Franco Bassanini

# Strengthening Growth and Competitiveness through Digitization: the Digital Single Market and the Italian Government Action Plan[1]

Ladies and Gentlemen,

First of all, let me thank you for inviting me to introduce this last session concerning Telecoms and media. The first part of my speech will be focused on the European framework, on the deployment of the European Digital Agenda and on the measures taken or to be taken by the European Commission to promote the digitization, to support investment in this field and to achieve the Digital Single Market. In the second and final part, I will display some data and information on the Italian situation and on the measures taken and the initiatives planned by the Italian Government for the development of the digital infrastructure and of the digital economy, for promoting investment in this field and for attracting capital from abroad.

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The development of the digital economy and the Digital Single Market is one of the key instruments to tackle the main threat that Europe is faced with today (aside from security and migration, of course): the risk of an increasing loss of competitiveness and of a weak and fragile growth, if not even the risk of a secular stagnation, with a consequent impact on the unemployment rate and on the sustainability of the European welfare state. To cope with this threat, Europe – and Italy of course - need to focus on research, innovation and industry 4.0, the acceleration of digitalization being its enabling condition.

The boom of digital services and products is probably the biggest change European citizens have experienced over the last decade. We have fast moved from analogic to digital and we are now moving from broadband to ultra-broadband connections. Citizens, as well as business, around the world can access plenty of services and so do Europeans.

[1] Key Note Speech, *Mediobanca Italian CEOS Conference*, Milan, Mediobanca Headquarters , 22nd-23rd June 2016.

There is a broad consensus among economists that digitization and ultra-broadband infrastructure contribute significantly to economic growth and competitiveness. Ultra-broadband facilitates the communication of information and ideas in markets that increasingly are information-based, helps to reduces transaction costs, facilitate the adoption of more efficient business processes. Moreover ultra-broadband facilitates the development and adoption of innovative new products, applications and services, thereby further stimulating growth. Deutsche Bank Research showed that, according to empirical studies, a 10% increase in broadband connections has caused a rise in GDP per capita by over 1% a year. The European Commission has concluded that a 10% increase in broadband penetration increases GDP by a value in the range from 1 to 1.5%.
The acceleration of digitization is striking. According to Gartner Research, in 2018, the Machine-to-Machine systems will connect 18 billion intelligent objects. In 2018, as well, M2M will help to cure, according to IHS, 7M of patients worldwide and through remote monitoring of patients via the Internet will produce aggregate savings by about $ 36bn, while dramatically improving the quality of health-services.

But, in order to rip the digital economy's growth potential, we cannot do without a common policy and a common regulatory framework throughout the EU. This is valid for telecom rules, privacy rules, *e*-commerce rules, intellectual property rules, taxation rules and new rules applicable to on-line platforms. According to the EU Commission, the Single Digital Market "could by itself contribute for about €415 billion per year to the EU economy and could create hundreds of thousands of new jobs".

As we speak, new economies are rushing towards financing their huge ambitions in terms of infrastructure deployment. From India, to China, to smaller nations in the region, the Asian Development Bank estimates the region's transport and information-related needs at roughly 8 trillion dollars by 2020. While these growing economies race towards new digital networks, numbers from more mature markets such as Japan and U.S. are also striking: in the period 2010-2014, mobile investments grew by 98% in Japan and by 69% in the US.

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Let me give some investment figures that have recently been presented by Boston Consulting about the investment needs that Europe is facing in this sector.

In order to implement the aspirations of a Gigabit Society network, over the next 10 years, investments of at least 660 bn€ are needed, only for access infrastructures. Of which:

1. Investment in 5G is estimated at EUR 150B plus EUR 50B in addition to 4G investment gap: in fact, a 7x densification is required in cities for small cell solutions plus a fiber backhaul for all base stations to allow for IOT / smart car solutions;
2. Investment in FTTX is estimated at EUR 360B in order to give to 95% of European households access to FTTH/dp/C network
3. Investment in proximity data centers is estimated at EUR 100B

At current investment rate of 25 Bln€ per year, building "Gigabit for All" will take 25-30 years. In fact, we have an EUR 350-400 Bln funding gap to 10 year timeframe, requiring additional financing both from government and from institutional and long-time private investors accepting lower rate of return than current telco investors.

