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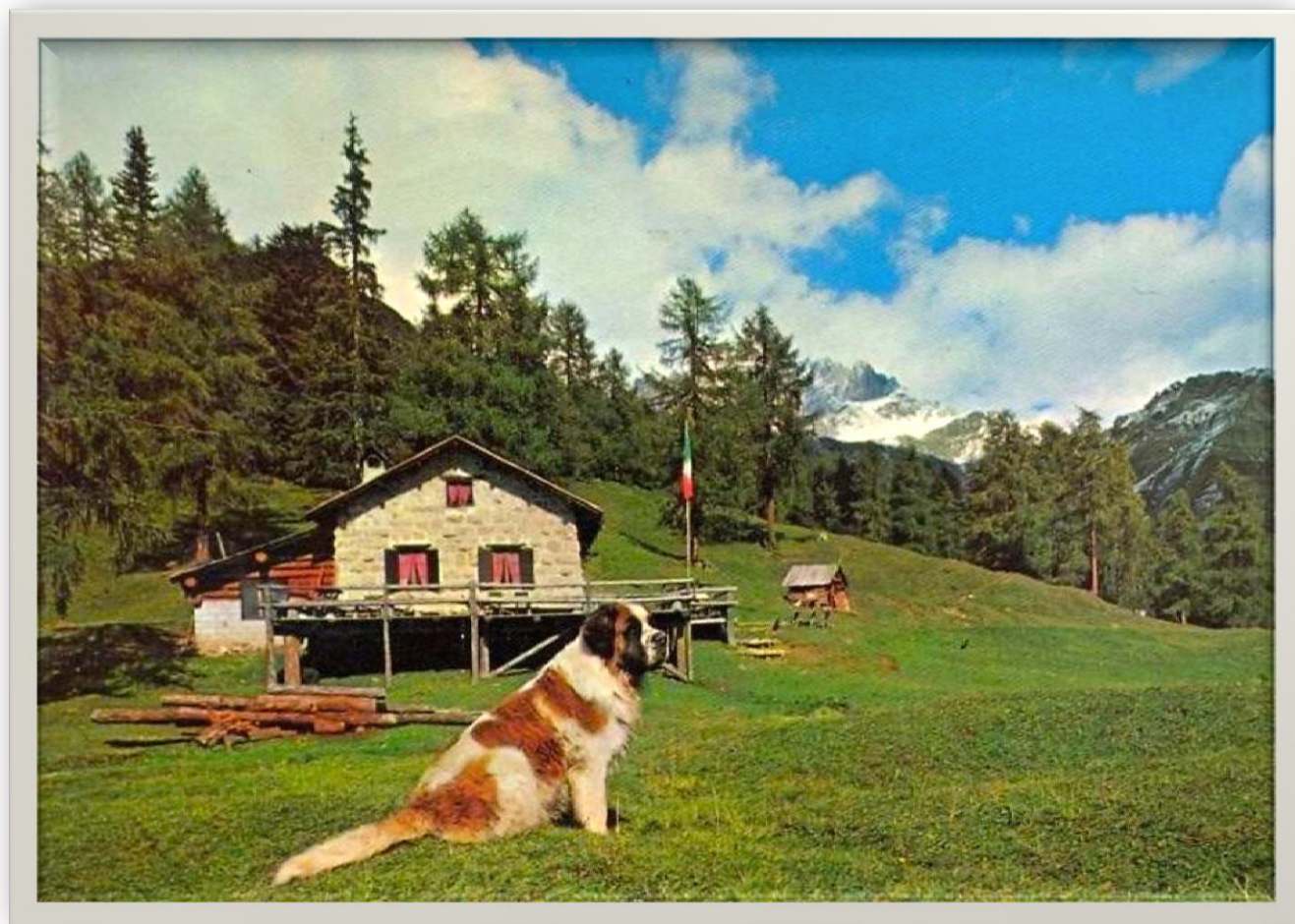


MINISTERO DELL'AMBIENTE  
E DELLA TUTELA DEL TERRITORIO E DEL MARE

THE ALPINE  
CONVENTION  
IS THE FIRST  
INTERNATIONAL  
TREATY FOR  
THE PROTECTION  
AND PROMOTION  
OF THE SUSTAINABLE  
DEVELOPMENT  
OF A CROSS-BORDER  
MOUNTAINOUS  
REGION

italian presidency 2013-2014  
alpine convention

## The Alpine Digital Agenda



ALPINE CONVENTION

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## INTRODUCTION

Italy bears a significant delay in the digital technologies': 92% of broadband connections from the fixed network has a speed of less than 10 Mbps, compared to 69 % in Germany, 46% in Spain, 39 % in France and 28 % in the United Kingdom.

To remedy the obstacles to the Alpine region full development, a greater awareness of social and economic dynamics by all players is necessary, and a clear vision of what is the address that you want to give to the development of the macro region.

The European Commission has started the EU Cohesion Policy for the period 2014-2020 conscious that it "must now become a driving force for growth and competitiveness" in this sense, it's necessary to answer to common challenges with an integrated approach to local development participatory, facilitating the development of local development strategies aimed at encouraging partnerships and governance at multiple levels. This policy is particularly careful to reward regions that define priorities effectively and achieve the best results in the pursuit of their goals and targets of the Europe 2020 Strategy.

In order to concerted a common strategy for the Alpine macro-region, the representatives of States and Regions showed, during a meeting in Grenoble on October 18, 2013, with a political resolution, the desire to give a mandate to the European Commission to start the process of developing a EU Strategy for the Alpine Region. The Brussels European Council, of the 19-20 December 2013, formalized the mandate, recognizing the validity of the proposed macro-regional strategy put forward by the Alpine regions in the 2011, and give, as the deadline for the submission of the strategy by the Commission, June 2015.

It is necessary, in order to reduce the disparities between European Regions emphasized by the uniqueness of the Alpine area for its natural and demographic characteristics, to focus the effort to promote a consolidation of the territorial cohesion and the transnational cooperation that already has a long tradition in this area.

It seem to be expedient to going on the path of the result achieved by the many projects carried out in this region, thanks to the support of several programs (Alpine Space Interreg , etc.) and to focus concerted strategies to encourage the development of the macro - Alpine region in a smart, sustainable and inclusive way.

With the proposal of an Alpine Digital Agenda, it is intended to achieve the objectives of the European Digital Agenda, with an approach that encourages the harmonious development of the Alpine region by increasing macro competitiveness and social inclusion, valuing the diversity and the excellence of this territory.

**Tabella 1 Il Digital Divide in Italia**

|   |             |
|---|-------------|
| <b>Digital divide assoluto</b>                                    | <b>4,8</b>  |
| <b>Digital divide da rete fissa</b>                               | <b>10,0</b> |
| <b>Assenza di ADSL</b>  | <b>4,5</b>  |
| <b>Connessione inferiore a 2 Mbps</b>                             | <b>3,7</b>  |
| <b>Connessione reale inferiore a 2 Mbps per problemi di linea</b> | <b>2,0</b>  |
| <b>Accesso solo tramite banda larga mobile</b>                    | <b>5,2</b>  |

Fonte: Ministero dello Sviluppo Economico, 2012

## European Digital Agenda

The European Digital Agenda was presented by the European Commission in May 2010, and signed by all the Member States who are committed themselves to its implementation. The agenda identifies 101 individual actions divided into 7 main pillars on which to base the development. The basic concepts, however, can be summarized as follows: innovation, competitiveness and inclusion. The idea is that with a greater spread and more effective use of digital technologies, Europe can stimulate employment and address the main challenges which it is called, offering its citizens a better quality of life, for example by providing a better health service, safer and more efficient transportation, cleaner environment, new media opportunities and easier access to public services and cultural content.

## Switzerland

In Switzerland, government and private partners<sup>1</sup> identified specific actions with the aim of bringing this country within the five world digital economies. The actions can be summarized in seven points:

1. Digital identity: Citizens and legal entities should acquire a digital identity in order to be recognizable in the virtual reality and to access to specific services
2. Broad-band: the connection has to be guaranteed to every citizen and it has to be monitored in order to provide a minimum and a maximum band limit.
3. Mobile data network: currently the quality of the network is very high in the entire country, but it is necessary to support new generation mobile data networks through political and legal actions in order to provide high quality services.
4. E-Health and e-Government: a new mid/long-term plan has to be prepared in order to standardize interfaces and services for all the population.
5. Energy and transport: Optimization of energy usage and transport management passes through a modern and efficient ICT structure which has to be promoted.
6. Education: to face the need of new and specialized technician in the ICT field, actions to promote high level and specialized education has to be supported, starting from the schools.
7. Cyber-criminals: the threat of cyber-criminalities is dramatically increasing worldwide. Actions in the direction of contrasting illegal activities provide high standard of security and trust at all levels.

Currently, Switzerland is one of the European countries with the highest network coverage and it can be easily affirmed that most of the population is connected. The objectives for the next years are to strengthen the mobile network and to promote political actions in order to acquire the state of the art technologies in the ICT field.

