Speech at 42nd Annual Forum of The European House "Intelligence on the World, Europe and Italy" 3 of September 2016 at 14:00 Villa d'Este – Cernobbio, Italy

Briefing for Commissioner Oettinger

I. Scene setter

The European House Forum is an annual international economic conference held at Villa d'Este in the Italian town of Cenobbio at Lake Como.

Since its inception in 1975, the forum has brought together Heads of State, Ministers, Nobel laureates and businessmen to discuss challenges to the world's economies and societies.

The event takes place behind closed doors under Chatham House Rules¹.

The topic of the second day of the forum 2016 concerns the attractiveness of Investments in the EU followed by a 20 minute audience debate.

The meeting is scheduled for 3 September at 15:00.

There will first be a short presentation by Esko Aho (Former prime minister from Finland – his CV is included in the background annex to the briefing).

He will address a study 'Empowering Europe's Investment ability and policy recommendations for re-launching investment in Europe and the role of the Energy Sector'.

The presentations are followed by a 20 minute discussion.

The timing for this part of the meeting is, in total, one hour.

Objective

The digital economy is developing rapidly worldwide and it has the potential to activate relevant investments and prompt convergence among industrial sectors.

One of EU top priorities is to establish a connected Digital Single Market (DSM), generating economic growth and making Europe even more attractive for global investments.

The DSM Strategy key objectives of the ongoing Telecom review are to make the regulatory environment of the sector more investment-friendly.

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¹ Opinions can be reported but not attributed.

Line to Take

- Stress that we must make much better use of digital technologies, which know no borders, in order to trigger more growth and investments
- Highlight that there is a urgent need to break down national silos in telecom regulation:

This includes amongst others; better copyright protection for digital goods and services, better management of radio waves, more effective data protection legislation and proper application of competition law

- There is a need to create a level playing field where all companies are subject to the same data protection and consumer rules, regardless of where their server is based
- Modern, fast and affordable high-capacity broadband infrastructure is very important to enable both existing companies and new start-ups to grow more rapidly selling their products and services
- A particular challenge is the impact on the labour market and education systems caused by digitisation. There is a great need for investments in digital skills and lifelong learning, to re- and up-skill people for jobs to mitigate skills mismatches and potential job losses from digitization.
- All this can only be done by creating a fully connected DSM, which is open to global competition and to more global investment
- That is why EU has taken ambitious legislative steps towards creating a connected digital single market including a major review of Telcom rules

II. Speaking points

- Die Welt wird immer digitaler, und dieser digitale Siegeszug sowie die Investitionen in die digitale Wirtschaft haben tief greifende Auswirkungen auf unsere Gesellschaft. Die digitale Wirtschaft ist eine treibende Kraft für Wachstum und Wohlstand, und wir müssen die dadurch eröffneten Chancen wahrnehmen.
- Auf die digitale Wirtschaft entfällt rund ein Drittel des europäischen Wachstums; in einigen der digital stärker fortgeschrittenen Mitgliedstaaten ist dieser Anteil jedoch noch erheblich größer.
- Die Politik muss holistische Ansätze verfolgen. Es bedarf einer kohärenten und faktengestützten Politik, um Investitionen in schnellere Breitbandkonnektivität anzukurbeln und gleichzeitig die Hemmnisse für einen besseren und breiteren Einsatz digitaler Technologien auszuräumen.
- Aktuell stehen wir vor großen Herausforderungen in punkto Technologieinvestitionen. Gleichzeitig müssen wir aber auch in Menschen investieren. Digital kompetente Arbeitskräfte und Bürger spielen eine zentrale Rolle bei der Modernisierung unserer Industrie und der Ausschöpfung des Potenzials des digitalen Binnenmarkts.
- Die schnelle Digitalisierung fürht zu einer immer tieferen digitalen Kompetenzlücke, da die allgemeinen und beruflichen Bildungssysteme Probleme bei der Anpassung haben. In den letzten 10 Jahren sind in Europa mehr als 2 Mio. Arbeitsplätze für IKT-Fachkräfte entstanden, und der Mangel an IKT-Kompetenzen hat

zugenommen. Bis 2020 werden voraussichtlich 756 000 Stellen nicht besetzt werden können.

- Wenn 40 % der Unternehmen Schwierigkeiten haben, IKT-Spezialisten zu finden, besteht die Gefahr, dass dies eine der größten Wachstumshürden für Unternehmen ist. Wir müssen dafür sorgen, dass diese Unternehmen wachsen und noch viel mehr Arbeitsplätze schaffen können.
- Diese Arbeitsplätze sind nicht nur im IKT-Sektor angesiedelt, sondern auch in traditionellen Branchen wie Automobilindustrie, Bankensektor und Pharmaindustrie. Einer von zwei Computerspezialisten arbeitet nicht um IKT-Sektor.
- In Europa zählt die verarbeitende Industrie 2 Millionen Unternehmen und 33 Millionen Angestellte. Wenn diese Sektoren digitale Technologien optimal einsetzen, werden sie innovativ tätig, erhalten mehr Arbeitsplätze und schaffen neue Arbeitsplätze.
- Ein sehr erfolgreiches IKT-Unternehmen ist SAP der deutsche Weltführer in betriebswirtschaftlichen Softwaresystemen. In den letzten 10 Jahren hat das Unternehmen in Zeiten hoher Arbeitslosigkeit dringend benötigte Arbeitsplätze geschaffen: die Zahl seiner Mitarbeiter ist weltweit von 40 000 auf 80 000 gestiegen.
- Aber die Vermittlung digitaler Kompetenzen ist nicht nur eine Frage der Ausbildung von mehr Ingenieuren und Computerspezialisten. In Zukunft müssen alle Mitarbeiter über digitale Kompetenzen

verfügen. Zurzeit werden die digitalen Kompetenzen von 45 % der Bevölkerung insgesamt und 37 % der Erwerbsbevölkerung der EU als ungenügend eingestuft (entweder aufgrund geringer digitaler Kompetenzen oder weil sie das Internet nicht nutzen).

