

TO THE COMMISSIONER FOR THE DIGITAL AGENDA

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Your main task in the next five years will be to create a strong foundation from which digital goods and services can be easily developed. Europe has the resources and the skills to lead this unprecedented massive global transformation

STATE OF AFFAIRS

In the time that it will take you to read this memo, worldwide, more than three billion emails will have been sent, 17,000 websites will have been created, 30 million Google searches will have been made, 1.5 million tweets will have been tweeted, 900,000 Skype calls will have been made and 19.5 million YouTube videos will have been watched¹. There are more than 2.4 billion internet users out there, and that number will still grow. Your main task in the next five years will be to create a strong foundation from which digital goods and services can be easily developed and safely accessed throughout Europe. Europe has the resources and the skills to lead this unprecedented massive transformation in human interaction and, therefore, in economic habits. Europe has strong national and local identities, a rich cultural and historical heterogeneity, and a very wide range of consumer preferences and supply capabilities, and Europe's digital dream can either be the victim of this 'diversity paradigm', critically hampered by fragmentation into a plethora of narrow product and geographic markets, or it can exploit it as its greatest asset. Seamless digital interconnections within one of the richest and most diverse markets in the world can dramatically boost European business opportunities, magnify the potential for creativity and innovation and significantly increase the welfare of more than 500 million people.

To test Europe's digital pulse and measure your success, the focus should be on users

Europe's digitalisation crucially relies on the development of infrastructure, electronic technologies and new hardware and software. Digital markets feature strong network externalities, high fixed costs and low marginal costs of production. They give rise to complex economic questions such as what would an optimal market structure look like, in which users, content creators, service providers and software developers maximise the benefits that they mutually yield to each other, and in which operators would strive to deploy new infrastructures or offer higher quality services in terms of speed and reliability of connection.

Digitalisation

To test Europe's digital pulse, the focus should be on users. To measure your success you will need to assess how your efforts to boost a digital Europe will translate into better production capabilities for business and a higher quality of life for private citizens. Consumers and companies should have easy, frequent and reliable access to digital services; production processes should more and more rely on digital facilities; the digital interface should be the public sector's main means of providing services to citizens.

Looking at the picture from a user's perspective will allow you to put into perspective the concerns about the EU running behind the rest of the world in infrastructure terms. True, Japan, South Korea and the US have more extensive fibre coverage; by now China has already more 4G masts than the whole of Europe, and the US has taken over the lead on the 4G-LTE (Long Term Evolution) standard technology, after a decade in which Europe was the world model for mobile communication, particularly thanks to the success/uptake of 3G technology. The picture is however not as gloomy as it is often depicted. Europe is close to full coverage for basic fixed broadband; average download speed is slightly slower than Japan and Korea, but faster than in the US.

Global position

Broadband connection prices are low compared to the rest of the world. The latest data shows that Europe is catching up on 4G. The experience of member states, such as the Scandinavian and Baltic countries, which are global leaders in guaranteeing citizens' universal access to digital services, suggests that Europe as a whole could become an example for the rest of the world, if practices from leading countries can be replicated throughout a truly integrated European single market.

Telecom Single Market

A 'connected continent' was indeed the ultimate objective of the Telecom Single Market (TSM) package proposed by your predecessor. This aimed to set out a more homogeneous regulatory framework, prompt a drastic reduction in roaming charges and favour cross-border alliances between operators and the promotion of a uniform framework for regulation of the internet (and, in particular, of net neutrality isHarsues). However, despite good intentions, that proposal seems to have little chance of success. It is a patchwork of measures not backed by a clear political strategy, the outcome of a reverse approach through which the Commission attempted to balance the downsides for all key parties in the search for a satisfactory compromise. This left all parties unhappy: member states, national regulators, incumbent and challenging telecom operators, content developers, business customers and consumers. Everybody had to give up something, but with no clear link to their contribution to the construction of a single digital market. Today, despite the fact that the four main mobile telecom operators supply services to most European citizens, Europe still lacks true pan-European operators that can credibly compete for customers in all member states.

Understanding the reasons for the general scepticism surrounding the TSM reform should be top of your to-do list at the start of your mandate.

