan ;
- Share knowledge and experience of other partners on participatory processes and methodologies;.

What are the demands to receive support from other partners

- To take some learning from other partners in relation to good practices already in place;

7. List of REFERENCES (links to web pages run by the Municipality or others related to thematic issue)

City Council of Terni www.comune.terni.it
Province of Terni www.provincia.terni.it
Region Umbria www.regione.umbria.it
ASPASIEL www.aspasiel.it
LUG www.ternignulug.org
ARCI NA Terni www.arciterni.it
SISTEMATICA www.grupposistematica.it
CENTRALCOM www.centralcom.it
ECNP European Centre for Nano Technologies www.ecnp.eu.org
USI   Umbria Innovative Services www.usispa.it

Chamber of Commerce of the province of Terni www.tr.camcom.it

SUNDERLAND

1. Main characteristics of the town and its economy

Sunderland City Council is the Local Authority responsible for the Sunderland area. Sunderland is a medium-sized city, with a population of 283,500. The city is located on the north east coast of England at the mouth of the River Wear giving the city the advantage of having port facilities. In the past the city's economy was focused around traditional mining, shipbuilding and glassmaking industries, and whilst new industries have replaced these in recent decades such as car manufacturing and contact centre industry, the city council recognizes the ongoing needed to diversify and strengthen the city's economy. Sunderland's Economic Masterplan expresses the strategic commitment to becoming an 'entrepreneurial, university city' with a focus on smart renewable industries'. It recognises the need to make effective use of ICT to support all aspects of city life and in particular, to help the development of small businesses and new enterprises. A particular focus is also being given to the regeneration of the Port area again with an emphasis on the support of the renewable energy industry.

Sunderland economy has already been reinvented, from the 70's reliance on heavy industry to the post 90's customer service industries and automotive industry. Today is facing new challenges and need to work with new tools, new source of intelligence and new skills challenges. This will require a more sophisticated open approach based on city and region wide analytics
The demographics of Sunderland is also complex. The city has a number of distinct types of communities within its boundaries. These include
- City Centre – where there is a need for regeneration and attraction of footfall back into the city centre
- Village communities, often characterized by multi-generational unemployment – very high levels of poverty 50% of families classed as in Child Poverty
- New urban conurbation outside of the city – high unemployment, poor housing, high percentage of single parents
- Ex-Coalfields communities– Rural villages developed around coal mining. Higher than average levels of unemployment and ill health caused through heavy industry
- Coastal area with a relatively affluent but aging population

Sunderland in general has a mixed economy – affluent areas next to areas of extreme poverty.

Despite all there is a good quality of life. Successful industries, such as Nissan, Barclays, Nike etc are located in the city and there is a good work ethic. There is an opportunity to build on this and reverse trends through the development of e-skills, innovation and attraction of talent.

In fact Sunderland boasts a vibrant and growing software industry, part of a business sector responsible for £3.5bn of sales internationally and £1.7bn nationally.

Residents of Sunderland are continuing to engage in new technologies and Sunderland is the Facebook "capital" of the UK with the city's online population 24% more likely to visit the social networking site than the national average.

Today Sunderland has a national and international reputation in the field of digital inclusion. In 2007 the council won £3million after coming first in the Government's "Digital Challenge" to use technology to tackle social exclusion. In 2008 the city was found to be the best -connected city in the UK, boasting the highest percentage of households with broadband connections. Sunderland City Council won first prize in the Microsoft Britain Works challenge, receiving £1O million of training vouchers to provide IT training to improve citicens' skills. The city won the competition as it showed it was making the best use of technology to tackle unemployment and boost digital skills in the community.

- Specific issues related to the thematic issue

Despite the creation of jobs in the city in recent decades, Sunderland still suffers from high unemployment and a low skills and e-skills base in several areas of the city (particularly in those communities struggling with low levels of economic deprivation)

To an extent this has its roots in the region's industrial past. The adjustment to massive job loss from the demise of coalmining, shipbuilding and related engineering led many former workers in these industries to move onto incapacity benefits rather than unemployment benefits in recognition of underlying health problems experienced by many people who had worked in 'heavy industry'. As time has passed, many of these redundant workers are finally reaching pension age but in the absence of sufficient jobs to absorb all the available labour, it appears a new generation of less healthy and often less qualified workers are becoming marginalised and dependent upon benefits.   This conclusion is supported by the high numbers of younger people, in particular the 35-44 age group, who are living on long-term incapacity benefits in the city.   Just over one in five working-age people (22.5%) in Sunderland are claiming benefits, and a high proportion of these are long-term workless.

A recent Skills and Employment Demand Study (2011) in Sunderland identified that 21% of businesses surveyed had experienced difficulty in recruiting due to 'skills shortages' (where there is a lack of adequately skilled individuals in the labour   market).

Of the businesses surveyed, 18% of employers reported 'skills gaps' (where individuals within the existing workforce have lower skill levels than are

necessary to meet business or industry objectives, or where new entrants lack some of the skills required for them to perform effectively). Furthermore there is a general drift of young and talented people away from the City, particularly following University education and it is hard to retain graduates who attend Sunderland University.

Sunderland has a low skill base with fewer of its working age population qualified to NVQ Level 3 and 4 and more of its working age population without any qualifications compared with the Great Britain averages.

Digital skills development is key for the future of Sunderland however the groups that would benefit most from access to digital technology are those that are least likely to have access to the skills or equipment in their own homes. In the recent Sunderland residents survey only 42% of residents in the deprived group had access to the Internet from their home, compared to 62% of all residents. As with all cities in Sunderland remains a digital divide affecting some residents, typically those living in deprived areas, not working full-time and those over the age of 65, all of them being less likely to engage in the use of technology. Access to low cost technology, connectivity and ICT training is expected to help close this divide and to have the greatest impact in terms of employability, quality of life and access to services.

- Policies developed by the city in order to tackle the thematic challenges?

Sunderland has established itself as one of the UK's leading cities for digital participation, innovation and investment. The City Council must continue to be innovative and adaptable; to be open and transparent and to create an environment where innovation and business can flourish and where public services can be delivered in a range of ways - evolving to meet the changing needs of the city and its communities.
In October 2010 Sunderland City Council hosted a round table debate in Westminster bringing together leading figures from the software sector to consider "what can be done to promote and build Sunderland as a location for the software industry?". The answers are:
- Build reputation and brand
- Keep the graduates from the north east in the north east and attract more
- Sunderland to be seen as a hub, a cluster for the industry, open to ideas
- Achieve a critical industry mass

Sunderland City Council recognises the need to keep making investment into the resources, technology and infrastructure necessary for delivery of public services. This investment can also enable and support the growth of private sector industry in the city. By encouraging and enabling the development of successful, viable and sustainable businesses, the council, through its community leadership role, can help create the best possible conditions for

Sunderland to thrive. Innovation is key to the city's success, and vital to its economy.

The council is keeping digital inclusion high on its agenda. There are huge social and economic benefits continuing the work to close the "digital divide" in the city. The city prioritises work to increase access to low cost technology, IT training and access to connectivity to ensure the complex issue of digital inclusion is addressed in the city

- **Sunderland Strategy, 2012-2025** – Sunderland has defined a long term development strategy produced with the active participation of all concerned active partners. The strategy recognised the importance of supporting digital skills and technology to the future of the city
- **Economic Master Plan** – outlining the direction for developing a Smart Sustainable City focused on new technologies, smart manufacturing, effective use of data and renewable energies.

An Employment Strategy has been defined and linked to the Economic Master Plan.

A Skills Strategy is under development – as a sub-strategy to support the Economic Master Plan.

- **Digital Manifesto** – Sunderland has already developed and implemented a   local action plan to support ICT sector and spread out e-skills among the population.

The Manifesto includes plans to facilitate access to City data (Open Data) providing opportunities for people to use the data to the benefit of the community; access to broadband connectivity to all homes and business in the city; facilitate Cload Computing services to business (access to a shared pool of computing resources, including networks, servers, storage and software. By sharing computing resources community organisations and businesses will be able to acces low cost, secure computing and other services); software business incubator (able to support 60 software businesses in 53,000 sq ft of incubator facilities). Furthemore support to social enterprises and comunity groups will continue to be provided. All of these projects are delivering benefits during 2012/13.

- **Sunderland Software City** Initiative – a regional initiative funded by ERDF aimed at developing and growing an innovative software industry in the North East with Sunderland as the central focus of the industry. It provides world-class business accommodation and communications connectivity in a city with a reputation as one of the world's most IT intelligent cities. This initiative brings together the best of the public, private and educational sectors to generate a sustainable software industry in the region and drive the development of world class software businesses.

The City of Sunderland and Sunderland University support the initiative and provides technical advise to companies to ensure the regional software industry has the right facilities, the right business support, the

right connections and the World Class workforce it needs to compete on a global stage, as well as initiating new approaches to integrating business and universities and acting as a catalyst for the growth of new and existing businesses. It will produce aspirational students who possess the demanding levels of skills and knowledge required by leading companies. It includes information about job opportunities in the region connected to software sector.

- **Community IT projects** –
  a. City Council's Community IT team offers a wide range of facilities and services to help NGO's and community organisation providing advice and guidance about computers and the internet, IT skills training, equipment loan (free of charge), website design, etc. The team also help establish, manage and improve how and where organisations are seen online, including on social media sites
  b. Electronic Village Halls(currently totaling 60), offer free access to ICT for local people. They are developed in partnership with community organisations with the needs of the community as the priority. They help to improve the skills of those who don't have access to IT.
  c. Digital Champions(current totaling 200 champions), The Project builds upon their effective community relationships and networks and encourages the Community e-Champions to act in a facilitation role encouraging other members of their community to identify needs and requirements then use the ICT to help meet these requirements engaging and encouraging the hardest to reach groups to develop e-skills and knowledge
  d. E-initiative: Supporting Race Online
  e. UK Online Centres
  f. UK Digital Challenge winners (2007/2010, innovative digital inclusion project focusing on multiple aspects such as skills, health and assistive technologies)
  g. Microsoft Britain Works winners (1500 Microsoft training course delivered across the city).
- **BT Learn Anywhere Pilot** – pilot project working with BT to develop a cloud based learning environment available to pupils 24x7 from any Internet connected location. The pilot is being undertaken with 3 schools – One secondary school 11 -1 6 year olds, one primary school 5 – 11 year olds and one Special Needs School.