- Die Kommission hat kürzlich eine neue Leitinitiative angekündigt: die "Koalition für digitale Kompetenzen und Arbeitsplätze" im Rahmen der "Agenda für neue Kompetenzen", um die Vermittlung digitaler Kompetenzen zu fördern.
- Ein weiterer für die Mobilisierung von Investitionen sehr wichtiger Aspekt ist die Errichtung "intelligenter Netze". Diese Netze ermöglichen eine umfassendere und systematischere Nutzung der Möglichkeiten zur Digitalisierung wichtiger Infrastrukturen in den Bereichen Energie, Verkehr, Gesundheit, Bildung und elektronische Behördendienste (eGovernment).
- Gelungene Beispiele für solche Netze sind Smart Grids, intelligente Messgeräte, Smart Homes, intelligenter Verkehr, Smart Cities, eHealth, eLearning, eGovernment und elektronische Beteiligung.
- Aber die europäische Perspektive reicht nicht aus. Digital ist gleichbedeutend mit global. Wir müssen erkennen, dass unsere Wirtschaft sehr darauf angewiesen ist, dass das Internet offen bleibt, weil dies eine wichtige Voraussetzung für den Erfolg von Startups und etablierten Unternehmen ist, die kreative Umbrüche in unseren digitalisierten Märkten möglich macht.

- Datenwirtschaft, die konkrete Vorschläge zur Sicherung des freien Datenwerkehrs und zur Beseitigung von Einschränkungen in Bezug auf den Ort der Speicherung/Verarbeitung von Daten beinhaltet, äußerst wichtig ist. Sie wird mehr Wachstum und Investitionen in unsere digitale Wirtschaft garantieren und Unternehmen in die Lage versetzen, in ihre weltweiten Zulieferketten sehr viel effizienter zu betreiben.
- Das neue Abkommen über den EU-US-Datenschutzschild dürfte ein angemessenes Datenschutzniveau in den USA gewährleisten. Dies wird ein verlässlicherer Regulierungsrahmen für den bilateralen Datenaustausch sein. Aber darüber hinaus wir müssen dafür sorgen, dass dies auch für alle wichtigen Handelsblöcke der Welt der Fall sein wird.
- Wir müssen die weltweit vereinbarten Grundsätze der Multi-Stakeholder-Internet-Governance fördern. Diese Bemühungen erstrecken sich auch auf einen ordnungsgemäßen Übergang der Kontrolle des Domain-Namen-Systems von den USA an eine globale Stakeholder-Gemeinschaft.
- Ferner muss auch weiterhin weltweit nach einer ausgewogenen Angleichung nationaler Rechtsvorschriften zum Schutz der Privatsphäre gestrebt werden, um grenzüberschreitende Datenflüsse zu schützen. Auf diese Weise wird der freie Datenverkehr

- sichergestellt, der zur Investitionsförderung in und außerhalb Europas so wichtig ist.
- Bürger und Unternehmen müssen sich darauf verlassen können, dass ihre Daten vor Missbrauch geschützt sind. Unternehmen und Verbraucher müssen selbst entscheiden können, wie ihre Daten verwendet werden. Die neue Datenschutzverordnung ist ein wichtiger Schritt in Richtung eines einheitlichen und hohen Datenschutzniveaus in der EU ab 2018.
- Bei der Digitalisierung geht es darum, eine intelligente, wissensbasierte, hochproduktive und vernetzte Welt zu schaffen, weil dieser Prozess kreative Umbrüche in einem noch nie dagewesenen Tempo vorantreibt.
- Das "Rohmaterial" für den globalen digitalen Wandel sind Daten und wie sie verwaltet werden, und dies ist an sich bereits ein entscheidender Faktor für den Erfolg in der modernen Geschäftswelt. Langfristig werden die Schlüsselkompetenzen für erfolgreiche Unternehmen schwerpunktmäßig auf der Erfassung, Verarbeitung und Verknüpfung sowie dem Schutz ihrer Daten liegen.
- In einer neueren deutschen Digitalstrategie wurde von einem zusätzlichen Anstieg von bis zu 82 Mrd. Euro bis 2025 allein in der deutschen Wirtschaft ausgegangen, wenn Unternehmen digitale Technologien besser nutzen.

