

DELIVERABLE 5.4.2
PROPOSAL OF THE STRATEGIES

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CHAPTER 1: BROADBAND

1.1 INTRODUCTION

The term “broadband” defines a set of technologies that permits the increase of speed in general communication, and access to the Internet, in particular by exploiting the innovative infrastructures and/or technologies compared to those traditional ones with the opportunity to use services at high interactivity.

Computer applications and the services in the network evolve continuously, requiring an always bigger capacity in transmission. Constantly growing is the necessity of interacting and communicating with other subjects, to work in the network, to search information. As the offer of services in the network becomes more extensive and richer, the necessity grows to be always connected and to interact in real time.

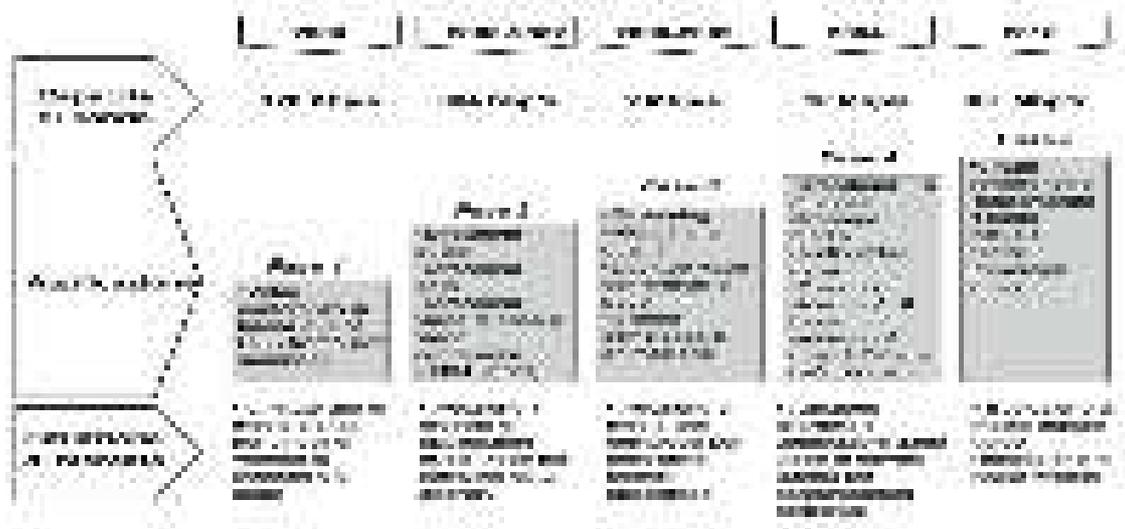
Broadband is important

- **For the companies-** because it constitutes an inescapable condition for the economic growth, to modernise managerial and organisational models, for the improved productivity after the integration of the networks between internal and remote, and for increased competitiveness companies.
- **For the citizens** - because it represents an opportunity of accessibility to a wide range of services in a network that is multimedia and more interactive.
- **For the governments** – because it is the essential condition for the integration and the interoperability between departments and information systems.

So broadband represents for all subjects an enabling condition for the development of the society of the information and of the knowledge in all its potential.

In the figure below is reported the evolution of the applications, of the capacity of band needed and the market dynamics.

Figure 1: Evolution of the broadband and market scenario



Font: Formez on data Adventis IBM (2003)

However is easily thought that there is going to be a disparity between areas that are starting to have broadband, areas that will arrange it progressively in the near future, territorial realities that could have it in the medium term, and to finish areas at which the economic logic will negate this opportunity. It is therefore clear that inside an industrialised territory has taken more often place the political thought of the problem of the *digital divide* and have been started, both at national and local level, interventions set to reduce the existing gap between the different areas of the country.

1.2 DEFINITION OF BROADBAND

The Italian and European¹ legislation doesn't have an official definition of broadband.

The term broadband refers to the simultaneously transmission of data thanks to which it is possible to increase the connection speed in a higher way compared to the traditional modem.

Thanks to this recent technology it is simpler and more immediate to connect to the Internet, it is possible to transfer large quantities of data and also pictures, video and audio files in real time. The European and the World Governments have in fact recognised, in the last few years, the importance of broadband for the economic development of their Countries, the increase of the competition of the High Tech industry and more, the acceleration of the e-government and e-participation processes. It is in fact considered fundamental for the cut down of the digital gap.

¹ The European community defines broadband accordingly to a non technical definition, but readable, which is the set of nets and services which permit the interactivity at a comfortable speed for the user

Even if it doesn't exist a formal definition, broadband refers to all the platforms composed by the fiber optics, xDSL, wireless - Wi-Fi, HiperLan, Wi-Max, ecc. -, satellite, till the UMTS and to HSDPA, recently recalled by the AGCOM as broadband technologies

To realise these objectives thanks to the diffusion of broadband it is needed however the availability of infrastructures and proper services, the realisation of projects about urban planning, the enactment of rules and petitions ad hoc at international, national and local level directed both to the public and the private.