2. Aproaching the ULSG: members of the ULSG.

It is envisaged that the LSG for this project will sit under Aim 4 – 'An inclusive city economy – for all ages' of the Economic Masterplan (EMP) for Sunderland. Under this aim the City wants to improve opportunities for people of all ages and sections of the community, targeting unemployment in particular. 'Inclusive' means not just physical accessibility to the city's economic centre but addressing social exclusion.

Membership of the LSG will be made up of the following key stakeholders

-- City of Sunderland
- Sunderland Partnership
- Voluntary and Community Action Sunderland
- Economic Leadership Board
- University of Sunderland
- Software City
- Cisco, IBM, MTC (partnership has been developed with private sector in the past)
- BT (Learn Anytime platform and Next Generation Access Provider),

3. SWOT Analysis

Strengths
- City has inclusive policies and strong partnership with relevant stakeholders showing commitment to continue cooperation
- long experience and good infrastructure to deal with e-skills support. Successful experience showed in past with track record in digital and social inclusion initiatives
- digital schools are well equipped
- hot spots are identified
- Many organizations work together with useful diversity of methodologies and trust
- Organizations are able to quickly fix responses with customized approach
- Innovation applied to policies and there is desire to growth
- Strong international links, membership of EUROCITIES, KSF e-inclusion Vice chair

Opportunities
- Good ICT infrastructure and cloud technologies to enable maximum usage
- Open flow and skills ready to be applied immediately
- New transnational cooperation with EU partners
- Readiness to cross partner cooperation
- Dynamic plan ready to adapt to new technologies

- Ready to introduce new means of service delivery and adapt to new competitors
- Interest and capacity to improve benchmarking and follow up methodologies
- New ways of working: home based, mobile working, etc

Weakness
- Need to increase perception of needs (people trend to think they already have the skills they need)
- People perception not thinking what they get is good and put it down without engagement
- Still high numbers of persons with too basic or no qualifications
- Need to increase participant enrolment and recruitment
- Difficulty to engage employers to find out what they really need
- It takes a long time before training needs are satisfied but employers want immediate delivery
- Competition from elsewhere (including UK) and brain drain attracting young talented away from Sunderland
- Need to improve monitoring indicators on impact (tracking and referral models)
- Need to protect privacy, build on a more appropriate trust model
- Financial constraints and economy trend
- Need to improve reaching the hardest of hard reach groups
- Not enough women in ICT
- ICT not seen as a profession by younger generation

Threats

- City has big challenges compared to others: high levels of deprivation and unemployment
- Technological changes can come very fast
- Funding in context of budget cuts. Need for stable funding model
- National government targets create conflicts with local priorities
- Risk of not growing/expanding ICT sector to potential capacity due to lack of skilled people

4. Approaching the Local Action Plan: what would like to be done

Past Actions
MTC – University owned Microsoft training academy
ITEC – Vocational Apprenticeships aimed both at ICT Support skills and use of ICT in Business skills
Foundation of Light – Charitable arms of the Sunderland Football Club developed to raise skills through football and sport

Telematics strategies in 1995/97 and 1998/2001. Laid foundations of Digital strategy and community based ICT programmes. First EVH in 1995 in Pennywell area (One of the five most deprived ward in the country at the time)
Digital Challenge 2007 /2009 - City wide digital inclusion programme - Looking at all ways digital technology can be used to enhance the quality of life from skills development, through health awareness to assistive technologies
Microsoft Britain Works – Access to Microsoft on-line training course from basic skills to MCSE level course. Over 1500 courses delivered across the city

What we want to do

- Exploit the opportunity being delivered through the cloud service platform and superfast connectivity
- Town Centre regeneration and revitalization linked to incentivisation and rewards programme (loyalty schemes etc)
- Visualisation of data to assist with policy planning and tracking
- Continued development of Sunderland Software City through partnership with University and BIC hatchery and incubator programmes.
- E Portoflios – building capacity to support skills development in the community
- Benchmarking and effective use of data on a common platform
- Reverse trend of ICT professional through improved curriculum development
- Rebranding the image of ICT Professional
- Improved mobility and linkage to electric vehicle and other sustainable forms of public and shared transport

5. Experience in terms of working through transnational exchange in e-skills and ICT promotion

-Member of the European Network of Living Labs exploiting new technologies.
-Member EUROCITIES working groups: Knowledge Society Forum, e-Inclusion, Open Data and Smart Cities working groups. Currently vice chair of eInclusion working group whose aims are to deliver an information society for all in close cooperation with the European Commission and to promote eInclusion in order to:
- enable every person who so wishes to participate fully in the information society, despite individual or social disadvantages
- use new technologies to promote inclusion and social cohesion
- offer a personalised approach to new technologies taking into account any difference, inclination, requirement, and which overcomes any limitation or divide

-EQUAL Employability Partnership (Lisbon) - Sunderland was the lead partner in a sub-regional Equal Development Partnership bringing together five local authorities with partners from other sectors within their areas engaged in employability. The partnership ran from October 20O1 to May 2005 and set out to pilot new ways of tackling long term unemployment working with people from six target groups identified as hard to reach (refugees, people from ethnic minorities, returners to the labour market, people with disabilities, older workers and ex-offenders). Key outcomes included the development of a toolkit to measure soft outcomes as beneficiaries progressed towards becoming job ready, and establishment of Equality Awards for employers

-FP6 "Widening Participation Electronic Signature Processes"
(WSPES)

6. Potential contributions and demands within Thematic partnership

- Expectations about the E4C project.

- **What are strong points on offer to other partners**

Sunderland can share best practice particularly across employability and e-skills networks, including the public, private and voluntary sector.

For a number of years Sunderland has been extremely active in the delivery of digital inclusion projects working across a wide range of hard to reach groups. We can bring real life experiences, in particularly what approaches have delivered success and what approaches have failed.

Sunderland can also bring experience of using new technologies to support the Digital Inclusion agenda such as Superfast Broadband and Cloud based technologies

- What are the demands to receive support from other partners

- Experience on Cities access to EU funds for R+D and investment on ICT.
- experience related to the development of digital strategies
- experiences benchmarking e-skills programs and progress
- Peer Challenge
- Opportunity identification
- Linked approaches
- Creativity coming out of Crisis
- Use of Big Data to drive policy formation

7. List of REFERENCES

Link to the page within Sunderland City Council's website which refers to support available for people to find jobs, training and development. - http://www.sunderland.gov.uk/index.aspx?articleid=1027
Sunderland's open data portal
www.sunderland.gov.uk/localpublicdata
Sunderland's Community IT programme
www.sunderland.gov.uk/communityit
www.sunderland.gov.uk/digitalchallenge
Sunderland's Economic Master plan web site
www.sunderland.gov.uk/economicmasterplan
Sunderland Software City
www.sunderlandsoftwarecity.com
Link to the Sunderland Business web site
www.makeitsunderland.com
Sunderland Software City
http://www.sunderlandsoftwarecity.com/about-us.html
Link to the National Apprenticeship Service   http://www.apprenticeships.org.uk/
Link to the national government agency to help unemployed people to improve their skills and find work   http://www.direct.gov.uk/en/index.htm

PART III: Synthesis

Common issues among partners: a call for action

The E4C partnership has a balance between convergence and competitiveness regions. In general those partners belonging to competitiveness regions had more resources available to undertake actions to promote areas related to the thematic issue and have achieved outstanding results. The partners belonging to convergence regions have also managed to undertake core actions to promote the ICT sector, the use of ICT tools and the development of e-skills among municipal staff and their citizens.

All partners and their respective city councils have done evident efforts to maximise the use of ICT in order provide more efficient and accessible services and they are supporting the access to e-skills among the population. To achieve this all partners have organised ICT awareness and training sessions for their employees giving basic and advanced ICT training to workers at all levels of the administration. Nevertheless all partners are interested in improving the methodologies applied to train their staff, including teachers at local schools, as very often the staff is provided with the ICT tools and are not fully supported to maximize their potential.

All partners are facing the challenge of digital illiteracy, especially amongst groups at risk of social exclusion and the economic crisis is not facilitating total coverage to the "difficult to reach" and the most excluded ones. Some citizens who already had basic or advanced e-skills are facing new difficulties to keep themselves updated as the economic crisis has left them without a job and very often without the internet access they used to enjoy at home. This is a fact that is jeopardizing progress in the fight against the digital divide.

All city partners are encouraging stakeholders to get involved with the use of ICT tools and access to required e-skills having developed multiple policies to favor e-inclusion. The partners from competitiveness regions have managed to do more, but in general all partner's cities are effectively taking a lead role in this area and are developing city digital policies ensuring that digital inclusion is integrated in all activities. They are providing a wide range of activities like IT courses for youth, aged persons, communities-associations and their representatives, groups under risk of social exclusion, etc. They are facilitating free (or low cost) access to Internet (in public centers or libraries, consultations and individual support, trainings on ICT use, dissemination activities about ICT advantages. Some municipalities provide IT equipment (PCs and laptops, data projectors and screens, digital cameras), to community groups and social enterprises via loans, sometimes free of charge (Sunderland, Ghent). Nevertheless all partners are facing the risk of increasing numbers of citizens being potentially excluded due to the economic crisis and budget constraints. Even the partners who have made a lot of progress in this area still need to

continue their efforts as certain social groups still have low, inexistent or insufficient e-skills for what the labor market demands and have pockets and communities struggling with low economic levels and deprivation.

All partners are involved in the support of "digital schools" to guarantee the maximum integration of ICT in lessons and where students can access state of the art knowledge on ICT tools and e-skills. All partners are supporting and cooperating with Vocational Educational Centers (VET) and Universities or research centers so that they train students and workers to achieve the required e-skills.

All partners' city administrations are investing heavily in ICT technology and are applying programs to centralise the purchasing of devices and services promoting a shared use of them by concerned organizations at local level, thus reducing the cost of such investments. They have become or are in the process of becoming Smart Cities as ICT is utilized to optimize urban management and meet the goals of environmentally, economically and socially-minded development. Most partners are supporting ICT tools to help users make the best choices in transportation methods, consumption methods, communication practices (support social networks), working methods (flexible work) and connection to urban institutions (participatory democracy). They are using smart sensors and mobile devices to collect data on the city and improve municipal services. Some partners cities are facilitating access to broadband connectivity for a better internet coverage for their residents and business. The city partners will explore best ways to monitor and follow up the efficiency of the applied measures to support ICT and e-skills development. In times of economic crisis and budget constraints a way to continue the support to ICT and reduce the burden and cost for municipalities will be to build partnership with private companies and other organizations such as academic institutions and the social sector to create solid blocks for economic growth.