- Außerdem wurde geschätzt, dass die Digitalisierung der Industrie allein in Deutschland einen zusätzlichen Mehrwert von 425 Mrd. Euro freisetzen wird. In Prognosen werden die Produktivitätssteigerungen mit bis zu 30 %, die Effizienzgewinne mit 3,3 % und die Kostensenkungen mit 2,6 % jährlich beziffert.
- Schluss Wenn wir mehr Investitionen den Weg ebnen wollen, müssen wir die Digitalisierung meistern und unsere kollektiven Bemühungen um den Abbau von Hindernissen fortsetzen.
- Wir müssen das technologische Potenzial voll ausschöpfen und für einen modernen und ausgewogenen Rechtsrahmen mit einer globalen Perspektive sorgen.
- Die Digitalisierung erfordert eine sehr viel geeintere Anstrengung und Zusammenarbeit als jeder andere industrielle Wandel, weil nur der Schnellste gewinnen wird. Unternehmen, die früh neue Märkte erschließen, werden neue globale Standards setzen, erfolgreich sein und gegenüber jenen, die dies nicht tun oder hinterherhinken, einen Wettbewerbsvorteil genießen.

III. Defensives

- Question digital infrastructures: How can we create the necessary digital infrastructures required and needed to release the potential provided by digitisation and the use of ICT?
- Answer: New distribution and logistics processes, the Internet of Things, autonomous driving and Industry 4.0 will require broadband real-time communication in the gigabit range. So Europe needs quickly to build optical fibre networks to be deployed widely in all regions to ensure more growth and employment.
- Question regulatory framework: How can we put in place a regulatory framework based on competition such that digitisation enabling more creativity and keep business thriving?
- Answer: Regulation most make investment and innovation possible, prevent abuse of dominant market positions, ensuring autonomy of consumers and guarantee and open internet
- Question company value creation: How can manufacturing companies, production and value creation be radically reorganised and improved, so they can compete with new market players?
- Answer: Access to customers in becoming increasing important and this also is important for industrial sectors, not only IT platform companies

Question digital skills: What is the Commission doing to improve the knowledge about the digital skills needed on the labour market?

Answer:

First, employers and employment agencies already know a lot about those ICT expert profiles we are missing today and will be missing tomorrow. A number of promising training projects have been put into place to bridge this skills gap.

We are also using big data analytics to analyse open vacancies on the web to see which profiles are most sought after.

Question on the job and grand coalition: What is the difference between the new Digital Skills and Jobs Coalition and the previous Grand Coalition for Digital Jobs?

Answer: The new initiative is broader – all sectors and actors are targeted and deeper – working even more with Member States and regions to build national and regional alliances for digital skills and jobs. We also want to strengthen the networking between different national and regional coalitions and best practice exchange.

With the *Digital Skills and Jobs Coalition*, the Commission is building on the Grand Coalition to increase the numbers of trainings, internships, apprenticeships and jobs.

Question: What is the European Commission ambition beyond 2020?

Answer:

 We do very much care about present connectivity needs and we have put in place a number of tools to help speeding up the deployment of high speed broadband.

- Our European objectives for 2020 were set up by the Digital Agenda for Europe. In a number of cases, the means to reach them are detailed at Member States' level.
- Predicting the future is always a very difficult task, but it is clear that data flows are growing
 exponentially and we will need faster, more robust, symmetrical broadband infrastructure.
 The Gigabit society is a vision which invites Europeans to federate around an ambitious goal
 and to join forces to achieve it.
- We cannot wait until 2020 to think about which connectivity we need beyond 2020. It is already today that we need to be more ambitious and act accordingly. Europe's future economic success will stem from innovations and new business models that will make the most of digital networks not just telecom infrastructure, but also cloud computing, Big Data, connected cars, the digitalisation of our industry, and so on.
- We need an investment friendly regulatory environment. We have regulatory tools. In particular our future telecom regulatory environment – we will make legislative proposals later this year - will encourage investment in sustainable, market-based, high-performance broadband (fixed and wireless) infrastructures.
- Where the market cannot deliver on its own, we need public funding. We have funding tools.
 In particular I want a fair share of President Juncker's Investment plan to be injected in the ICT sector.

IV. Background

1. The European Forum House Forum 2016

42nd Edition, Friday, Saturday and Sunday, September 2, 3 and 4, 2016 at Villa d'Este (Via Regina, 40) Cernobbio (Como), Italy.

Its international scope is the most significant aspect of the Forum *The European House-Ambrosetti* organizes each year in September at Villa d'Este in Cernobbio. The event, held each year since 1975, is entitled *Intelligence on the World, Europe, and Italy* and brings together an array of speakers of the highest level from the world of politics, academia, government and business, from across the globe.

The Forum is a three-day event:

Day One is normally dedicated to major global issues of a predominantly economic, geopolitical and scientific/technological nature.

Day Two focuses on Europe and enjoys the presence of officials and representatives of all major European institutions who take part in discussions around the most pressing issues facing the European Union.

Day Three is dedicated to Italy with the presence of representatives of the Italian government, officials and numerous leading figures from the world of business and finance.

Forum participants

The highly-select audience is comprised of 200 top managers from Italy and abroad, with precedence given to members of the prestigious **Ambrosetti Club**. The Forum is an event with major appeal. It is no accident that requests to attend from around the world continue to grow and each year *The European House – Ambrosetti* finds it difficult to meet the demand.