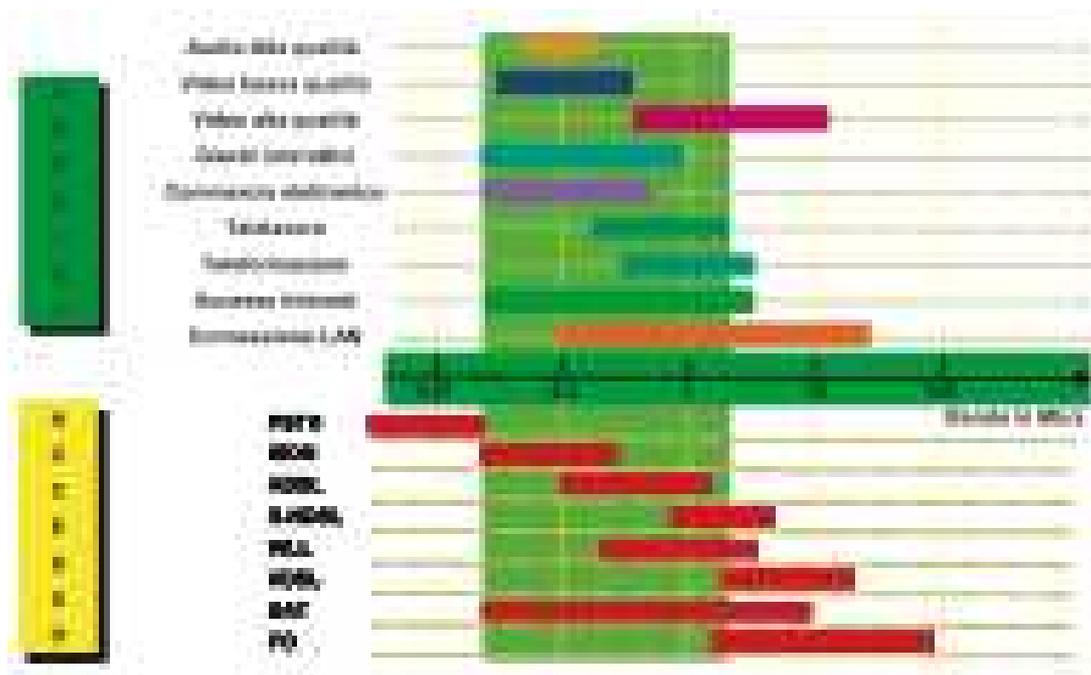
Broadband infrastructures can be focused on different technologies: from the xDSL (Digital Subscriber Line) that uses the traditional copper-pair, to the satellite connection, to the wireless connection in radio frequency (WLL), to the fiber optic that, having virtually a never ending capacity, allows complete interactivity on-line and the optimum quality of the delivered services.

The crucial element of the broadband in fact, apart from the technology used, is the advantage connected to the services and to the applications that exploit their potential.

The various services are very different between themselves in terms of character and interactive requisites, multimedia, bidirectional communication and so on. As a consequence they require a different band and can more or less efficiently be used through the various technologies at disposal.

In the figure below there are comparison services and technologies of access. For example high quality videos and the LAN connection require higher performances, so some technologies, like the ADSL, are not sufficient in all conditions of use. The optic fiber and the satellite are instead technologies between which permit better performance.

Figure 2: Comparison between services and technologies of access



Font: Broadband Observatory (2003)

1.3 EUROPEAN POLICIES FOR BROADBAND

At European level the first strategic initiatives for the diffusion of broadband go back, in the ambit of the Lisbon strategy, in the Action Plan e-Europe 2002, march 2001 followed by that of e-Europe 2005, may 2002.

With the priority objective of the Plan 2002 to extend the Internet connections in Europe and to promote the use of the Internet, in the following objective the European Commission stresses and repeats the importance of the access to broadband as an answer to fight social exclusion, to modernise public services on-line, to promoting computer knowledge to the European citizens, and to e-health.

With the effort and the invitation of the Commission, the Country members have in this way activated a series of initiatives and strategies aimed at the spreading of the broadband and at the regulation of the investments and the use of this technology and published one's national plans correlated with the objectives and the calendars of execution starting from 2004.

Also in 2005 with the Action Plan i2010 the Commission put in its priorities for the development of the information society, the adoption of broadband services and the diffusion of political directions aimed at the accessibility and at the cover of the territory with broadband, and bound itself to monitor the progress in this sector for each Country member and also to publish the annual reports with the relative studies, more so, to the costs of access to the Internet through broadband and the impact of the broadband on the growth and the productivity.

Almost all the European Countries have promoted initiatives to spread broadband in their territory.

In fact in the industrialized Countries the liberalization of the telecommunications sector, at more or less advanced level, has introduced market logics in a sector where the territory infrastructures were monopolised with the universal service.

Even the most advanced Countries have disadvantaged territories, remote or with low density, in which the market trends don't permit to bring in short time, infrastructures of advanced technologies.