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How can Europe face these needs? In particular, how do we ensure that enough investments are made in broadband and ultra-broadband networks deployment, in digital contents and services development, in boosting digital skills and learning, so that the economic and social benefits can materialize?

The answer, which is at the heart of a new approach to industrial policy, is in a mix of policies that promote private investment by smart and updated regulation and some degree of state intervention by means of well targeted public investments[2].

Let me begin with some considerations on the use of public resources. Public investment is needed in order to ensure the new universal human right of the XXI century, the right to access to new generation digital services and contents, but also considering the important positive externalities for growth and competitiveness produced by digital infrastructures and services. The *Ultra broadband Plan* of the Italian Government and the *Action Plan for Digitising European Industry* of the European Commission are - in my opinion - two examples of well-targeted programs

[2] In 2015, the Italian Government decided to allocate up to 6 billion Euros, coming from European structural funds allocated to Italy, to finance the construction of a fiber public network in market failure areas and to provide incentives for private investment in the other areas (mostly in the form of vouchers for families).

of public intervention in the area of digital economy and telecommunications infrastructure.

In Europe, the available public resources must be steered to the areas of market failure, because of the EU treaties prohibiting State aids and promoting open market competition, and also because most EU Member States should implement strict fiscal consolidation policies to reduce excessive public debts. So, outside of those areas, public intervention and more generally public policies should aim first and foremost to promote private investment: on the one hand, supporting the public demand for digital goods and services (e-government, e-procurement, e-health, etc.) and promoting digital culture (first of all, by planning and realizing the digital revolution of school education); on the other, creating an environment as attractive as possible for private investment, as regards regulation, red tape, tax system, labor market rules etc..

State aid rules have for long been well fit to drive smart investments: public resources can be allocated only to investment projects that would not be carried out by private operators. But the current economic challenges strongly indicate that, in the interpretation and application of competition and State aid rules, Authorities should consider that the European companies compete in global markets; consequently they should shift the focus towards a smart and well-targeted distinction between the '*good aid'*, essential to foster growth and competitiveness, without significantly altering the competition among European companies, which should be promoted, and, on te other side, the *'bad aid'*, not essential for growth and likely to distort the fair competition in the single market, which should be discouraged.

In principle, State aid rules are already there: State aid is compatible with the Treaties when it contributes to objectives of common interest, corrects market failures, has incentive effects, without or with negligible distortions of competition. But we must ensure that the EU competition rules are applied in a uniform and consistent manner by all the authorities (European and national) and without unjustified rigidities.

In the digital context, moreover, authorities should carefully consider whether the relevant markets are national or, instead, European, and take into account that European companies compete on the global market in almost all sectors. Regulators and policy makers too often forget this or seem to ignore it, and thus they end up encouraging the national fragmentation and prevent the processes of concentration

and cross-border consolidation which are needed to put European industry in condition to compete in global markets.

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In Europe, considering the regulatory and financial limits of public intervention, the role of private investment and financing is, in any case, crucial. As you know, liquidity on the global markets is today abundant, but the demand for capital investments is huge and the competition for attracting them is ruthless. In order to attract private capital, and stimulate private investments, the whole tool box of public policies must be updated and focused on that goal, first of all by the creation of a general regulatory environment conducive to investment: streamlined administrative procedures and reduced red tape, quick and predictable dispute settlement systems, efficient and business-friendly public administrations, clear, stable and consistent rules on access to infrastructures, truly independent and skilled regulatory Authorities are of paramount importance, but are not sufficient.

