



The Telecommunications Industry in Italy

2014

Working paper for the National TLC Forum ASSTEL,
SLC/CGIL, FISTEL/CISL, UILCOM/UIL

The Report also benefited this year from the collaboration of numerous ASSTEL, Assocontact and Anitec associates



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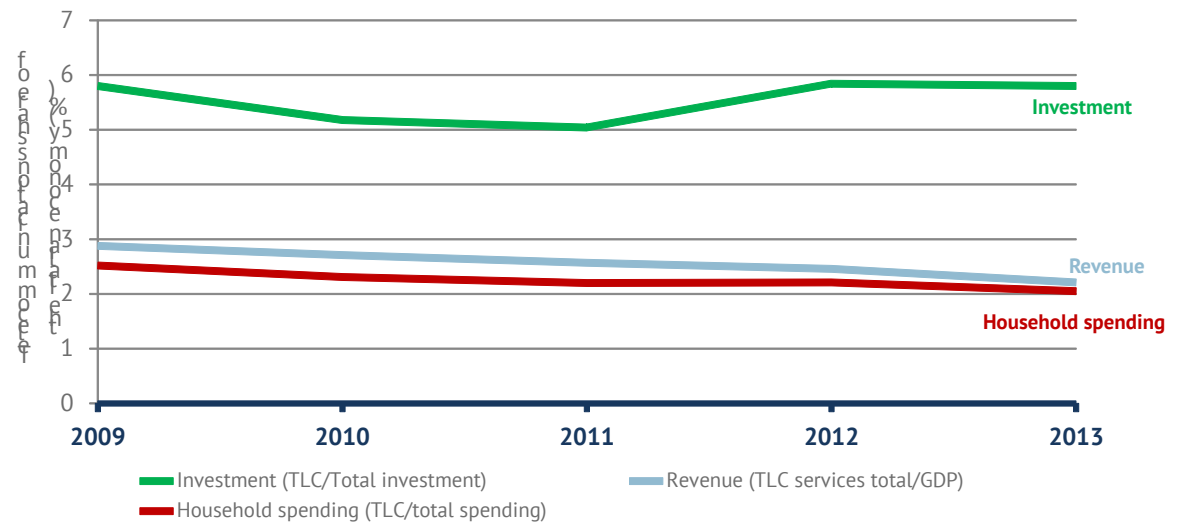


Executive summary



The macro-economic environment in Italy

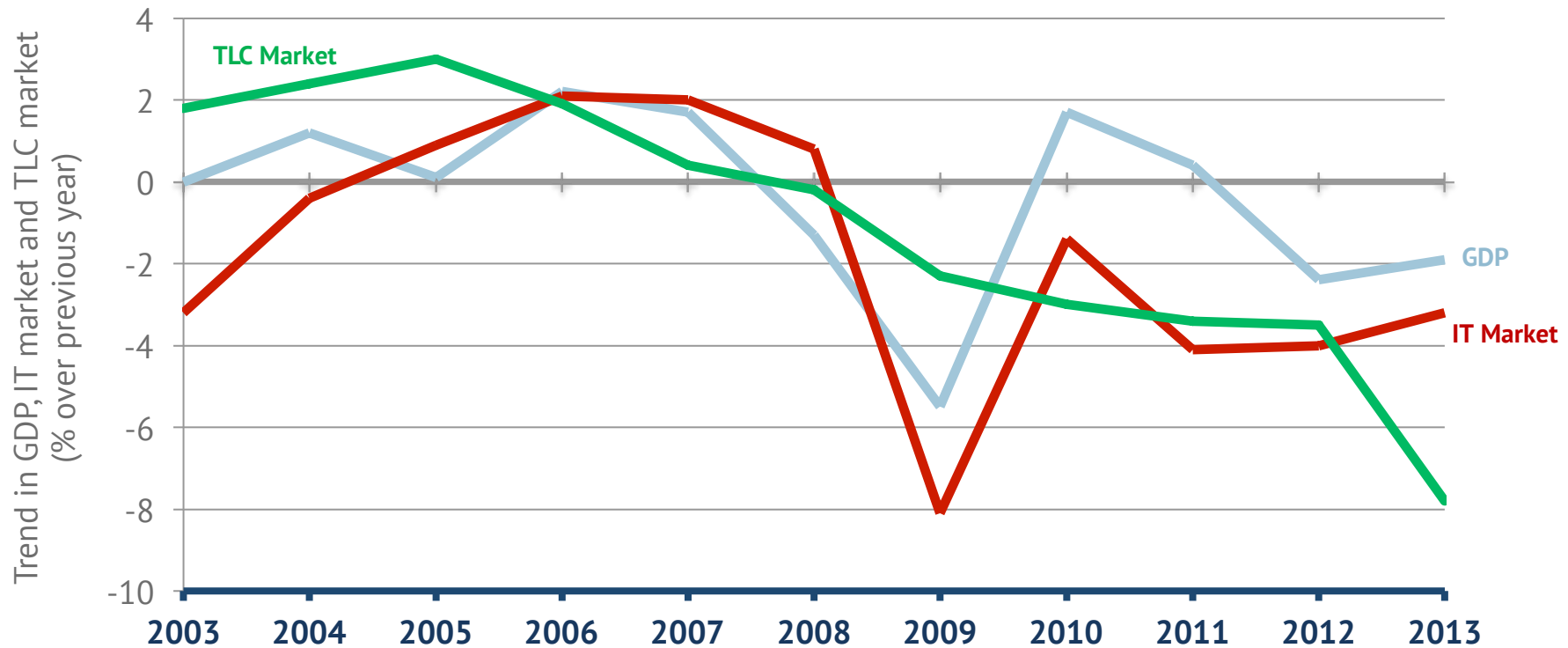
- The macro-economic environment in Italy is highly negative: this is demonstrated by all of the main economic indicators. For example:
 - Italy's **real GDP growth rate** has always been below the European average, but the gap has widened since 2010, a sign that Italy is struggling more than other European countries to overcome the economic crisis
 - Italy has a big **labour productivity** problem (worse than the other EU5 countries) and the **unemployment rate** has gone up more than in other European countries since 2011
- In this context, both **consumer spending** and **business investment** continue to fall
- **Investments** continue to be made by **TLC Operators** despite the industry's financial challenges. In fact, despite a drop in TLC revenue relative to GDP and lower household spending on TLC services as a percentage of total spending, the share of investment made by the TLC industry has increased since 2012 in relation to overall investment by businesses in Italy



SOURCE: AGCOM ANNUAL REPORTS FROM 2009 TO 2014

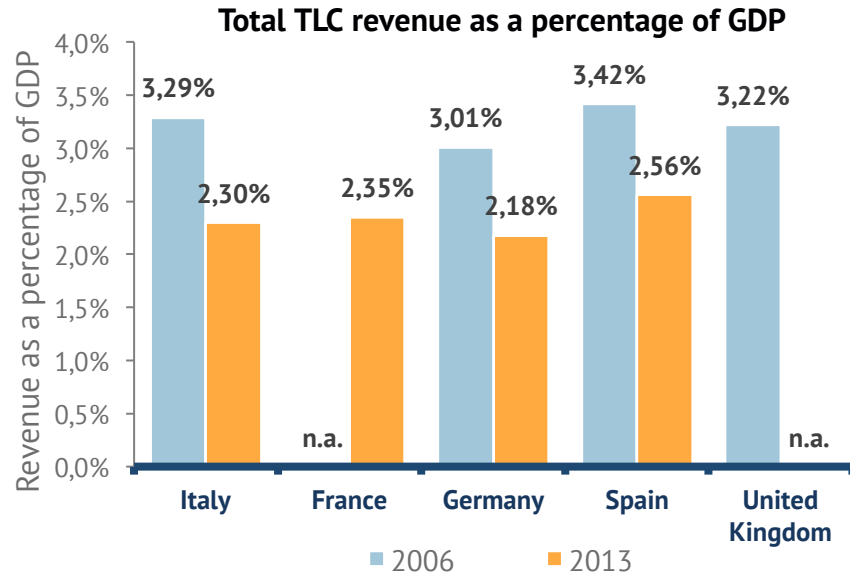
A comparison of trends in GDP, and the IT and TLC markets in Italy

- Looking at historical data on the TLC market and comparing this to variations in GDP and the IT market reveals a very strong correlation between the **GDP curve** and the **IT curve**. However, there does not appear to be any correlation with the **Telecommunications market curve**
- Furthermore, the TLC market, unlike IT spending and GDP, continued to decline even in 2010 and 2013, at increasing rates