Most Countries have elaborated politic and at times specific plans for the broadband in their territories. This underlines the importance given to this argument for the development of national and local economies.

The chosen approach selected by the various countries are very different, being different the general economic lay out, the rules and the market in the telecommunication sector, the institutional lay out and the powers between central and local public administration.

The initiatives are carried forward on different lines of planning:

- **intervention on the offer or intervention on the demand:** some plans tend to favour the investments of the operators in the development of networks and services, through various initiatives, from tax incentives to regulatory measures that support the lay down of infrastructure for the TLC operators; other interventions have the purpose to incentive the request of broadband, be it private (for example contributions to modernize the companies' computer systems or, as it happened in Italy, for the subscriptions of broadband contracts by the families) or public (for example to join together more administrations into buying the connectivity);
- **interventions at central level or at local level:** some Countries have characterised themselves for having started big national plans aimed at the development of the broadband (i.e. France and Norway), with coordinated interventions under various aspects, other, instead (i.e. United Kingdom), has left the single territories to express their needs, their planning and their priorities, leaving the intervention of the National Government to some targeted initiatives;
- **Interventions on the infrastructures or on the services:** some countries have started initiatives to promote the wiring of the territory, other have promoted and financed developing programs and in particular the diffusion of multimedia and interactive services in areas typically public and considered attractive, such as education, public libraries, culture heritage or health.

It doesn't exist a priori an optimal intervention, but a mix of interventions strongly dependant from the national lay out in question.

1.3 ACTIONS FOR THE DEVELOPMENT OF BROADBAND IN ITALY

In Italy the Government has also faced the problem of the broadband diffusion, nominating since autumn 2001, by Minister for Innovation and Technologies and the Minister of Communications, a Task Force (becoming later a Permanent Committee) dedicated to Broad Band, with the objective to prepare the problem, listening to all parts involved, and to attain within 2003 the predisposition of a National Plan for the Broad Band.

The main objective of the National Plan is the individualisation of a “minimum level of interactivity that must be guaranteed to the widest possible range of population by 2005”.

The lines of intervention, through which the Government has launched, and aims to continue its incentive, for the development of broadband in the Country, are the following:

- support infrastructure and services;
- support for the demand;
- monitoring support;
- interventions of regulatory nature. Vocational Training, Culture, Tourism, Chambers of Commerce.

1.3.1 SUPPORT FOR THE OFFER

The support of the offer is one of the channel of the intervention identified by the Task Force to fill the gap of the infrastructural and technological development between the North Centre and the South of the Country and to reduce the risk of product exclusion by the digital divide.

The Government has so decided, a part from the incentives directed to the operators or of the tax reduction, to arrange, through its Inter-Ministerial Committee for the Economic Planning (CIPE), funds for the development of broadband in Southern Italy, by intervening directly with a plan of reorganization and implementation of the infrastructures in the Objective 1, coordinated and planned by Sviluppo Italia and brought to end locally through conventions and agreement programs made with the regions, the utilities or the interested operators.

Given act of the scarce disposition to private investment in the interested areas, and of the difficulty to create market dynamics, the better solution is to support, at public expense, the development of the services and the infrastructures (laying down of the cable ducts in urban areas and industrial conglomerates that can be lent to the operators, which they can use to pass their own fiber network.

For this reason, in October 2003, it was established Innovazione Italia SpA, the operational instrument used by the Government to spread in the Country, and especially in the southern regions, the ICT technologies with particular reference at the digital innovation of the companies and to overcome the digital divide in the underused areas.

1.3.2 SUPPORT FOR THE DEMAND

Aware of the importance of the rule of the private demand, before the public, or of the business users, in the affirmation of the technological innovations and of the total economic development, the Government has planned for the Financial Year 2003 a contribution (75 euros) as a contribute for buying the equipment which will permit the transmission and the connection to broadband Internet.

It plans the support for the demand of public interest and also the massive introduction of broadband in the schools, with provision of 60% cabling in 2003 in the school territory and encouraging the e-learning as a training moment and service.

1.3.3 INTERVENTIONS OF REGULATORY CHARACTER

In line with Directives and the Plan of Actions e-Europe, Italy has arranged from 2000 till now a series of regulatory measures, some of which are anticipated by the Government in the form decree, waiting for a united reform in the field of telecommunications. In particular, part of the rules regard TLC infrastructure network, including broadband optic fiber, considered of primary importance together with other civil engineering.

The most significant steps are: Micheli's Directive of 1999, the Law "Objective" Lunardi of 2001 included the Connected Infrastructures (Law 166/2002) and the Legislative Decree "Gasparri" 198/2002.

All the measures are aimed:

- to promote a uniform development of telecommunications network (in particular broadband);
- to encourage a stronger competition in the existing networks;
- to rationalize the activities in the territory;
- to simplify the administrative procedures regarding the rights of access;
- to facilitate the access to the infrastructures for the delivery of services of public use;
- To reduce charges and investments.