On this aspect the Swiss government identified in science, education, research and development the four aspects necessary to increase the competitiveness of the country<sup>2</sup>. Investment in those four factors brings as direct effect an increase of the employment in the ICT sector; as indirect effect an increase of the productivity, efficiency and efficacy; as inducted effect an innovation in the ICT processes. For these reason the Swiss government is proposing several actions in the direction of a modern and innovative ICT structures.

## Liechtenstein

Liechtenstein is an important center for financial and economical activities. In this direction the necessity of a digital innovation is very supported by the government. Based on the European Digital Agenda, the first actions in the direction of a new concept of e-Government, e-Health and a full coverage with a broad band network are considered with high priority. More in general, a new digital agenda can be seen as an opportunity to strengthen the current infrastructure and to bring the country to increase the level of technological competitiveness.

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<sup>1</sup> Economiesuisse, [http://www.economiesuisse.ch/it/PDF%20Download%20Files/MM\\_Agenda\\_digitale\\_2020.pdf](http://www.economiesuisse.ch/it/PDF%20Download%20Files/MM_Agenda_digitale_2020.pdf)

<sup>2</sup> HORIZON 2020 - Position of Switzerland - State Secretariat for Education and Research (SER) ref:835-08 D1. March 2012

## Monaco

The necessity of high level of competitiveness, the orography of the territory and the presence of relevant economical activities, are the basis of new actions in the direction of modern network for digital connections both ground and mobile. The necessity of providing digital services for the public administration and the health services are considered actions with very high priority with the final aim of bringing Monaco at the highest levels of European ICT economy.

## Austria

Austria fixed broadband covered 99% of homes, in rural areas covered the 95%. The Austrian Federal Minister for Transport, Innovation and Technology - Doris Bures - thinks that ultra-wideband networks are essential to accelerate economic development, social and cultural development of the country.

Access to modern forms of communication, internet-based, has a crucial role in the participation in social, cultural and political life that is at the center of the program of the Austrian Government, which bypasses the intermediate target of ensuring the connectivity service to all citizens to at least 30 mbps, going directly to the second objective, that of the 100 mbps.

Austrian mobile broadband penetration is 40.1%. In 2011, 76% of the population use the internet regularly above the EU average of 68%. 18% of citizens have never used the internet. Take-up of eCommerce is slightly above average, with 44% of the population buying online. In 2012 41% of businesses purchased online, and 11% sold online. The take-up of online public services for citizens in Austria has stalled at 51%. On the converse usage of eGovernment services by enterprises greatly increases from 75% to 93%. The share of ICT in total BERD is at just above 10%, and public support for ICT R&D was around 11% of total public funding for R&D<sup>3</sup>.

Finally, Meral Akin-Hecke, the Austrian Digital Champion, reported that he will focus on three areas in 2014: education (digikomp.at, saferinternet.at, open education conferences); inclusion (internetfueralle.at, life-long learning, digitalks.at) and employability (youth employment, austrianstartups.com and CodeWeek.eu). She mentioned several on-going projects as well as the launch of new ones<sup>4</sup>.

## Germany

Germany is well on track in the implementation of the European Digital Agenda. The Digital Single Market Pillar has been completed and Germany has also completed Action 74, regarding including specifications for total lifetime costs for public lighting in public procurement, something a lot of countries have not done. In January 2012, the penetration rate of fixed broadband is 33.3% of the population, which is above the EU average of 27.7%. Both its penetration level and penetration growth rate are above EU average. Germany has 31.2% of fixed lines providing speeds of 10 Mbps and above. With regards to high and ultra fast speeds, 7.8% of lines provide speeds between 30Mbps and below 100Mbps and 0.4% of fixed lines provide speeds equal or above 100 Mbps. More than half of broadband lines in Germany are in the range of 2Mbps and below 10Mbps (56.7%). Mobile broadband penetration is 35%. In 2011 77% of the population use the internet regularly above the EU average of 68%. With regards to disadvantaged people, the rate was 62%. 16% of citizens have never used the internet. Take-up of eCommerce is high, with 64% of the population buying online. Half

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<sup>3</sup> <http://ec.europa.eu/digital-agenda/en/scoreboard>

<sup>4</sup> Minutes of the Digital Champions Expert Group meeting held in Brussels, 25-26 November 201



of the population uses online public services in 2011. Take-up of online public services by businesses has increased substantially.

The most updated document from the Federal Ministry Of Economics and Technology is the "ICT Strategy of the German Federal Government: Digital Germany 2015"<sup>5</sup> in which the main actions for a national digital agenda are described. At local level, the Bavarian State is working on a regional digital agenda with relevant implication for the mountain areas.<sup>6</sup>

## France

France has launched "The stratégie du Gouvernement pour le numérique" in order to implement the Digital Agenda, aware of the need to ensure full coverage of the territory with broadband to ensure that everyone has access to the opportunities offered by digital technologies.

This country has a diffused fixed broadband network that cover above the 99% of the home basically with DSL technologies and as many third generation mobile broadband (HDSL) that reach also above the 99% of the population but is still at the 5% for the 4th generation (LTE). For this reason, France can boast the third place in the European Union, in terms of broadband penetration level (35%) and second in terms of penetration growth. Most broadband lines in France are in the speed range of 10Mbps and below 30Mbps (58%). It was made possible with dedicated national funding for broadband roll-out as well as legislation supportive measures. In the matter of digital penetration in the relations between the Government and citizens can assert that the percentage of eGovernment users among the citizens has remained stable at 57%. But The percentage of eGovernment users among firms has increased substantially from 78% in 2010 to 92 in 2011<sup>7</sup>. The three priority areas of intervention:

1. Make the digital economy a chance for young people;
- 2 Improving the competitiveness of enterprises through to digital;
- 3 Promote French values in society and digital economy.

Take-up of eCommerce is high, with 53% of the population buying online. And 20% of businesses purchased online. Furthermore, in order to improve the dynamism of the digital economy, the Government have studied new structures and innovative public services, such as "Quartiers Numériques", modeled on the U.S. Cluster, to amplify the positive effects of geographical concentration.

In recent years, the government promoted the use of innovative teaching practices to ensure that the digital would become a pillar of the pedagogical revolution in action now in the country. In this perspective, have been imagined the "collèges connectés ", pilot projects of digital learning, aiming to integrate digital technologies in teaching through specific technical and educational support for teachers , relying on targeted investments, making it possible to strengthen skills, and to supply jobs for the digital compart. Another interesting implementation of the digital agenda is The "Espace Numérique Public"; that represent an excellent opportunity to increase social inclusion and promote a

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<sup>5</sup> <http://www.bmwi.de/English/Redaktion/Pdf/ict-strategy-digital-germany-2015,property=pdf,bereich=bmwi,sprache=en,rwb=true.pdf>

<sup>6</sup> <http://www.stmwi.bayern.de/en/media/digital-bavaria/>

<sup>7</sup> <http://ec.europa.eu/digital-agenda/en/scoreboard>



smart local development; ENP configured as open and accessible to all places where you can test and deploy applications, services and technologies related to digital production.

In 2013, the Digital Champion Gilles Babinet reported that he is pushing to have a national MOOC strategy and will continue to work on coding for kids with the Finnish DC. He is working with mayors to use the web as a tool for online democracy. He is also aims to establish a national digital think-tank in 2014<sup>8</sup>.

## Slovenia

Slovenia has a less diffused fixed broadband network that cover above the 73% of the home but it be able for the 65% to provide Next Generation Access (30 Mbps), and on the mobile side the third generation mobile broadband (HDSL) reach above the 96% of the population meanwhile the 4th generation (LTE) is above the 12%

In January 2012, the penetration rate of fixed broadband is 24.6% of the population below the EU average of 27.7%. Slovenia has 38% of fixed lines providing speeds of 10 Mbps and above. With regards to high and ultra fast speeds, only 2.4% of lines provide speeds between 30Mbps and below 100Mbps and 1.6% of fixed lines provide speeds equal or above 100 Mbps. Mobile broadband penetration is 29.1%. In 2011 64% of the population use the internet regularly below the EU average of 68%. With regards to disadvantaged people, the rate was 36%. 29% of citizens have never used the internet. Take-up of eCommerce is below average, with 31% of the population buying online. Citizens' take-up of eGovernment services is at 46% in 2011. Take-up for businesses is 93%, among the highest in the EU27 and approaching saturation. In 2009, business expenditure on R&D (BERD) in the ICT sectors amounted to 49 mio €. The share of ICT in total BERD is low, at just above 10%<sup>9</sup>.

Aleš Špetič<sup>6</sup>, the national Digital Champion, reported that he wants to maintain the priority to increase the digital literacy of the elderly and wants to establish a systematic approach to bring them into the digital world. He is also advocating that digital should become an economic statistical category.