They should be accompanied by a long-sighted review of the international and/or European financial regulation, which, despite the lessons of the crisis, still favor short-term financial investments and penalize (with inevitable pro-cyclical effects) long-term investments with high positive externalities for growth and competitiveness, such as the investments in infrastructure, technology, research and innovation. On the contrary, even to prevent the risk of new crises and new threats to financial stability (which is always fragile in times of recession or economic stagnation, given the two-way correlation between financial stability and economic growth), we need to have a more forward-looking international and European financial regulation, able to understand and promote the conditions of the economic growth.

In this context, we expect a stronger commitment of the European Union and the European Member States to recalibrate the currently prudential regulations and accounting standards (IAS/IFRS, CRD IV and Solvency II/Omnibus). Assuring financial stability must still be the main goal of the regulators. But, considering that economic growth is a condition for financial stability (and also for the long-term sustainability of fiscal consolidation processes), there is clear room for a fine tuned recalibration more friendly to long term investment without jeopardizing overall financial stability.

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Important updates are also needed with regard to the policies and regulations specifically referring to the telecommunications sector and the digital economy. New advanced digital technologies are being introduced in public fixed and mobile communications networks. The aim of the telecom rules that were thought of at the beginning of this revolution has been achieved: markets are open and access to digital networks has become available and affordable at a large public. Not only, European rules have also met general interest objectives like freedom of expression, media pluralism, social inclusion and consumer protection.

The digital networks have large capacities and possibilities for processing personal data. But the successful cross-border development of these services is highly dependent on the deployment of common rules across the Union: because the internet is overturning traditional market structures by providing a common, global infrastructure, the EU must create a common legal and regulatory field in order, for its market players, to be able to compete globally and, for its citizens, to enjoy the highest possible level of technological innovation.

It looks to me that this is the primary goal that the European policy makers have to look at, when addressing the issue of reviewing telecom rules: the focus should shift from market liberalization (the rules that we have today) to creating conditions for economic growth, global competitiveness and high value for citizens. We should seize the opportunity to adopt a smart EU regulatory framework capable of becoming the benchmark (a regulatory 'gold standard') at the global level.

Therefore, we need, on the one hand, to ensure a level playing field between all market operators, including the OTTs, and, on the other, to abide to the principles of better regulation. In the digital area, the risk of hindering innovation should be avoided: the proportionality principle should still be our compass in the review of the overall regulatory framework for the digital single market, including electronic communications networks and services.

As to electronic communications, the current framework is based on outdated definitions that do not adequately take into account the convergence of services and the consumers' perspective. The vision for a new digital Union requires a modernisation of both our policy approach and of our regulatory tools. We should be

ambitious on our objectives: massive scale-up of broadband investment and enhanced service innovation should be achieved.

“Smart rules" and "innovation fostering" ideas are required to define the regulation framework of the new playing field provided by NGNs. They should provide rules and mechanisms appropriate to stimulate long-term investments in NGNs and innovative digital services and contents. Innovative solutions, such as the (corporate and/or ownership) unbundling of connectivity services between network and trading services, should be considered.

Let me offer a couple of examples. As for OTTs, we should consider that they are not mere service providers but are the main investors in the most profitable and strategic portion of the NGN: the Content Delivery Network. The perspective is that they could become the main investors in both video content production and delivery; and video content will account for 80% of Internet traffic in 2020. Are the regulation tools ready for this challenge? Content production is a global market and themes like rights and geolocation of viewers should be addressed at global level; but the CDNs are to be deployed closer and closer to the end users, intertwined with the telcos access networks and hence pose a "local" problem to NRA. This local-global nature of OTT regulation asks for the "smart rules" I was mentioning above.

The issue of the spectrum management is another good example of the need for common rules, related to common industrial policies supporting growth and competitiveness; without proper common rules and without a supranational enforcement of the same rules, for instance, the allocation of frequencies still occupied by television broadcasters to ultra-broadband fifth-generation (5G) mobile networks (allocation planned or already decided by some MS) could be in fact prevented, given the cross-border interferences, by the few MS still reluctant to impose the transfer of the television programs on the fixed network (which would, moreover, favor the development of fiber fixed networks).