1.3.4 MONITORING INSTRUMENTS

The Government initiative on broadband provides finally the pre-arrangement of monitoring instruments for spreading out broadband on the national territory, by creating a "Broadband Observatory", <http://www.osservatoriobandalarga.it>, promoted and realized by Between, a company which offers specialist services of strategic consulting and technologies on ICT.

The Observatory operates with the objective:

- to monitor the progressive territorial extension of the infrastructures and the offer of broadband services.
- to evaluate the dynamics of the potential private and public market for broadband
- to segment the territory in relation to the extension of broadband and to measure the gap between the different local realities
- to promote the knowledge of the models of development related to infrastructures, services and contents in order to accelerate the development of the single local markets
- To measure the efficiency of the corrective actions and incentives.

According to the European directions, the 20 December 2006, in Italy, it was established with a Decree of the Chairman of the Council of Ministers the Committee for the spreading out of broadband on the national territory (<http://www.comitatobandalarga.it>).

Between the functions of the Committee: "the coordination, the harmonization and the monitoring of the initiatives already done and of those finalized to the spreading out of broadband; to identify the priority interventions that reach the essential levels of

enabling technology on the national territory, through a comparison with the representatives of the local Administrations, of the users and the operators in the telecommunications sector; the definition of directions and formalities for pilot projects to be realized in areas specifically identified for the experimentation of broadband applied to the delivery of services of the public sector.

The Executive Committee for Broadband works in synergy with the Broadband Observatory.

Between the common initiatives, the recent editorial Guidelines for the regional Plans for broadband approved by the Permanent Committee for the Technological Innovation in the Local Government and in the Regions, and the Unified Conference of the 20 September 2007.

As the Committee specify: “They propose to offer the Regions a methodological support, uniform and shared to face a phenomenon that is in continuous evolution and that presents complex technical aspects. This instrument can be used by the Regions in all the phases that must be developed to face the problem of the digital divide, from the measurement of the phenomenon to the territorial planning, from negotiating with the operators to the monitoring of the interventions carried out. The availability of compared regional plans will permit the Committee to define, in accordance with the Regions, the priority of investment for the utilization of the resources put at disposal by the Government.

Towards the end of 2003 the Italian Government, in line with the European action plans on the spreading out of broadband and the reducing of the *digital divide*, had intervened on the national regulation framework with the “Agreement of the Program” and with the Law n.80 of 14 may 2005 regulating in this way the activities for the reinforcement of public infrastructures for broadband in all the underdeveloped areas in the Country, establishing that such interventions must be realized in the next 20 years.

With these documents, with the general Authorization of the Minister of Telecommunication (according to the art. 25, comma 4, of the Legislative Decree n.259 of 1st august 2003 – Code of Electronic Communication) and with the Convention of 22 December 2003, the Society Infrastructure and Telecommunication of Italy S.p.A. (Infratel) of the Group Sviluppo Italia is legitimate to construct and to offer telecommunication network infrastructures to the operators and the sector providers and to the Public Administration with priority for the South on the base of the “Program for the development of broadband in Southern Italy”.

It is in fact decreed for the public Institutions the obligation “not to furnish networks or services of electronic communication accessible to the public, if not through controlled or connected societies.

As support of the “Program for the development of broadband in underused areas in the Country” the Government issues the Documents of financial economic Program (DPEF) 2003 – 2006, 2004 – 2007, 2005 – 2008 through which it stresses the necessity to intervene with efficiency and in time with the modernization of the infrastructures recognizing in the innovation and also in broadband one of the main factors in the economic growth.

CHAPTER 2: SYNTHESIS OF THE EXISTING SITUATION

2.1 INTRODUCTION

The sector of telecommunication occupies the first place in the TLC compartment and it represents almost 44% of the total value. With the growth rate estimated around 1,9% for 2007, such sector remains essential for the European economy and it contributes for about 12% of the increase of the job productivity. The estimated turnover is 293 billion Euro, an increase compared to the 289 billion of Euro in 2006.

While the income of fixed telephone land lines continues to drop, the sector of the mobile telecommunications continues to grow and fixed broadband shows a continuous strong growth.

According to the data contained in the 13th UE Commission Report on Telecommunication (March 2008), it continues in Europe the strong growth in revenue coming from the services of fixed data, through broadband. Overall the sector has produced an income estimated of 62 billion Euro in growth, compared to the 58,5 billion of 2006.

On 1st January 2008 the number of fixed broadband lines accounted to more than 99 million, against the 80 million of January 2007.

The average rate of penetration in the UE has gone from 16,3% in January 2007 to 20% in January 2008.