The financial crisis has showed how dangerous it is for cities to get locked into traditional low productivity sectors which are unable to face global competition and all partners' cities have made strong efforts to reinvent themselves and support the creation of new economic sectors with more added value. Today all partners are facing new challenges and need to work with new tools and develop new skills to tackle the challenge of technical evolution. The partners are supporting the development of creative clusters been the city a functional framework for a range of creative industries and creativity-based entrepreneurs that can add value and act as catalysts for nearly all other economic sectors. All partners provide support to e-business and facilitate, industrial and technological centers or incubators (Sunderland has even a software developers business incubator). Nevertheless city partners have to develop a better understanding of the real needs of their entrepreneurs and the strengths, weaknesses and gaps of existing financial and non-financial business support tools to make them more effective.

All partners are interested in attracting knowledge, in the form of higher educated people (the 'battle for brains) as well as research institutes, or knowledge-intensive business but as they are not the major city or the capital in their respective countries are facing difficulties to keep the highly educated persons with them.

Some partners are also involved with the provision of innovative services, like "cloud computing" networks and access to "open municipal data" to support digital innovation and facilitate creation and development of business (Ghent and Sunderland). Some cities are promoting the active participation and involvement of their citizens to define local policies and strategies through croudsourcing platforms (using living labs approaches). The citizens can upload their 'wild' ideas for future city applications, vote for and comment on the ideas of others. These wild ideas are evaluated by a panel of experts that make a selection of some possible (feasible) applications. These experiences are very useful to promote the use of the new ICT related services offered by the city councils.

All partners have already started to set up the ULSG and its core members have already been involved with project activities during the development phase (met the Lead Expert during the intake visits to partners or participated in the workshop organised during the LE visit). In Sunderland, Agueda, Ghent, Palermo, Terni, Aradippou and Alba Iulia a workshop with the core members of the future ULSG was held during the LE intake visit and a SWOT analysis was done with their active participation to evaluate the strong and weak points of relevant organizations to provide support in the thematic area and to anticipate the activities that might be covered by the future Local Action Plan. With other partners there was not a workshop held with the ULSG, but bilateral meetings were held with representatives of future core members of the ULSG. All concerned relevant stakeholders are committed to participate in future activities during the implementation phase.

All partners show good level of cooperation among concerned stakeholders but their future participation in the ULSG to discuss issues related to the thematic network and elaborate the LAP should contribute to reinforce the links and support among different organizations. Technology has always played an enormous role in lifting populations to higher living standards. Over the past few generations, technological change has accelerated to the point where it causes major, visible changes in the world within the span of a single lifetime. As technological changes take place at a very fast pace, there is a need to reinforce the stakeholder capacity to forecast changes in labour market, to identify on time what are the required skills and professions on demand. Knowing what the future demand will be in a given industry organizations can compare supply and demand and determine if labor shortages or surpluses are likely to occur. This information can in turn be used by policy makers to decrease gaps between supply and demand and improve conditions for both employers and employees.

Job outlook information can help define a specific job or career within a field. It also suggests what careers will be "hot" or careers that are supposed to grow in the future. However, changes in the economy and technology, social trends and other factors can and will affect jobs in unexpected ways. Advances in automation, telemedicine, and Internet technology could lead to the elimination of many low- and mid-skill jobs, which would exacerbate vulnerability. In many high-tech industries, advances create a relatively low number of new jobs, and these jobs are mainly (or only!) for highly trained people.

The municipalities can play a role to impulse the cooperation among educational organizations, employers and workers representatives, employment and regional development agencies to facilitate such anticipation. The meetings held with relevant stakeholders during the intake visit showed that when meeting together lots of ideas come about to undertake activities and strengthen cooperation in near future and proved there is room for deeper interaction.

All partners report that the workforce e-skills qualifications are not all ways what are required by the labour market, or the number of workers with appropriate skills is not sufficient, which is jeopardizing the potential growth for the affected companies. There is evidence of the e-skills gap and the e-skills shortage among all partners as ICT related jobs and jobs requiring sophisticated e-skills are still on demand. Furthermore there is a general trend towards all jobs to require at least some basic e-skills, which might become a risk of exclusion from the labour market for the citizens that are not able to catch up with this evolution. In order to stimulate employment of the active labour force and social inclusion of hard-to-employ individuals and vulnerable categories in the labour market, it is necessary to survey the current situation on the labour market, but also predict future trends. At the same time, the possibility of analysing and assessing the labour market condition and needs, as well as forecasting employer needs are a prerequisite for determining the appropriate measures and activities for striking a balance between labour market supply and demand.

The partners ULSG will have to explore ways to take advantage of the fact that today many young people have at least basic ICT skills and can make use of a number of internet applications. They are 'digital natives', but they are not sufficiently "digitally competent" as very often they are not able to use ICT in a professional, collaborative, critical or creative way. Despite the good employment prospects in the ICT sector or e-skill related job supply is still scarce particularly amongst youngsters and there is reticence to take a career in the field of ICT. Furthermore unemployed mid-career workers from related fields such as engineering, mathematics or sciences, if provided adequate retraining, can become ICT professionals as they usually share the same basic body of knowledge. For basic digital technology jobs the required skills can be acquired by those students or workers who have a certain aptitude but lack previous formal education in the field. Overcoming these issues can be a source to fill the e-skills gap and shortage.

The ULSG partners' will explore ways to promote e-business tools among their business community as a tool for innovation and for increasing revenues by enabling new services and ways of working within value chains and networks. The development of E-business/e-leadership skills (an hybrid of business and IT skills) will be supported at local level as successful take-up of e-business requires new skills sets and new ways of using them. The target groups will include entrepreneurs, managers, ICT practitioners and advanced users and the interactions among these groups can favor economic growth and employment creation.

The E4C project is starting at the right moment as the next programming period will run from 2014 to 20120 and during year 2013 is when the priorities and actions to use the EU funds will be defined. The project activities, the learning process that will already take place during year 2013 and the meetings held by the ULSG to define activities to be inserted in the LAP will be very useful as they can provide a sound ground and justification to include them into the next Operational Program if suitable. The Managing Authority from Red Local, Agueda, Ghent, Patras, Kielce, Palermo, Terni, Aradippou and Alba Iulia have signed a letter of intent to support E4C initiative.

The partners cities have gone through difficult times due to the financial crisis, public budgets are more limited, unemployment rates have risen and many business have gone through hard times but the cities have continued to bear the present in mind while preparing themselves for the future, never ceased trying to be protagonist in times of difficulty and decadence as well in times of prosperity.

Thematic focus of the E4C network

Each partner of the E4C network brings a particular combination of expertise, learning needs and interests to the project. Identifying these different dimensions of the partnership was central to the work undertaken during the development phase. This was done in a number of stages, starting with the questionnaires sent to each partner, the lead expert intake city visits, the kick-off meeting and the development of the city profiles and exchanges of e mails among the lead expert and partners representatives. Additionally the partners were asked to identify shared interests in relation to other partner cities as well as the main themes of the E4C network.

During the E4C kick-off meeting the initial partners realized that the project's 3 challenges (tackle digital illiteracy, e-skills gap and e-skills shortage) were too broad and we could experience some troubles when defining them or achieving results. The 3 challenges broadly defined by the project application were too wide for what a city can achieve with its own means and capacity. The E4C

project had to avoid too large and ambitious thematic coverage. Consultations among the 5 partners and the Lead expert were undertaken in order to focus these 3 challenges to make them more feasible. A tentative list of 5 focused topics was finally elaborated by the LE in consultation with the 5 initial partners and was shared with the new 5 partners.

During the final meeting held in Ghent (October, 1st. and 2nd.) representatives of the 10 partner cities were asked to finally agree on the key topics they would like to explore through the E4C project. The results showed that there was a strong coherence of interest around the main themes of the E4C network and 5 topics/themes were selected to focus the E4C network. A list of sub-themes was also identified by the partners.

The partners also agreed with where the transnational events will take place, the issues to be covered and the format and focus of study visits and the virtual clusters foreseen by the E4C project.

5 thematic focus of the E4C network and sub-themes

The main themes (challenges) of the E4C project (challenge of digital illiteracy; challenge of e-skills gap and challenge of e-skills shortage) remain as the broad conceptual framework for the network, but they will be addressed under 5 thematic headings
The identified 5 topics/themes are the following:

- 1. Tackle digital illiteracy by promoting the use and access to municipal e-government policies and services

To encourage and support the access to e-skills for people who are digitally illiterate by promoting the use and access to e-government policies and services, which are facilitated by the Municipalities.

- 2. Promote access to e-skills to young persons and unemployed people

To promote the acquisition of appropriate e-skills for young people who will look for a job and for unemployed individuals. It would be interesting to define as well some economic sectors (demand side) which are more relevant for our Municipalities where there would be jobs available for those professionals.

- 3. Innovative methodologies to train Municipal staff on e-skills and ICT use

To introduce innovative measures and methodologies to train the Municipal staff (including teachers) to provide them with the right e-skills, update them and use ICT tools to improve Municipal services.

- 4. Innovative cooperation projects with other partners

To implement or improve innovative cooperation projects with other partners to undertake activities of common interest with the Municipalities, an issue that can help to continue with e-skills development in times of budget constraints.

- 5. Promote e-business skills with focus on relevant economic sectors at local level

To promote e-business skills, with focus on economic sectors which are relevant to the municipality, like e-skills applied to retail business, tourism, culture-entertainment, and some other specific to some partners.

Sub-themes:

During the intake visits, several sub-themes were found which are covering cross-cutting issues that cover all the 3 project challenges. These are tools to promote e-inclusion and the development of updated e-skills and as a final result the generation of highly qualified professionals required by the market.
The identified sub-themes are: the Smart City/Smart Citizens, Open Municipal Data, Municipal Cloud Computing Services, Green ICT City, Tele-centers (or community support), Digital Schools and Monitoring indicators to evaluate efficiency of measures.

Transnational Events/Seminars

They will allow the exchange among partners and their ULSG members, the consolidation of knowledge on a specific policy issue, the mutual support and coordination between partners, etc.
Transnational meetings will have a strong focus on thematic contents related to integrated strategies for improving the workforces' employability by enhancing and updating their e-skills and promoting ICT related professions. Additionally there will be a specific thematic topic addressed by each transnational meeting which will include site visits as well as guest speakers on particular topics.

