

Preparing Portuguese citizens for the information society era

One of the strategic tools to promote a sustained development in Portugal, since the XVII Constitutional Government, is the Technological Plan.

It is an action plan to put into practice an articulated set of policies aimed at stimulating the creation, dissemination, assimilation and use of knowledge as a tool to convert Portugal into a dynamic economy capable of asserting itself within the global economy.

The Technological Plan initiatives are organised according to three Axes of Action:

Axis 1 – **Knowledge** – To qualify the Portuguese for the Information Society

Axis 2 – **Technology** – To overcome the scientific and technological gap

Axis 3 – **Innovation** – To give a new momentum to innovation.



This first Axis - KNOWLEDGE – TO QUALIFY THE PORTUGUESE FOR THE INFORMATION SOCIETY - fosters structural measures directed to the **qualification** of Portuguese citizens – raising the population’s average educational levels and stimulating a comprehensive and diversified lifelong learning – and to the preparation of the country for the **Information Society**, as vital concerns.

The mobilisation for an **inclusive Information Society** strongly depends on the growing generalisation of the access to Information and Communication Technologies (ICT) and infrastructures.

“Connecting Portugal”

The initiative “Connecting Portugal”, launched in 2005, is the Government’s proposal to face these challenges. It is part of a broad strategy for mobilising individuals and organisations for growth, employment, generalised use of information and communication technologies as well as enhancement of knowledge.

This strategy’s targets for 2010 were set forth taking into account the positioning of Portugal within the European context and the changes in the field of **Infrastructures and access** found an echo in the targets to be attained within this Axis up to 2010:

- To double the **number of regular Internet users**, that should be higher than 60% of the Portuguese population by 2010;
- To triple the **number of households with access to broadband Internet** by 2010;
- To **multiply the number of computers in schools**, with a view to reaching an average proportion of one computer per each 5 students by 2010.

In the scope of these aims the development of the following two measures should be highlighted:

1. Facilitating the use of home computers by students- The “e.escola” Programme

In July 2007, the Government outlined a plan to achieve a new ambition: ‘A COMPUTER FOR EACH STUDENT’. This meant to allow that all students, independently of their academic and social statute, could have a portable computer with mobile broadband access.

A financial grant was established for the purchasing of computers, for families with students under their charge and not included in the higher income categories.

The “e.escola” (e.school) Programme was launched to encourage the access to information society and promote e-inclusion, through an easier access to portable computers and broadband internet connection, in advantageous conditions, for all students enrolled from the 5th grade of primary school (10 year old students) until the last year of secondary school.

A commitment was made between the Portuguese State and the mobile operators - Optimus, TMN, Vodafone - in order to contribute to developing the Information Society. Agreements were reached aiming at the creation of conditions so that all the beneficiaries of the e.school Programme could, in a stage by stage way, purchase a portable computer with broadband connection.



At the same time, the State developed several partnerships with software and hardware constructors allowing the users to have the newest worldwide technology, including high capacity equipments. Students, teachers and adults under training may benefit from e.school and make a choice among several personal computers with quality and the operator they want for the broadband connection.

Since the e.school was launched, it has not stopped winning international awards and distinctions. And this is an immense pride for the country that is nowadays recognized by the Information Society agents.

In November 2007, the Chairman of Toshiba awarded “The Best European Project Award“ to this project, recognising its great impact for the developed of Information Society .

In London, on 9 January 2009, Microsoft submitted the e.school to the European governments as an exemplar project and urged other countries to launch the programme.

“*The Portuguese case study*“ as called by Microsoft is considered an example that other countries should follow, in order to allow that more people can use the technological resources, aiming to improve learning, communication as well as working conditions.

All over the country and in 2 years only, more than 1 million people have adhered to the e.school Programme.

E-escolinha Programme

The “e-escolinha”, another initiative of the e.escola Programme was a new challenge and encouragement of info-inclusion and equality of opportunities.



This innovative project had as a goal to anticipate, for thousands of children, the access to the information technologies making it possible also for students enrolled in the first 4 years of primary school the use of computers and connections to the broadband internet.

The e-escolinha allows that all children from 6 to 10 years old – about 500.000 students – to purchase a portable computer for 0€, 20€ or 50€, depending on their level of school social support system.

The telecommunication operators OPTIMUS, TMN, VODAFONE and ZON are partners in the e-escolinha. They assure the supply of equipments and communications services.

This computer was named ‘Magalhães’ in honour to the Portuguese explorer that became the first navigator to complete the circumnavigation of the earth.



The e.escolinha also includes a set of tools meant to the good use of this new technological resource. At this moment it includes two operative systems- the Windows XP Pro and The Magic Box Linux that allow the choice of two different experiences, whenever the users log in the computer. As concerns these two systems, it's always parents or those in charge of children education that command the computer use.

But this initiative does not end here: with e-escolinha the computer has a huge set of programmes, such as Magic Desktop, that is considered by the European Union the best software for children. The Magic Desktop has an active parental control: those in charge of children education configure the programmes to which the children may have access. On-line safety and a system for protecting files are also included.

Besides Microsoft Office and Open Office the computer has more than 30 learning programmes: the Diciopedia (Dictionary, Atlas and Encyclopaedia) programmes for learning English, Mathematics, Letters, Vocabulary and Geography. Other programmes are included such as: “The Discovery of Environment” and “The city of make believe”

With the e-escolinha the students and teachers of the primary school also receive the "School Collaboration" - the programme that allows working in network at school, thus favouring interaction. In order to take advantage of all potentialities of this software, the teachers of the 1st four years of primary school are just receiving adequate training.