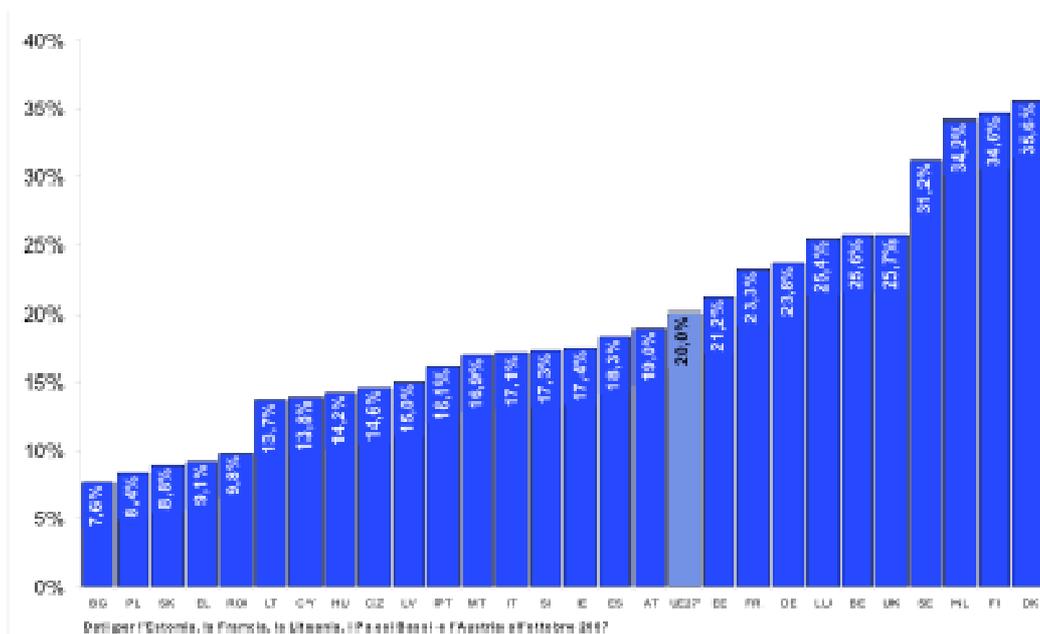
The gap between member Countries with the higher rate of penetration and those with a lower rate of penetration has gone from 27,4% in January 2007 to 28% in January 2008. However a significant difference exists in having broadband between urban areas and rural areas. The DSL coverage in the rural zones, for example, is 71,3% against 89,3% at national level (and 94% only in the urban areas). For the wired the difference is even stronger with a coverage of the rural areas of just 7,4% compared to 35,6% at national level. The gap between rural areas and the national average with DSL coverage and wired is particularly significant in Slovakia, Italy, Latvia and Germany. The proposal of reform by the Committee will contribute to reduce the gap, facilitating the use of portions of radio spectrum that will be available after the switch to digital, to increase the availability of access to broadband in the rural areas through the use of wireless solutions.

The model of UE regulations has given proof that can ensure a level of higher competition in the markets also ensuring solid protection and a minimum guaranteed service.

In the European scenario, Italy's performance is similar to that of the main European countries in terms of annual growth, but there persists a level of penetration relatively low in terms of access for 100 inhabitants (17 against the UE average of 20), due to relevant structural differences: absence of infrastructures of cable TV, lowers the expenditure on telephone lines, and affecting even more the strong differential in computer education.

In spite of the exponential growth of the last few years it is nevertheless clear today, as we are getting in a new phase of development, more complex than the initial one, that the attention is going to be put less on the connectivity and more on the performances, with enabling services in a logic of "multiple play" and of integration between applications.

Figure 3: Rate of broadband penetration in Europe



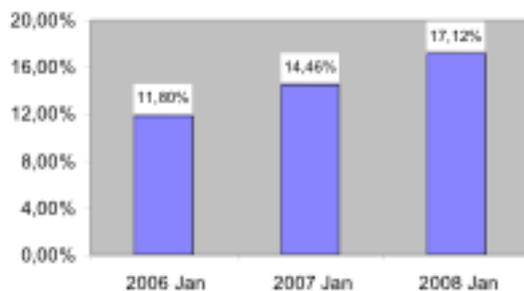
Font European Commission 2008

2.2 THE EXISTING SITUATION IN ITALY

The 13th UE Commission Report on Telecommunications (March 2008) and the “Guidelines for the regional Plans for broadband” published by the Executive Committee for Broadband in September 2007, displays the state of art of the spreading out of broadband on the Italian territory compared to national and community plans and programs.

In front of a European average of 20%, in Italy the coverage has grown in the last year by 17%, there remains in fact many regions where the availability of broadband services are less than the national average.

Figure 4: Rate of broadband penetration in Italy



Font: European Commission 2008

In the middle of 2007, the ADSL coverage has reached 90% of the population, against 41% at the end of 2001. 10% of the Italian population (6 million citizens) that live in areas of the infrastructural *digital divide*, or in areas where broadband connections can be realized only through specific costly connections or satellite solutions and not with the technology that today is considered in reference to broadband, i.e. ADSL.

Between regions where the gap is strong we find regions from the south but also regions from the north – centre.

Molise, Sardinia, Basilicata, Calabria and Valle d’Aosta that register low coverage levels, while Apulia, Liguria and Lombardy show higher levels. It is important to underline also that, specially in Lombardy and also in Lazio and Campania, to a high level of coverage in terms of population correspond a high number of villages not covered by ADSL.