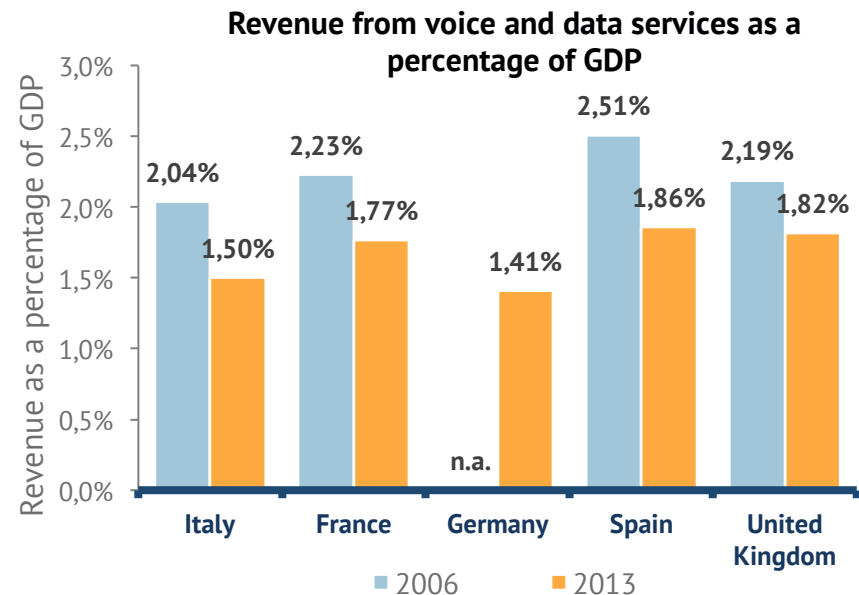
SOURCE: NETCONSULTING, ASSINFORM REPORTS FROM 2004 TO 2014

TLC revenue as a percentage of GDP



- **TLC revenue as a percentage of GDP** is significant (over 2%) even though it decreased by approximately one percentage point in Italy, Spain and Germany between 2006 and 2013
- Italy's revenue as a percentage of GDP is slightly lower than in the other main EU5 countries

- Focusing on retail voice and data services (fixed + mobile) only, revenue as a percentage of GDP fell by approximately 0.5% on average over the last 7 years in all of the EU5 countries considered (data for Germany was not available for 2006)
- In 2006 Italy was ranked the lowest for this indicator and in 2013 was second to last (only Germany was lower)



SOURCE: ARCEP, BNETZA, CMT, OFCOM, CORPORATE DATA FROM ITALIAN OPERATORS AND THE WORLD BANK

Broadband infrastructure in Italy: the state of the art in terms of coverage and penetration

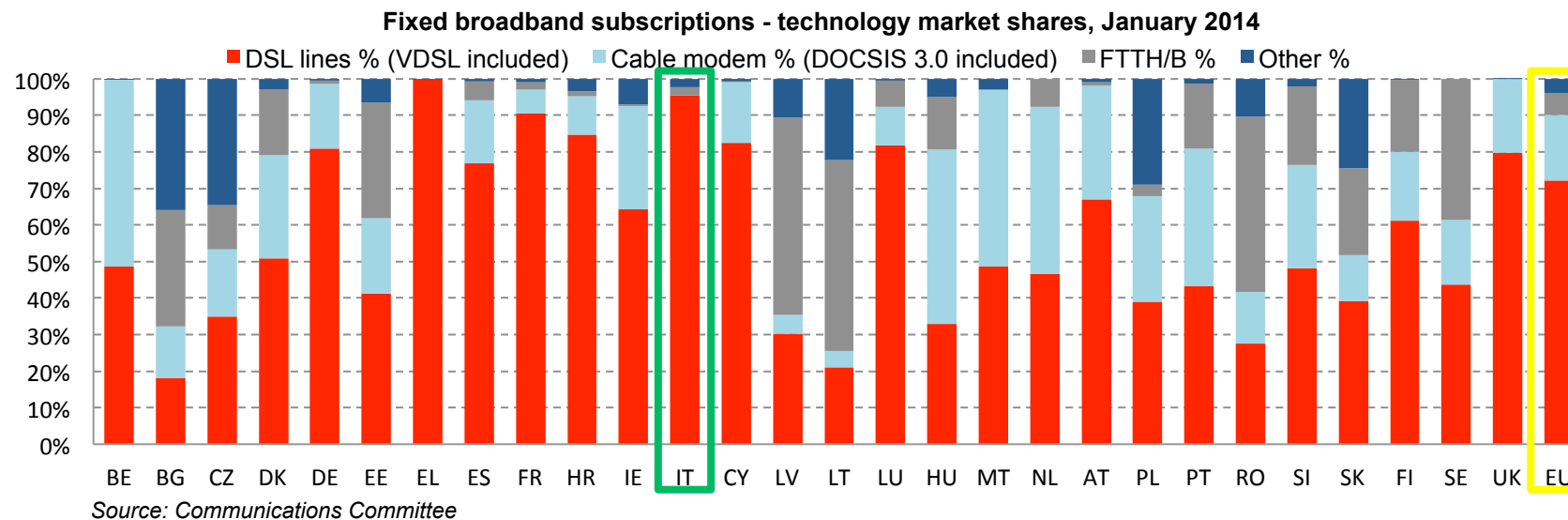
- In terms of **broadband infrastructure coverage**, Italy has essentially reached the first goal of the European Digital Agenda: **basic fixed broadband** coverage, in fact, reaches close to 99% of Italian households (above the European average, stalled at 97%). Despite this, Italy is in last spot in all of Europe for **NGA coverage** (21% of households vs 62% European)
- In 2014 and subsequent years significant progress is expected in terms of coverage, as a result of planned investments by the leading Operators; it is estimated that FTTC architecture should reach over 50% of the population by 2016
- Italy is also significantly behind the rest of Europe in terms of the **penetration of broadband services**. The penetration of **basic broadband** is, in fact, equal to 23% of the population compared to the European average of 30%; **ultra-fast broadband >30Mbps** penetration in Italy is less than 1% of the population compared to the European average of 6%
- There were 310,000 FTTH/FTTB connections in Italy at the end of the first quarter of 2014, and approximately 200,000 FTTC connections in mid-2014

	Basic broadband coverage (of households)	Basic broadband penetration (of the population)	>30 Mbps broadband coverage (of households)	>30 Mbps broadband penetration (of the population)
Italy	99%	23%	21%	<1%
European average	97%	30%	62%	6%
France	100%	38%	41%	3%
United Kingdom	100%	34%	82%	9%
Germany	97%	35%	75%	5%
Spain	97%	26%	65%	4%

SOURCE: DIGITAL AGENDA SCOREBOARD 2014, EUROPEAN COMMISSION

Broadband infrastructure in Italy: share of the different types of fixed broadband subscription services

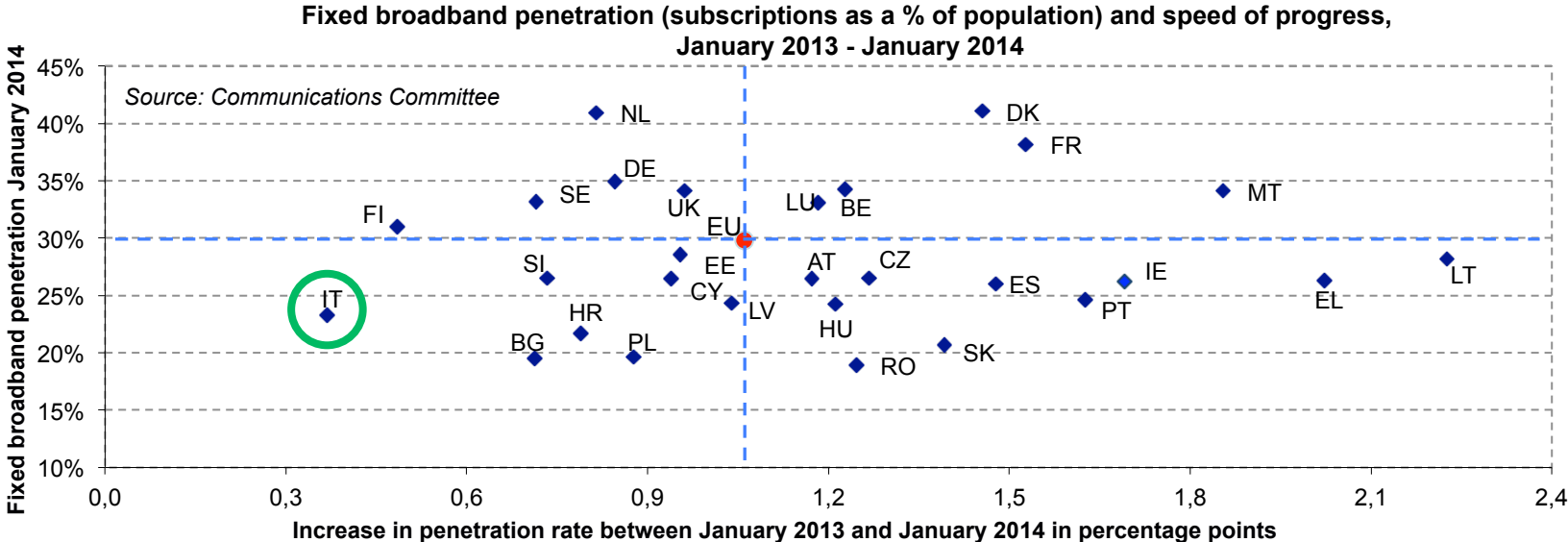
- There are various reasons for the gap described above, including the absence of a **cable operator**, which exists in almost all other advanced countries
- According to the European Commission, 95% of **broadband subscription services** in Italy are based on xDSL, compared to the European average of 72%. This figure was confirmed by the quarterly Agcom Observatory on TLC (31/12/2013)