Among the protagonists of recent Forums have been: H.S.H. Prince Albert II of Monaco, Kofi Annan, José María Aznar, Silvio Berlusconi, Joe Biden, Richard Cheney, Carlo Azeglio Ciampi, Luca Cordero di Montezemolo, José Manuel Durão Barroso, Larry Ellison, Recep Tayyip Erdogan, François Fillon, Bill Gates, Valéry Giscard D'Estaing, Felipe González, Neville Isdell, Alain Juppé, Henry Kissinger, Vaclav Klaus, Christine Lagarde, Sergio Mattarella, Abu Mazen, John McCain, Mario Monti, Giorgio Napolitano, Shimon Peres, Romano Prodi, Jean-Pierre Raffarin, H.M. Queen Rania Al-Abdullah First Lady of the Hashemite Kingdom of Jordan, Card. Joseph Ratzinger, Matteo Renzi, Michel Rocard, Nouriel Roubini, Wolfgang Schäuble, Eric Schmidt, Helmut Schmidt, George Shultz, Giulio Tremonti, Jean-Claude Trichet, Umberto Veronesi and James Wolfensohn.

What makes the Forum Special?

The Villa d'Este Forum is a unique event held in a highly-prestigious venue, but the secret of the event's success lies in its **exclusive nature**. Since its inception, its sessions have always taken place behind closed doors and it continues to be a unique opportunity for many of the leading players and protagonists on the international economic and political scene to meet and discuss.

Another secret of its success is its ability to involve top-level guests in an exchange of viewpoints and **debate of the highest level that is never mundane** and focused on issues examined by the professionals of *The European House–Ambrosetti*.

Agenda 3 September 2016

FORUM INTELLIGENCE ON THE WORLD, EUROPE, AND ITALY LO SCENARIO DI OGGI E DI DOMANI PER LE STRATEGIE COMPETITIVE

Villa d'Este – Cernobbio

September 2, 3 and 4, 2016 / 2, 3 e 4 settembre 2016 = * = * = *

Target Program Programma target (as of July 25)

Friday, September 2 Venerdì, 2 settembre

8.45 – 10.50 Welcoming remarks/*Apertura dei lavori*

Valerio De Molli

Global risks and impacts on business

Rischi globali e impatti sul business

Chair / Modera: Adnan Shihab Eldin

Opening speech / Intervento di apertura

Prince Turki Al-Faisal

Lucio Caracciolo

Ghassan Salamè

Tom Ridge

Wu Hongbo

Discussion/Dibattito

Paolo Gentiloni* (Minister of Foreign Affairs, Italy) 10.50 – 11.20 Break/Intervallo

11.20 – 13.00 The Economic Outlook

Il quadro economico

Chair / Modera: Jacob Frenkel

Marcel Fratzscher **Justin Yifu LIN Majid Al-Moneef**

Speech by: Pierre Moscovici *

Discussion/Dibattito

13.00-14.30 Lunch / Colazione

* To be confirmed

Friday, September 2 (continued)

Venerdì, 2 settembre (segue)

14.30 – 15.00 Focus on Russia/ Focus sulla Russia:

Chair / Modera: Sergio Romano

Arkady Dvorkovich 15' Discussion/Dibattito 15'

15.00 - 16.45 Today the World of Tomorrow - Scientific Developments

Oggi il mondo di domani – Sviluppi scientifici

Chair / Modera: Angelo Vescovi

Elizabeth Blackburn Samantha Cristoforetti

Erez Vigodman Arkady Dvorkovich

Discussion/Dibattito

16.45–17.15 Break/Intervallo

17.15 – 18.05 Focus on the Middle East /Focus sul Medio Oriente Chair / Modera: Ana Palacio

Shimon Peres Saeb Erekatı

1 Abu Mazen to be confirmed Discussion/Dibattito

18.05 – 19.00 **Speech by the Italian Prime Minister**

Intervento del Presidente del Consiglio italiano

Matteo Renzi* Discussion/Dibattito

* To be confirmed

Saturday, September 3 Sabato, 3 settembre

THE AGENDA TO CHANGE EUROPE

8.30 - 11.15 Integration or Disintegration of the EU?

Integrazione o disintegrazione dell'UE?

Chair / Modera: Enrico Letta

Speech by the First Vice President of the European Union Intervento del Primo Vice Presidente dell'Unione Europea

Frans Timmermans

Round table / Tavola rotunda

David Lidington Mario Monti

Alexis Tsipras*

Discussion/Dibattito

The Future of the Euro/ Il futuro dell'euro

Chair/Modera:

Jeroen Dijsselbloem

Yves Mersch

Valdis Dombrovskis

Pier Carlo Padoan*

Discussion/Dibattito

11.15 - 11.45 Break / Intervallo

11.45 - 13.30 Competitiveness and Growth

Competitività e crescita

Chair / Modera:

Philippe Aghion

John Bruton

Paweł Szałamacha

Discussion/Dibattito

Speech by the French Prime Minister Intervento del Primo Ministro francese

Chair / Modera: Enrico Letta

Manuel Valls

Discussion/Dibattito

13.30 - 15.00 Luncheon/*Pranzo*

* To be confirmed

Saturday, September 3 (continued) Sabato, 3 settembre (segue)

15.00 – 16.55 Investment Attractiveness in the EU L'attrattività degli investimenti nell'EU Chair / Modera:

Esko Aho2

2 Spokesperson of the study "Empowering Europe's Investability. Policy Recommendations for Relaunching Investments towards Europe and the Role of the Energy Sector"

Gunther Oettinger

Discussion/Dibattito

The Migrants Crisis/ La crisi dei migranti

Lakhdar Brahimi Mevlüt Çavuşoğlu Angelino Alfano

Discussion/Dibattito

16.55 - 17.25 Break / Intervallo

17.25 – 19.00 Disruptive Innovation and New Business Models
Innovazione dirompente e nuovi modelli di business
Chair / Modera: Alec Ross
Vivek Wadhwa
Round table / Tavola rotonda
Fabrizio Capobianco
Isabel Dos Santos
Anousheh Ansari

Discussion/Dibattito

19.45 Rendez-vous/Ritrovo "Sala Regina"

20.00 RAIUNO broadcast: television program hosted by Bruno Vespa $Programma\ televisivo\ di$

RAIUNO condotto da Bruno Vespa 21.00 Gala dinner/Cena di gala

Sunday, September 4 Domenica, 4 settembre

ITALY IN THE GLOBAL OUTLOOK L'ITALIA NEL QUADRO GLOBALE

8.30 – 10.40 Agenda for Italy (part one) / Agenda per l'Italia (prima parte)

Chair / Modera: Luciano Fontana

Priorities for Italy / Quali priorità per il Paese

The Point of View of M5S / Il punto di vista del M5S

Luigi Di Maio

The Point of View of Lega Nord / Il punto di vista della Lega Nord

Matteo Salvini

The point of view of Forza Italia / Il punto di vista di Forza Italia

Silvio Berlusconi*

Justice / Giustizia

Carlo Nordio3

- 3 Spokesperson of the study "La Riforma del Sistema giudiziario. Risultati e impatto sulla competitività dell'Italia"
- 4 Spokesperson of the study "Gli impatti della riforma della PA e delle riforme costituzionali al servizio delle imprese e dei cittadini"
- 5 Spokesperson of the "Global Attractiveness Index" Advisory Board

Giovanni Legnini3

Andrea Orlando*

Labor and Employment/ Lavoro e occupazione

Susanna Camusso*

Giuliano Poletti

Discussion/Dibattito

10.40 - 11.10 Break / Intervallo

11.10 – 13.45 Agenda for Italy (part two) / Agenda per l'Italia (seconda parte)

Chair / Modera: Roberto Napoletano

Education and Research/Istruzione e ricerca

Roberto Cingolani

Stefania Giannini

Constitutional Reforms and the Future of Italy

Le riforme costituzionali e il futuro del Paese

Nicola Rossi4

Maria Elena Boschi

Infrastructures, Attractiveness and Growth

Infrastrutture, attrattività e crescita

Enrico Giovannini5

Vincenzo Boccia

Graziano Delrio*

Carlo Calenda

Discussion/Dibattito

* To be confirmed

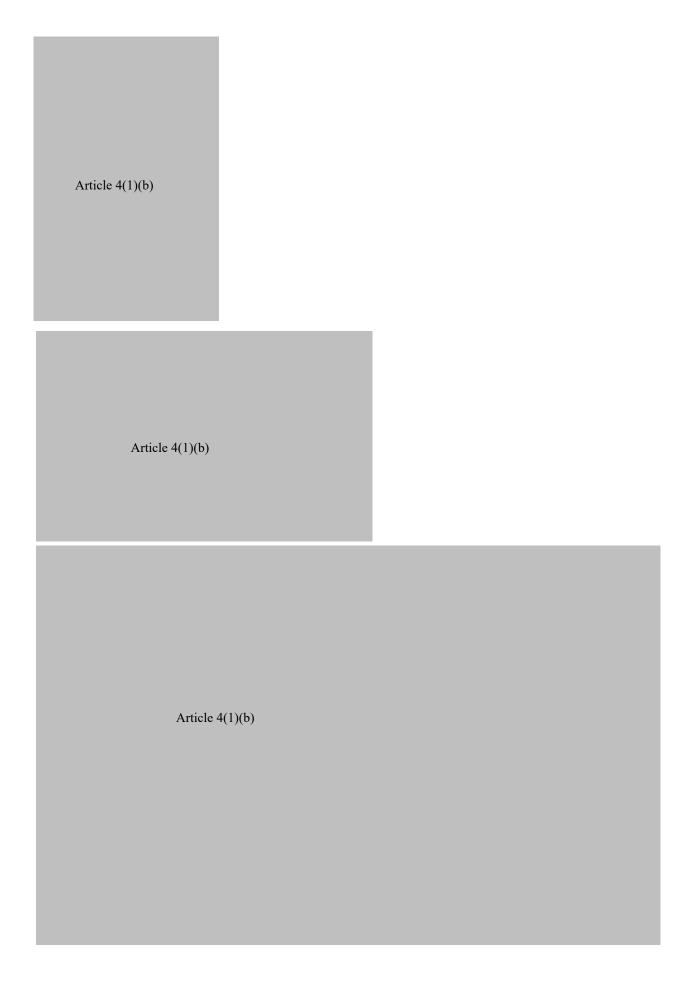
Responsible organizer

Article 4(1)(b)

The European House - Ambrosetti

Tel. Article 4(1)(b)

@ambrosetti.eu



1. EU Telecom Review

The public consultation on the evaluation and the review of the regulatory framework for electronic communications networks and services ended on 7 December 2015. 244 contributions were received online and around 30 contributions through other sources. A wide array of stakeholder groups replied, with the majority of contributions coming from the telecom players. Wider digital economy and traditional non-telco industry players were also active. On 20 May 2016, the synopsis report of the consultation was published on the DSM website.