We have planned to organize up to 6 transnational events; each one of them will focus on one of the identified 5 topics/themes. Additionally one event (no.6) will be dedicated to disseminate the project results and will take place in a city specially linked to the support to the development of new technologies or be part of a major event related to ICT sector.

5 transnational events will take place in the cities of Alba Iulia for focus theme n. 1; Kielce for focus theme n. 2; Palermo for focus theme n. 3; Agueda for focus theme n. 4 and Red Local for focus theme n. 5 and the final-dissemination event will take place in a city specially related to ICT development or coincide with a wide dissemination event related to new technologies and e-skills development.

Organisation of Site Visits

Study visits will be designed to explore the thematic focal points of the E4C network in detail (looking at practical examples, discussing theoretical concepts or examining evaluations of earlier attempts to deal with similar problems).

We plan to organise 2 study visits in total, each focusing on one or two of the subthemes and they will take place in the two city-partners who are more advanced on the thematic issue.

As the Managing Authority' Operational Programmes for 2014-2020 will be defined during the last months of 2012 and during the year 2013, it is advisable to organize the study tours during the year 2013 so that the local coordinators, representatives from ULSG and from the MA can participate in those events and get direct contact with interesting best practices and examples so that they might be taken into consideration on time by the different ULSG and might be incorporated (totally or partially or not at all) in the LAP to be developed mainly during year 2013 and beginning of 2014.

Sunderland will be the destination for a study tour to analyse how they develop municipal **cloud computing** services and how they support **telecenters**

Ghent will be the destination of a study tour to show participants how they combine the idea of a **smart city** with the development of a **smart citizen** making use of all potential advantages of ICT tools. They will also show their living labs experience related to ICT tools and their experience on **open municipal data**

Organisation of Virtual Cluster Thematic Workshops

Thematic clusters consist of partner cities who share a number of characteristics and interests. These interests might be based on problems as well as opportunities a partner city encounters in promoting ICT employment and the acquisition of e-skills.

Thematic clusters are designed to operate as discussion groups of like-minded participants which are facilitated by the Lead Expert

In order to reduce the project expenditure and carbon footprint, the E4C partnership proposed the organisation of Virtual Cluster Thematic Workshops.

These workshops will involve the Lead Expert, a thematic expert, the concerned local support group expert and part of the partners on a specific sub-theme.

There will be one cluster on **digital schools**, another on **ICT and green city-jobs** and another on the identification and use of **monitoring indicators** to follow up implementation of support policies and evaluate their efficiency and impact.

All partners will participate in the foreseen Virtual Cluster Thematic Workshops. Some partners have more experience on some of the sub-topics and will be more active to transfer knowledge, but in general there are not big differences among the 10 partners in terms of experience and practice on the matters (as the annexed Table on learning needs, Experience and Practice shows).

ANNEX 1 Base line Study Table

	What are the problems and challenges faced by the partner city in relation to selected the topic?	What are the policies and concrete actions developed by the Partner city so far in relation to these problems and challenges?	What could be the scope of the LAP to be developed within the framework of the network?	Who will be involved in the ULSG?	What is the experience of the partner city in terms of working through transnational exchange in relation to the selected topic?	What is the potential contribution of partner city to the network activities and what does the partner expect from the network?
Lead Partner	Challenge 1: Promote job creation through the e-skills. In the regional area of Red Local as in the rest of the country, unemployment rates are very high, especially among youth. For this reason Red Local try tries encourage training programs to enable young people to enter in the labor market in the ICT sector, giving them the tools to do so. In the same direction, training programs have been developed using the e-skills as a tool for insertion in other fields than ICT, offering training in basic and more specialized e-skills. . Challenge 2: Extend the use of new technologies. With the extension in the use of new	. Digital Literacy Courses . Plans for the promotion of e-skills . Training Plan for the promotion of ICT professions . Activities for the promotion of ICT jobs . Training courses for ICT professionals	Red Local action plan is intended to be used as tool in broader geographic scope rather than the local level. Therefore, this Regional Action Plan will cover all the seven municipalities included in the Consortium. Due to their common characteristics a common Regional Action Plan will be elaborated instead of seven different Local Action Plans. However, this Regional Action Plan will consider all the specificities from each of the consortium members. Red Local´s goal to develop and implement a specific Regional Action Plan seeks to improve results of previous and future projects implemented in the ICT and e-skills area in which transnational knowledge and good practices exchanges could have a higher impact on local policies.	At local level the main organizations which form the Local Support Group are the Councillorships of Employment, Training and Information Society of the Red Local Municipalities: Arganda del Rey Coslada Mejorada del Campo Rivas-Vaciamadrid San Fernando de Henares Torrejón de Ardoz Torres de la Alameda Association Virtual Educa (ASIVE), multilateral initiative for training and education based on e-skills: Jose Maria ANTON, Department of Technical Coordination University of Alcalá - Computer Science Department At regional level, which includes the whole area of Madrid province, the interested entities are: Madrid Region -	EQUAL Community Initiative, Adapt-Time project: Encouraging adaptability of businesses to new technologies and new models of management and organization. . Avanza Plan, Inmigra-red project: developing and launching a digital service aimed at promoting integration and accessibility for foreign citizens living in the municipalities involved. . Red Local Digital 1.0 Project: Process of evolution towards e-Government, through activities such as creating Citizen Websites, computerization of the management processes, improvements in hardware and communications and online Job Banks. . Progress Program, e-Skills Project: Creating of a common space of interaction and mutual learning between local,	Red Local might learn a lot from E4C partners about formulas of collaboration with the private sector to develop projects of mutual interest, to which Red Local is very interesting about the dissemination of successful projects by the partners. Red Local is interested to know what are the innovations introduced by the Governments from other cities in Europe in order to improve their relationship with citizens by using ICT. It is also interested to know the impact of this on the quality of democracy and citizen accountability of public administration. Finally the Consortium is concerned about being advised on how to involve the population in the use of ICT and to know some successful cases in which significant progresses has been achieved and the impact

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	technologies, these have become an essential toolkit to interact with the world. This means a revolution in the way we understand the world, however this process of social change is not occurring in a balanced way, which is generating new social risks such as an interclass and intergenerational digital gap. First try to extend these new technologies among the entire population through training in the use of ICT and the provision to the population of Internet connections through public Wi-Fi networks. . Challenge 3: Improving public services through new technologies In the same sense, new technologies represent a great		Support provided to tackle digital illiteracy will continue with the inclusion of initiatives in the LAP. Red Local seeks essentially to find new ways of creating jobs through ICT and thus wants to know new best practices for the creation of job through ICT, improving-updating workforce e-skills and increasing the number of qualified professionals. Red Local is particularly concerned about the high levels of unemployment experienced by the younger population, which undoubtedly has a negative impact on their lives and the future possibilities that they have. Therefore, Red Local Regional Action Plan will seek to develop as many cooperation ways as possible with other entities or public administrations among Europe from which we	Department of Education and Employment, Region of Madrid Regional Centre for innovation and training of lecturers "Las Acacias" (Centre subscribed to the DG of Quality improvement of teaching, Region of Madrid) Chamber of Commerce and Industry of Madrid UNICEM- Business organisation of the Entrepreneurs of the East of Madrid Trade unions - CCOO Madrid. Foundation Tomillo – Dept of Entrepreneurship Associated Managing Authority, Region of Madrid Finally, at a higher national level representatives from the Ministry of Education and Science- General Directorate for Vocational Training could participate in the Red Local Support Group as well.	regional and national in several European countries, aims to develop an Action Plan that will face employment policy, social inclusion and quality of work and the ICT sector. . In 2011 the Consortium Red Local led the transnational PROGRESS VP/2010/005 project "E-SKILLS: Mutual learning for the improvement of employment opportunities for young people in the ICT sector. A transnational approach". In the context of the economic crisis, the project aims to improve the access of young people to the e-employments through the exchange of experiences and mutual learning at European level. Both public authorities and private non-profit institutions are working to present a set of concrete measures be able to	of it.

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	innovation in how the public administration connect and get in contact with citizens, which is especially important for a proximity government as the local governments. For this reason we are implementing various policies such as management of administrative affairs online, creating digital job banks, installation of new citizen security devices or the promotion of citizen participation in public affairs, pretending with it an improvement of democracy and the citizen's satisfaction.		intend to learn and we hope to bring knowledge derived from our experiences.		improve ICT employment opportunities for young people by transmitting the relevant skills matching labor market demands and, thus, meeting the objectives of the European Employment Strategy. In the framework of the project, first events to sensitize youth on the employment opportunities that the ICT offers have been organized.	
Alba Iulia	Alba Iulia started	Alba Iulia has a local	. E-government and E-	Regional Development	We do not have any	Due to the previous

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	paying attention to the digital local development but Alba Iulia is not one of the most efficient European cities in the ICT domain.There are initiatives but we still need to learn how to enable the procurement of E-skills in our community,to stimulate the training of the employees in order to help them adapt to the current technology development dynamic and to identify the best ways of promoting the creation of better ICT jobs for a sustainable development of our community	development strategy which covers the area of ICT. In fact in the Integrated Plan of Urban developing Alba Iulia is seen in the future as "digital Alba Iulia" because of its ambitions to tackle the challenges mentioned before. The strategic lines are: -E-government and E-citizenship for the public institutions in Alba Iulia -Extending the wireless hot spots in Alba Iulia in the public areas -E-health integrated in the national programs -Digital info kiosks	citizenship for the public institutions in Alba Iulia . Extending the wireless hot spots in Alba Iulia in the public areas . E-health integrated in the national programs . Digital info kiosks . Facilitating the access to ICT tools in order to increase the efficiency of local resources . Increasing the use of the ICT resources to their full potential . Creating an IT urban observer in order to evaluate the local resources . E-skills and ICT training according to people needs . Creating a Business Portal to promote Alba Iulia abroad in order to attract investors . Creating databases with books and articles at the University which will be available for all students . Creating an e-service for paying taxes at city level . Intensifying the use of	Agency (Managing Authority) University 1 Decembrie 1918 Alba Iulia PAEM ALBA FOUNDATION Xerom Service County Employment Agency City Hall of Alba Iulia Municipality BOSCH Rexroth.The Drive & Control Company, Linear Motion and Assembly Technologies Chamber of Commerce and Industry Alba	transnational exchange in this field but we have a large experience in other transnational projects within URBACT or IEE program. Examples: Alba Iulia does not have any relevant experience in working through transnational exchange in E-skills and ICT promotion. Nevertheless the city has implemented several relevant transnational EU financed projects on several areas: Implemented project within Intelligent Energy Europe (IEE): Achieving Energy Sustainability in Peripheral Regions of Europe (ASPIRE) (01/10/2006 – 31/03/2009) Intelligent Energy Europe in implementation process projects: *An inclusive peer-to-peer approach to involve EU*	experience within URBACT and other transnational projects, we consider that our experience could bring an added value to the network. We dispose of organizational capacity for ensuring a good organization of conferences or partners meeting if needed. As well, due to the good cooperation with the County Council, the University, NGOs and other relevant actors, we will benefit of a technical expertise. We expect to see commitment, willing to transfer expertise, good practices examples, and to ensure a sustainable long term collaboration

