

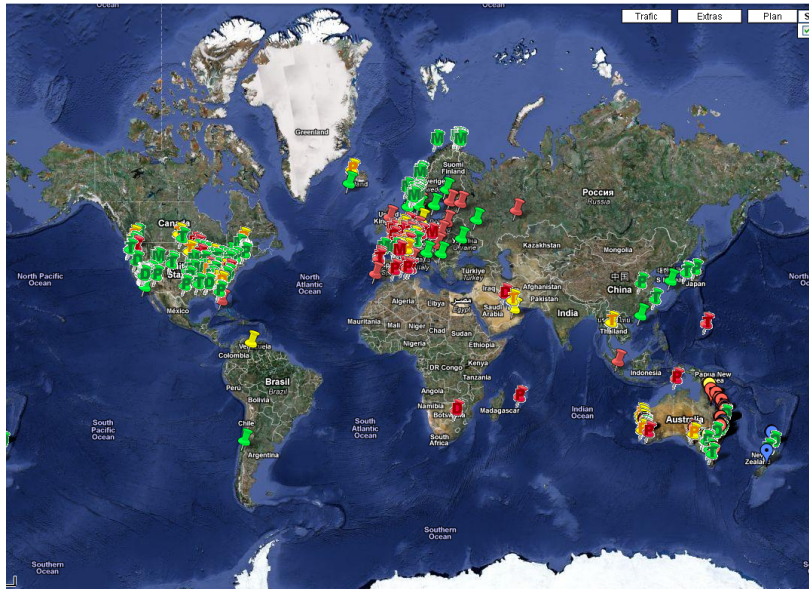
Spanish situation and international experience

María Fernanda Vicens

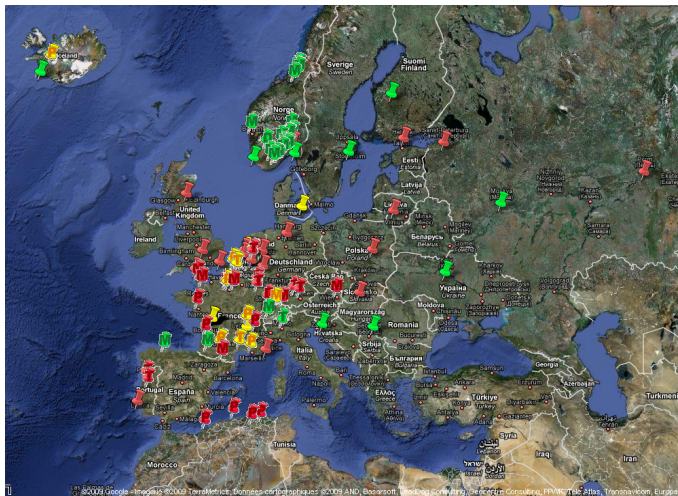
Fedea Workshop

July 2010

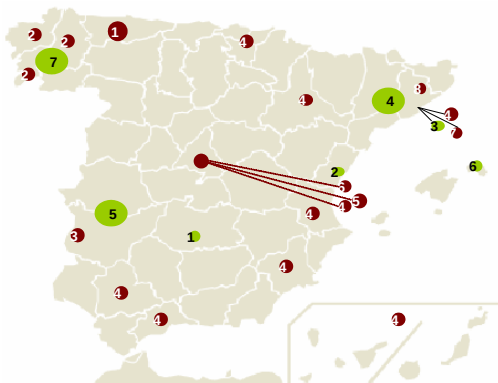
Worldwide deployment of NGN



NGN investment in Europe and Spain



The Spanish Situation



- 1 Red Asturcón: 26 poblaciones, 41.521 viviendas y empresas cubiertas, 7.322 usuarios. Empresas: Adamo, Eurona, Nostracom y Telecable.
- 2 R: A Coruña, Ferrol, Lugo, Ourense, Pontevedra, Santiago y Vigo, 450.000 viviendas y empresas cubiertas.
- 3 Cablex: Cobertura en Urb. Cerro Gordo (Badajoz). 2.750 viviendas cubiertas, 500 usuarios.
- 4 Telefónica: FTTH en ciertas zonas de estas provincias, 11.306 líneas (CMT,2009)
- 5 Ono: 700.000 viviendas y empresas cubiertas. Anuncio de extensión a toda la red.
- 6 Orange: Piloto en Chamberí, El Retiro y Vicalvaro.
- 7 Adamo. Cobertura en algunos edificios de Barcelona.
- 8 Gurb: Guifi.net: 3 casas cubiertas.

En proyecto:

- 1 Miguelturra. Proyecto público.
- 2 Castellón. Proyecto público. Cobertura en algunos edificios públicos.
- 3 Viladecans. Proyecto público. 2.750 hogares.
- 4 Cataluña: Proyecto público "Xarxa Oberta". 281 municipios conectados en la primera etapa. Proyecto completo: 946 municipios, 5.843 sedes.
- 5 Extremadura: Proyecto público-privado. Primera etapa: Badajoz, Cáceres, Mérida y Plasencia. Proyecto completo: 37 municipios.
- 6 Menorca. Proyecto público.
- 7 Galicia. Proyecto público: 1 millón de habitantes.