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Once achieved the objective of a modernized set of policies for the digital single market, in order to grant a level playing field across the continent, it is of utmost importance to ensure that regulatory competences are properly allocated between EU institutions and national authorities and that national regulatory authorities have harmonized objectives and principles to follow.

In particular, it is worth to point out that the future smart regulation should aim to encourage long-term private investment needed to equip Europe with future-proof new generation infrastructure networks: those who invest, those who create new generation networks, on equal terms than their competitors, should be subject only to obligations needed to ensure the interconnection and interoperability of networks, following criteria of proportionality of the obligations imposed. In that framework, the new set of policies should promote investment drivers like co-investment and commercial arrangements and support the broadband deployment in challenge areas.

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The European Commission is fully committed to pursue the goal of creating a digital single market. Recently, a number of legislative and non-legislative measures have been presented, all of which provide for actions to both at European at national level that are, in my view, very relevant to push investments in the digital economy. Let me just quickly mention the areas where the EU has taken action and where I think investments should be directed:

On **April 19**, three pillar actions were presented regarding the digitalization of the European industry, an European cloud initiative for competitive data and the knowledge economy, and an e-government action plan.

On **May 25** the Commission has published a bucket of measures on the role of online platforms, audiovisual media services and e-commerce.

1. As for the **online platforms,** the Commission has not proposed a new general set of rules but a communication presenting the EU's overall approach to the topic and the next steps on the DSM roadmap concerning platforms. As one of the main goals of the DSM Strategy is the creation of a good ecosystem for the development of EU-based platforms, the EU wants to ensure the existence of a balanced and harmonized regulatory framework (not fragmented by different national laws).
2. The **e-Commerce** package contains four key proposals:
   - a proposal for a regulation on **geo-blocking** and other discriminations based on location
   - a proposal for a regulation on **cross-border parcel delivery**
   - a proposal for a review of the regulation on **Consumer Protection Cooperation**

- a guidance for the implementation of the **Directive on Unfair Commercial Practices**

3. The third package of provisions presented by the Commission is the updated **Audiovisual Media Services Directive** (AVMSD) aimed at creating a fairer environment for all players, promote European films, protect children and bette tackle hate speech. The AVMS Directive also strengthens the promotion of European cultural diversity, ensures the independence of audiovisual regulators and gives more flexibility to broadcasters over advertising.

Last, but not least, on **June 2** the Commission has presented a communication on **collaborative economy** aimed at guiding both member states and operators on how existing EU legislation applies to the topic. However, Member States remain free to decide on the way they approach to the collaborative economy, as long as they comply with EU law.

As you can see, this set of measures does not respond to all the questions and does not meet all the requirements highlighted above. But it seems to me to be, anyway, a good start. However, a fruitful outcome depends on the engagement of member states and of market players, as well. No policy objective can be reached successfully unless private and public actors cooperate in the respective field of competences: private companies will invest insofar as governments and public authorities : i) create favorable conditions for such investments and ii) intervene with public resources in those areas where the market cannot satisfy the digital targets.

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Let me come now to Italy.

Our starting point is not very good:

- in terms of digitalization of the economy and society, according to the Digital Economy and Society Index 2016, Italy ranks 25th out of the 28 EU Member States, followed only by Greece, Bulgaria and Romania.
- As far as connectivity is concerned, it scores 27th, just before Croatia; it scores the last in terms of maximum speed and average BB connections (69th and 54th respectively in the world scoreboard).
- Fixed broadband subscription which exceed 10 Mbps is equal to 21% vis-à-vis 51% of the European average (Cisco). Connections between 30 and 100 Mbps in Italy is equal to 3% vis-à-vis 17% of the European average.

- In Italy Internet users are only 64% of the entire population against 80% in the whole of Europe (Cisco, 2014) and 20% of households use uniquely mobile connection (1 out of 5 vis-à-vis 1 out of 20 of the European average).
- 18 million Italians have never used Internet (equal to 31% of total population).
- There are 6 PCs for every 100 student (against 16 in the EU).
- Only 6% of Italian enterprises uses E-commerce against 17% of the EU average.