SOURCE: DIGITAL AGENDA SCOREBOARD 2014, EUROPEAN COMMISSION

Broadband infrastructure in Italy: annual growth rate for fixed broadband penetration

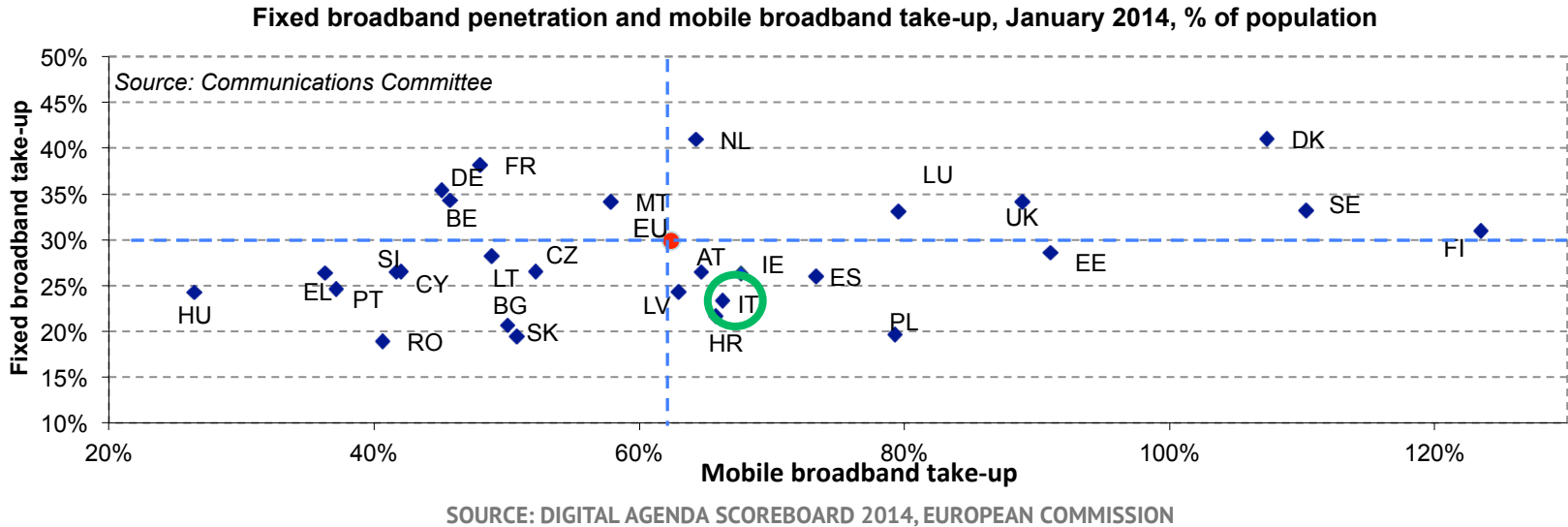
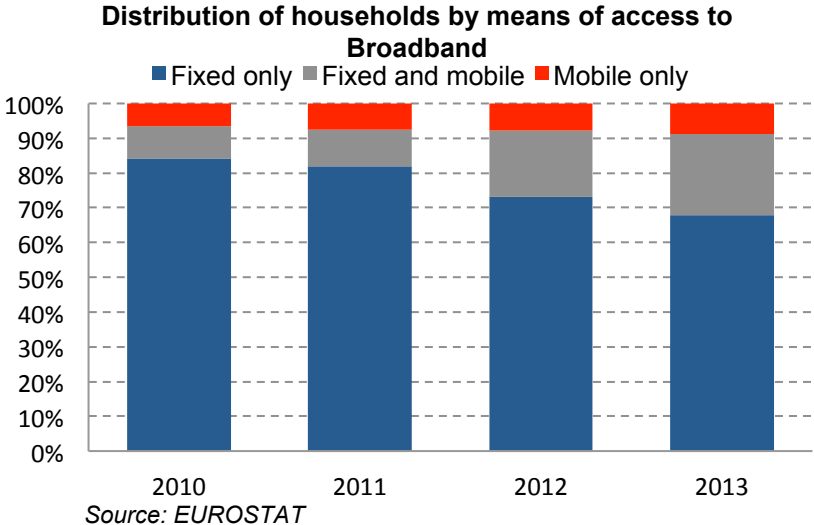
Despite the fact that, as mentioned, Italy's broadband penetration rate is below the European average, it's **annual growth rate** is also the lowest in Europe



SOURCE: DIGITAL AGENDA SCOREBOARD 2014, EUROPEAN COMMISSION

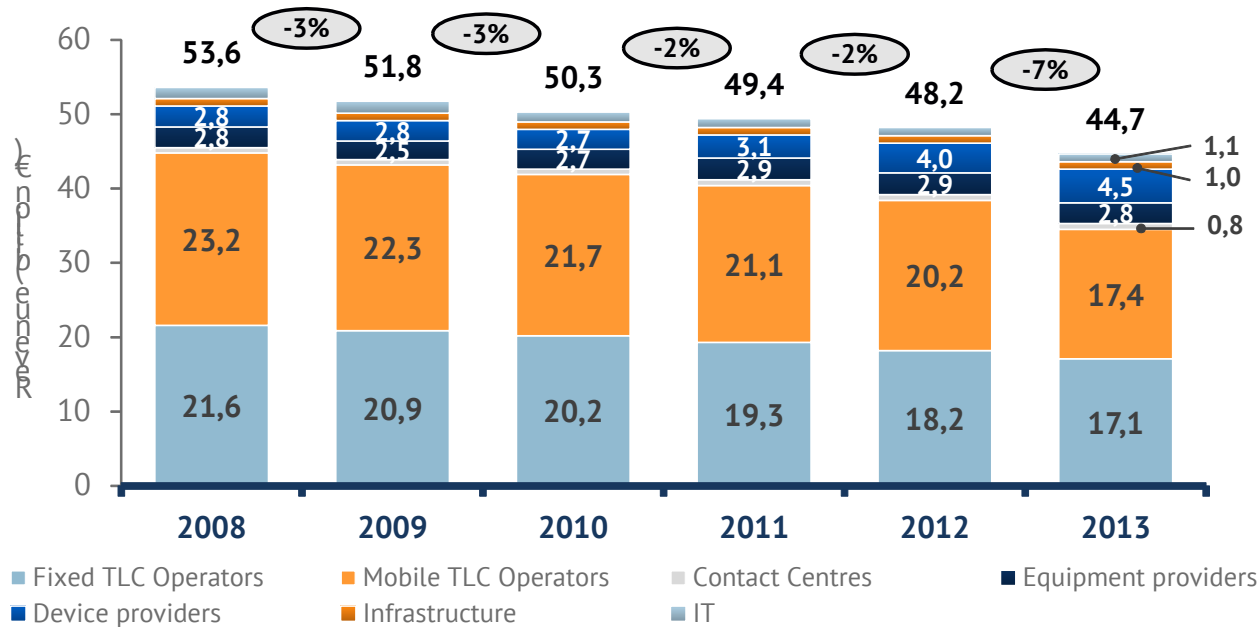
Broadband infrastructure in Italy: comparison of mobile and fixed broadband penetration rates

- In terms of **Mobile broadband penetration**, however, Italy is above the European average: 66% vs 62% of the population. This is also higher than in some other EU5 countries (France and Germany)
- Over 30% of European homes with Internet access use Mobile broadband. In the majority of cases, however, this connection does not replace the fixed connection: in only 8% of homes Internet access is, in fact, based exclusively on mobile networks