The Spanish Situation: very low coverage of NGN

- Few public initiatives of NGN deployment.
- The investment in NGN by Telefonica is limited and difficult to determine
- Cable companies have a modern technology that can be cheaply upgraded to NGN, but limited financial resources
- Low probability of entry given the strength of Telefonica ("deep pockets" and its market share)

The Policy Case for Spain

- Competition level of Telecommunications sector in Spain is low.
 - Very high ADSL prices, Telefonica is the European incumbent with the largest market share (several fines by antitrust authorities)

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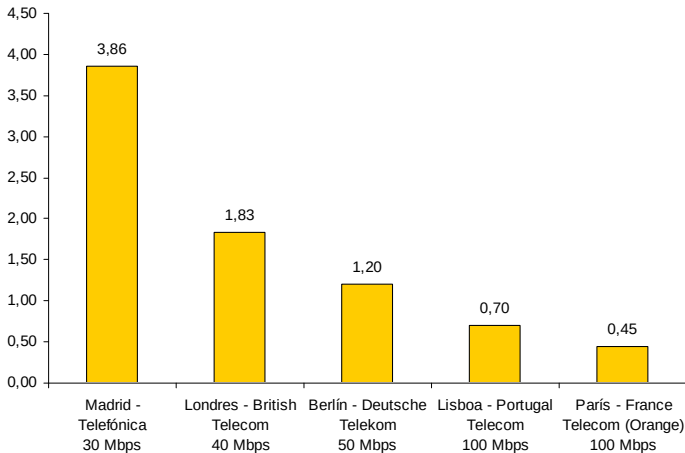
testez

les avantages de La fibre comparatif fibre/adsl

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The Policy Case for Spain

- High prices and low speeds



The Policy Case for Spain

- Telefonica has not clear incentives to invest.
 - ADSL is a very good business, and this asset would be depreciated with investment in fiber
 - Uncertainty about the profitability of the investment
 - Maybe it is better to be just a retail service provider?
- There is not competitive pressure
 - ONO has the best technology (cheap to upgrade) and has announced the intention to upgrade the whole network
 - Strong incumbent discourages potential entrants

The Policy Case for Spain. The Role of the Public Sector

- NGN specially interesting for Spain
 - Similar economic impact than other countries (productivity...)
 - Potential important effects on employment and on competition in the telecommunications sector
- Some regional initiatives but lack of a national strategy
- Should the government invest in NGN?
 - Not clear answer, even if the public value of the NGN can be superior to the private one (productivity externalities, education, health, government, etc..), there is uncertainty about the opportunity cost of such investment
 - Crowding out of private investment?
 - Financial sustainability?
- In any case, there are many cases of possible public intervention

Public intervention: international experience

	Participation	Examples
Investor	Public property and operation	Bizznet (Austria) Stokab (Sweden) MälarNetCity (Sweden) Lyse Tele (Norway) CityNetCologne (Germany) Wilhelm.tel (Germany)
	Concession	Next Gen Singapore Utopia (USA)
Co-investor	Participation > 50%	NBN Project (Australia) New Zealand PBC (France) Fibre MANs (Ireland)
	Participation < 50%	Citynet (Amsterdam)
Subsidies	Subsidies to operators and local authorities	Japan
	Cross subsidies	UK
Coordination with new housing developments		Fibre MANs (Ireland)

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	Participation < 50%	Citynet (Amsterdam) Extremadura (Telecable 51%, SOFIEX 49%)
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Coordination with new housing developments		Fibre MANs (Ireland) Cablex (Badajoz)

Recent international announcements

- Barack Obama's plan/announcement (March 2010)
 - 100 Mb for 300 million people in 10 years
 - 8 billion dollars from a Federal Fund
- Google's announcement (February 2010)
 - Up to 1 Gb
 - 500.000 connected homes
- Sarkozy's plan (December 2009)
 - 100 Mb for 70% of population in 2020
 - 4.5 billion Euros

Case Studies: Australia and the National Broadband Network

- **7 April 2009:** the Australian Government announced a new company to build and operate a new high speed NBN
- NBN Co will design, build and operate a wholesale, open access, superfast broadband network that will provide speeds of 100 Megabits per second to 90% of Australian premises and 12 Megabits per second to 10% (wireless or satellite)
- It is expected that it will take approximately eight years to build and operate a National Broadband Network
- Retail service providers (RSPs), the customers of the network, will deliver Australia's end-users with advanced services
- The government and the private sector will invest up to A\$43 billion over 8 years to build the network

Case Studies: Australia and the National Broadband Network

- *"The new investment is also the **biggest reform in telecommunications** in two decades because it delivers **separation between the infrastructure provider and retail service providers**. This means better and fairer infrastructure access for service providers, **greater retail competition**, and better services for families and businesses"*
- *"This historic nation-building investment will help transform the Australian economy and create the jobs and businesses of the 21st century"*

Case Studies: Australia and the National Broadband Network

- **20 June 2010**, NBN Co and Telstra (the incumbent) announced that they had entered into an agreement on the rollout of the NBN
- The Government will pay A\$9 billion to access Telstra infrastructure **to avoid duplication**
- A\$2 billion will go towards dealing with structural separation issues
- Telstra is likely to become the NBN's largest customer by transferring its customers onto the new fibre optic infrastructure
- This is the first example of a copper switch-off plan

- **July 2008**, KPN (the incumbent) and Reggefiber (a company with participation in various infrastructure sectors in the country and owner of virtually all existing fiber deployments) notified the Netherlands competition authority intends to form a joint venture to deploy and operate fiber networks.
- Market: the regulated copper-line network (KPN), optic-fiber projects (Reggefiber), cable networks (UPC and Ziggo)

- The agreement was approved subject to some regulation, including:
 - Open access network model: obligation to grant access to other operators
 - Functional and operational separation of KPN from retail operators
 - Timely and adequately provision of information to other operators
 - Preset and capped tariffs for access
 - Obligation to treat all parties in a non-discriminatory way
 - Obligation of transparency (including reference offer)