## Italian Digital Agenda

Italy, in the last three years has developed its own strategy for implementation of the Digital Agenda, identifying priorities and modalities of intervention. The Italian strategy is, like that of Europe, long-term (up to 2020) but arises interim targets in the short term: the Development Decree Bis or DigItalia - approved by Decree Law 18.10.2012, n. 179 and converted with the Law 17.12.2012 n. 221 (G.U. 18.12.2012) - contains a series of measures to simplify procedures using digital solutions and incentive mechanisms for the development of the digital economy. In particular, it presents rules for the development of broadband infrastructure, both fixed and mobile, tax relief measures and encouragement of the e-commerce, obligations of virtualization, in the cloud computing logic, of content and services for the public administration, as well as setting management solutions of open data in view of total transparency, incentives for smart communities for the creation of virtual spaces where stimulate shared solutions, extension of the obligations of respect of accessibility requirements of digital products, standards of research promotion both private and public and energy saving measures.

For the coordination of the policies previously described, the "Agency for Digital Italy" (AgID) was established, directed by Ing. Agostino Ragosa, and, in the following months, the Italian Digital Champion, Francesco Caio, has been

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<sup>8</sup> Minutes of the Digital Champions Expert Group meeting held in Brussels, 25-26 November 201

<sup>9</sup> <http://ec.europa.eu/digital-agenda/en/scoreboard>

identified by Gianni Letta, the Council President. The Digital Champion has identified, within of the shares to be done to reduce the digital divide, three enablers points: digital identity, the registry of residents and the electronic invoicing. These points, according to the Digital Champion, are the necessary basis to address the other critical issues related to the digital divide and already highlighted in the Italian Digital Agenda.

### **The Alpine Digital Agenda**

In the alpine context and of the member states of the Alpine Convention: Austria, France, Germany, Italy and Liechtenstein, Principality Of Monaco, Slovenia and Switzerland it is necessary to identify a set of common points for the Digital Agenda that, starting from the individual states' diaries, highlights the needs and peculiarities of the Alpine environment.

In particular, in the Alps, there are a number of limiting factors: such as the absence or lack of access to the Internet, the lack of usability and accessibility of products and services, the inadequate computer literacy, etc.. The Alpine Digital Agenda aims to define main obstacles that undermine efforts to take advantage of ICT and wants to indicate a possible unified strategy across the Alps to overcome them identifying several detailed action areas and a guide to good practice. By analyzing the different national experiences on the Digital Agenda it is clear that in the Alpine area we need to focus on two aspects: Competitiveness and Social Inclusion. The first is pursued by developing the Broadband and associated infrastructure and encouraging the development of innovative Start-up, related to electronic commerce of local products and the improvement of tourist accommodation. The second should be based on the implementation of measures to digitize the School, the Health and Public Administration.

The common denominator of these two actions is to encourage settlements and slow down emigrations toward the valleys and cities.

By breaking down the digital divide can create the conditions to keep the young population in the mountains and create socio/economical Hub in which you have a high quality of life and an adequate entrepreneurial and professional opportunity.

## Transport infrastructure and service delivery for the ADA

Improving access, use and quality of ICT helps to develop an favorable environment for business innovation, social inclusion and efficiency of public administration, valorization and protection of environmental heritage.

The UE, in the context of the Digital Agenda, puts the total coverage by 2020 to 30 Mbps between the objectives for the development of telecommunications infrastructure, and always for the year 2020 achieving 50% of the population to 100Mbps. The objectives should be evaluated also according to the plans of the network operators.

In the territorially diminish the goals and missions of the European Digital Agenda, given the uniqueness of the Alpine context, the regions are fundamental to plan common strategies transversely and co-design innovative solutions and interoperable tools that effectively address the needs that arise locally and enable to benefit from the contribution of new technologies for smart, inclusive and sustainable. The digital growth of macro-region is mainly prevented by the difficulty of broadband connections due to the geo-morphological conformation of the territory and limited economic interest of providers, the telecommunications companies that provide the services.

These factors result in the inability of the people who live and work in remote areas to benefit adequately of high value-added services available today via the network; to this must be added that the causes of delays to the expansion of digital technologies are not only merely physical obstacles but it is necessary to help strengthen digital skills of the population, including through cross-border initiatives, so that they can benefit fully from the opportunities and services offered.

The current state of the hedge, sees urban areas located in the valley or foothill served with broadband connections provided through optical fiber and mountain communities served by inadequate connections characterized by bottlenecks or none at all.

The definition of the transport infrastructure must begin by identifying the services to be offered to the user in order to make the network adaptive to actual need for connectivity through intelligent management of the band which allows redistribution, and then configure the same as a "new generation network" (NGN).

These infrastructures put in the spotlight the correct operation of applications by users thus valorizing the "user experience" through the use of routing policies that are able to serve users according to the particular needs of the services requested.

The implementation of these capacities still remains tied to the quality of the transport infrastructure that is configured as a focal point of the entire ICT system. The state of art, within the EU, sees as the primary means for connectivity to users the massive use of xDSL technologies based on the multiplexing performed by the DSLAM to provide over copper pair the network data with speeds varying from 2 Mbps to 30 Mbps asynchronous. This decision, came from the cheapness of not having to produce wiring ex novo, allows the reuse of the wiring harness for telephone networks but it can't achieve the transmission capacity expected from the target community. In this context, the Italian situation presents even more critical issues positioning itself in 22nd place (ISTAT data) for broadband access and subsequent use of Internet services by end users.

In particular the statistics reveal that 4.8% of the Italian population is in a state of " basic digital divide" having available connections with average speeds of 2 Mbps. Overcoming this situation can't therefore prescind from a radical change of paradigm that focuses on a substantial revision of all components of the national transmission network through the implementation of a "Backbone" high capacity based on DWDM technology that is then accessible by the user through the use of FTTx technologies that bring the benefits arising from the use of the optical fiber means down to the individual "user" leaving progressively the less efficient xDSL networks<sup>2</sup>.

This solution, however, involves obvious limitations of implementing in mountainous areas where the construction of physical infrastructure (suitable ducts, infrastructure of concentration, etc.) is difficult (if not impossible) from the logistical point of view and certainly expensive from economic point of view.

It is therefore necessary to evaluate different technologies that are better matched to the problem solution in these areas, therefore using type architecture HUB and SPOKE that sees the piedmont areas reached by the high-capacity "Backbone" optic-fiber such as HUB where to concentrate resources Datacenter for the provision of services, and to identify an adequate number of SPOKE to be placed at high altitudes to be connected to HUB through high-capacity wireless technologies (WIMAX, high-capacity Radio Links, satellite technologies DVB-S2, 4G, BuNGee, etc) and compression systems of the traffic (WaaS, etc.) combined with content Delivery Network solutions that bring the requested content closer to the end user and use intelligent routing capabilities (iWan).

The creation of an integrated network, as described, combined with the delivery service based on SOA philosophies (Service Oriented Application) that inherently enhance the capabilities, represent the challenge to reduce the digital divide in alpine areas.

## PART ONE: THE COMPETITIVENESS

The Alpine macro region, a bridge between different economic realities and the heart of innovation<sup>2</sup>, offers high levels of competitiveness compared to European standards and the highest concentration is found in the center of the arc, while the outlying areas are more marginal<sup>3</sup>. In this context, the most significant common trends see a progressive outsourcing and bias towards more attractive urban centers. The impacts of these processes on the territory are remarkable and we must try to mitigate the effects of the economic and social damage caused by phenomena related such the depopulation of remote areas of the arc and the brain drain to give centrality to the whole Alpine region.

The European Cohesion Policy (2014-2020), to reduce the disparities between the various regions of Europe and to give value to transnational cooperation, will invest 325 billion of euro in the Member States and their regions and cities, focusing on increasing the competitiveness and the occupation, through the concentration of resources and following the vocation and innovation potential of the territory.

The approach adopted by the Alpine Space (2007-2013), the European Territorial cooperation programme, is valid and will be implemented again in the next programming. This program focuses towards the needs and requests of the Alpine population; it is oriented towards innovation to encourage the methodologies, tools, and innovative partnerships; it is integrated in order to promote a fruitful collaboration between programs that aim at a fair and sustainable growth of the region.

The impact that digital technology can have in the coming years on the employment front, is such that you have to avoid delays and missed opportunities; in fact, according to estimates published by the Digital Agenda for Europe, if the ADE will be implemented, the need for work in the digital sector in Europe will be 900 thousand jobs and 1.2 million, if the necessary infrastructure will be built and 3.8 million new jobs in the sector in the long term<sup>2</sup>.

An essential condition for the development of the sector remains the unification of the European digital market and the concentration to reduce the infrastructural deficit that could cause competitive disadvantages; it is also necessary to bridge the gap of digital skills (e-skills) followed by a coincident and harmonious evolution of the legislative measures by the Union and the Member States. Compared to the impact on the real economy, the creation of the European Digital Single Market, where digital contents and services can be easily and quickly accessible, would lead to double online business transactions and the percentage of European GDP due to the digital sphere.