Trends in revenue for the TLC industry as a whole in Italy

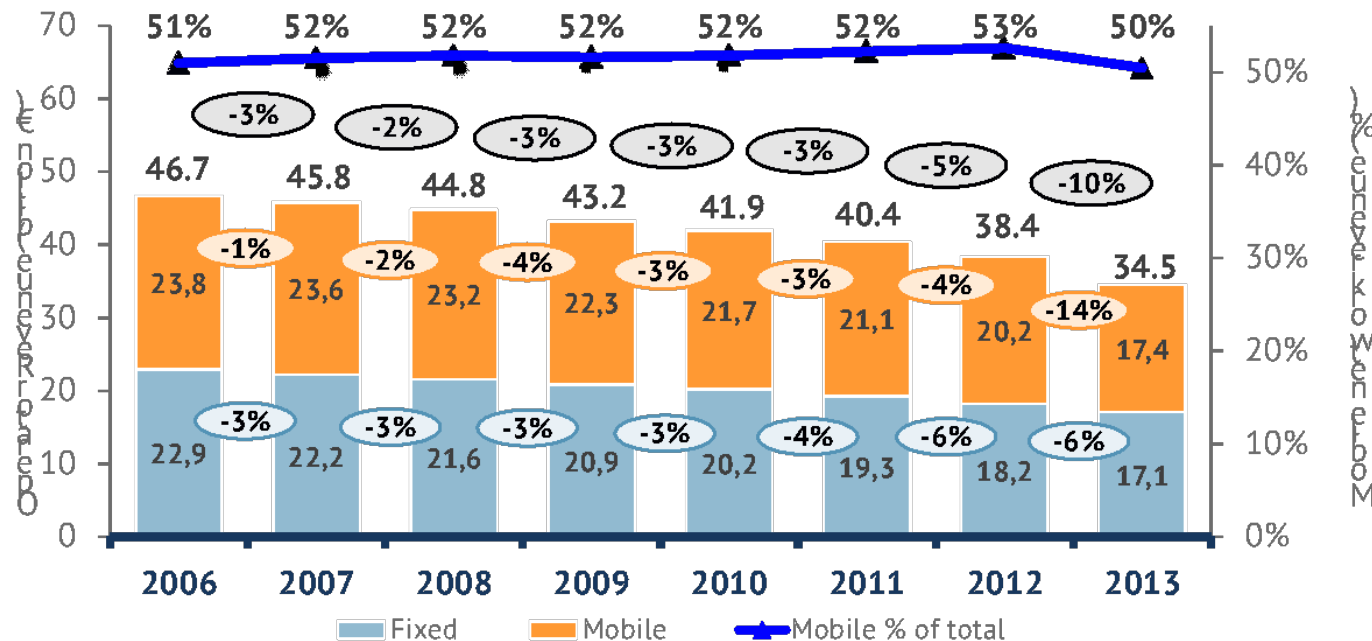
- Looking at the **Italian TLC industry as a whole** clearly shows a significant decline: in the last 5 years, in fact, its value dropped by almost 9 billion euros (-17%). This decline is the result of different trends affecting the various players between 2008 and 2013:
 - TLC Operators** lost 10.3 billion euros, falling from a share of 83% of the total in 2006 to 77% in 2013
 - revenue generated by **device providers** grew by 60%, gaining 1.7 billion euros
 - revenue from **equipment providers** generally remained stable over time
 - revenue from **Contact Centres** also grew slightly
- Sector trends were more negative in 2013 compared to the preceding years



SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA AND BALANCE SHEETS

TLC Operator revenue in Italy: fixed vs mobile

- The **market of TLC Operators in Italy** lost over 12 billion euros between 2006 and 2013 (-26%): 6.4 billion were lost by **mobile**; 5.8 billion by **fixed**
- 2013 was the worst year in this time period in terms of changes in revenue: -10% in a single year, which is equal to a loss of almost 4 billion euros. This drop is due in large part to the mobile network, which on its own lost 2.8 billion in one year, registering a double-digit decline, far greater than in previous years
- The strong contraction continued through the **first half of 2014** . Overall the market fell by 10%, with a rates of decline of -6% for fixed and -15% for mobile



SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA

TLC Operator trends: comparison with foreign markets

- The other **EU5 countries** also registered negative trends in the last 7 years, but only Spain suffered a decline as severe as Italy's

	CAGR TOTAL REVENUE 2006-2013	CAGR SERVICES REVENUE 2006-2013
Italy	-4.2%	-3.6%
France	N/A	-1.2%
Germany	-2.0%	N/A
Spain	-3.4%	-3.5%
United Kingdom	N/A	+0.1%

- Looking at the total **CAGR**, Italy's (-4%) decrease was about twice that of Germany, while the decrease in Italy's CAGR for services was three times that of France
- The UK's CAGR is essentially zero, because growth in mobile offset the decline in fixed

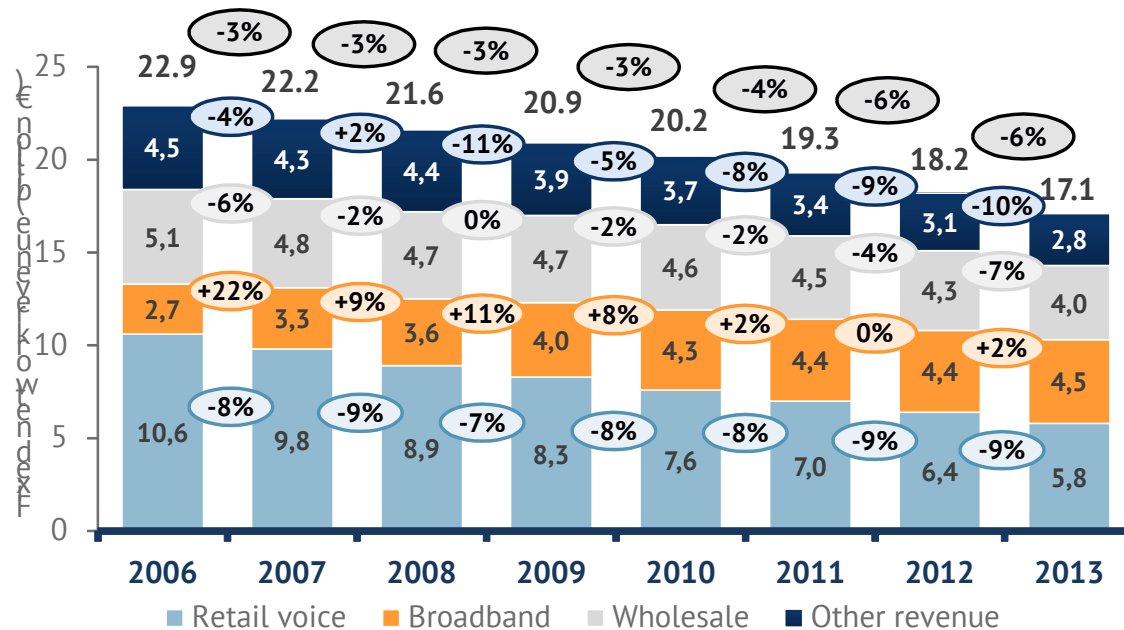
- The **value lost from 2006 to 2013** for Italy and Spain was equal to a quarter and a fifth, respectively, of the initial value of total revenues
- The trend was less negative for Germany and France (around -10%), while that of the United Kingdom was more or less stable

	Δ TOTAL REVENUE 2006 to 2013	Δ SERVICES REVENUE 2006 to 2013
Italy	-26.1%	-22.4%
France	N/A	-7.9%
Germany	-13.4%	N/A
Spain	-21.5%	-22.0%
United Kingdom	N/A	+0.7%

SOURCE: ARCEP, BNETZA, CMT, OFCOM, CORPORATE DATA FROM ITALIAN OPERATORS

Fixed network TLC Operator revenues in Italy

- The strong reduction in **revenues from fixed networks** over the last 7 years is mainly due to the following factors:
 - a net reduction in **voice** charges in favour of growing mobile voice traffic (voice traffic on fixed networks in fact halved between 2006 and 2013)
 - a significant decline in **wholesale** revenues (which were impacted by the reduction in the regulated unit price for origination, termination and transit services)
 - growth in **broadband** revenues that was insufficient to compensate for the decline in other revenues and, above all, substantial stability of this revenue stream for some years now