The tool "No work, no Play" is also included. Only the students having their homework done may have access to games through this tool.

At present, all students from the 1st to 12th year, all students having special necessities, as well as all teachers of the pre-school, primary and secondary school may have a computer.

Portugal is, thus, the first country in the world where all students have access to the purchasing of a computer and to the broadband internet services under very advantageous conditions.

2. Generalisation of the Use and Offer of Broadband

The objective of this measure was to develop the offer of broadband under competitive conditions with a view to the total coverage of the national territory in terms of infrastructures, prices, diversity and quality of the available services.

This initiative was developed through a regulating action, in the scope of the "Electronic Communications Act". It aimed to create favourable conditions, mainly at wholesale level and at the development of alternative technologies of access, to the development of electronic communications markets giving rise to the entry of new efficient operators that might contribute to a greater concurrence. This was achieved through incentives to investment and innovation to operators that should find expression in benefits for consumers – in terms of prices, access, choices and quality.

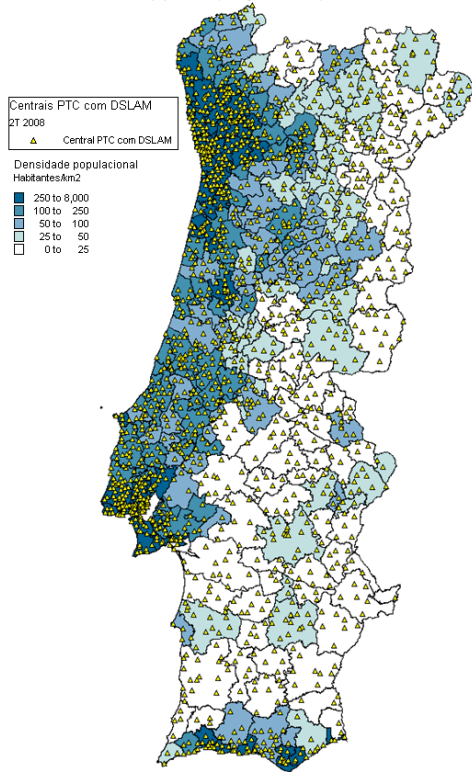
In the 1st quarter 2008 the number of accesses from mobile and fixed broadband computers was of 3 296 234 million against 937 200 clients that existed when the Government took office.

At the end of the 2nd quarter 2008 the totality of phone exchange areas of Portugal Telecom (Portuguese telecommunications main company), susceptible of supplying ADSL (Asymmetric Digital Subscriber Line) were equipped with DSLAM (Digital Subscriber Line Access Multiplexer) (1853 phone exchanges and concentrators). This corresponds to the total coverage of the possible areas for supplying ADSL.

The rate for covering the national territory with broadband infrastructures increased by 8% and at the moment it attains almost 100%, which enables the fast growth of the good indicators as concerns the household and business segments.

These infrastructures are concentrated in the great Lisbon and the great Oporto areas, in the North coast and in the Algarve. In inland areas the density of phone exchanges is smaller, just like the density of the territory settlement.

Gráfico 2 - Distribuição por concelho das centrais com DSLAM e densidade populacional (Portugal Continental) - 2T08



The “Europe’s Digital Competitiveness Report” of the European Commission that published the main achievements of the 2010 strategy 2005-2009 shows that Portugal is part of the 6 most advanced countries in the usage of mobile broadband by its population, once it positions itself in the 5th place within the European Union, *ex-aequo* with Netherlands, considering the two following indicators: Percentage of individuals who use a mobile phone via UMTS (3G) to access the Internet (7th place in the European Union) and percentage of individuals using a laptop via wireless connection away from home/work to access the internet (8th place in the European Union).

According the European Commission’s data as fixed broadband penetration only increased very little, Portugal fell from 17th to 21st place. However, mobile broadband connectivity is higher than the EU average (ranking 3rd) and the fixed broadband speed is comparatively high (4th in connections above 10 Mbps, and 3rd for connections above 2 Mps)

The evolution is as much significant when, according to data relative to the 2nd quarter 2008 Portugal was in the 5th place in broadband penetration among the 27 countries of the European Union larger than or equal to 10 Mbps in the population and 8th in broadband penetration greater than or equal to 2 Mbps in the population.

Portugal is thus, one of the first countries to have the whole country covered with access to broadband, and is a European leader in assuring that all public schools are connected to the broad band and has one of the greatest penetration rates of mobile broadband in Europe.

	2T08	3T08	4T08	1T09	2T09	3T09	4T09
1. N.º Clientes Banda Larga (fixa) / 100 Hab.	14,8	15,0	15,4	16,0	16,5	17,0	17,6
1.1. N.º de Clientes ADSL/100 Hab.	8,6	8,8	8,9	9,3	9,5	9,8	10,0
1.2. N.º de Clientes Modem por cabo/100 Hab.	6,0	6,1	6,2	6,4	6,7	6,9	7,1
1.3. N.º Clientes Outros Tipos de Acesso/100 Hab.	0,2	0,2	0,2	0,3	0,3	0,4	0,5
2. N.º Clientes Banda Larga (móvel) / 100 Hab.⁵	18,0	19,8	22,4	25,3	27,7	32,4	35,7

Fonte: ICP-ANACOM