The areas with a higher level of ADSL coverage, in fact, correspond to metropolitan areas and to territorial areas that change easier to infrastructure (plains and areas with high density population).

Only in the last few months the Minister of Communication has signed the Agreement Program for upgrading the broadband infrastructures and to bring down the digital gap in the regions of Emilia-Romagna, Lazio, Liguria Marche, Sardinia, Campania, Calabria, on the base of what has already happened in Veneto and Tuscany.

2.2.1 BROADBAND INFRASTRUCTURES IN ITALY

From the point of view of broadband infrastructures, the prime division regards the Backbone network, and the MAN-Metropolitan Area Network (network and access provider).

Even if initially the use of fiber optic (the means of transmission which guarantees higher performances) was limited mainly to the backbone, starting from the mid 90’s there has grown a significant presence in the metropolitan areas of circuits of fiber optic also at provider level.

The backbones of fiber optic are long they range between cities or big urban centres, while MAN fiber optic are made not only to connect homes or production units (access to last mile), but also within cities to permit the provision of services transport and the access to the final customer. It is also appropriate to distinguish the first infrastructural level, which covers the cable duct for the accommodation of fiber optic cables, from the next level that includes the cables and the fiber as a set of fiber contained in a cable.

Figure 5: Infrastructures and connectivity services



Font Broadband Observatory (2003)

At the end of 2007, the extension of backbone network has increased to 3% (for a total of 4,6 mln of kms of optic fiber in December 2007) compared to the previous year, thanks also to regional infrastructure projects and the progress of the program of intervention carried out by Infratel.

To the metropolitan network (MAN) there is an increase of 5% (3,8 mln of kms of optic fiber at December 2007, with almost 200.000 kms more compared to December 2006), in particular thanks to the development of unbundling covers (ULI) from the alternative operators (OLO) and the strengthening of the existing network in the metropolitan areas. The development of new MAN, and above all the activity of the coverage ULL, has mostly interested the southern regions of Italy.

The development of the alternative networks from the OLO has brought also a rise in competition, in particular between the main province capitals. In fact, there are 20 capitals with 5 or more operators, and have increased significantly also the capitals where there are active 3 or 4 operators with a personal metropolitan infrastructure in fiber optic.

At the end of 2007, the ADSL coverage have reached 94% of the population, with an increase of 5 percent compared to December 2006. The HDSL coverage, typically intended for business, remains around 97%, with an increase of 2 percent in the last year.

The areas with a higher ADSL coverage remain the urban ones (99%), followed by the suburbs, that have a coverage of 94%. More significantly the coverage gap that characterize the rural areas, in the last year has registered a significant reduction, with the ADSL coverage from 52% to 75%. Regarding second generation services (ADSL2+, the DSL family technology which permits connection up to 20 Mbps), the national data of coverage at the end of 2007 stands at 61% of the population.

Going to wireless services, the UMTS is present in more than 4.700 communities with a coverage of about 90% of the population. The HSDPA, instead, has reached a coverage of 86% of the population, with a significant increase from 2006 (+ 14 percent).

Regarding Hiperlan/WiFi technologies, the Broadband Observatory started more than one year ago, a monitoring activity of WISP that operates on the territory, assisted also by the action of some Sponsors of the project. At the beginning of 2008 the survey showed they were close to 130 WISP, that covered about 9% of the Italian population.

The strategy of such operators tends to intercept the demand of the citizens and the companies that, up to today, suffer from the problem of access at the BB services, both in the areas not yet reached by the ADSL, as in those already covered by ADSL but that suffer from the technical problem due to network access.

2.3 THE EXISTING SITUATION IN APULIA REGION

Apulia in 2006 already is, according to the Between Report, one of the Italian regions that has the highest levels of ADSL coverage, it has more than 90% of the population (Between Report, 2006 and 2007). The diffusion of broadband in the Apulia community reaches 70%, against 61% of North – Centre.

The operator that has the highest competitive advantage in the Region Apulia is Telecom that has positioned in Bari one of the eight data centres in Italy: two thousand servers for storage and data processing that Telecom intend to make as a computer platform for the companies. In this way the Apulia companies don't have to bear excessive costs for creating their own infrastructures but can rely on Telecom server, that offer services *on*

demand. The immediate results will be to cut down of the costs, the use of more advanced technologies and specific software. And also to reduce the paper waste and save the environment.

In the national scenario the region Apulia stands out for its the advanced position in design and implementation of the connectivity system also on the light of what has come out on the last inquest, made by the World Economic Forum and by Insead on the “degree of willingness to network” of 122 countries, in which Italy is placed 38.

However, even if reduced, nowadays there is in Apulia a delay on ITC themes, for which the development of the Society of Information still presents problems. It is necessary to make a big programming effort to address the available resources in a virtuous way and to obtain as a result not an innovative service in front of a simple “expense”, but the realization of that process of growth that, and through research and innovation, brings in the administrations, the companies, the professionals and the citizens towards the Society of Information and Knowledge.