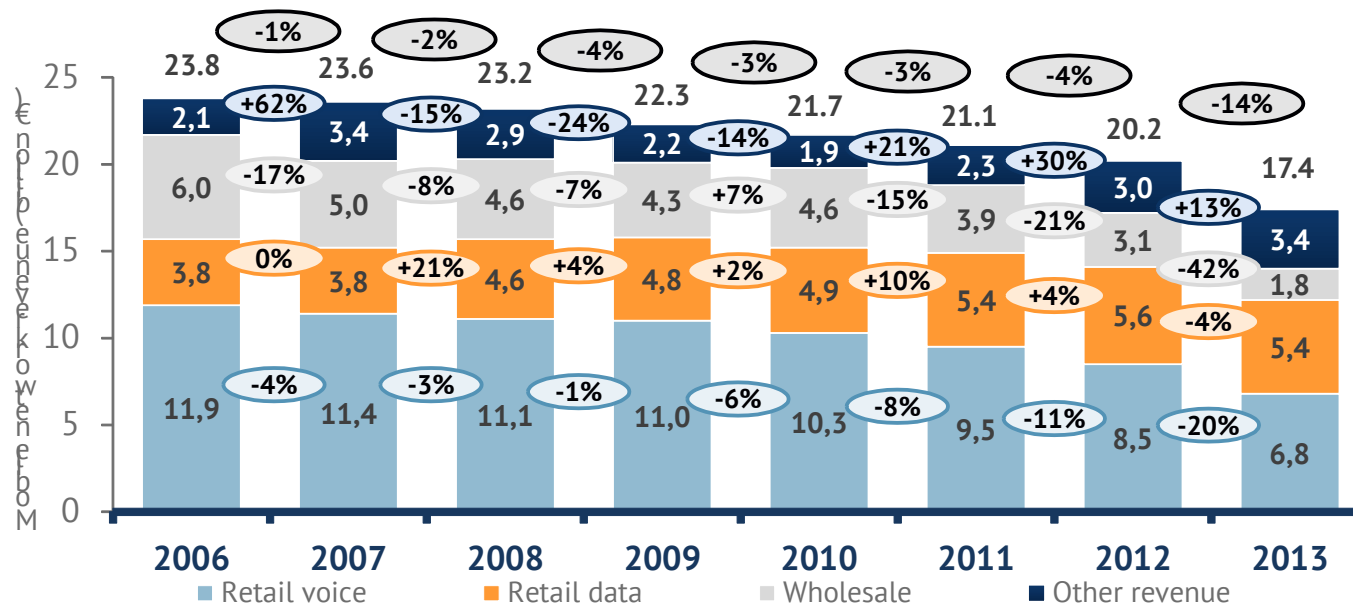


SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA

- The «Retail voice» component also includes «access (line rental)» and public telephones
- The «Broadband» component includes final services on broadband networks to final customers and Switched data transmission services and lines leased to end users
- «Wholesale» consists of Intermediary services provided to TLC Operators
- «Other revenue» includes the sale of equipment, devices, accessories, revenue from non-voice and non-data services (e.g. VAS) and other revenue from fixed networks

Mobile network TLC Operator revenues in Italy

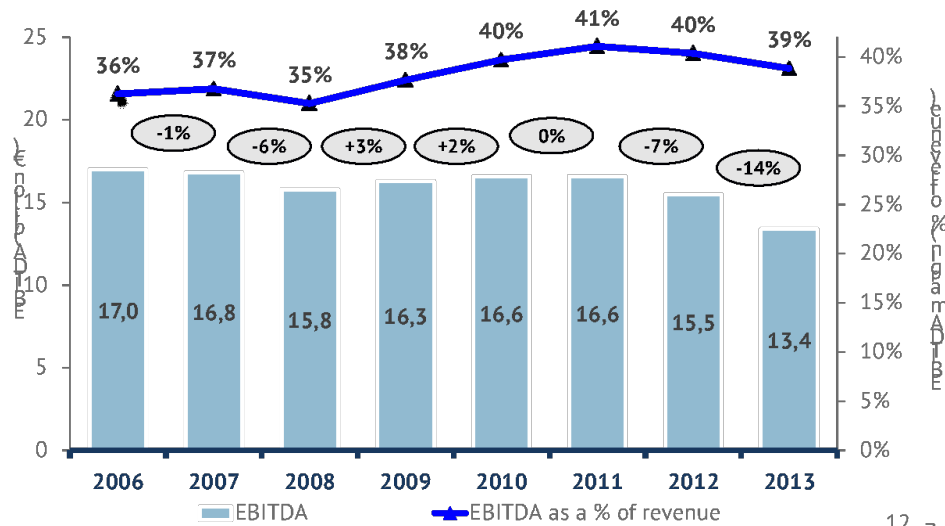
- In terms of **revenue from mobile networks**, the main phenomena driving the strong contraction between 2006 and 2013 were:
 - a significant reduction in **wholesale** revenue (impacted by regulation of call termination costs) which dropped in value by 70%
 - a strong decline in **voice** revenue due to price reductions (while volumes continue to grow)
 - an increase in the **data** component until 2013, when this component also decreased due to a reduction in messaging revenue, which was not sufficiently offset by increased revenue from mobile browsing
 - an increase in other revenue, mainly from **device sales** and **Mobile Content**



SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA

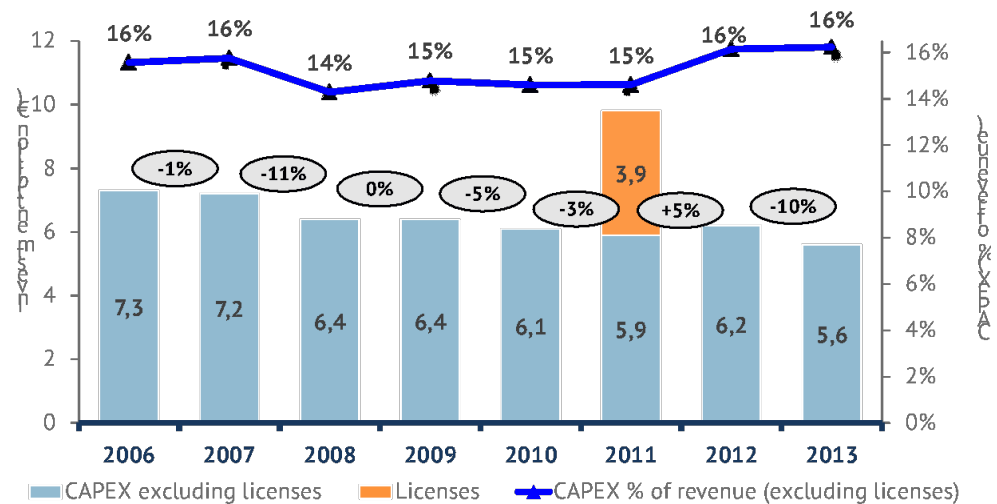
- «Retail data» includes revenue from messaging and browsing via Smartphone, Tablet and Internet Key
- «Other revenue» includes the sale of equipment, devices, accessories, revenue from non-voice and non-data services (e.g. VAS) and other revenue from mobile networks

EBITDA and CAPEX for TLC Operators in Italy



EBITDA also decreased significantly, primarily as a result of the strong decline in revenue which was not fully offset by the decrease in operating costs. However, EBITDA as a percentage of revenue remained more or less stable - at around 40%

- In 2013, investments made by TLC Operators in Italy (**CAPEX**) as a percentage of revenue remained constant with respect to 2012, a sign that Operators are still willing to invest in the infrastructure enabling the Digital Economy
- The absolute value of CAPEX did however decrease in 2013 from 6.2 to 5.6 billion euros