A successful approach would have moved away from the multi-dimensional conflict between the opposing parties. It would have implied that a coherent strategy first be developed, and then pursued organically across the various areas in which intervention is needed. In fact, the most important aspect of any measure that aims to foster a single digital market would be to introduce more certainty about the future prospects of the market: thus the need from the Commission for a

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strong and coherent strategy that should be stable over time, and in which it will be clear how long-term objectives will be pursued and why certain players might be worse-off, even if only in the short term. This applies for example to roaming: if the objective is to converge to a similar tariff for domestic and cross-border calls, there should be coherent use of the available regulatory tools (such as price caps or measures to foster competition between roaming operators) in pursuit of that aim. Market operators should be able to largely anticipate such moves before actual implementation.

Alongside the TSM, other top-priority folders pile up on your desk. Most of those concern topics in which your colleagues such as the commissioners for the single market, justice and taxation are also prominently involved: copyright, privacy and data protection, internet governance, cyber security, and taxation of digital goods and services, to mention just a few. Despite their importance and the necessity for urgent action, the reforms proposed in those areas are either being watered down or are lingering in a limbo with no prospect of rapid adoption. A significant number of member states oppose revision of the copyright framework and support the preservation of a country-by-country enforcement regime, regardless of the pressing need to adapt copyright rules in the context of a highly mobile, dynamic and de-structured digital economy, in which authors struggle to retain rents that mostly accrue to publishers or distributors or are lost to piracy. Fair remuneration for authors must be guaranteed to preserve their incentive to create new content. At the other extreme of the value chain, a new framework is needed to ensure cross-border portability of copyright and to allow citizens to access digital content from any location in Europe.

Data protection

The European Parliament has adopted its position on the new regulation on data protection, with a number of welcome measures that would arguably ensure common rules across the continent: a 'one-stop-shop' for supervision of businesses active in Europe, and ultimately a higher level of protection of citizens' privacy. No doubt the reform is a step forward to ensure the trust needed to stimulate citizens' cross-border consumption of digital goods and services. However the law faces the scrutiny of the Council and is unlikely maintain its shape under the pressure of member states, keen to retain their enforcement autonomy.

Taxation of online companies

Finally, the discussion on taxation of digital companies has only just started. The de-structuring of value chains and the ability of digital companies to separate geographically the creation of value and the making of profits requires serious reflection at supra-national level. While tax harmonisation in Europe is still a utopia, a concerted and harmonised approach at European level could limit distortions in the market that penalise less mobile businesses such as small and medium-sized enterprises, and could help the implementation of a fairer contribution system. As of January 2015, new rules on consumption tax for digital services will imply taxation at the customer's rather than the supplier's place of origin. This is no doubt a good development towards an improved European framework in which no loopholes should be left open to help business circumvent national tax laws.

CHALLENGES

Your number one challenge is to establish a coherent, clear strategy that will address the complexities of the digital agenda and minimise legal uncertainty within the European digital economy. Your actions in this respect must be bold and predictable. Your ultimate objectives should be to maximise European citizens' long-term welfare and to boost European business productivity through a uniform European digital framework. You should push for a meaningful harmonisation of the European regulatory framework in all areas relevant to the digital economy. You need to build a solid consensus around the need to deal with pan-European issues at supra-national level (for example, concerning wireless spectrum management) while maintaining decentralised enforcement of uniform principles and methodologies. A digital Europe cannot afford segmentation into 28 national markets.

Supply and demand should be free to flow across borders, facing no differences in the regulatory environment.

You will also have to deal with a number of very sensitive issues, such as net neutrality or roaming tariffs, about which the public debate lately has become rather superficial. When writing up common rules, your assessment should instead be driven only by substantial considerations. This is your second challenge: the answers to key economic questions have to be based on scientific analysis.