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			mobile data and switching technologies (such as smart phones) and mobile services (3G internet, streaming music and webmail) . Facilitating the access to ICT technologies for people with visual disabilities . Improving the quality of existing services and adopting European standards in terms of technology . Providing a video monitoring system on the main access routes in the Citadel Vauban Alba Carolina and on the square where the public social-cultural events are organized. In order to increase the safety of the citizens in the area but also to ensure the security of the cultural heritage of Alba Carolina Citadel, moreover to increase the visibility of the events organized within the Citadel, abroad or at national level online. This visibility could		*CONURBations and wide urban CONURBANT* (10 /05/2011 – 09/05/2014) *Move goods by cycle – CYCLELOGISTICS* (21/0 4/2011 – 21/01/2014) *Energy efficiency in City Logistics Services for small and mid-sized European Historic Towns (ENCLOSE)* (01/08/2012 – 06/07/2015) Other transnational projects developed by Alba Iulia Municipality derived from the participation as partner within 2 major URBACT II projects for creating Developing European Networks: *CoNet* (Cohesion Network) project - finalized in 2011 - was focused on education, employment and community life and approaches to strengthen social cohesion in neighborhoods. This project gathered 11	

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			contribute at increasing the number of tourists choosing to visit Alba Iulia but also the number of potential investors. . Another useful utility of ICT within Alba Iulia Municipality could be related to the promotion to the touristic products of Alba Carolina Citadel through the special systems helping the tourist to find out more about the things they discover on the territory. It could be a system established on the tourist products, a bar-code which could be read by using the telephone to scan the code and to get directed on a special site where the information about the products could be found in different languages.		partner countries, Romania being represented by Alba Iulia Municipality during the implementation phase of the project. Another project within URBACT is *Nodus* - finalized in 2010 - which gathered 7 European partner countries.	
Agueda	Agueda - City area of downtown about 25 Kms from the sea, Aveiro and 19Kms 78Kms south of Porto. City with a large	The Municipality has developed several actions since workshops, seminars, technical support, attracting interest from	− Streamlining a bank of volunteers to carry out training and disseminating actions for e-skills development among	Training area: The town High School (which is already developing training in ICT), the Vocational	Developed in URBACT project RUNUP (The rôle of the Universities on the Urban Poles), with Gateshead (Leader), Barakaldo, Solna,	The aim is to analyze the existing situation; discuss solutions and new methodologies, working in active partnership, examine examples of

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	industrial component, and recognized by its great capacity for entrepreneurship and diversity of its industries. With the financial crisis that Europe is going through, you feel the need to innovate by encouraging the creative spirit, giving the ability to create meeting customer needs and matching the interests of the principal recipient of the goods: the general public	several embassies to the internationalization of their companies, promotion of technical missions to countries potential importers of domestic products. Created a business incubator and is building a Cultural Incubator, reinforcing the strong cultural component of the City. By participating on RUnUP (URBACT) had the opportunity to generate multiple events that aimed, primarily companies in the Municipality. The project BeÁGUEDA (shared-use electric bicycles) generated a significant movement in this area with strong entrepreneurial traditions in Agueda. Agueda has a project in development that aims to give basic training to citizens in the use of new technologies, teaching the basics of	population; – To promote partnerships with associations, parish councils, private social solidarity institutions (IPSS's - Instituições Privadas de Solidariedade Social), etc., to carry out the actions of "basic" training and "upgrade" of existing knowledge; – Develop an electronic platform for the dissemination of existing training courses provided by various organizations to target different groups to increase use of existing capacities; – ICT training at different age levels, taking into account the needs of people; – Undertake a market survey in order to know the needs of	Training Center and the Superior School of Technology and Management of Águeda (that belongs to The University of Aveiro); Employment services area: The Institute of Employment and Vocational Training, that through The Employment Centre of Águeda holds the basic information about the register of unemployed and of the solicitations of companies; The municipality: The Municipality of Agueda, Agueda TV (Municipal service)engaged in providing training in multimedia issues; Business area: The Águeda Business Association will bring to	Campobasso, Patras, Leszno, Dunkerque, Potsdam University. In the Interreg-project Sudoe Parnet-Tic (RED Participation OF SERVICES DIGITALES Y EN RURALES TERRITORIES) with Provincial Council of A Coruña (Leader), Diputación Provincial de Lugo, Diputación Provincial de Huesca, Ayuntamiento de Lugo, Diputación Provincial of Almería and Pole Universitaire deMontpellier et Européen du Languedoc Roussillon On the European Comission, Education and Training (Grundtivig), we developed the project Lifelong Learning with Ayuntamento de Huelva (leader), Association Frédéric Sevène (France), Comune di Latina (I)	good practice; visit success stories to share experiences with other processes already more developed, developing workshops and seminars with the participation of technical expertise in the subjects involved (innovation, entrepreneurship, competitiveness and internationalization)

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		using basic tools (electronic mail, skype, word, etc..). Registration and participation is free. We also develop training initiatives, devolved in the parishes, for the use of web resources available for use of public services at local and national level. The Vocational Training Centre also has training initiatives in the area of ICT. The School of Technology and Management Águeda develops technological specialization courses which provide professional expertise to people who possess higher education, need to update skills for new functions.	companies and people (unemployed, workers, etc.) in terms of training, adapting actions to the training needs of business; − Realization of tutorial videos in the studio of ÁguedaTV; − Wi-Fi / wimax network - increase the coverage of Wi-fi / wimax; − Successful projects developed in the companies for demonstrating best practice; − To build networks of work to change information and experiences, giving capacity to all partners to promote business opportunities − To promote the "Creative Business" − To build a web platform to promote the social	the project the knowledge of the reality of companies and their needs in terms of staff; The ABIMOTA, as representative of a group of companies linked to the specific sector of the two wheels that also contribute to the actual knowledge of the needs of its members; Companies HFA, S.A and Globaltronic S.A., as employers who need trained technicians in ICT for development of their activities.		

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			responsibility and news styles of life – To promote the industrial Tourism and the creation of 3D tours			
Aradippou	The local problem our city is facing, in relation to the 3 challenges stated above, is first of all the lack of the necessary e-skills of the Municipality's workforce, in order to be able for effectively use and take advantage of the ICT systems and devices. The growing need for ICT practitioners within the Municipality, in order to improve the services that we are procuring to the citizens, it's of a great importance. Either by training our staff on ICT skills in order to meet this challenge or/and by employing ICT professionals to counteract the e-skills shortage is remaining	The Municipality installed a computer to all the offices and it connected them to a central server. Furthermore it installed at all the computers the Outlook logistic and it created an email for each employee. Basic information is communicated through emails, thereby inducing them to make use of the tool and be able to meet the requirements for its use. In addition to these, the Municipality is undergoing a process of upgrading its Call Center in order to make it more efficient. A series of seminars are organized for this	E-skills and ICT training according to people needs Promote the e-ticketing system for citizens support Increase familiarity of municipality staff with ICT tools. Increase people awareness on information security and apply technical barriers for information leakage prevention Create an online network of Aradippou emigrants around the globe Create a database with business operating within Aradippou area and promote them for employment of local people Conduct surveys and receive feedback on ICT proposals from citizens and other expert	Municipality of Aradippou iSPIRAL IT Solutions Ltd T& M Engineering Services Ltd RESULCO LTD Aradippou Lyceum Novatex Solutions LTD CYTA- Cyprus Telecommunication Authority Public Employment Service of Cyprus, Ministry of Labor & Social Insurance	INTERREG IIIB ArchiMed 2004-2006, Project MULTIGATE, Partner-to investigate the impact of ICT Actions for the Passenger Transport integration of the urban environment of key travel gateways in its area (www.multigate-project.eu).	As a local authority, the closest entity to the citizens and the cornerstone of applying governmental policies, we could give a first-hand information, regarding the joint definition of integrated urban strategies, policies and practices. Furthermore, our experience in organizing several kind of events at our premises, could be of great interest for the activities (coordination meetings, transnational thematic workshops, collective study visits and bilateral visits) that must be developed for the project. As far as the Dissemination of the project activities and results at local level are concerned, the local authority can give it a

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	at the top of our priorities' list. Secondly, the problem of a universal application of the e-government is a must for a city that is willing to upgrade its innovation and competitiveness skills. A challenge that we are facing through succeeding this target, is that of redesigning all our processes and the gradual use of technologies on our services, utilizing the available information systems in order to have immediate improvement in service quality. E-Government should enable anyone visiting a city website to communicate and interact with city employees via the Internet and it will enhance the access to and delivery of government services to benefit citizens,	September – October, aiming to help the personnel of the Municipality to acquire the necessary knowledge for using ICT technologies, having as a theme "How much ICT counts, in the operation and work of the Municipalities?". Finally, the application of the e-government system, which is in progress and it will at first place facilitate the citizens by giving them the option of the direct payments of their municipal depts. By gradually applying all the above strategies, the Municipality is aiming to enable and facilitate the acquisition and upgrading of the personnel's e-skills, and hence overcome digital illiteracy, e-skills gaps, counteract the e-	(students/schools/profess ional) advice. Create the first e-bill platform for online payments, email and sms reminders Create a professional business network by expertise for knowledge sharing and employment opportunities Conduct surveys for people who travel daily to other cities and travelling options for CO_2 emissions Change to virtual desktops and virtual infrastructure for less maintenance, power consumption, cost saving and productivity with teleworkers Provide training and facilitate access to ICT tools to persons with disabilities and others under risk of social exclusion Conduct Information Security policies and apply them for citizens data protection and compliance with legal			great publicity through its own mean of communication (Municipal trimestrial newspaper that is delivered to all citizens, municipal website etc) Through the exchange of experiences and best practices between the partners of this project, our benefits would be countless. By helping us moving towards the direction of overcoming the challenge of e-skills through the implementation of the indicative actions of E4C project, this will be of great benefit not only for our Municipality but for the whole sector of Local Self-Government in Cyprus.