To increase the competitiveness it is necessary to coordinate policies for organic support for the development of digital technologies, through strategies, related to the context of application, which encourage the competitiveness of European SMEs and oriented to promote investments in Research & Innovation in the digital market.

Intensifying transnational cooperation and partnerships, between the public and private sectors and between companies, it will be possible invest thus being able to share the risks, knowledge, relationships and benefits. The resources fielded are considerable and diversified, the EIB (European Investment Bank) in the report, 2013, has earmarked 75 billion in financings to increase the competitiveness of companies, growth and employment, 17.2 billion in innovation and skills, 19 in research centers and universities and 856 million to finance innovative SMEs<sup>2</sup>.

The great potentialities expressed by ICTs contribute to the development of shared value, in this context it is appropriate to remove infrastructure obstacles, even in less competitive areas economically, cultivate innovative start-ups, spread the sharing of physical spaces or virtual (innovation hub) , facilitate interoperability and deployment of open data, in order to increase the competitiveness of the region and SMEs; they also would affect the quality of life of the inhabitants, who will enjoy greater efficiency in the PA, thanks simplification, speeding and better quality services to citizens.

The Alps find new strength and vitality thanks to digital technology, in a connected Europe, open and secure, able to initiate virtuous circles, through targeted investments and a greater awareness of the added value resulting from the ICT diffusion, and ready to maximize the economic and social benefits consequences of the knowledge economy.

## **1. E-commerce /Turism/ Local Marketing**

### **1.1 State of the Art**

The Alps, a unique natural heritage for its traditions and cultures, have an integrated tourist offer that can get the maximum performance from land resources, diversifying the range of accommodation choices throughout the year, from sports to culture, from the agri-food typicality to crafts. The continuous increase even in periods of crisis, the attractiveness of the resort accommodation most famous of the territory, is the result of a long-term tourism planning aimed at value the landscape, activities, and culture of a region with a millenary history. Over the years, a local collective identity has been created and it has allowed a greater awareness of their own resources and has laid the foundation for the creation of ad hoc regional marketing campaigns, based on a rationalization of the activities of communication, which has allowed to promote the area, diversify the economy and reduce the fragmentation local tourism offering.

Through the use of territorial brands has been possible to make it easy to identify the land, joining the offer of services and products, ensuring the visibility business operators through a strong and reliable local brand synonymous with quality, expression of the common values of the area and of its typical features. The development of the sector remains heavily influenced by digitization and the ability to promote the area and its beauty on the web, through interactive portals that facilitate the fruition of the resort and the research and the exchange of information and emotions. It is interesting to consider, for the purposes of the report, which according to data released by the e commerce B2C netcomm Observatory of the Polytechnic of Milan, the most important item of e-commerce in Italy is tourism (53%) with a constant growth compared to other Member States; it is clear that the possibilities for growth in the sector are optimistic but it is necessary to overcome the difficulties associated with digitization, especially of tour operators considered that only 9% of the accommodation has a website and only 60% allow online reservations.

Even tourism, therefore, has been revolutionized by the use of computers with the introduction of new services that allow the collection of information on your chosen destination, the management of the reservation and the payment for the stay by debit and credit card. The use of alternative payments, in fact, allows for greater freedom in the improvement of own purchases, transparency and security against theft and robbery.

To continue the work of digitization of the industry, the Digital Registry of tourist facilities, the result of an agreement between Digital Agenda, EXPO 2015 and ENIT (National Agency for Tourism), aims to ensure better access and interoperability, and it is essential to overcome the fragmentation of the tourism offer, while also allowing to small operators to have greater visibility and ensure high levels of competitiveness. A greater use of new information technologies in alpine areas would improve and make more effective and efficient management of accommodation facilities and safer the hiking activity at high altitude.

In the high mountains is not easy to connect to internet with traditional systems: hence the importance of broadband connection, which allows to mountain huts to connect to the network even in the more remote and isolated areas thanks to satellite dishes. The overall objective is still identified with the improvement of the life quality of people living in the Alps and the sustainable development of its territorial economic systems.

## 1.2 Issues

The unavailability of broadband connections implies a disadvantage for many business operators for whom opportunity to take advantage of the services arising from the modern technologies is a key factor in promoting of their economic and trade actions. The use of such technologies is a source of wealth for those who can use them and in the same way cause of greater inequality for those who can't benefit.

The identified issues relate in particular to the lack of an internet capillary connection that also reaches the small mountain agglomerates and that can allow users, therefore, to use the line, not necessarily broadband, to offer their services to stay overnight, restoration and sale of local products. In the mountain huts, in fact, the only availability of an Internet connection, even not with broadband, it would be sufficient to provide a range of basic services to improve the services supply to customers.

| ISSUES                                  | SOLUTIONS   |
|---|---|
| Not capillary internet connection       | Uniform and widespread coverage of the Alpine region including shelters at high altitude                          |
| Escape to the city for business reasons | Broadband internet connection to create new business and professional activity                                    |
| Lack of knowledge about territory       | Deepening of the knowledge of the land, flora and fauna and biodiversity through interactive multimedia services. |

The lack of an efficient system of internet connection, furthermore, results in a significant decrease in job opportunities (telecommuting) that would allow stem the outflow of that segment of the population that moves from their places of residence, of course, for business reasons: the opportunity to enjoy to a fast and constant connection would allow, in addition to other services, if necessary, to extend the residence time over the weekend, and to develop new (or old) work activities that require first and foremost the functionality of the network.



### 1.3 Solutions

The internet coverage of the Alpine area is in fact still inhomogeneous and lacks an extensive presence, the ADA puts the increased accessibility to the network as an essential condition for local development and to increase the competitiveness and social inclusion. It is necessary give homogeneity to the project of Digital Registry of tourist facilities which is configured as a virtual catalog in which operators can describe your own business and put off to their site, in this way they will compete more adequately diversifying promotion channels, and so going to benefit from new market share.

It is also necessary to continue with the construction of touristic platforms online that guarantee to shorten the supply chain and enjoy a pleasant experience of fruition, of information and services before, during and after the trip, through the use of newsletters, emails and promotional coupons , benefiting from the visibility offered by social networks.

The use of computing technology solutions, represents an added value to the development of interactive itineraries offered to the tourists and the local population, such as the deepening of the territory knowledge, its protection and conservation, as well as the possibility to obtain general information concerning the activities related to sustainable tourism.

## 2. Innovative Start up

### 2.1 State of the Art

Legislation relating to innovative Startup took shape from the work conducted in 2012 by the Task Force instituted by the Ministry of Economic Development, which in the final report "Restart Italy!" tried to propose a prescription adapted to the Italian context to facilitate the creation and their long-term growth through a bureaucratic and administrative simplification and a reduction of the tax burden.

The Law Decree 179/2012, "Further urgent measures for the country's growth," introduces a regulatory framework and the establishment of a new section in the Register of Companies for the creation and development of "innovative" startup, companies who develop, produce and market innovative products and services with high technological value.

In order to encourage a favorable climate to the creation of innovative startups the certificates business incubators have been set up and they are dedicated structures to support the development of such enterprises, thanks to an adequate work space in which to grow through the sharing of information, experience and skills, as well as the introduction of new financial instruments such as crowdfunding, which is outlined as a way to diffuse collection of capital through online platforms that provides to a large number of funders the opportunity to participate.

With the changes made by the Labor Decree 76/2013, some limits set by DL179/2012 have been eliminated, going to consolidate the discipline and expand access to the subsidized regime provided through a variation of the requirements and criteria for the creation of an innovative start-up.

A further step to confirm the centrality of innovative start-ups in the plan for economic and employment recovery in the country, is represented by the Decree 34/2014 which provides innovations for investments in innovative startup, giving tax incentives.

The legislation introduced by DL179/2012, aims to promote innovation and to give centrality to entrepreneurship in order to increase employment, competitiveness and attractiveness for investment.

The evolution of discipline on innovative start-ups gave a strong impetus to broaden the horizons of many realities operating in the Alpine region, which invest for years in the knowledge economy and aim to ensure an attractive and conducive ecosystem to the creation and development of innovative activities.

In this direction is placed TRENTO RISE<sup>10</sup>, a center of excellence and higher education in ICT research, which promotes synergies and projects which would be a new stimulus for economic development and, at the same time, to improve the life quality. One of the most interesting programs undertaken by Trento Rise for the diffusion of an innovative entrepreneurship is TechPeaks, start-upper accelerator; it is an incubator of creative and talented entrepreneurs with an idea to develop<sup>4</sup>.