Results of the public consultation

Connectivity is broadly recognised as the underlying driving force for the digital society and economy, underpinned by technological changes and evolving consumer and market demands. Indeed, good connectivity is perceived as a necessary condition to achieve the Digital Single Market. Many respondents pointed to the need for policy measures and possible adjustments to current policy and regulatory tools to support the deployment of infrastructure in line with future needs.

A number of inputs asserted that the current regulatory framework does not much advance the internal market. There is a general perception that the regulatory framework needs to be adjusted to the current market dynamics. Many respondents however acknowledged the achievements ushered in by the liberalisation of the telecom markets, in particular in terms of end-user benefits and competition within most national markets.

On spectrum, the importance of wireless connectivity and wireless broadband are acknowledged. In general, industry is supportive of a more co-ordinated approach and seeks additional certainty for investments and possibilities to develop throughout the EU new wireless and mobile communications including 5G.

Member States' authorities generally underline the achievements in the field of technical harmonisation, and the need for additional coordination to be bottom-up and voluntary; some of them call for a better balance between harmonisation and flexibility. There is general recognition of the importance of a more flexible access and use of spectrum in the future.

While administrations of several Member States, the regulatory community and consumer organisations still see a need for a sector-specific end-user protection based on high-level minimum harmonisation, the telecom sector calls for more reliance on horizontal legislation and full harmonisation, especially for services. The telecom sector in general but also some administrations argue that the same rules should apply to similar services while other administrations, so-called "Over-the-top" players, software and equipment vendors, cable operators and some broadcasters are of the view that the concept of electronic communications services as currently defined has proven itself.

While the continuing role of national regulatory authorities and spectrum management authorities is widely acknowledged, a large group of respondents highlight that the institutional set-up at EU level should be revised to better ensure legal certainty and accountability.

Policy options/issues in the review

We consider that the framework review should pursue one overall regulatory objective, articulated in terms of outcomes: widespread access to and take-up of very high-performance connectivity. It would be made clear, that the current three policy objectives i.e. promotion of competition, of the internal market, and of citizen interests, as well as the regulatory principles relative to investment and innovation, are at the service of this overriding objective.

Network access

Our future proposals on network access will aim at responding to the objective of the DSM strategy to incentivise investment in very high-capacity broadband networks and to the overall ambition to enhance connectivity, while maintaining a pro-competitive approach. To this end we are working on a set of measures which provide necessary safeguards for access-based competition, while limiting regulation to what is necessary and increasing incentives for incumbents and alternatives to roll out very high-capacity networks and (where feasible) competing infrastructures.

To address the investment challenge we would start from the existing premise that competition is the main driver for investments. Market analysis and appropriate remedies, would remain central tools. However, more emphasis should be put on regulatory models that give sufficient space to competition to invest rather than focusing primarily on ensuring access-based competition.

To achieve this we are considering a set of measures which aim for (1) the simplification and geographic focus of access regulation, (2) Value the well-designed access programmes to the civil infrastructure (ducts, poles, etc.), (3) Improving the investment environment for very high-performance networks of SMP operators (4) Clarifying regulatory treatment of wholesale-only models (5) The legal regime on symmetric access to non-replicable assets could be clarified and (6) To enhance competition in the provision of cross-border business services.

To equip the NRAs with sufficient tools to address the connectivity challenge, in particular in rural areas, the competences and tasks of independent regulators may need to be reinforced, e.g. as regards the powers of NRAs to map broadband investment plans across their national territory.

Spectrum

Spectrum is a core enabler for the deployment and development of current and next generation mobile and fixed wireless networks (e.g. 5G). In addition to affecting deployment, the manner in which spectrum is assigned and the conditions attached to spectrum assignment and usage, are also major determinants of mobile competition, which in turn influence quality of service, prices, speed of roll-out and take-up of mobile broadband. At the same time, fixed-mobile and telecommunications-broadcasting convergence are blurring the distinction between traditional telecommunications markets, which will lead to significant change in the nature of competition for products and services.

The Framework review will be a major building block of the 5G strategy. The objective is to have spectrum rules fit for 5G success and for supporting efficient investments, thereby contributing to the overall objective of deployment of very high-capacity networks throughout Europe. Our proposals would focus on (1) a more efficient timing between allocation and assignment; (2) predictability and consistency for market investors in the next generation of wireless broadband networks regarding the main conditions for assigning or renewing national spectrum rights of use and (3) regulatory clarity on additional needs for 5G beyond spectrum.

Regardless of the question as to what extent the above-mentioned issues should be dealt with exclusively at the national level or co-ordinated at the EU level, it is clear that all of them have a direct impact on the market functioning at the national level and would benefit from greater consistency. Therefore we are reflecting on the right balance of competences between various national authorities, including the role of NRAs acknowledging that, at present, all of them do not have competences in spectrum matters, and on the appropriate setting in which such peers can contribute at EU level alongside the Commission to general policy guidance and to peer-review of specific national proposals, so that the market knowledge is appropriately taken into account in establishing national award procedures, conditions for renewals and main conditions attached to spectrum usage rights.