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	business partners and employees.	skills shortage, create new ICT jobs and ameliorate its services to the citizens.	requirements Create disaster recovery site for business continuity Engage schools and college for research and development Setup wireless connectivity in the main areas of the town			
Digipolis (Ghent)	The city of Ghent is an ambitious city in many fields, amongst which ICT. Ghent is the largest education city in Flanders with 66 000 highly-skilled students in 11 faculties and 10 colleges. We also have many spin-off companies. Yet, as in all large cities we are also confronted with the other extreme. The mission statement is a shared ambition of the administration, city council and local stakeholders: "Ghent, a creating city, a pioneer in the development of a sustainable, solidary	The long-term programme Digitaal.Talent@Gent was set up to achieve e-Inclusion in the city of Ghent. The program methodology allows us to work together with all local partners. We worked together with them to set up a common strategy for all stakeholders linked to the long-term strategy of the city "Gent2020". We are working along high-level objectives: 1. Knowledge, innovation and creativity: ICT capacities: "In 2020 all people of Ghent will have enough ICT knowledge to use	The city of Ghent has defined a long-term strategy, Gent2020, elaborated with the active participation of all relevant local stakeholders. A Local Digital Agenda is being elaborated. During the project Ghent would like to consolidate its Local Digital Agenda with the future LAP coming up with operational plans that are innovative and truly answer present or upcoming needs.	City of Ghent, www.gent.be - Digipolis, www.digipolis.be -Ateljee vzw, www.ateljeevzw.be -VUB(IBBT-SMIT), www.ibbt.be - "Gent Stad in werking", www.gsiw.be -Wonderwijs, www.onderwijsvoorvolwassenen.be -Leerpunt Gent-Meetjesland, www.cbe11.be - Universiteit Gent (IBBT-MICT), www.ugent.be -OCMW Gent, www.ocmwgent.be	Digipolis is the partner of the city of Ghent when it comes to ICT promotion. The long-term strategic program Digitaal.talent@Gent was entrusted by the city of Ghent and social welfare office to Digipolis. Digitaal.talent@Gent works together with all the local actors of the city towards ICT promotion to all citizens, not through a commercial motive but a social one. It is important for Ghent that all citizens have optimal chances to develop themselves and participate via various means (also including ICT). Digitaal.Talent@Gent is already a best practice in	Digitaal.Talent@Gent has a large network in the field of e-skills and would like to involve partners in the generation of the most appropriate content. Through this project we also hope to set up trial projects that will be continued after positive evaluation.

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	and open society by uniting all creative forces" We are currently working on a living lab, local Digital Agenda and an e-Inclusion program. E-inclusion is a common horizontal theme. We are an innovative city, which has also been taken up in Charles Landry's innovative city index. We want all citizens to be able to take advantage of this innovation in the field of ICT. Therefore we not only innovate but insure that all citizens have the chance to gain the e-skills necessary to benefit from the recent developments and advantages these offer. Recently we have had a methodology elaborated to measure e-Inclusion in an urban setting. In May we will have our First	basic ICT services." 2. Social sustainability ICT Help: "In 2020 all people of Ghent will have accessibility to means of help in case of problems with ICT." ICT without barriers: "In 2020 all barriers to learn about and learn how to use ICT will be minimalized." 3. Economic sustainability ICT Competenties: "In 2020 all jobseekers will be offered a basic ICT training (with diploma) to help them find work." 4. Communication and participation Digital Communication: "In 2020 the digital services and information in Ghent has increased. Through the active consultation of this information and through interactive ICT solutions, the social cohesion has			Belgium. As chair of the e-inclusion working group we share our experiences, knowledge and set up common projects with other large cities across Europe.	

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	concrete results. E-skills is one of the most important aspects of the methodology since we already had enough information on ICT penetration	increased." Digital participation: "In 2020 a representative portion of the population takes part in the policy making."				
Kielce	The region suffers from digital exclusion and it has a crucial impact on economic development. We are the last place in the country as for the number of computers per household. Just 52,5% of households have the computer. The city is in better situation then the countryside. More people have an access to broadband and wireless Internet. However a lot of effort must be made to let people use computers in everyday life/ work / school. In order to be more cometetive we need to promote innovative IT	Kielce is the capital and therefore is a leader in attracting and stimulating innovations and information technology. The city has a "Strategy of Computerisation of Kielce 2007 - 2020" in place. The document focuses on investments in infrastructure, indicating the needs and actions to be taken. IT education is a crucial aspect to be considered by local authorities and organisation. For the whole region a "Regional Innovation Strategy" was produced. The SWOT analysis indicates	The need to elaborate a comprehensive Local Action Plan has already been discussed with ULSG members, each of whom focused on a different issue related to their specialisation. The future plan should reflect the objectives and measures recorded in the "Strategy of Computerisation of Kielce 2007 – 2020" and the "Regional Strategy of Innovations for the Świętokrzyskie Province".	Kielce City Hall, Department of Structural Projects and City Strategy *www.um.kielce.pl* Kielce City Hall , Department of Services and Computerisation *www.um.kielce.pl/zoum* Świętokrzyskie Regional Development Office *www.sbrr.pl* Świętokrzyskie Marshal's Office *www.sejmik.kielce.pl* Kielce University of Technology, Department of Electrical Engineering, Automatics and Informatics *www.tu.kielce.pl* Kielce University, Department of Mathematics and Information Technology *www.ujk.edu.pl*	City of Kielce had an opportunity to take part in numerous European projects (although not directly related to ICT), including: Autumn University financed from Europe for Citizens ref. no 05/2291 Hand in hand financed from Europe for Citizens ref. no 08/2426 The role of cities in integrated urban development financed from Urbact ref. no 1190 between April 2008 and July 2011 I am entrepreneurial – I have my own company financed from ESF ref. no WND-POKL.06.02.00-26043/08 between January 2009 and April 2011 Economic Promotion of	The city hopes to benefit from learning about existing solutions in other European countries and how effective they are. The results will be disseminated in our partnership network so that they can take advantage of good examples and practice elaborated by others. We will share our experience and ideas how to promote IT jobs, IT education and computer literacy, inclusive our valuable knowledge form the project "World at my home".

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	companies that will create jobs for IT specialists. Also, it necessery to upgrage the curriculum at schools and universities to be up to date with the market.	strengths, weaknesses and needs of the region in terms of e-skills upgrading and business economic development.		Kielce Technology Park *www.technopark.kielce.pl* Association Education by the Internet (NGO) *www.epi.prg.pl* Adecco Poland (HR sector) *www.adecco.pl* City Office for Family Assistance *www.mopr.kielce.pl* IT Professional Training (training company) *www.interpsi.ok.pl/* The core group will be based on the City of Kielce, the Marshal's Office and the Świętokrzyskie Regional Development Office (called SBRR) as the institutional partners of the project.	Eastern Poland financed from ERDF ref. no POPW01.04.01-00-001/09 between 2009 and 2015 Creation and Development of the Cooperation Networks of Investor Assistance Centres financed from ERDF ref. no POPW01.04.02-00-002/09 between January 2010 and June 2015	
Palermo	Challenge1: The Regional Capital City has to encourage the improvement of ICT skills use and dissemination in public administration to enhance the quality of services provided, in order to become open, flexible and	Challenge 1: In Palermo, since the "E-Government for Development" initiative launched in Palermo in 2003, several local actions took place in these last years, in order to increase the innovation, the	☐ Promote partnership with associations and citizen committees in order to realize training actions for the acquisition of basic and new skills and upgrading the existing ones; ☐ Realization of training courses on ICT differentiated according	Training area: ☐ SISPI Spa: in-house corporate managing services for technical management of the Municipality informative system and related training activities dedicated to employees. ☐ CNR – National Research Council	URBAN MATRIX project (see below), the Municipality has had available a range of tools to collect and disseminate knowledge on new research outputs and good practices among cities from across Europe, including an e-library of	Palermo is facing several challenges that need to be addressed in a dynamic way, in order to ensure a sustainable and integrated growth of its whole community. The city could offer its expertise in designing strategies aimed at creating integrated

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	collaborative in its relations with citizens and businesses. An increased attractiveness should be achieved by a reduced cost of enabling "virtual one-stop-shops"; C2: Palermo has a deep interest to adopt user-driven open innovation models that will assist the upgrading of skills, to involve public entities, SMEs, professional corporations, academic and creative citizens in a collective process towards a smart and sustainable growth. The National Initiative DIGITALIA 2020 (corresponding to the Flaghsip Initiative A Digital Agenda for Europe) will focus on Palermo and needs to be connected with innovative actions at EU level; C3: In the last years	effectiveness and the openness of public administration (CAPACITY SUD project - "Governance and System's actions" priority of Italian Operative Programme), so capitalizing and disseminating best practices and experiences. Challenge 2: in strict connection to the first challenge, the City started different initiatives to facilitate the acquisition and upgrading of e-skills coherently with the Digital Agenda-Going Local 2011 objectives, to foster R&D activities related to ICT as an added-value resource for a sustainable socio-economic growth, with a special focus to the high relevance of creativity as a key element of ICT innovation.	to the participant age and taking into consideration the different needs of the population; ☐ Arrange market analyses finalized to the comprehension of enterprises' and population's (employed and unemployed) training needs trying to adapt necessities and actions; ☐ Increase WI-FI structures; ☐ Job opportunities promotion through ICT in culture, tourism and SMEs related to these sectors; ☐ Build networks for sharing information, practices and experiences finalized to job promotion.	☐ University of Palermo Employment services and business area: ☐ Confindustria (Italian employers federation – local offices) ☐ CCIAA (Chamber of Commerce, Industry, Crafts and Agricolture) of Palermo ☐ Confartigianato (Italian handicraft companies and entrepreneurs – local office) ☐ Confesercenti (Italian association of third sector business – local office) The municipality: ☐ Region of Sicily ☐ Regional Assembly of Sicily ☐ Regional Province of Palermo ☐ Amat Spa(mobility and transports local company) ☐ Amia Spa (municipal waste company) ☐ Amg Spa (energy utility local company) ☐ Amap Spa (water utility local company)	case studies and best practices as well as a series of thematic workshops. The project organised tested practices examples, case studies, and research outputs from local authorities and research institutes. The e-library was based on standard templates for easy fill in and access; furthermore, the project workshops offered transferable examples of best practices and 'how to do it' approaches, essential to augment the background of all participants. The URBAN MATRIX Network benefited from a contact list of more than 130 officers from European local authorities and was open to all EU cities and towns to take part in the project activities in order to enlarge their knowledge exchange community on	systems for R&D, as an effective tool to bridge the gap between R&T Development (i.e. coming from the local University) of new services/products and their diffusion in the civil society. Furthermore Palermo has strong competences in initiatives to foster business incubators and innovative enterprises' (ICT oriented) start-ups, so it could bring a concrete contribution to the definition of joint policies and could surely benefit from E4C Network results on relevant e-skills demanded by the labour market. The network that the Municipality of Palermo will be able to involve in the project's activities will allow to test the scalability and the sustainability of the proposed actions