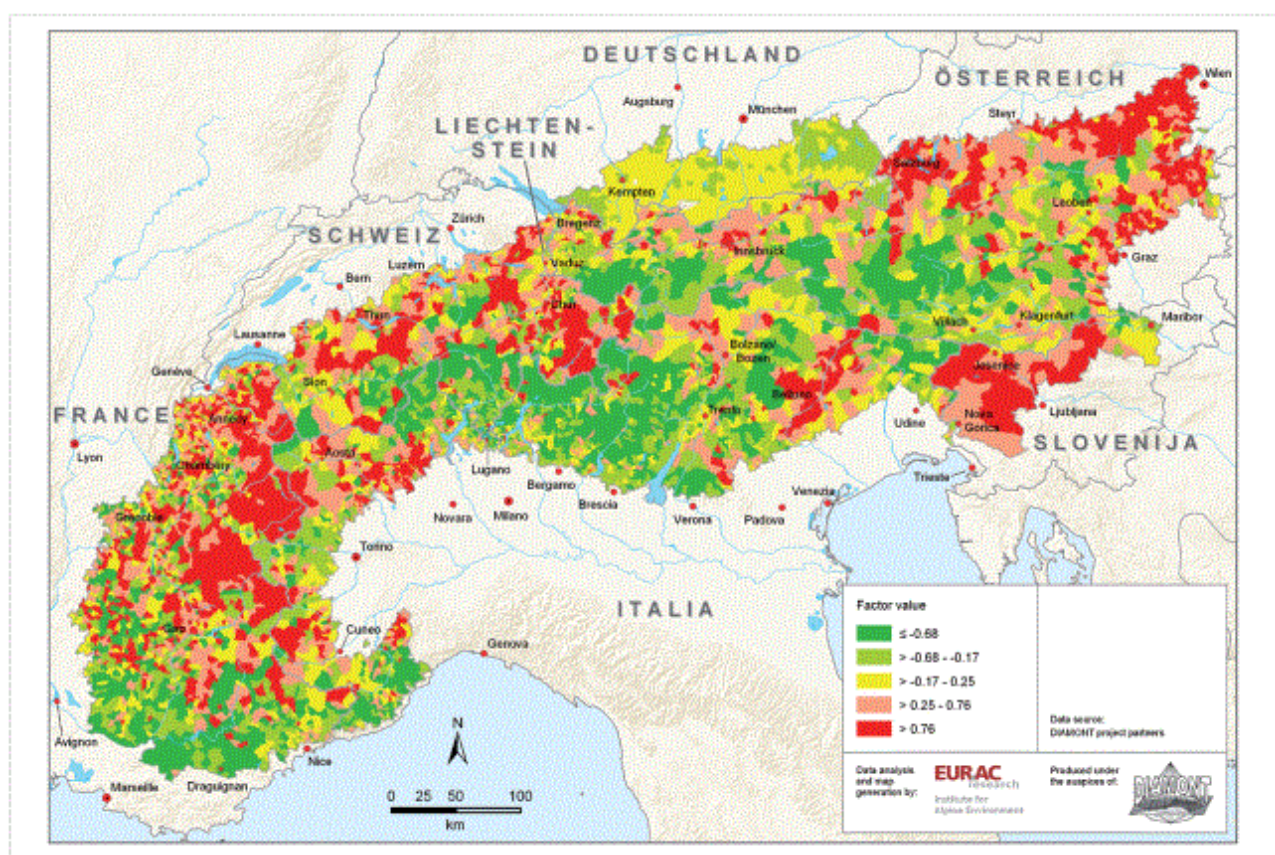
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<sup>10</sup> Societal Innovation rooted in Research and Education, association founded in 2010 by the Department of Engineering and Computer Science, University of Trento, and the Center for Information Technology - IRST, Bruno Kessler Foundation, affiliated to the ICT Labs network since 2012. <http://www.trentorise.eu/it>

## 2.2 Issues

| ISSUES   | PROPOSALS   |
|--|---|
| POLARIZATION OF THE POPULATION IN ATTRACTIVE URBAN CENTERS | Telecommuting to reduce the depopulation in the most inhospitable areas, the problems related to congestion of connections to the valleys |
| IMPOVERISHMENT OF SOCIO-ECONOMIC TISSUE                    | Development of policies that encourage innovative start up and e-commerce technologies for the makers                                     |
| BRAIN DRAIN  | Broadband, start-up incubators, ...   |
| DEVELOPMENT CONSTRAINTS OF E-COMMERCE FOR SMEs             | Broadband, expansion of sales channels of products and services thanks to the e-commerce platform   |

By the current distribution of the population along the Alps can be seen as the demographic movements are biased toward more attractive urban centers and the depopulation of the most inhospitable areas seems difficult to reverse, especially with regard to the working population often forced to move downstream to continue their education or look for a job. This phenomenon is directly linked with the decline of the agricultural practices typical of mountain areas, which led to the alteration of the landscape with high naturalistic value and the loss of biodiversity and ecosystem services that farming plays. The effects, however, are not only environmental, and they cause an impoverishment of the local productive, social and cultural fabric. The farms, pastures and all those small and large organizations that govern the area would benefit from the opportunities of improved connectivity, such as the implementation of the agricultural products sales through web platforms or the development of numerous projects of rural and share tourism.



Women integration into labor market, Mapping the Alps fig. 9 p. 163

The influence that the availability of access to information technology offers to the inhabitants of the best covered areas, as demonstrated by the rate of women integration into labor market (Figure 9), is crucial to achieving the objectives in the field of social inclusion. In fact, in the areas where there are higher rates of integration the women's participation is facilitated by the presence of a well-developed service sector, able to absorb the demand for labor and at the same time provide essential services to create equal opportunities, with a support in the coordination of work and family commitments. These areas are attractive to young people and are concentrated mainly in tourist areas, valleys and peri-urban areas characterized by more efficient connections. To decrease the social costs related to the phenomenon and contribute to increased competitiveness and social inclusion it is to be hoped that we can create the conditions to expand employment opportunities in the area through telecommuting, which allows you to break down geographical barriers. Creating the conditions for an increase of telecommuting can be functional to promote tourism that is not "hit and run" but that can enjoy the beauty and attractions of the Alps, extending periods of permanence and is an attraction beyond the seasonal peak periods.

## 2.3 Solutions

Safeguarding the assets of the Alps allows you to reverse the current trends that see an impoverishment of the economic and cultural fabric of the more remote areas, accentuated by the brain drain, with the real risk of loss of linguistic diversity and of the wealth of traditions and customs that characterize the territory .

To restore the centrality of the Alps and promote a smart, sustainable and inclusive development of the region you need a real commitment on the part of all players, to ensure adequate connections to Internet to foster a climate of change favorable for the spread of innovative entrepreneurship that would give a new impetus to SMEs and encourage social mobility<sup>6</sup>.

Tapping the genius loci, understanding the potential for development of productive and handicraft activities typical of the Alpine region in an innovative key (technologies for makers, fablab, ...), will allow to "nominate themselves to become capable local ecosystems, in view of contamination between all the actors involved, to attract and support people with ideas, talent and entrepreneurial spirit<sup>6</sup>".

The impact that these choices have on territorial planning is very high and considered too expensive for it to be overlooked, especially if you are trying to achieve a balance such that "the competitiveness and the improvement of life quality must go hand in hand<sup>6</sup>".

## PART TWO: SOCIAL INCLUSION

The EU pursues social inclusion as a central objective of the policies relating to employment, lifelong learning and career guidance, aware of the importance to initiate strategic approaches to their implementation and open methods of coordination.

To deal with the fight against poverty and promote social inclusion is necessary to pursue a wider participation in the labor market and a full access to all the resources, rights and services. The most vulnerable groups of society must enjoy of the support and you must provide preventive tools against social exclusion, in particular regarding education.

At this time of systemic crisis, with alarming unemployment rates and the concern increase of the "new poor," Europe has initiated a redefinition of the European social model and the diversification and the upgrading of funds (ESF, EGF, PROGRESS) to cope to the barriers that hinder to social inclusion such as unemployment, discrimination, poverty and the risk of marginalization, the disparities in educational opportunities and unequal access to basic services.

Among the new challenges that involve the Alpine region, youth employment and active aging, are the ones that most can be helped by the affirmation of ICT as a tool for social inclusion and social and political participation.

An enabler and strategic factor, in achieving the objectives of social inclusion and solidarity between generations, is the spread of digital skills for each age group, with innovative educational paths specifically targeted to overcome the only digital literacy and promote a greater conscious use of ICT.

In accordance with the affirmation of the lifelong learning processes and considered the new demographic trends, they should be encouraged especially the older people to participate in a proactive manner to the social and economic life, while ensuring their greater independence and a higher quality of life. The presence of digital educational programs, supported by an adaptation of internet connections, would also allow to remedy the loneliness and marginalization of people living in remote communities and poorly connected, in fact, especially in the Alpine region reduce the digital divide means that you can increase the quality of services to citizens, from telemedicine applications in distance education.

The empowerment of the citizen is the right approach to implement coherent policies for social inclusion and to increase levels of participation in a perspective of adaptation and service differentiation according to the needs of residents; the development of the empowerment process enabling it to encourage the formation of a cohesive, competent and supportive community.