For example, one question is the extent to which allowing price or quality discrimination can help pursue your ultimate objective of fostering the development of infrastructure and services, allowing easy and inexpensive access to them. Issues such as roaming charges, net-neutrality, copyright regulation and the use of personal data are all related to the suppliers' ability to charge different prices or to provide a different quality of service to customers with different preferences, or who live in different locations in Europe. Customer discrimination typically implies an increase in the seller's profits and a shift of surplus from customer to seller, and it is commonly perceived as a threat to the creation of a common European identity. That does not necessarily imply, however, that customers are worse-off when price discrimination is allowed. Price discrimination might, for example, increase competition and create an incentive to supply less-profitable customers (ie customers with higher demand elasticity). Imposing 'roam-like-home' tariffs could in some circumstances imply an increase in costs for customers who predominantly make domestic calls. But price discrimination can also be used anti-competitively. The owner of a telecom network could intentionally hamper the ability of 'over-the-top' services (such as Skype or WhatsUp) that use the network to compete with its own telecom services, a situation that would beg for action by antitrust authorities. Or the vast amount of personal information collected by online operators could render customers more vulnerable to exploitative pricing practices: a seller of a good or a service that can access detailed customer-profile information could be able to offer personalised prices, appropriating most of the benefits generated by transactions. Customers could be charged exactly what they are willing to pay, no less. This suggests that a case-by-case analysis of the welfare effects of price discrimination is generally desirable. That applies in particular to the net-neutrality

Price discrimination

You must find smart ways to increase the relative profitability of new investment

regulation, data collection practices and to roaming. The intentions may be good: to preserve open access to the internet and incentivise cross-border communication. But the proposed regulatory tools to pursue them are not necessarily the best ones, and a serious assessment of the benefits and costs of regulation has to be made before implementing further regulatory measures. Such an assessment is lacking today and should be one of your main priorities. A better option to correct for market failures is to preserve and stimulate market competition. Market abuses are less likely when individual companies have less market power, and competition ensures that the benefits of digital services are shared with customers in the form of lower access prices and better service quality.

Incentives for investment

Your third challenge will be to find smart ways to increase the relative profitability of new investment. Pulling down barriers to entry and preserving competition in traditional markets creates an incentive for telecom operators to try to escape the competitive pressure and seek profits in new markets. A similar effect can likewise be obtained acting directly on the profitability of those new markets by stimulating the demand for broadband connection. A successful digitalisation plan requires a holistic strategy in which measures to expand the supply of digital services are accompanied by effective measures aimed to stimulate demand. So far, measures taken by the European Commission have been strongly skewed towards stimulating supply. You need to rebalance this approach, with an appropriate focus on demand. A recent report² found that the vast majority of those who do not have access to the internet (36 percent of European households, but the proportion is higher in southern and eastern Europe and among older people) mention “*lack of interest*” as the main reason. Only a handful of respondents reported lack of broadband availability as the cause of their digital inertia. Measures that would prompt a significant shift of

public and private services online together with measures addressing digital illiteracy and availability of devices to the weaker segments of the population of potential users can have a strong effect on digital development. Likewise, fast and ultra-fast connection technologies are of little use if no applications that crucially need that speed level are developed and widely implemented. All the crucial reforms aimed at empowering and protecting customers across Europe such as data protection law and copyright reform can also contribute to boosting the profitability of the digital economy. Youtube and Netflix account for more than 50 percent of downstream traffic in the US; cleaner more unified licensing rules on digital content can have a strong impact on demand for high-speed access. This should be one of your top concerns.

RECOMMENDATIONS

Your first concrete steps should be to define a long-term strategy for the efficient allocation of competences between different government levels. Your aim should be to establish a homogeneous European regulatory approach, in which national regulators would apply the same rules and implement the same remedies to correct for market failures, the burden of bureaucracy would be drastically reduced, compliance and transaction costs would be minimised and cross-border supply of services would become truly profitable. You should therefore carefully consider the advantages of moving towards a stronger supra-national telecommunications supervisory system, ideally ending up with the establishment of a single EU regulator that can address cross-border issues and has the authority to overturn national decisions that conflict with the common rules. This would likely be the most straightforward way to overcome national fragmentation, minimise competitive distortions and promote the establishment of pan-European telecoms operators.

Equally fundamental is the establishment of a mechanism for the EU-level allocation of wireless spectrum. This would dramatically reduce costs and uncertainty for potential continent-wide mobile operators while allowing at least partial control over the structure of the European 'single' mobile market. Spectrum auctions should be designed to strike the right balance between revenues and the optimal number of competing operators in the market. Centralised auctions would also allow optimal use of spectrum capacity throughout Europe – a particularly