However important improvements occurred in very recent times which are now reported in the *Europe's Digital Progress Report (EDPR) 2016*, which, not by chance, now includes Italy among the countries of the so-called *catching up cluster of countries*: according to this Report "*although it still performs below EU average, Italy has progressed faster than average over the last year*" .

Very consistent, according to the Report and other recent researches (CISCO IBSG), are the improvements on the demand side:

- the share of surfers engaging in online shopping has improved significantly, by 4 percentage points in one year, in line with the progress experienced by enterprises with their online sales.
- 30% of Italian firms considers IoT and M2M their next innovation projects.
- 56% of Italian firms is convinced that M2M enables new business and operative models.
- more and more Italians (63%) are using Internet services, and digital content services, like music, videos and games are enjoyed by more Italian Internet surfers (52%) than the EU average.
- The consumption of data is rapidly growing: in 2015 Italian networks have generated approximately 800 petabyte of daily monthly traffic, which is estimated to grow up by a factor of 2.6x within 2019, overpassing 2.000 monthly petabyte (CISCO).
- The consumption/download of shows/movies on smartphones grows at an annual rate of 20% and by over 70% on tablet.
- mobile broadband take-up is actually in line with the EU average (75 subscriptions per 100 people).
- In Human Capital, Italy's performance is below EU average but is making good progress
- Italy shows average performance in Digital Public Services.

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Even more important, in my view, is the strong commitment shown in the recent times by the Italian Government in promoting and pushing the investments in material and immaterial digital infrastructures, in the digitization of public administration and public services, in the digital economy. Furthermore the Italian Government seems now very strongly committed in creating the best framework to attract private capital in the sector.

The starting point of this Government commitment stands in the belief that the first problem of Italy is not now public debt but low growth and low productivity. It is not really the public debt if we consider:

- the relevant primary budget surpluses continuously achieved by Italy since 1994 (with the only exception of 2004)
- the low debt of Italian families and business (strongly below the European average)
- the good sustainability in the medium and long-term of Italy's explicit and implicit public debt (the best in EU, in accordance with the last scoreboard of the Frankfurt's Markwirtschaft Stiftung).
- the medium term impact on fiscal consolidation of the structural reforms approved by the Italian Parliament in the last 3 to 4 years, now in the process of progressive implementation

Of course a severe fiscal discipline must be assured, the fiscal consolidation process must be continued and the public debt must be reduced. But the problems to be tackled without delay are first of all, in Italy, low growth and low productivity (and, of course, demography). By enhancing growth and productivity we will also achieve a reduction of the debt / GDP ratio, by the denominator side. Of course, for enhancing growth and productivity, we need to increase investments, and especially long-term investments, favoring those that have a more rapid and long standing effect on productivity, such as the investments infrastructures, R&D, technologies, education and high-productivity companies. First of all, the investments in digital infrastructures, digital economy, and hi-tech promising and innovative companies. An Italian research (by Cisco and Tor Vergata University) shows that a 50% increase in the penetration of the fiber to the home may have a positive direct impact on growth of about 1.1%, plus indirect effects of about 2,4% including the capacity to

increase innovation, the creation on new digital services "internet based" and a general increase in productivity.

Measures to boost the digital infrastructures and the digitization of economy and public administration have therefore a central place in the government policies. The Government's digital agenda is based on three major pillars:

1. The first is the National Ultra-Broadband Plan approved in 2015 aiming inter alia to ensure, by 2020, 100% coverage with at least 30Mbps and 85% coverage with at least 100Mbps. To achieve its objectives the Government's Plan allocates 6.9 billion euro coming from the European Structural Funds awarded to Italy or to Italian regions. 50% of the funds available have been allocated for NGA coverage of the market failures areas (so called white areas: around one third of the population and two third of the national territory); for these areas, the plan provides a model of direct public investment to build a passive public infrastructure managed with a wholesale-only model; by competitive prócess, the management of that infrastructure will be entrusted to a private company, preferably not vertically integrated with the supply of telecommunications services.