### 3. School/University

#### 3.1 State of the Art

The new digital culture, together with the more increasing popularity of devices in all aspects of daily life, is changing ever more deeply the social and productive dynamics causing in more and more forms, a mixing of the basic languages (gestural, verbal, iconographic) and the establishment of a communicative style oriented to interaction, content production and sharing.

For the school and the world of education, then, it is time to face a paradigm shift which, although not yet fully knowable in all its implications, is already reflected in the speed with which are changing both the relationship between students and teachers that the means of access to the "knowledge of youth, now accustomed to move in a world of constant stimuli and so differently related to the educational institution, compared to previous generations.



The risk is that in our national school system, although active in different types of interventions of modernization and experimentation, they would be created on "gap" between students (thus prone to the use of new technologies also in the school) and adults (considered as of "digital immigrants", unable to go beyond the replicability of old educational models, even if supported by device and networks): a gap to be addressed and overcome by returning to school his leadership role in the growth of every individual student also through the many paths to knowledge that new technologies promise to offer.

The latest data, concerning an analysis of 85% of the schools of every grade, show how the technological equipment in schools is still far from even just a level of sufficiency: 169.130 pc in the primary (1 pc for every 15 students); 150.385 in the first grade secondary (1 pc for every 11 students); 334.079 in the upper (1 pc for every 8 students).

Mobile devices (PC / tablet) in individual use to students are 13.650; the interactive multimedia whiteboards (Imw) currently installed are 69.813, for a coverage of 21.6% of classrooms.

The networked classrooms are around 54%, while about 82% of schools have an internet connection. In addition, 416 Cl@ssi 2.0 (Digital School) and 14 Schools 2.0 are active. In 2014 the installation of other 4.200 Imw and the activation of other 2.600 Cl@ssi 2.0, 16 Schools 2.0 and school centers digital institutes into 6 regions is expected.

### 3.2 Issues

In the purely alpine context the major difficulties relate the arrival at school because of frequent adverse weather conditions, for those students who reside in remote areas.

The use of computer tools mentioned above, in fact, aims to provide to the student the necessary tools to be able to take lessons from home and to study autonomously through the broadband connection with educational facilities, thus ensuring continuity in the fruition of educational materials even at a distance.

The opportunity to take advantage of multimedia contents is today a gateway to the knowledge that has become universal: not have access to these opportunities it means endorse a privileged upbringing and a impeded one depending on whether you have an internet connection or not.

Some services ,then, designed and packaged for users with special needs of higher level of education (advanced courses, undergraduate and post-graduate), could represent an added value of fundamental importance to stem the escape of young students and professionals.

| ISSUES  | SOLUTIONS  |
|---|--|
| Reach the school in remote areas                                    | Broadband connection for use of computer technology at home                        |
| Lack value-added services for professionals and university students | Offer of specific services in collaboration with universities and training centers |
| Digital Divide population   | Basic digital literacy adult population  |
| Social isolation  | Using e-mail and social networking services for all                                |

### 3.3 Solutions

Among the possible solutions, we think, also, to basic computer education for the adult population who, within their school, had no way of knowing career the computer tools that allow the use of services that can be used via the Internet; a broadband connection can also be used to provide a comprehensive and efficient distance learning for young people and professionals who wish not to leave their local context.

In this context, it is also useful to emphasize how the internet connection can offer a range of services/activities for young people related to the game and dissemination of management platforms for the sharing of knowledge, methodologies and teaching materials. The school age population, moreover, can't be separated from the use of email and social networks that promote continuous relationship and sharing of experiences.

The lack of stable network and infrastructure makes it difficult to create networks of relationships and participation in community and working groups. Through the connection, so you can participate in discussions community involving teachers, pupils and parents.



## 4. Health

### 4.1 Stat of the Art

The guidelines made available by the Agency for Digital Italy and the Ministry of Health, regarding the activation of the Electronic Health Record (EHR) are the basis of the draft of the regional plan that must be submitted by June 30, 2014, modeled on the territorial specificities and it must facilitate a structure-doctor-patient system that can improve the quality of service provided.

The EHR is rebuilding health care processes by putting the citizen at the center (philosophy "Patient Centric"), dynamically connecting professionals around the patient and his medical history, collecting data on the basis of clinical care pathways followed by the citizens, within the regional health network, and making the information available depending on the particular clinical circumstances related to the individual citizen and his care pathways.

"The joint planning of the intervention for the EHR draw a new frontier in order to provide quality health services to the citizens, based on interventions with a high rate of digitization, but at the same time able to guarantee a high level of confidentiality, security and reliability<sup>7</sup>".

The other measures designed to digitize and make more efficient the regional health and social services are related to the de-materialization of prescriptions, the provision of online reservation systems and telematic networks of Pathology.

The European Commission, in its Communication (COM-2008-689) on 4 November 2008, is aimed at all levels of government to encourage the use of telemedicine through a series of actions to eliminate any obstacle, technological, regulatory and cultural, to its full integration as a service of the National Health System. The guidelines issued by the Commission have been implemented by the State-Regions Conference and were decided the areas of application on the basis of services and performance that need priority.

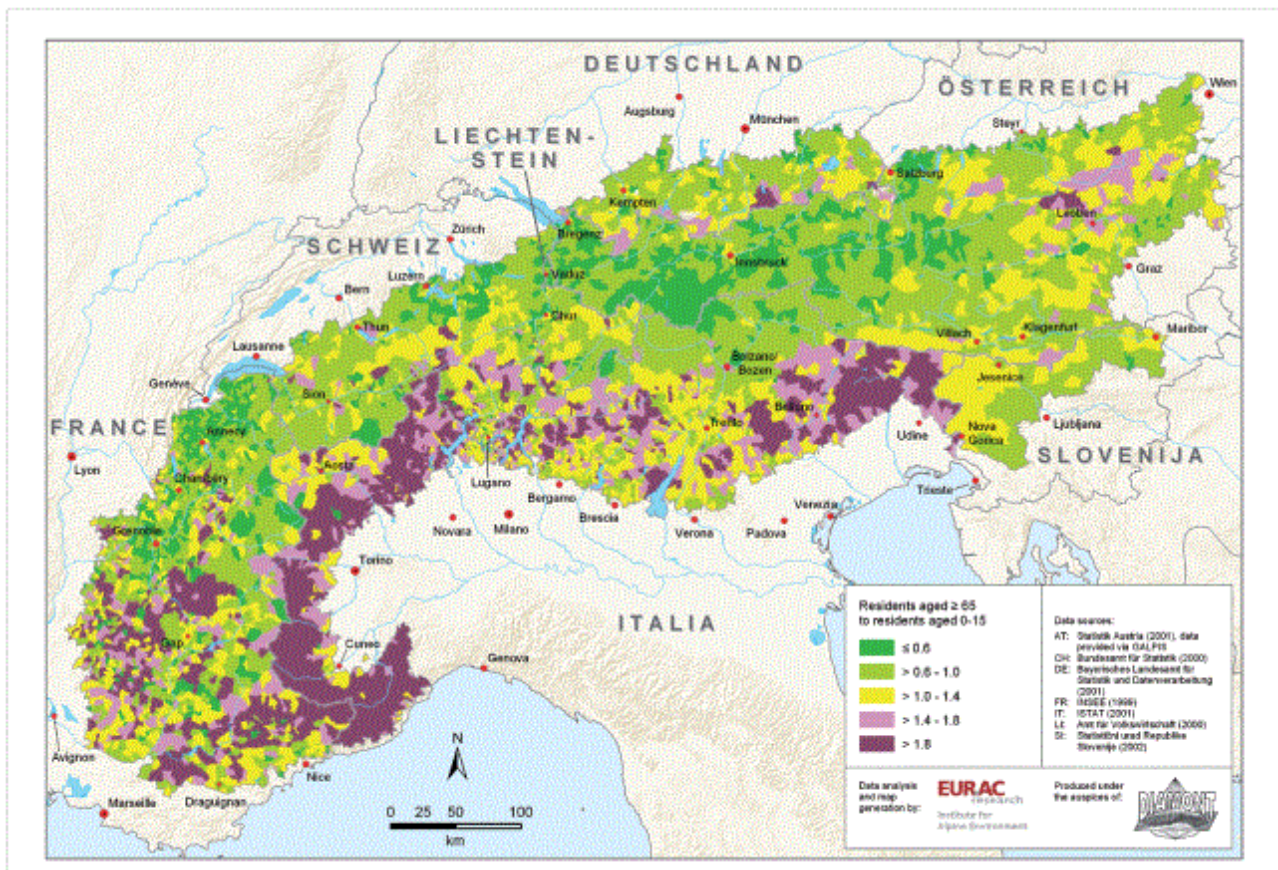
The telemedicine is a valuable support to the provision of health and social services in the activities of clinical consultation, diagnosis and preparation of medical reports, monitoring of chronic patients, hospitalization and home care; it allows you to expand the screening of the resident population and promotes the prevention of many diseases (hypertension, obesity, ..) as well as a more efficient management of the health system in the face of low fees.