CHAPTER 3: STRATEGIES FOR BROADBAND DEVELOPMENT

3.1 INTRODUCTION

It is a consolidated concept that the market by itself doesn't have the strength to provide a broadband connectivity on all the territory. Consequently some administrations are thinking of playing an active role in the digital infrastructure of the territory.

The Regions are today, the local authorities that are feeling most of the problem of the broadband digital divide, even though the problem is actually faced in a very different way. In fact, even if all the Regions have elaborated plans for the ITC development in their territory, (in the case of the Regions addressee of community funds the so called Objective 1, the elaboration of a plan was the essential condition to receive the funds in the Measure “Information Society”), only a few have elaborated a precise and dedicated plan (also in terms of expected financial investments) to spread out broadband in their region.

It must be anyway underlined that plans are one of the elements of the Regions strategy in broadband, and are not considered exhaustive of their attitude compared to the infrastructures of the territory. Some Regions in fact have elaborated a strategic orientation, that has not yet been formalized in a programmatic document. Such orientation is however substantial in feasibility studies, TLC licenses for regional societies (i.e. in the Wireless Local loop), agreements with local subjects.

Others instead have elaborated and identified axes of development and have started initiatives, without dedicating a specific plan, while there are regions where the theme instead is taken in consideration with extreme slowness.

3.2 MAIN OBJECTIVES AND TARGET OF THE STRATEGIES FOR BROADBAND DEVELOPMENT

In Italy the main point in the subject of broadband shared at different levels of government, is the “universal” access to broadband network and services. For its attainment, is however necessary an effort aimed at involving regions, local authorities and all the operators active in furnishing telecommunication services, in order to:

- To guarantee the sharing of the development actions of the society of information on the territory, between which the political infrastructure constitutes an important axis;
- to search the maximum level of uniformity of the territorial actions, respecting the autonomy of the territories;
- to avoid waste and overlapping broadband coverage in the territory.

The territorial plans for broadband represent the main instrument with which till today has been faced the problem of the digital divide in Italy

The Inter-Ministerial Committee for broadband to allow an efficient realization of territorial plans for broadband has issued the guidelines for the territorial plans that have the aim to determine a common method, not only between Government and Local Self-Government, but also between all subjects, including the operators and the user representatives, so they can have a reference scheme in a framework of higher certainty.

The guidelines are also a reference scheme for negotiating with the national and local telecommunication operators, with the conviction that the problem of digital divide must be faced and solved **with the help** of all the operators (and **not against** them), together which, in a collaborating way, **define** the interventions to adopt.

The guidelines want to be a concrete dialogue support between the Government and the Local Self-Government, because only with a shared way is it possible to reach common objective.

The Committee has had the opportunity to know and appreciate some territorial interventions that have had and still are having success, so he knows that the territory in its totality is not starting now, and not from zero. But many Institutions are only just now facing the problem of the *digital divide*. The guidelines wanted, to be especially helpful to these Institutions, but based also on the best practice from those who have already obtained positive results.

Guidelines can, however, be useful also to those Territorial Authorities that have already faced this problem in the recent past, but also, just because it is a dynamic problem, they will need to face it again with new models of reference, taking advantage also of the experience curve of the other Institutions.

The guidelines are not mandatory but they must be applied in the local contest and must be renewed in time, and in parallel with the technologies evolution and of the market.

The importance of having guidelines is because the infrastructural *digital divide* is not a static problem, but it is a dynamic problem, that evolves in time with different logics.

The first objective that the Institution must do is that of covering first generation *digital divide*, so to guarantee everybody a service of basic connectivity (the so called *entry level*). The same methodology is also valid in case the Institution wants to prepare a plan for broadband in general, for example to raise the level of coverage of more advanced services or to infrastructure part of a territory, i.e. an industrial area.

The definition of a unified platform of intervention to eliminate the digital divide

permits to impose an action that maintains validity in time, because it permits, once there have been a change in the market (of the necessary band to have access to services, of technologies, of offers – i.e. new operators, tendency by new operators to change investment and so on), to create new actions without starting all over again.

3.2.1 THE PHASES OF A TERRITORIAL PLAN FOR BROADBAND

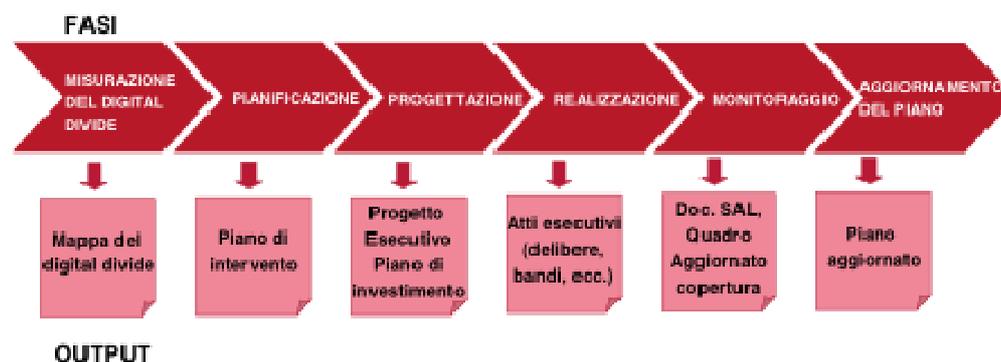
The first element of the guidelines is the recommendation to follow a **logic line divided into phases**. A logic line is necessary to avoid those decisions that are taken without proper information and reflection on the variables that influence this complex problem.