Services

The objective of revised sector-specific end-user rights is two-fold. First, in REFIT we are screening the scope for deregulation or adaptation either by concluding redundancy or recourse to horizontal consumer protection legislation. Second, in order to close gaps in the protection of end-users and foster fair competition we aim at addressing a level regulatory playing field between traditional electronic communications services and functionally substitutable communications services provided by online service providers (OTTs).

While the scope for deregulation is the subject of ongoing assessment, we have identified certain areas where leaner provisions may be warranted. For instance, the provisions on contractual information and transparency could potentially be limited to IAS only; horizontal rules on alternative dispute resolution and online dispute resolution may have made sector-specific rules redundant. Furthermore, we aim at adapting the scope of beneficiaries to the objectives of the relevant provisions in the Universal Service Directive. The experience and feedback in applying the current framework has shown that the level of protection needed by (larger) business users is not the same as that of individual consumers and of small and micro enterprises.

As regards the level playing field discussion, sector-specific rules for Internet Access Services (IAS) are largely accepted; divergences exist rather regarding the exact scope of rights and obligations. The question of

equivalence when communications services are provided in addition to (or over) Internet Access is more complex. If the provision of a service is tightly linked to network operation and is dependent on and benefits from the use of a public resource, such as numbers, in order to ensure interoperability and end-to-end connectivity via the network, such a service may not be in all respects comparable to a service which is provided on a best effort basis without recourse to such a public resource.

It may thus be opportune, for the purposes of further discussion, to reflect on a possible distinction between (1) rules applicable only to communications networks, and to communications services that include provision of connection to the network as a key feature of the service, and which may use public resources to this effect, and (2) a subset of rules also applicable, according to need, to other communications services. Services that could be considered to provide a connection to the network could include POTS telephony, IAS provision, provision of managed services, or provision of any other services using public numbers (in or out).

Governance

We consider that an adequate and efficient institutional set-up is key to ensuring a positive outcome for the overall regulatory framework, and also that an efficient EU system of regulatory authorities is critical for the "connectivity" based digital single market. NRAs and BEREC have been, and should continue to be, at the core of the telecoms regulatory system.

A critical aspect of the governance system is the distribution of competences amongst the different institutional stakeholders (at national level: independent NRAs and other national authorities; at EU level: BEREC, RSPG, Commission...). Another critical aspect is how to efficiently ensure the independence of NRAs, including that they should be adequately resourced to perform their core tasks and to fully participate in BEREC.

In view of market and technological developments, there are areas of pan-European relevance where BEREC could play a (greater) role, such as coordinating the mapping of network infrastructures, monitoring the quality of Internet services or the conditions for provision of cross-border business services, monitoring the development of wider markets for communications platforms or services, and developing as appropriate technical guidance or prerequisite preliminary specifications for standardisation. In co-responsibility with the Commission, BEREC could play a stronger role as repository of regulatory experience.

3. Towards connectivity for a European Gigabit society by 2025 - State of play and next steps

The DSM Strategy stresses the importance of connectivity and ICT networks: they "provide the backbone for digital products and services which have the potential to support all aspects of our lives, and drive Europe's economic recovery"; the DSM "must be built on reliable, trustworthy, high-speed, affordable networks".

Adequate connectivity is a prerequisite to achieve a genuine DSM. This is why the DSM Strategy announced that the review of the Telecom Framework's focus would include "incentivising investment in high speed broadband networks". This is also why President Juncker and VP Katainen have made of telecommunication's one of the priority areas for strategic investment under the regulation setting up the European Fund for Strategic Investment.

In the Digital Agenda for Europe, the Commission had set connectivity targets by 2020: 30 Mbps accessible to all Europeans and one household in two with a 100 Mbps subscription. Today, all Member States have adopted national broadband plans that are either following the Commission targets or superseding them.

Given the investment cycles needed for such infrastructure projects (5-10 years) we have launched an internal reflection and public consultation on connectivity needs of European citizens, businesses and administration beyond 2020.

State of play

Next steps

These long-term strategic goals will be further defined and supported by concrete actions in the chapeau Communication introducing the review of the Telecom framework, the purpose of which will be to present the Commission's approach to ensure widespread access to and take-up of affordable very high-capacity infrastructures and services for all European citizens and businesses, as the necessary condition for harvesting

the benefits of the DSM in a way which is both effective and equitable. In parallel, the Commission will adopt a Communication on "5G Action Plan" that will aim at complementing the primarily research driven 5G PPP by addressing barriers to market roll-out coming from business models, investment and regulation.

The DSM Strategy indicates that one of the key objectives of the Telecom review is to render the regulatory environment of the sector more investment-friendly. The chapeau Communication will propose a modernised Telecom Framework with incentives for the market-driven rollout of very-high-capacity fixed and mobile networks, promote a high level of end-user choice and of consumer protection, and ensure that the institutional set-up most efficiently supports the achievement of a high level of connectivity across the EU.

In particular, the Commission will underline the increasing importance of wireless spectrum not only for internet connectivity but also for a growing range of innovative services (e.g. the connected vehicle, health-related services and smart cities) that will be crucial for Europe's competitiveness, growth and citizens' quality of life. In this regard the Communication will outline how greater coordination of spectrum policies will be necessary steps to ensure that Europe becomes a leading market for 5G innovation in the world.