The branches of medicine that have experienced more successfully the applications of telemedicine are cardiology, diabetology and pneumology but soon many others will benefit from them thanks to continuous technological advances. Employment opportunities are endless but must overcome the obstacles which impede its full integration into the health system, in particular, it is necessary to regulate filling the gaps of the discipline, to properly train health personnel, to set up new reimbursement systems for health care facilities agency providing services, facilitating a climate of trust among patients.

## 4.2 Issues

| ISSUES   | PROPOSAL  |
|--|---|
| <b>Difficult access to health services in remote areas of the Alps</b> | Prevention, Diagnosis and possibilities of opinions in real time on the most controversial clinical cases (tele consultation).            |
| <b>The aging population and increase of chronic diseases</b>           | Telemedicine useful tools to facilitate the routine checks of the most vulnerable groups (the elderly, people with limited dexterity, ..) |
| <b>Difficulties of integration of hospitals with the territory</b>     | Management optimization (cost reduction, efficient resource use) and monitoring of therapy, and learning                                  |
| <b>Lack of sharing of patient information</b>                          | EHR Implementation and unification, development of regulations (consent, the physician's responsibility ..)                               |

The Alpine population is getting older; this demographic trend common in many European countries is an issue to be dealt with care given the particular geographical conformation of the area and the availability of links that it generates adverse impacts on welfare. The aging and depopulation of vast areas of the Alpine region, are phenomena that should be carefully considered especially with regard to the needs that an aging population requires. In fact, relative to the alpine environment, the access to health care and the increase of chronic diseases (diabetes, heart failure, arrhythmias, hypertension, respiratory failure, ..) are the critical issues that have focused the attention of the telemedicine pilot projects in the area.



Dependence index of the elderly by young people, Mapping the Alps fig. 6, p.159

The index is a valuable tool to be able to plan in the long term, policies and services that respond effectively to the needs of the resident population, especially when you consider the impact that the care of diseases arising from the aging of population have on a health care system and on a difficult mobility, characterized by an already congested traffic on major routes.

### 4.3 Solutions

The provision of care and support services, in a context like that Alpine, has always been a critical issue but the evolution of telemedicine applications and the projects initiated show that it is possible to guarantee an efficient healthcare system through the use of ICT and at the same time to create greater margins for movement to implement it.

Among the most common applications of e-health, tele-diagnosis allows to overcome distance and take advantage in real time of the assessment of medical staff belonging to the network and the preparation of medical reports, while the tele-consultation allows more interactivity between the doctor and the patient and an immediate sharing of clinical information. In addition, given the recent demographic trends, a tool that has proven to be very useful to improve the service quality is the tele-monitoring, especially in cases of chronic diseases of the elderly or with mobility difficulties; the continuous monitoring of vital parameters allows to prevent the occurrence of complications in chronically ill or at risk.

A systematic and widespread use of these applications, it could allow the continuity of the territory assistance, by being able to reach even the most remote locations, and to be able to monitor the patient continuously, with

the accuracy and quality of a hospital service; ensuring at the same time, a significant reduction of the budgets of health systems and a familiar hospital stay environment.

Only through an implementation of the EHR, the use of application models and greater cooperation we can achieve a real integration of telemedicine services diffusely; ensuring the economic sustainability of the healthcare system and greater equity of access to care without lowering the quality of the service.

## 5. Digital PA

### 5.1 State of the Art

The process of digital innovation of the Public Administration is divided into a series of actions aimed at improving the administrative process through the provision of services based on the principles of transparency, simplicity, efficiency, speed and economy.

The Italian Digital Agenda provides, among the proposed objectives, to complete the coverage with broadband and ultra-broadband in the current biennium, the fundamental basis to proceed with development of new services and a coverage of the entire national territory. In this regard, not all regions are aligned in the issue of notices, many are waiting for the new funds made available by the European Union with the 2014-2020 programming period. It is important to consider that the services provided by a digital PA must be based on knowledge of the area and the surrounding environment in which they are provided according to the needs articulated that citizenship requires.

Primarily, the management information system of digital PA allows the following activities:

- the availability of data and updated information in line with current legislation;
- provide integrated online services to citizens;
- streamline processes.

In particular, the services offered are:

- information relating to tax and cadastral changes;
- medical records of the citizen;
- digital identity and registry office;
- electronic payments to the PA.

### 5.2 Issues

The main issues that affect the realization of the above services, in local contexts that have adopted the technology solutions required, cover the following areas:

- inhomogeneity of services between different administrations: the lack of a common dictated and at the same time the good will of administrations virtuous has resulted in the creation of several technological solutions for the Digital Public Sector which differ from each other depending on the reference area.
- non-availability of open data: critical points are mostly organizational and cultural. In particular, the integration of databases requires a certain quality of data to be processed. Unfortunately, the databases constructed and operated over the years by Public Bodies do not always have an appropriate level of quality, mainly due to lack of monitoring data or to inadequacy of application tools. The exchange and data sharing also requires a definition of the organizational rules for the data sharing . Too often, the organizational component is underestimated and this creates situations that could compromise or inhibit the development and evolution of the initiatives.

To these must be added, in the specific context of the Alps, the difficulty and discomfort in having to get to an administrative reference center for the production of specific documents and certificates, payments and communication between citizens and public administration.

| ISSUES   | SOLUTIONS  |
|--|--|
| <b>Inhomogeneity of services</b>                       | Alignment of services for all areas of the Alps  |
| <b>Non-availability of open data</b>                   | Integration of databases and data sharing  |
| <b>Difficulties to get on an administrative center</b> | Promote the creation of joint centers in the Alpine areas accessible for the dissemination of digital services |

### 5.3 Solutions

A good starting point is just represented by the Alpine Digital Agenda, which can be a basis of shared programmatic actions shared between all Alpine administrations concerned. Some local situations also have already initiated reform processes digital within their own administrations, which can represent good practice adaptable and that can be adopted by other institutions.

## PART III: GOOD PRACTICES

### **The VETTA PROJECT. Broadband in Alpine shelters: needs and opportunities for mountain<sup>11</sup>**

Between 2010 and 2013 the Italy-Switzerland European project (Interreg IV A) V.E.T.T.A. (Valorisation of Experiences of Touristic Transboundary products of medium and High altitude) allowed to bring broadband connectivity to 56 Alpine huts in Lombardy, located in the border territories of the provinces of Como, Lecco and Sondrio. An activity carried out by ERSAF (Regional Agency for Services to Agriculture and Forestry) and by the General Directorate Policies and Sports for Youth of the Lombardy Region, in collaboration with CAI Lombardy, with the aim of improving, promoting and stimulating the system of the tourism offer at medium and high altitudes. Talking about broadband in the mountains means collide with the problems of the digital divide and the areas of market failure .

If we exclude areas with ski areas, once you exit the urbanized perimeter of the mountain towns, the possibility of using mobile or fixed broadband is very low. It should be noted that for the VETTA project is not only important to equip shelters of internet connection. So it is operate on the basis that Internet is a tool and not the purpose. For anyone who runs a tourist or productive activity as a retreat or a pasture, to have the connectivity is becoming a necessity and not just an opportunity. Think of the reservation management, the use of home-banking and online practices, tourism promotion, the ability to connect webcam or remote control systems for electrical installations and heating systems.

From the point of view of the alpine tourist the evolution of recent years has shown in percentage terms, an increase of foreign visitors to the detriment of the Italian ones.

To be able to offer access services to the e-mail, payment by credit card, consultation of maps online, real-time information on weather, avalanche and mountain conditions, it is a much appreciated opportunity.

But the most emblematic element is the use of the connection to activate a VoIP telephone line in each shelter, so as to ensure a telephone line ex novo for shelters that were lacking or backup for the other.

### **The project SKI PASS - OPENPASS . Unification of systems and emission control access to the ski lifts of Lombardy<sup>12</sup>**

The project, an initiative of excellence among the first in Europe relative to the unification of systems and emission control access to the ski lifts, is developed under an agreement between ANEF Lombardy - Trade Association of Rope way Operators - and the Lombardy Region such as system action addressed to all operators in the region, with the aim of unifying the emissions systems and access control installations. The initiative involved 46 subjects who represent almost all of the ski areas of Lombardy.

The project's goal was to unify in a single card access to the lifts for skiing, so as to avoid fragmentation technology present in mountainous areas, which prevented the possibility of using the card (lift pass) in all ski areas in the Lombardy region.

The main feature of the project is to standardize on a single standard "open" systems and emission control access to the ski lifts, the basic concept on which it is the whole system.

The skier is so able to travel to each station in the region, by accessing the ski lifts, with a single support.

The system also allows the collection of data on a single server, allowing the quantification of regional presence and use of the facilities, with the aim of analyzing industry trends, allowing you to direct regional

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<sup>11</sup> Edited by Anna Chiara Pisu, Lombardy Region and Luca Grimaldi, ERSAF.