The second recommendation is that **this line is as much as possible formalized and institutionalized**, meaning with formal acts (deliberations, protocols, etc.) and ran by a special established structure, that ties together all the interested subjects, both internal at the Institution or external with the stakeholders, and that is responsible for writing the plan and its eventual realization.

The dynamics of the problem of the infrastructural digital divide, advice to carry out a repetitive and “circular” route. The plan in fact is not a document written only once and unchangeable, but is in itself a dynamic instrument that must be updated and maintained with the changes of various problem. The changed conditions of the market and the same carrying out of the plan, that must be carefully monitored, make necessary to update the plan, writing periodically a new version that takes into consideration all of the changes.

The phases are sequential, but the route is iterative, in the way that the results of a phase (i.e. the simulation of the effects of a specific model of intervention) can make necessary to go back to a previous phase to examine a known variable, to reflect further on the adopted model, and to simulate again the results with new variables.

Figure 6: The six phases of a territorial plan for the cancellation of the digital divide in the infrastructure



Font: Broadband Observatory

Between (June 2007)

3.3 STRATEGIES FOR THE APULIA REGION

In recent years the interventions put in act by the Apulia Regional Administration on the subject of broadband are essentially due to the Regional Operative Program (POR Apulia 200 – 2006), to the Agreements Program Framework (APQ), on the e-government and the Information Society and, in CIPE ambit, of the Funds for the Underdeveloped Areas (FAS) interventions. From the year 2000 till today the investments allotted to such interventions have exceeded 600 million Euro.

Following the activation of the mentioned programs, the action for the development of the Society of Information in general and of the e-government in particular, has known, in Apulia, in the last 3 years a significant change in addressing such funds towards the benefit for Public Administrations. It has in fact gone from a logical situation like “raining”, typical of the first phase of the e-Government – in which the Central Government through CIPA has financed a plethora of projects directly and indistinctly presented by all Local Authorities – to a second phase in which the used instrument has been that of the APQ for the Society of Information (SdI) that rely, for the coordination and managing of the interventions, to the Centro Regionale di Competenza- CRC – (a structure planned between CNIPA – Regions). This second model, on the other hand is perfectly adherent to the existing constitutional order based on the decentralized administration towards the Regions and has permitted the Regions of the Objective 1 (southern) to harmonizing the innovation actions supported by the Central Government with those of proper programming based on European Funds.

The Regional Administration, aware that together with the enormous opportunity offered by the information and communication technology will have, however serious threats expressed and accentuated by the *digital divide* between developed areas and poor areas with consequential risk, of these poor areas, that could be further reduced to a passive rule of mere consumption and condemned to a definite exclusion from the global economy which, has proceeded to start a series of systematic actions that could reduce to the minimum the occurrence of the indicated distortions by providing, therefore, the enhancement of the local authorities and the cooperation between the fundamental protagonists of the Society of Information.

Therefore, Apulia shows a strong interest to the development of the ICT, and with the full implementation and availability of the services finalized to sustain the promotion in a inclusive and exposing way of the Society of Information and to ensure maximum accessibility and use of ICT technologies, in particular in Societies and Citizens, including the social categories with a higher rate of exclusion (old people and disabled) it can be said that in the near future in Apulia will occur a significant expansion to the use of technologies that will bring the desiderata reduction of the “digital divide”.

The Apulia Region is however continuing to invest in this direction with an adequate support in POR 2007 – 2013.

It can be said that with the activated projects has been reached by local P. A. a good level of infrastructural endowment. Much has been done in training the employees in the use of the instruments and the new technologies, but now it is necessary to sensitize the employees, making them feel part of the developing process of the territory as expected by the new regional program.

It is on this point that it is necessary to impress an efficient regional strategy with the aim to overcome the scarce sensibility for innovation in the Public Administrations, by

displaying the economical and social advantages, and also those linked to the administration efficiency.

The demonstration that, before a public investments, can be obtained a reduction of management costs and a better quality of services, give and take, it can be a strong factor to change motivation.

It is advisable therefore to encourage, in the public institutions, the awareness of its role of leverage for the total development of the territory, the perception of the importance to base the proper choices on citizen satisfaction, seen as the central subject of the political and administrative action.

Such an objective presumes an evolution of the political culture in order to bring and qualify the government functions towards the capacity to know and to interpret the necessities and the territorial potential and also the capacity to translate them in objectives and strategies.