The remaining 50% of the available funds will be used to incentivize the deployment of next generation networks in cities and in general in the black and gray areas, giving priority to the most future proof solutions, and thus to the fiber to the home or to the building networks. The types of incentives that will be provided depend on the just started negotiations with the European Commission (DG Competition and DG Connect) just started, but I think that the incentives which will be allowed, at the end of the day, will by vouchers for families (to be used to activate their subscription to new generation networks – support for demand) and perhaps tax credits on investment and guarantee schemes on loans obtained from the EIB or from the banking system.

The rationale behind this strategic choice is the conviction that the objectives set by the European Digital Agenda are now being overtaken by the speed of technological change. In fact, we are going towards a Gigabit society, as well as highlights the decision of the US cable TV networks to adopt the standard Docsis 3.1, or even the Full Duplex DOCSIS 3.1: the first supports capacities of at least 10 Gbit/s downstream and 1 Gbit/s upstream in providing Internet access over their existing hybrid fiber-coaxial (HFC) infrastructure, the second enables multi-gigabit symmetrical services. Moreover, it is likely that a fixed fiber network widely spread

across in the country could also fulfill in a few years the function of the backhaul infrastructure for the future 5G wireless networks.

The *Europe's Digital Progress Report 2016* has assessed very positively the Italy's Ultrabroadband strategic Plan, considering it "extremely important as, in the absence of any public policy initiative, a new digital divide may emerge for significant parts of the country. The challenge will be to put in place an implementation mechanism to ensure effective and coordinated use of the several sources of public funding for broadband projects available from different levels of government".

The same Reports stresses that Italy is the first EU Country to notify full transposition of the Cost Reduction Directive 2014/61/EU, which could further support cost-savings in network build-out and investments in synergy with smart utilities objectives (eg: smart meters); and that Italy is trying to finalise the implementation of spectrum management measures aiming at addressing the current international interference issues as a first step to ensure coordination with neighbouring countries.

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2. The second pillar of the Government Agenda is the Strategy for Digital Growth, a sort of An industrial e-Government plan for Italy, approved on March 2015.

The main projects are:

* the Public System of Digital Identity (SPID), giving to all citizens and businesses safe and protected access to digital services delivered by Public Administration. Three million users are expected to be registered by the end of 2017. 600 services are foreseen to be accessible through SPID by the end of June 2016 and, according to the development plan, all Public Administrations will be connected by the end of 2017. The SPID system is an open group of public and private entities that, after being accredited by the Agency for Digital Italy, are allowed to manage services connected with the registration, release of credentials and provision of tools to access the network on behalf of public administrations. Private service-providers (e.g. banks) could also in future use SPID for access to their services. SPID is already interoperable with other European digital identity systems since it adheres to the EU eIDAS standard.

* the National Register of Resident Population (ANPR) , which will overcome the fragmentation of population data contained in 8.000 databases in as many municipalities.;

* the ePayment system for public administrations, "PagoPA", connecting today more than 15,000 public administrations; Italy has mandated the use of e-invoices for payments by public administrations since summer 2014 for State administrations and since March 2015 for local administrations. The use of mandatory e-invoices for public administration transactions is expected to drive up the general adoption of e-invoice solutions , given that a significant part of Italian businesses sell to the public administrations:

* digital school: another ecosystem of paramount importance, in the present Government vision, within the framework of the New School reform: innovative online services for schools, students, teachers, parents are foreseen; in the meantime, Digital competence program is aimed to bring digital alphabetization to the whole population, overcoming any digital divide;

* the digitization of the health public system.

The strategy includes many other initiatives like pre-filled tax declarations, a digital address which the citizen can ask to be used for all communications from public administrations, and an *e*Government portal with all services available in one place (ItaliaLogin).