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	the City has experienced high level of unemployment and recently a period of economic stagnation – due also to major financial international crisis – that makes necessary for the Administration to define an integrated urban policy. This strategy, if could combine the e-skills potentialities with the historical opportunities of development (tourism, services), will open to new possibilities of ICT related employment (statistics report one of the highest unexploited potential due to the lack of a widespread ICT literacy)	Challenge 3: Palermo has always been attentive to promote job opportunities for young (i.e. *FIXO* project to encourage training experiences of young graduated from University of Palermo), supporting actively local Institutions and bodies for professional training and life-long learning (Ecap, Ial etc.), as clearly demonstrated by the Strategic Plan for Palermo Capital of the Euro-Mediterranean.			Sustainable Urban Development issues.	
Patras Municipal Development Enterprise for Planning & Development S.A	The city of Patras is the third biggest city in Greece and it is considered as one of the most important cities activated in ICT field, since it has the	Municipality of Patras along with its development enterprise have already adopted strategies and initiatives in order to handle with the digital	In the near future it is intended to develop new activities for strengthening the e-skills of the local population and increase the empoyability of the weak	Patras Municipal Development Enterprise for Planning & Development S.A. (www.adep.gr) Patras Municipaity	Patras Municipal Enterprise for Planning & Development is the Municipal organization that participates in transnational networks or projects related with ICT	Municipality of Patras along with its development Enterprise have got a a multi-disciplinary team of scientists and consultants that can be effectively

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	oldest polytechnic departments of Informatics and Computer Engineering in the whole country. Consequently, during the last thirty years, a lot of highly skilled engineers have graduated from University of Patras or Technical Institution of Patras and the ICT industry invested in sectors like electronics, telecoms, e-government, mobile services and others. However, the deindustrialization of the 80s and the fiscal crisis of the last four years have influenced very deeply the local economy, increasing the unemployment rates up to 18%, closing more than 2.000 businesses only at 2011 and create a new generation of isolated and disadvantaged social groups. Moreover, the	divide and the skills of the population. In the most important strategic document of the Municipality, the Business Plan 2011-2012, specific policies of improvement of the e-skills of the citizens but also the Municipal officers and politicians have been described and initiatives of targeting to specific social groups (unemployed, separated mothers, low-income groups) are outlined. The central government also has recently voted the Law 3979/2011 for the regulation of the E-government in Greek pubic sector but also for the improvement of the current existing capabilities of the people in the field of ICT.	social groups: E-skills and ICT training at different age levels, taking into account the needs of people; Promote partnerships with associations and community groups to undertake actions (fairs, training and disseminating activities) with cooperation of volunteers to provide basic and upgraded e-skills. Promote among all members of the Local Support Group and related organizations the effective use of the e. government tools provided by the municipality to increase their familiarity with ICT tools. Undertake specific training addressed to Municipal civil servants to improve work performance and increase impact of ICT	University of Patras (www.upatras.gr) Achaia Chamber of Commerce (www.e-a.gr) Patras cience Park (www.psp.org.gr) Hellenic Open University (www.hou.gr) Technical Educational Institute of Patras (www.teipat.gr) Institute of Employment GSEE (www.inegsee.gr)	issues or skills. More specifically, it has participated in projects Interreg IIIB CADSES (ROME) and Interreg IIIB CADSES (ROMIT) where cultural material selected, processed and promoted through ICT tools. It is a member also of Interreg IVC eCitizen 2.0 project, that aims at promotion of WEB 2.0 technologies and participation of citizens in democratic processes or activities inside the European cities. The Urbact II – RunUP project is also a project that focused on ICT skills and services, since one of the main axes of the Local Action Plan was dedicated to ICT development.	enrolled in new and challenging project concepts. In that term, the city of Patras can significantly contribute to the project with its existing knowledge and experience on initiatives related with education or awareness of the population about ICT Issues. On the other hand the city of Patras is a Greek city that suffers from the economic crisis and activities that help to increase the skills and capabilities of the people are more than ever necessary, since they can improve the competitiveness of the local economy and population.

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	ICT sector itself and the related e-skills are rapidly changing and demanding while new means, applications, ways of communication and ways of working are introduced. In this dynamic environment the challenge for the city of Patras is to foster the capabilities and skills of the local labour, to attract investments, to increase the competitiveness of the local economy and people by adopting new plans or initiatives that will enhance the knowledge and capabilities of the population in ICT issues.		tools at local level Undertake intensive training to unemployed persons (basic and high e-skills), youth (upgrade skills when required by labour market) and workers who might loose their jobs due to unsuitably e-skilled Provide training and facilitate access to ICT tools to persons with disabilities and others under risk of social exclusion			
Terni	Challenge. 1: need to promote synergic policies with the Region Umbria(MA of ERDF/ESF)to develop activities foreseen in the	Terni is implementing a Strategic Plan (2012-2020) involving citizens,business and various stakeholders in order to share a vision and future	While the effectiveness of action should be guided also by a steady statistical analysis of the labour market and by a steady monitoring of the effectiveness of the tools	City Council of Terni (Department for Economic Development, Department for Innovative Services and ICT, Department of Culture and Office for EU	The ICT Division is partner in an approved Interregivc (E-coop) focused aimed at establishing new a intermediation role and ICT web 2.0 services to	With the E4C project Terni would like: -To share and get some learning in the frame of e-Skills and in the in field of wide participation already

	What are the problems and challenges faced by the partner city in relation to selected the topic?	What are the policies and concrete actions developed by the Partner city so far in relation to these problems and challenges?	What could be the scope of the LAP to be developed within the framework of the network?	Who will be involved in the ULSG?	What is the experience of the partner city in terms of working through transnational exchange in relation to the selected topic?	What is the potential contribution of partner city to the network activities and what does the partner expect from the network?
	OP/ESF, primary aimed at enabling&upgrading e-skills linked to initiatives promoted in the past programming period. Chall.2:To shift to online services provided by public administrations. Upgrade existing ICT profiles already trained in the frame of past initiatives (OP ESF, National funding). Chall.3: To implement effective policies and suitable infrastructure in order to create new job opportunities in territorial marketing related to the relevant existing industrial heritage, combining environ&culture aspects.	goals using, inter alia e-Democracy/Crowdsourcing services to build up on a wider consensus. Terni took part to the elaboration of a wide e-Gov Regional Communication Plan. It has also largely invested in the promotion and realisation of e-Gov services to favour large, diffused and quality access to the net. Among the preconditions are large investments on ICT regional wide infrastructure (broad band, optic fiber grids -to reach rural areas-, WI-FI - esp. free access via public hotspots - and tele-centres)where Terni has solidly contributed.	used, so that the development and implementation of a functional structural model related to data collection would be more confident with the actions carried forward , and ensuring ,at the same time, the opportunity of introducing revisions on the going on process, this , in time, could be our achievement and assumption of interest for the future development: Construction of a local businesses network and an internet site, with advanced sharing tools capable to ensure mobility and facilitated an exchange of workers between firms in the ICT sector. This action is advocated in order to properly manage a very flexible labour market and linked the logic of the project; Implementation of innovative training tools capable to reach widely	funding opportunities and international cooperation). Province of Terni Region Umbria ASPASIEL LUG ARCI NA Terni SISTEMATICA CENTRALCOM ECNP - European Centre for Nano Technologies USI – Umbria Innovative Services Chamber of Commerce of the province of Terni	citizens on the part of European Public Authorities. The ICT Div. of the Council and the Council itself has not so far taken part or promoted any EU project in the specific field of ICT, although ICT was a transversal topic usually informing past and recently admitted projects (see the list) in terms of added-value and innovation. As concern specifically e-skills in the frame of EU (OP ESF), national and regional funds the Council, through its Multimedia Library, has a wide portfolio of initiatives focused on users' education, personnel e-training, life long learning. Some courses are aimed at kids and adults with dyslexia or related problems and make use of advanced ICT technologies.	implemented using e-Democracy, Crowd-Sourcing. -To innovate local policies through the adoption of new e-skills and thus jobs (ex. tele-work); - To promote new innovative initiatives with an impact on sustainable urban policies.

	What are the problems and challenges faced by the partner city in relation to selected the topic?	What are the policies and concrete actions developed by the Partner city so far in relation to these problems and challenges?	What could be the scope of the LAP to be developed within the framework of the network?	Who will be involved in the ULSG?	What is the experience of the partner city in terms of working through transnational exchange in relation to the selected topic?	What is the potential contribution of partner city to the network activities and what does the partner expect from the network?
			territory and citizenship. Format of skills training, based on the target to be reached (the elderly, children, unemployed, training for the employed) due to the exploitation of distance learning, computer based training and e-learning combined with frontal specialized seminars Analysis of the results designed by algorithms assessment and selection, focus of personal profiles based upon the grade of learning achieved

Involvement of local companies specialized in training courses, aimed at creating professionals needed for the firms. The pre-qualification to get into the selection process for these courses (along with other "classic" components) may be based in part about attitudes shown in the FAD (above); Strengthening of ICT services provided by | | | |