In addition, the Commission will propose next steps to facilitate the use of national and European public funds where required (especially in non-urban areas) for the deployment of very high-capacity network infrastructures in Member States, inter alia by further harnessing the opportunities offered by existing and future financing tools (EFSI, CEF, ESIF) to leverage private investments and through the use of blending instruments.

Digital Skills

Key figures

There are currently 23.5 million unemployed people across Europe, of which 4.7 million are young people. Around 12 million have been unemployed for more than a year. More than 120 million people are at risk of poverty or social exclusion. There are still more than 5 million early school leavers, of which 40% are unemployed.

- 32 % of the workforce in Europe have insufficient digital skills (e.g. able to do little more than communicate via email or do not use the internet);
- \pm 100 mio EU citizens have no digital skills and are thus effectively digitally illiterate;
- Only 25% of students are taught by digitally confident and supportive teachers with access to ICT and low obstacles to their use at school (changes to our education and training systems are not keeping pace with the rapid increase in demand for digital skills);
- Employment of ICT professionals in the EU has risen on average 4% per year over the past 10 years yet 40% of enterprises trying to recruit ICT professionals have difficulty doing so. By 2020 we could be facing around 756.000 vacancies for ICT professional (Empirica).
- The digital transformation is changing the structure of employment (polarisation: demand for routine or medium skilled jobs which can easily be automated has fallen and employment is increasingly concentrated at the high and low end of the skills spectrum).
- Digital transformation is changing the functioning of the labour market: e.g. remote working, emergence of app-based employment have significant repercussions on employment conditions and work patterns.

The supposedly negative impacts of digital on employment

As machines move from replacing physical labour to replacing intellectual labour, the question arises what humans will do in the future. The implicit argument is that computers and robots are replacing human labour and placing workers in a "race against the machine" As digital technologies tend to substitute for routine jobs, they are regarded as depressing the middle class who typically holds these jobs. Worse, developments in artificial intelligence and big data bring the threat that, in a near future, most jobs currently carried out by workers and professionals could be performed by machines and software. As many economies are still struggling with a sluggish recovery and high unemployment, these concerns have gained importance in the policy arena.

The <u>counter-arguments</u> point out that previous technological revolutions have never led to jobless societies and that the income earned by the machines (and thus by their owners) creates new demand. <u>Technical progress contributes to higher productivity</u>, making people richer as real wages will increase, stimulating demand. This

argument depends very much on a fairly equal income distribution and on a more or less closed system. Empirically, however, economic growth has always translated into a higher, rather than lower, number of jobs.

<u>ICTs</u> have already created a number of new and different jobs. Moreover, studies suggest that for each additional high-skilled job in digital, 4-5 lower skilled jobs in the non-tech sector are created. Finally, business models for some collaborative-economy platforms tend to improve the matching between demand and supply in the labour market, reducing frictions and increasing participation.

In short, nobody knows the <u>net effect</u> for the overall economy, i.e. whether digitisation will reduce overall employment or not. Policy makers have to make sure that <u>appropriate policies</u> are put in place to enable people to take up the new jobs. This means supporting the scale up of start-ups, for example, but most of all putting in place appropriate education and training policies.

The Grand Coalition for Digital Jobs and the new digital skills initiative

Over the past years Member States, companies and education providers individually have undertaken various initiatives to address the digital skills gap. At the EU level the Commission launched the Grand Coalition for Digital Jobs (in 2013), i.e. the largest collaborative effort in Europe to date aimed to offer more ICT training codesigned with the industry; implement job placement programmes; provide more aligned degrees and curricula at vocational schools and universities; and motivate young people to study ICT and pursue related careers.

Since its launch about 80 stakeholders, large and smaller companies, education providers and NGOs have made pledges, i.e. concrete commitments to act to reduce digital skills gaps. National coalitions for digital jobs, aimed to facilitate high-impact actions at local level, have been launched in 13 countries (BE, BG, CY, EL, IT, MT, NL, LT, LV, PL, PT, RO, UK). More are under formation (e.g. DE, ES).

To boost digital skills development in Europe the Commission has just announced the launch of a new flagship initiative the "Digital Skills and Jobs Coalition" in the New Skills Agenda for Europe (7/06/2016).

This new initiative builds on the Grand Coalition for Digital Jobs and calls on Member States to develop comprehensive national digital skills strategies and to set up national digital skills coalitions involving a board set of stakeholders. They are also asked to develop concrete measures to bring digital skills and competences to all levels of education and training.

The Commission will act as a facilitator, bringing together Member States and stakeholders to pledge action and share best practices on digital skills that can be scaled up and replicated. We will also track progress via Europe's Digital Progress Report.

The New Skills Agenda for Europe kicks off a countdown towards the official launch of this "Digital Skills and Jobs Coalition" initiative at a big event in December this year. Between now and then we will organise a series of preparatory events to put all elements in place for the joint rollout with Member States and stakeholders.

Authors:

Article 4(1)(b)DG CONNECT F1, phone: Article 4(1)(b)

Digital skills part:

Article 4(1)(b) , DG CONNECT F4 phone: Article 4(1)(b)