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3.The third pillar is still under construction. The Government is planning to launch a sort of Industry 4.0 package, expected for the next finance law in October: a large set of measures aiming to accelerate the digitization of the manufacturing sector of Italian economy, which has begun to integrate digital technology and services within the global supply chains, through the application of Industry 4.0 principles. The country's manufacturing identity is in fact changing: the traditional strength of the four Fs (food, fashion, furniture, and "Ferrari") is now flanked by the strong performance of other sectors such as robotics, mechatronics, biopharmaceuticals and aerospace. Many measures adopted by the Government in the recent years in order to boost growth and investment and to attract private capital, are already helping this sound transformation of Italian manufacture. First of all, a basket of tax incentives such as:

- the 25% tax credit on additional investment in R&D (50% if contracted with universities, research centers or other qualifying firms);
- the special treatment of revenues sourced from patents and trademarks, with tax relief of 30% in 2015, 40% in 2016 and 50% from 2017 onwards;
- the 15% tax credit on additional investment in machinery and capital goods over the €10,000 threshold;
- the super amortization of the investment costs in new capital goods: a sort of accelerated depreciation allòwances

But I could mention also the introduction of international tax ruling standard with a four-year agreement between multinationals and the Italian Revenue Agency on implementation of tax regulations; and a number of measures aimed at cutting red tape and reducing regulatory and bureaucratic burdens for investment.
The new policy package, to be approved in the Budget Law 2016, will include new incentives for investment and mergers, as well as new rules to ensure a more certain and more transparent fiscal framework, but will be more focused in supporting the digitization of the Italian industry following the principles of Industry 4.0.

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The large number and the remarkable importance of the measures taken or announced by the Government, acting on the demand side as well as on the supply side, is producing some significant developments in the scenario of the Italian telecommunication sectors. The two most important are represented by the entry into the market of the telecommunications infrastructure of an important new player, Enel Open Fiber, controlled by the leading Italian company in the production and distribution of electricity; and by the decision of the incumbent, TelecomItalia, to increase the investment in new generation fixed networks, in order to face the new competitive challenge and to intercept the growing demand for connectivity also produced by the measures adopted by the Government. Enel will exploit all possible synergies with the electricity distribution networks owned by the group and with the planned installation of the smart meters in houses and offices, TelecomItalia is trying to translate from copper to fiber its dominant position in the fixed telecommunications market. Both have proposed a merger to Metroweb Italy, the company which built and owns the dark fiber network covering nearly all the Milan metropolitan area and now also the cities of Turin

and Bologna with FTTH technology. Metroweb is a target also for its consolidated know-how in the design, construction and management of FTTH networks.
The market space for an infrastructural competition between network operators, able to provide adequate return on investment, is actually limited, following the consensus of analysts, to the 10 to 12 major metropolitan areas of the country. So we can envisage, for the remaining part of the country, a *de facto* partition of the territory between the two major competitors or a general agreement with a final merger between the two companies, preceded by an unbundling and a deconsolidation of the fixed network of TelecomItalia.
But I think that two factors have not yet been adequately considered by the analists. The first is the impact of the significant public funding in equity and incentives (worth about 7 bn euro) recently allocated or planned, which will reduce the amount of private capital required. The second is connected with a peculiarity of the Italian context: the absence of cable TV networks able to compete with the telecommunications infrastructures in providing connectivity to households and businesses. This peculiarity is due to regulatory restrictions imposed by the Parliament in the eighties with the aim to protect the television duopoly between the State-owned RAI and the Mr. Berlusconi owned Mediaset. This has been for years a handicap for Italy, given that the incumbent TLC company TelecomItalia has not been obliged to invest to cope with the competition of the cable TV networks like the incumbents of other countries were compelled to do. But now it could be an advantage for investors in NGN. In fact, before the end of 2020, or at least 2022, Italy will be oblige, by the European rules and by the technological developments, to allocate to wireless TLC services a great number of frequencies now used by the television broadcasters. Consequently, the reception of television programs, today mainly wireless (the so called *digitale terrestre*), will be obliged to use the TLC new generation networks, producing a very relevant enlargement of the market space of the Italian TLC fixed infrastructure.
Thank you for your attention..