	What are the problems and challenges faced by the partner city in relation to selected the topic?	What are the policies and concrete actions developed by the Partner city so far in relation to these problems and challenges?	What could be the scope of the LAP to be developed within the framework of the network?	Who will be involved in the ULSG?	What is the experience of the partner city in terms of working through transnational exchange in relation to the selected topic?	What is the potential contribution of partner city to the network activities and what does the partner expect from the network?
			government bodies as a driver of computer literacy			
Sunderland	. high levels of digital exclusion across specific age groups and geographies of the city; . low levels of access to community ICT facilities in specific areas; . relatively high levels of worklessness, youth unemployment and multiple deprivation in specific areas of the city (income deprivation, child poverty, poor health, financial exclusion) . a skills mismatch between the demands of employers and the supply of an appropriately skilled workforce	Sunderland City Council and its partners have developed a number of policies and initiatives to tackle these challenges. These include: - Digital Manifesto - Supporting Race Online - Corporate Improvement Programme - Community IT initiatives) - Sunderland Economic Masterplan – the city's 15 year economic strategy, which includes the aim of 'creating an inclusive city for all ages' - Sunderland Strategy, 2012-2025 - - Working Neighbourhood Strategy, 2009-	. Exploit the opportunity being delivered through the cloud service platform and superfast connectivity . Town Centre regeneration and revitalization linked to incentivisation and rewards programme (loyalty schemes etc) . Visualisation of data to assist with policy planning and tracking . Continued development of Sunderland Software City through partnership with University and BIC hatchery and incubator programmes. . E Portoflios – building capacity to support skills development in the community . Benchmarking and effective use of data on a common platform . Reverse trend of ICT professional through improved curriculum development	-City of Sunderland -Sunderland Partnership -Voluntary and Community Action Sunderland -Economic Leadership Board -University of Sunderland - Software City -Cisco, IBM, MTC (partnership has been developed with private sector in the past) -BT (Learn Anytime platform and Next Generation Access Provider),	Sunderland has been an active member of EUROCITIES since 2009, and is currently Vice-Chair of the EUROCITIES E-Inclusion group. Together with our local partners we have considerable experience of transnational working in e-skills and ICT promotion. Initiatives include: . Sunderland Software City business exchange programmes and trade missions) . Supporting Sunderland based firms to network overseas through our Harbin (China) and Washington DC (USA) Technology Transfer and friendship agreements . Membership of the European Network of Living Labs – we are currently exploring the role of the Living Labs as innovation engines (e.g.	. Experiment with job-search support through online communities . Develop use of personal information management system and digital identity management for CV validation . Develop market enablers – learning tools/content cloud platform brokerage services . Develop monitoring and tracking systems – Hanlon . Develop employee discount and reward solutions . Develop and contribute a rich source of case study materials – e-skills and employability, beacon awards etc. . Community capacity development - supporting communities to support individuals . Sunderland can share 'best practice' examples of effective partnership

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	What are the problems and challenges faced by the partner city in relation to selected the topic?	What are the policies and concrete actions developed by the Partner city so far in relation to these problems and challenges?	What could be the scope of the LAP to be developed within the framework of the network?	Who will be involved in the ULSG?	What is the experience of the partner city in terms of working through transnational exchange in relation to the selected topic?	What is the potential contribution of partner city to the network activities and what does the partner expect from the network?
		2011 - this created a extensive network of specialist employability organizations, bringing a wide range of support to 'hard to help' people, to help them move closer to and into sustainable employment. All activity was held on a single management information system (the Hanlon System), which gave an in-depth overview of performance and enabled assessment of impact from numerous perspectives. - Superfast Broadband coverage from summer 2012 . Cloud infrastructure from 2013	. Rebranding the image of ICT Professional . Improved mobility and linkage to electric vehicle and other sustainable forms of public and shared transport		in the domain of social care) and supporting the co-creation of new service models which can exploit new technologies and infrastructures . European Social Fund transnational innovation project . EQUAL Employability Partnership with Lisbon (Portugal) . Framework 6 project Widening Participation Electronic Signature Processes (WSPES)	working, particularly across employability and skills networks, including the public, private and voluntary sector . Significant expertise could also be provided including a Thematic Expert in ICT and Social Inclusion (e.g. Debbie Ross – advisor to Martha Lane Fox and the Race Online initiative).

ANNEX II Partners Learning Needs

Analysis based on scoring and then mapping the needs and experience of each city. This exercise was undertaken during the meeting held in Ghent as the final event for the preparation of the final application. During the meeting the LE explained to all partners how to fill the tables and score their learning needs, experience and practice. To simplify the exercise the partners were given the opportunity to score only as 1, as 2 and as 3 according to their level on each topic and sub-topic.

Most of partners found difficult to find the difference between the table on "learning needs" and the table on "experience".

The 10 partners sent their replies via e. mail to the LE and some clarifications were requested to avoid contradictions and wrong understandings.

We include a note indicating the partner who is in charge to organize an international event (international exchange experience event or site visit) for each of the E4C topics or sub-topics.

Template used for scoring

Table 1: Scoring Learning Needs, Experience and Practice

Partner City:	
Topic:	

Our Learning Needs	*Score your city on Learning Needs*
We have experience tackling this type of problem **(score = 3)**	
We have some experience to share but a lot to learn **(score = 2)**	
We want to be involved in this project to learn from other parts of Europe **(score = 1)**	
Our Experience	*Score your city on Experience*
Our city has successfully implemented this kind of project but we know we can improve **(score = 3)**	
We have started to address this issue **(score = 2)**	
We do not have much experience in this field **(score = 1)**	
Our Practice	*Score your city on Practice*
We think our practice could be regarded as 'good practice' in European terms **(score = 3)**	
We have a practice but we aren't sure it is so good **(score = 2)**	
We don't have a practice, we want to develop one - this is why we joined this project **(score = 1)**	

Table 2: All Partner Cities Needs, Experience and Practice

Topic 1: *Tackle digital illiteracy by promoting the use and access to municipal e-government policies and services*			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	2	2	2
Agueda	2	2	1
Alba Iulia (Organizer International Event)	2	2	2
Aradippou	1	2	1
Ghent (Digiplois)	3	3	3
Kielce	3	2	2
Palermo	1	2	2
Terni	3	3	2
Patras, Municipal Enterprise Planning & Development (MEPD)	1	2	2
Sunderland	3	3	3

Topic 2: *Promote access to e-skills to young persons and unemployed people*			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	3	3	3
Agueda	2	2	1
Alba Iulia	1	1	1
Aradippou	2	1	1

Topic 2: *Promote access to e-skills to young persons and unemployed people*			
Partner city	**Learning needs**	**Experience**	**Practice**
Ghent (Digiplois)	2	2	2
Kielce (Organizer International Event)	3	3	3
Palermo	2	2	2
Terni	1	1	1
Patras - MEPD	2	2	2
Sunderland	3	3	3

Topic 3: *Innovative methodologies to train Municipal staff on e-skills and ICT use*			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	2	2	2
Agueda	2	2	1
Alba Iulia	2	2	2
Aradippou	3	2	2
Ghent (Digiplois)	2	2	2
Kielce	2	3	2
Palermo (Organizer International Event)	3	3	3
Terni	2	2	2

Topic 3: *Innovative methodologies to train Municipal staff on e-skills and ICT use*			
Partner city	**Learning needs**	**Experience**	**Practice**
Patras- MEPD	3	3	3
Sunderland	2	3	2

Topic 4: *Innovative cooperation projects with other partners*			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	2	2	2
Agueda (Organizer International Event)	3	3	3
Alba Iulia	2	2	2
Aradippou	2	2	1
Ghent (Digiplois)	2	3	3
Kielce	1	2	1
Palermo	1	1	1
Terni	1	1	1
Patras - MEPD	1	1	1
Sunderland	3	3	2

Topic 5: *Promote e-business skills with focus on relevant economic sectors at local level*			
Partner city	**Learning needs**	**Experience**	**Practice**

Topic 5: *Promote e-business skills with focus on relevant economic sectors at local level*			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local (Organizer International Event)	2	2	2
Agueda	3	3	2
Alba Iulia	1	1	1
Aradippou	2	3	2
Ghent (Digiplois)	1	1	1
Kielce	1	1	1
Palermo	1	1	1
Terni	1	1	1
Patras - MEPD	1	1	1
Sunderland	2	2	2

Sub-Topic 1: Cloud computing			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	1	1	1
Agueda	2	2	1
Alba Iulia	1	1	1
Aradippou	1	1	1

Sub-Topic 1: Cloud computing			
Partner city	**Learning needs**	**Experience**	**Practice**
Ghent (Digiplois)	1	1	1
Kielce	1	1	1
Palermo	2	2	2
Terni	1	1	1
Patras - MEPD	2	2	2
Sunderland (Organizer International Event)	2	2	2

Sub-Topic 2: tele-centres			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	3	3	3
Agueda	2	2	2
Alba Iulia	1	1	1
Aradippou	2	1	1
Ghent (Digiplois)	3	3	3
Kielce	2	2	2
Palermo	1	2	2
Terni	2	2	2

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Partner city			
Patras - MEPD	1	2	2
Sunderland (Organizer International Event)	3	3	3

Sub-Topic 3: Smart city/citizen			
Partner city	Learning needs	Experience	Practice
Lead Partner: Red Local	2	2	1
Agueda	2	2	1
Alba Iulia	2	2	2
Aradippou	1	1	1
Ghent (Digiplois). (Organizer International Event)	3	3	3
Kielce	2	2	1
Palermo	2	2	2
Terni	1	1	1
Patras - MEPD	2	2	2
Sunderland	2	2	2

Sub-Topic 4: Open municipal data			
Partner city	Learning needs	Experience	Practice

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Sub-Topic 4: Open municipal data			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	2	2	2
Agueda	3	3	2
Alba Iulia	2	2	2
Aradippou	3	2	1
Ghent (Digiplois). (Organizer International Event)	3	3	3
Kielce	1	2	2
Palermo	1	2	2
Terni	1	1	1
Patras - MEPD	1	2	2
Sunderland	2	2	2

Sub-Topic 5: Digital schools			
Partner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	2	2	1
Agueda	2	3	1
Alba Iulia	1	1	1
Aradippou	3	3	2

Ghent (Digiplois)	1	1	1
Kielce	1	1	1
Palermo	1	2	2
Terni	1	1	1
Patras - MEPD	1	2	2
Sunderland	2	3	2

Sub-Topic 6: ICT and green city-jobs			
Partner city	Learning needs	Experience	Practice
Lead Partner: Red Local	2	2	2
Agueda	1	2	1
Alba Iulia	1	1	1
Aradippou	1	1	1
Ghent (Digiplois)	1	1	1
Kielce	1	1	1
Palermo	1	2	2
Terni	1	1	1
Patras - MEPD	1	2	2
Sunderland	2	2	2

Sub-Topic 7: Monitoring indicators			
Patner city	**Learning needs**	**Experience**	**Practice**
Lead Partner: Red Local	2	2	1
Agueda	2	2	1
Alba Iulia	1	1	1
Aradippou	1	1	1
Ghent (Digiplois)	3	3	3
Kielce	1	1	2
Palermo	1	2	2
Terni	1	1	1
Patras - MEPD	1	2	2
Sunderland	2	2	2

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