<sup>12</sup> Edited by Anna Chiara Pisu and Grazia Guizzetti, Lombardy Region



policies in a more targeted way.

Among the opportunities offered by the system include the possibility of a widespread sales media, not only in the region, even with electronic purchasing, streamlining of procedures for marketing, promotion and enhancement of the tourist / sports Lombardy through packages and offers custom.

In particular , the main advantages of the System Ski Pass-OpenPass are:

- the possibility of access to the facilities of the ski pass closer to the reader, without the need to "stamp" manually (hands-free);
- the opportunity of using the ski pass in all the ski resorts in Lombardy;
- the media is rewritable and allows loading of various types of subscription (daily, weekly, seasonal, etc.);
- the reduction of overhead costs to be paid by operators of installations through the sharing of a single standard.

The system also has considerable development potential , such as the integration of new services as the entrance to the spa , museums, parks , transportation, etc. , thus implementing an integrated strategy to promote the area. The model Lombardy ski pass was much appreciated by the Rhône-Alpes, one of the Four Motors of Europe, which has expressed a desire to replicate on its own territory.

### **RE-TURN PROJECT<sup>13</sup>**

The RE-TURN project, "Regions benefitting from returning migrants", promotes and supports the return migration by proposing innovative solutions to reverse the effects of brain drain through three areas of focus Re-Attract, Re-Integrate, Re-Employ.

The reasons that lead migrants to return to their country are of a different nature (conclusion of a training period abroad, create a family, willingness to invest in their own country, etc..) but what it plays a key role in the process of re-integration into the origin community is the social capital and the relational networks built.

From the results obtained by the project during these years of activity it is essential to remove, through policies targeted the barriers that impede the process (lack of information, excessive bureaucracy and prejudice against those who return) and abide by the their expectations; it emerged that are needed clear information about their responsibilities (registration health, social and welfare services, ..) and the practical possibilities when they back home.

The origin countries have the opportunity, thanks to the network between regions, local authorities, universities, research centers, to attract human and social capital that can be an important stimulus for local development based on knowledge. The activation of this new form of transnational cooperation enables a more efficient management of migration flows and contributes to the enrichment of the re-entry communities through the sharing of values, experiences and know-how.

### **VEGLIO COWORKING PROJECT<sup>14</sup>**

We often hear people talk about entrepreneurship and young people of new ideas for boosting the economy; on this line I would like to talk about an idea addressed to young entrepreneurs and aspiring professionals that is the public coworking.

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<sup>13</sup> <http://www.re-migrants.eu/download/International%20Comparative%20Working%20Paper%20on%20Barriers.PDF>

<sup>14</sup> Edited by Marco Pichetto, Mayor of Veglio (BI)

The coworking is the sharing of spaces and know-how among professionals, it is a well-known concepts and developed in Anglo-Saxon countries, which for some time has caught on in Italy. The project is the "VEGLIO COWORKING PROJECT" and it is public, designed and coordinated by myself, Marco Pichetto, a young freelancer as well as the mayor of Veglio (BI), a small mountain village on the Prealps of Biella.

The municipality of Veglio with this project provides to professionals, aspiring professionals or offsite employees, office spaces; the project is public, so the use of the premises is totally free as well as the Internet WI-FI access in the whole space. The coworkers contribute only to the fixed costs for the maintenance of the structure (a space recently renovated of 110m<sup>2</sup> divided into 5 rooms), i.e. the cost of utilities, electricity and gas for heating.

Veglio Coworking Project won the first prize at the international competition in the category "youth projects" organized in 2011 by the Permanent Secretary of the Alpine Convention, a competition to reward projects implementing of the Alpine Convention and its Protocols, and it was co-financed also by the Fondazione Cassa di Risparmio of Biella; in April 2012 it became a reality when spaces for sharing were opened and they are still active.

The main aim of the project is to reverse the trend of neglect of young people in mountainous areas and to help them in the early stages to startup activity.

All about [www.vegliocoworking.it](http://www.vegliocoworking.it)

### **EDOLO, E-learning: the experience of blended learning at the University of the Mountain<sup>15</sup>**

Since the academic year 2012-2013 an important trial of distance learning has been initiated, in support and for the integration of teaching in university courses that provide specialized training and seminars, performed at the headquarters of the University of the Mountain in Edolo.

Objectives of the initiative:

- To encourage the dissemination of information and training to all those who for various reasons are interested in issues relating to development and protection of mountain areas in all of its forms;
- support the self-training of large numbers of people on the issues of development and protection of mountain areas, through a flexible teaching methodology, devoid of spatio-temporal constraints and accessible to all;

The experience of e-learning is covering two levels:

- Technological level: new teaching tools
- Use of Virtual Classrooms for:
  - for connections to seminars, lectures, conferences for all participants located in remote locations away from Edolo by remote to streaming;
  - or video recordings of lectures, seminars, conferences, training courses, available later on e-learning platforms in use, to provide an asynchronous display;
  - web conferences with students and course participants; teachers training, training pills ad hoc, distance meetings, virtual reception desks of the students.

Using of digital tools for teaching: virtual classrooms, digital whiteboards integrated with virtual classrooms, interactive e-learning platforms (Ariel, Moodle, Wiggio / Blackboard).

- Methodology level: new teaching strategies

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<sup>15</sup> Edited by Anna Giorgi, University of the Mountain, Edolo

- Testing of new teaching methods and new pedagogical approaches: Complex Learning
- Skills/knowledge analysis of the participants incoming to training courses (online assessment)
- Collaborative distance activities
- Use of e-books and digital databases

### **ALIAS, Alpine Hospitals Networking for Improved Access to Telemedicine Service<sup>16</sup>**

The limited access to health services and quality of life are two factors that are closely interlinked with each other. Improving access to care in areas underserved and increase the professional interactions of local medical staff, enhances the quality of health care in these areas. One way to improve the accessibility to health services in remote areas is represented by telemedicine (eHealth).

Made by:

ALIAS, involving alpine areas of six European countries, has pioneered a new model of cooperation between hospitals for the provision of services for teleconsultation and sharing of clinical information for the benefit of residents and those who require care in the areas affected by the initiative. The project led to the creation ALIAS Virtual Hospital by networking 12 pilot sites (hospitals and diagnostic centers), service nodes ALIAS. The Virtual Hospital has expertise in clinical, organizational and information technology and aims to improve the delivery of health services in Alpine areas more difficult to access.

The two telemedicine services are developed and piloted:

- The sharing of clinical information: what comes from the research of ICT solutions to improve the quality of hospital services and clinical practice through better use, even in different territories, of existing information, thereby enhancing the protection of the assisted;
- The teleconsultation: that allows citizens to receive specialist advice by raising the professional profile of the centers involved through the ability to electronically collaboration with other hospitals in the network, improving the quality of performance.

### **NATHCARE Networking Alpine Health for Continuity of Care<sup>17</sup>**

The increase in life expectancy correspond to the growing elderly population and an increase in the prevalence of chronic diseases and long-term care resulting in a significant impact on the sustainability of health services. Improve the control and prevention of chronic disease is an important challenge related to the phenomenon of demographic change .

The modern health systems can address this challenge by developing new models of care which, overcoming the inadequacy of "traditional" approaches, are :

- patient-centered
- integrated
- proactive
- managed by a team of health care professionals.

Made by:

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<sup>16</sup> Edited by Natalia Allegretti, LISPA SpA - Project Manager for Lombardy Region DG Health.

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The project aims to define NATHCARE, consolidate and validate a model of care based on the concept of "local community " understood as a network of individuals and organizations involved in the process of patient care , and to promote the adoption of health-oriented services more responsive to needs of the community and health systems. The overall goal of NATHCARE is to offer services that promote integration between primary and secondary care, leveraging a greater awareness of patient and encouraging the sharing of best practices through knowledge management tools . The model NATHCARE , which capitalizes on the experience gained through the project ALIAS , will be brought to the attention of policy-makers as an example that demonstrates how it is possible to adopt common strategies to mitigate the impact of demographic change on health care systems in the Alpine Space.

### **THE PORTAL OF SERVICES TO THE CITIZEN of the Province of Trento<sup>18</sup>**

Through the portal, residents of the Province of Trento, with a single click have access to online services offered by the Public Administration, by the consultation of the cadastre or its medical reports to the payment of taxes or services, by the request of the medical to the evaluation of the familiar economic situation (ICEF). The portal has united and organized the contents and services of more than three hundred institutional sites of the Province, helping to streamline and integrate the offer of online public services, with the compliance with standards of security and privacy.

Among the most important changes introduced by the portal:

- semantic search that facilitates the use and retrieval of information;
- a system of strong and secure authentication with the new National Health Card which is configured as the Provincial Charter of the services and key access to the portal, with a microchip containing the digital identity of the user, which guarantees the certainty of identity; The portal also provides secure browsing experience thanks to a SMARTY device of card reading.

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<sup>18</sup> Edited by Autonomous Province of Trento

## CONCLUSIONS