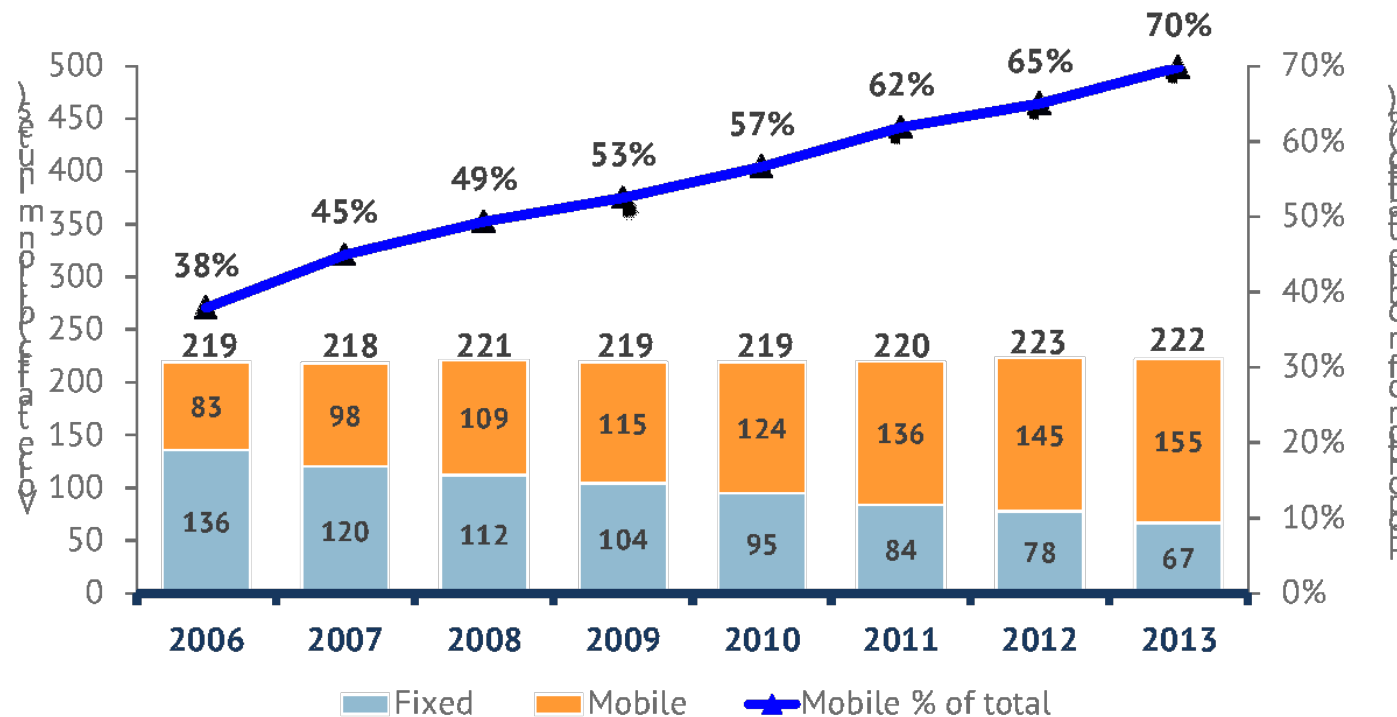
SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA

Planned investments by TLC Operators in Italy

- In terms of the **development of NGAN networks in Italy**:
 - The planned expansion of FTTC coverage aims to reach over 50% of the population by 2016
 - As of August 2014, approximately 6 million homes located in over 100 Italian towns (equal to 23% of the population), including the main urban centres, were covered by the FTTC solution, with a rapid acceleration in deployment plans in the first 6/7 months of the year
 - FTTH/FTTB solutions are currently most heavily concentrated in Milan and in some areas of other major cities. In mid-2014, FTTH/FTTB coverage reached over 2 million households and micro enterprises
 - Overall, at the end of the first quarter of 2014, there were 310,000 fibre connections to the fixed FTTH/FTTB network (AGCOM Observatory data), and in June 2014 approximately 200,000 connections via FTTC (Operator statements)
- In terms of the **expansion of LTE networks in Italy**:
 - The Operators' expansion plans aim to achieve LTE coverage for between 80% and 90% of the population by 2016
 - In August 2014 outdoor LTE coverage had already reached over 60% of the population
- It is clear that a **stable regulatory framework** is an essential precondition to enabling the implementation of investment plans for the deployment of the new infrastructure for both fixed and mobile networks
- The **regulatory process** also needs to be able to respond rapidly in order to finalise regulations designed to enable the realisation of new infrastructure: the processes for finalising the regulation on excavations and methods of detecting electromagnetic interference are prime examples of the importance of this requirement to bring about the implementation of programmes to deploy new fixed and mobile infrastructure

Voice traffic originating in Italy on switched fixed and mobile networks

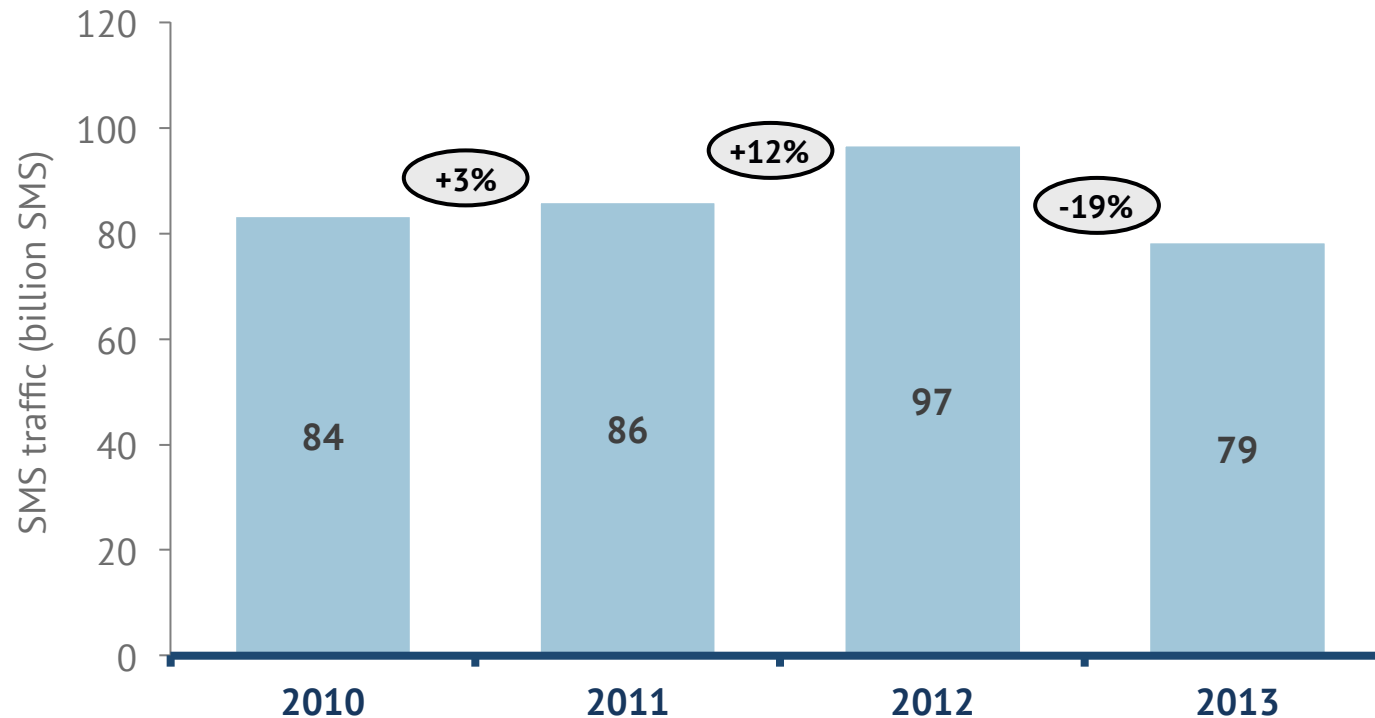
- **Volumes of voice traffic** (in minutes) originating in Italy have remained more or less constant since 2006
- However, each year the **proportion of traffic originating on mobile devices** has increased and now represents 70% of the total, with a corresponding loss of traffic on the fixed network. The latter, as mentioned, halved between 2006 and 2013



SOURCE: AGCOM ANNUAL REPORTS

SMS traffic originating in Italy

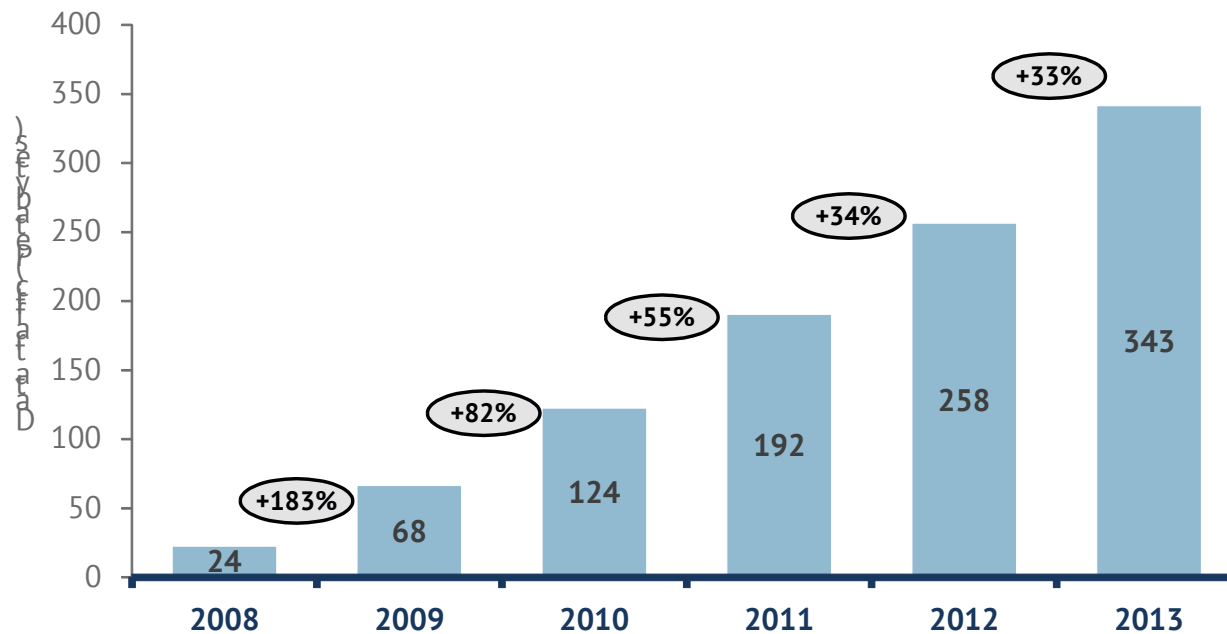
A decrease was observed in the number of **SMS sent** for the first time in 2013. This phenomenon is due primarily to a continuing increase in the use of free messaging Applications (such as WhatsApp) by users



SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA

Mobile data traffic in Italy

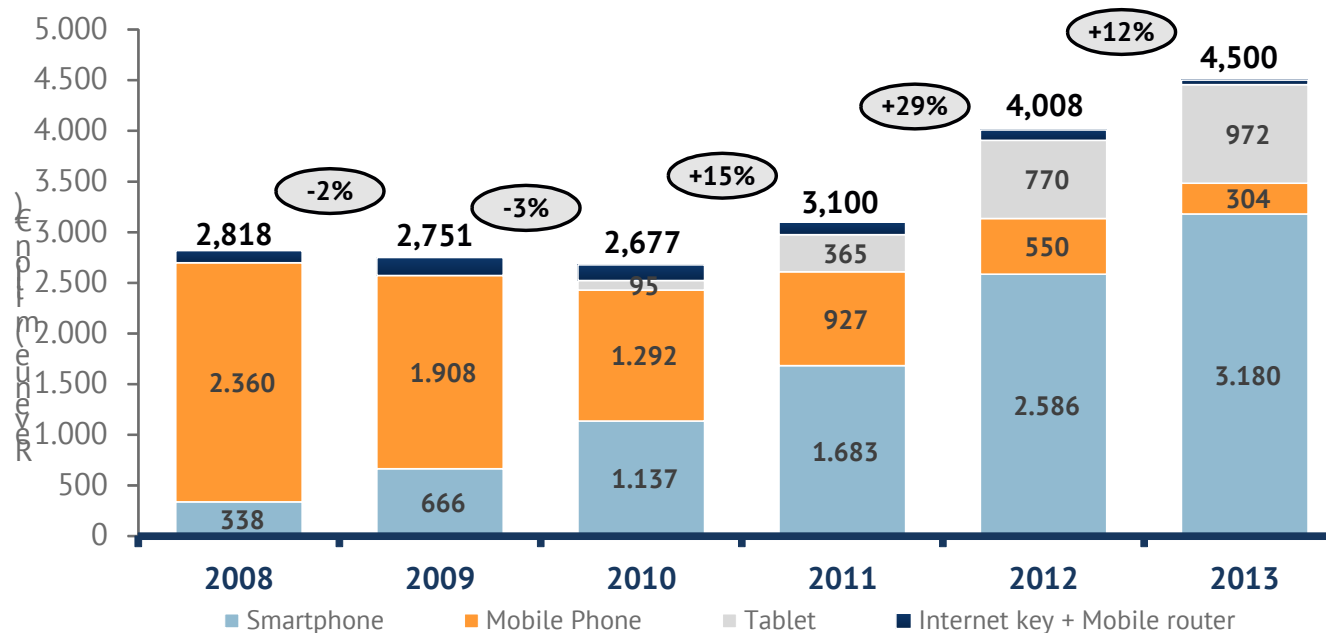
- There was a 13-fold increase in **data traffic** generated by users between 2006 and 2013 due to:
 - the ever increasing availability of bundles that includes data traffic at reasonable prices
 - an increase in the availability of content and applications
 - the growing popularity of Smartphones and Tablets
 - the development of ever more efficient networks
- The increase in 2013 alone was significant: +33%



SOURCE: AGCOM ANNUAL REPORTS

Revenue earned by device providers in Italy by type of device

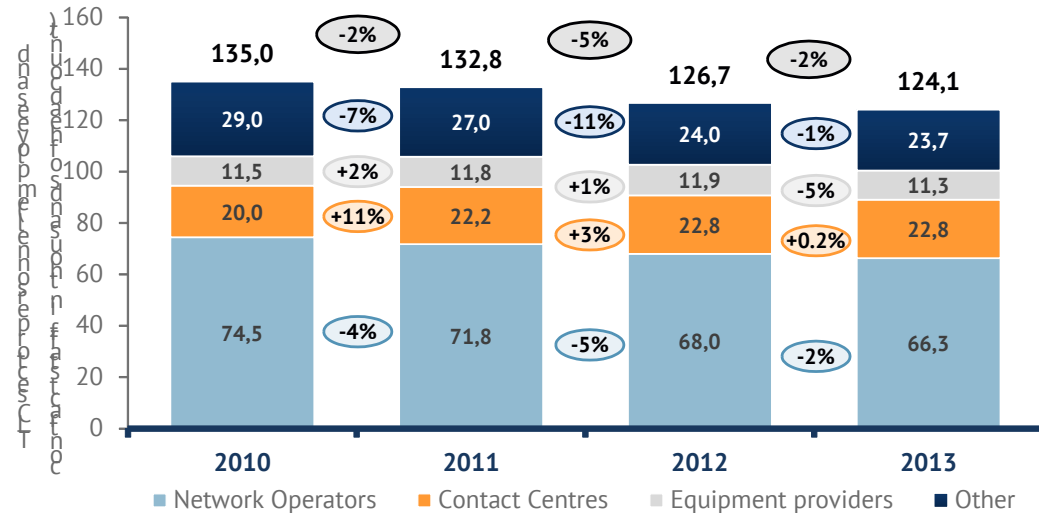
- Shifting the focus to **device providers**, strong growth in revenues was demonstrated over the past 5 years (+60%)
- The rate of growth in revenue was also significant in 2013: +12%
- The lion's share in 2013 was generated by **Smartphones** (71% of total turnover), which represented only 12% in 2008
- There was also significant growth in **Tablets**: +26% in 2013



SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO BASED ON VARIOUS SOURCES (GFK, IDC, GARTNER, ETC.)

The labour market in the TLC industry in Italy

- The sharp decline in revenue in the TLC industry has also had an impact on employment levels:
- Between 2010 and 2013 the **number of TLC industry personnel in Italy** (employees and contract staff) decreased by 8%. This trend is however the result of an 11% reduction within the network Operators, an increase within outsourced Contact Centres and a slight reduction in the equipment provider segment

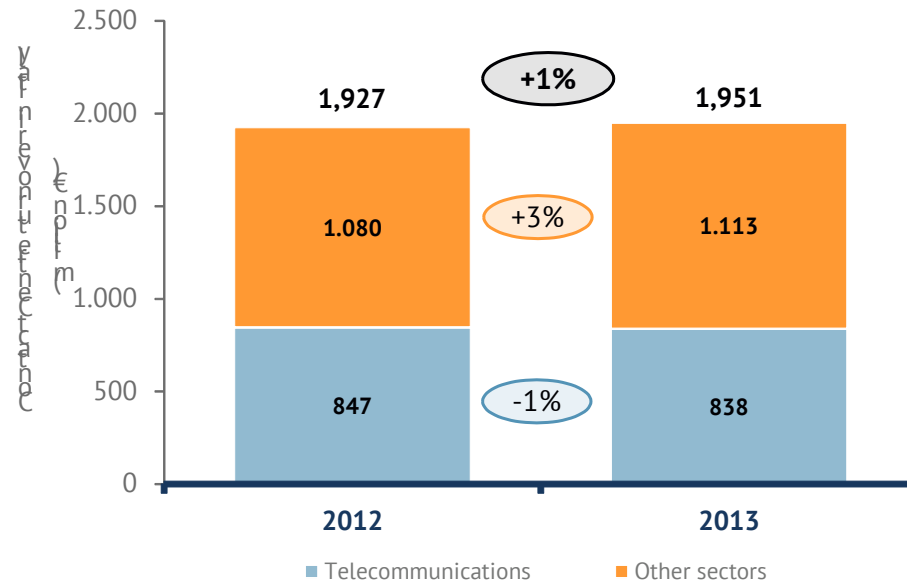


- In the same period **average revenue per FTE** fell 13% and the **personnel cost per FTE** decreased by 4%
- It is interesting to note that there has been a significant increase in the proportion of **female** employees (from 35% in 2006 to 43% in 2013) and in employee **age** (in 2006 51% were over 40, in 2013 it was 58%) in the TLC industry
- The number of **part-time contracts** in relation to the total number of employees has also increased significantly, from 13% in 2006 to 27% in 2013

SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA

The outsourced Contact Centre market in Italy (1 of 2)

- Approximately 200 companies run outsourced Contact Centres in Italy
- In total their **turnover in 2013** was over 1.9 billion euros, up by 1%. This value includes inbound and outbound calls, back office and other services (ICT solutions, logistics, market research), revenue from abroad and revenue from subcontracting
- The outsourced Contact Centre segment continues to grow: the top 10 Operators based on turnover, for example, grew by 4% per year for the past 3 years (in both the Italian and international markets)
- The **Telco share** of the outsourced Contact Centre market in 2013 was approximately 43%, a decline of 1% over the previous year
- It is still a **very fragmented market**, where the top 10 players generate 56% of turnover and 80% of turnover is generated by about 35 companies, that is slightly less than 20% of the total. There is however a trend toward greater concentration in this market



SOURCE: CALCULATED BY OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO USING CORPORATE DATA AND BALANCE SHEETS

The outsourced Contact Centre market in Italy (2 of 2)

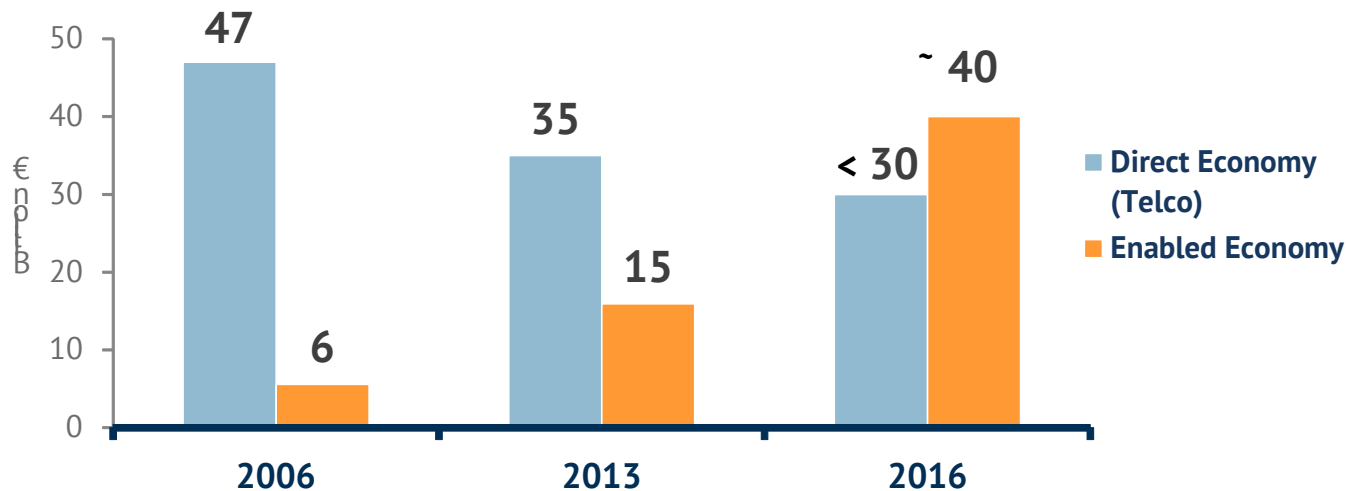
- The **personnel cost** in the outsourced Contact Centre market represents a very high proportion of total costs (for the top 10 industry Operators it was 73% in 2013)
- **Personnel costs** increased in absolute terms in 2013 (by 1% for the Top 10), but this trend would have been more marked without the effect of hiring incentives and recourse to socioeconomic safety nets from which some players benefited
- It is a sector in which the **number of employees** has grown over the years. Approximately 46,000 people were employed in this sector in 2013, an increase of 1% over the previous year. According to secondary sources, if workers hired for specific projects and subcontractors are considered, the industry employs about 80,000 people. Looking at the Top 10 Contact Centres by turnover, the number of employees increased by 18% from 2010 to 2013
- There is a very high proportion of **women** in this sector (70% for a number of years for the Top 10 Contact Centres by turnover)
- **Employee age** is well below the TLC industry average. At the Top 10 Operators, almost a fifth of employees are under 30 years old compared to 8% in the industry as a whole, and over half are between 30 and 40 compared to 34% in the industry as a whole; nonetheless, the average age has increased over the years (the over 40 component did, in fact, increase from 17% in 2010 to 25% in 2013)
- There is a very high proportion of **part-time contracts**: for the Top 10 Contact Centres this means slightly less than 80% of all employees, compared to a TLC industry average of approximately 27%

The main *open issues* related to Contact Centre outsourcing in Italy

- Analysis of the data on outsourced Contact Centres revealed some aspects of the market to examine more closely:
 - **The impact of IRAP (regional income tax) on labour intensive businesses**
 - **The structure of regional incentives and the criteria for accessing them**
- Another pertinent issue is the importance of investing in technological development and in developing a customer-centric approach so as to be competitive in the coming years. Some examples of lines of action being pursued internationally are:
 - the development of **new channels for communication and interaction with end users**, allowing the user to interact with the company through their preferred channel (Mobile Application, Chat, Social Media, etc.)
 - investment in **new technological solutions that aim to improve the customer experience** (e.g. self-service tools that provide customers with access to information, real-time collaboration systems that reduce response times, etc.)
 - investment in **new tools to support internal corporate processes** (such as speech analytics systems to continually improve both customer service and feedback to clients on their offerings, intelligent systems for managing and optimising traffic, etc.)

Network Economy trends: an overall view

- The TLC market, as shown, lost over 12 billion between 2006 and 2013
- However, in the same period approximately 10 billion euros were generated by **digital markets enabled by TLC networks** (eCommerce, Digital Content, Digital Advertising, Digital Payment)
- This trend will continue in the coming years: it is estimated, in fact, that in 2016 the TLC market will be worth less than 30 billion euros, while the Digital Economy will be worth about 40 billion
- It is clear that, in this context, the Telcos need to understand what role they can play and, in taking it on, it will be essential for them to leverage their **assets** (networks, stores, marketing power, billing systems, customer base, user data), strengthening them through **strategic partnerships** with key players in the new markets and creating a **startup ecosystem** around them that contributes to generating innovation



SOURCE: OSSERVATORI DIGITAL INNOVATION POLITECNICO DI MILANO

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The Research Group



The Research Group

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Research Centre

The Research was conducted by the Research Group at the Osservatori Digital Innovation Research Centre of the Politecnico di Milano School of Management. The Osservatori Digital Innovation Research Centre seeks to offer an accurate and up-to-date view of developments in Italy in the area of ICT. Founded in 1998, the "Observatories" address the most innovative issues, combining an 'experimental' analysis of single, real cases with the attempt to construct a convincing general framework to provide guidelines to support companies and decision-makers.

Research activities

- 30 active Observatories
- 80 team members (professors, researchers & analysts)
- Over 100 Research Reports published annually
- Over 100 Conferences and Workshops organised annually, with over 15,000 participants
- Over 20,000 companies studied

Strategic Management of ICT

- Digital Business-Innovation Academy
- HR Innovation Practice
- ICT in the Health Sector
- ICT & Business Innovation in Fashion-Retail
- ICT & Utilities
- ICT Trade
- ICT in Real Estate
- ICT & SMEs
- Digital Agenda
- Digital Innovation in Retail

ICT – Driven Business Innovation and B2E & B2B Applications

- Smart Working
- Cloud & ICT as a Service + Vertical PA
- Big Data Analytics & Business Intelligence
- Electronic Invoicing and Dematerialisation
- Management of Collaborative Design Processes
- ICT & Professionals
- ICT Accessibility for the Disabled
- eProcurement in the Public Sector
- Smart Intranet and Workspace Innovation
- eGovernment
- Internet of Things
- Supply Chain Finance
- Mobile Enterprise

Digital Consumer Markets & B2C Applications

- B2C eCommerce
- Startups
- New Media & New Internet
- Multichannel Marketing
- Mobile Marketing & Service
- Mobile & App Economy
- Mobile Payment & Commerce
- Mobile Banking
- Online Gambling
- New Slots & VLTs
- Digital Innovation in Tourism

The Research Group

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