Regulatory
harmonisation

Spectrum policy

pressing issue given the significant increase in mobile data demand because of the increasing use of tablets and smartphones. You will of course face stiff resistance from member states. Wireless spectrum is a significant source of revenue at national level and allocation mechanisms for revenues from EU-wide auctions would not fully compensate member states for their loss. But national auctions have not always proved efficient: delays in national auctions for the allocation of spectrum for 4G are part of the reason why Europe lags behind in terms of mobile broadband services. To convince member states to move towards pan-European auctions you should emphasise the likely strong downward pressure that cross-border competition would exert on users' tariffs. The loss to national taxpayers could be largely offset by the gains that consumers would enjoy. More generally, consensus can be built through carefully concerted action. That action would necessarily rely on re-establishing a constructive relationship with the Body of European Regulators of Electronic Communications (BEREC), the umbrella organisation of the national regulatory agencies, the implementation of a clear communication strategy and the promotion of platforms to favour the open and transparent discussion of your long-term strategy.

Enforcement

You should also not hesitate to use the legal instruments at your disposal in order to enforce truly harmonised rules. For example: net-neutrality regulation ought to be the same everywhere in Europe, and you should not shy away from challenging national laws that clash with European law. National digital agendas have to converge rapidly to the European objectives, and lack of correct implementation of European directives has to be properly sanctioned. Establishing a 'tough' reputation for not tolerating national divergence from the European digital framework will be particularly critical and effective at the beginning of your mandate.

You should then make a careful cost-benefit analysis of the options available to you to reach your ultimate objective: smart new regulations to foster competition by making it easier for consumers to choose the digital services they want, while maintaining incentives for those that supply those services; direct intervention using EU Structural Funds to support demand or to finance the roll-out of networks; initiatives for coordination between member states, for example on tax issues, or cooperation between national authorities to develop support schemes for small business.

There should be expanded demand for digital services from public sector, business and citizens

You should steer the actions of the European Commission in supporting the expansion of demand for digital services. This should happen at three levels: public sector, business and citizens:

Boosting demand

- Schemes to promote eGovernment, eHealth and eProcurement, particularly facilitating cross-border interoperability, can be effective to start a virtuous circle in which public services are increasingly digital, and citizens find it increasingly natural to rely on them.
- The promotion of the digitalisation of business, particularly for small and medium-sized enterprises, which might be discouraged by high initial fixed costs. Examples are numerous: direct financial support to update production technologies (initiatives such as I4MS, *Innovation for Manufacturing SMEs*, can be particularly effective); training programmes to help the development of IT skills and the establishment of a harmonised framework for the recognition of qualifications throughout Europe; or the promotion of EU-wide technology standards to favour interoperability.
- Finally consumer demand can be directly stimulated. Cross-border eCommerce can be fostered through increased security of data handling and fair management of digital copyright that would ensure cross-border portability; the European Commission can advocate tax breaks in national systems to favour the purchase of digital devices, further stimulus can come from favouring the development and the uptake of applications requiring high-speed data transmission, such as video streaming on demand, cloud services, distance learning, live conferences or telemedicine.

Pro-competition policy

On the supply side, you should prompt an increase in the relative profitability of new generation access networks compared to copper networks. Your attention should be particularly focused on mobile broadband, given its geographic versatility, the strong demand for mobile data through portable devices and the single market long-term objective of allowing citizens to access the internet at any time and anywhere in Europe. There should be no doubt about your pro-competition policy. Regulatory schemes to favour entry, and to stimulate and preserve intra-platform and inter-platform competition are therefore well worth pursuing. It is fundamental to empower consumers by increasing tariff transparency and adopting measures to reduce switching costs, to make it as easy as possible for customers to change provider. Your task will be to guarantee that fair rewards for investment (compensating also for the risk taken) accrue to investors *ex-post*, ie after investments are made. You must establish a credible time-independent, pro-investment policy.

Investment support

When appropriate of course, direct subsidies and the use of EU Structural Funds to incentivise the deployment of new networks can also be envisaged, for example, in those cases in which demand will never be enough to ensure an appropriate return on investment, such as in rural and remote areas. Subsidy schemes should correct market failures while minimising distortion. While enforcement is guaranteed by the Directorate-General for Competition, your Directorate-General should be actively involved in monitoring the digital sector, identifying potential issues to be addressed and verifying that the tools used are indeed suited to their purpose. The expertise in your Directorate-General is crucial to ensure that efficient intervention takes place when needed. More generally, though, you should pursue a smart and courageous supply expansion support plan. There is no point in aspiring to bring Europe to full technological coverage just for the sake of it. Where the market cannot sustain multiple platform competition, you should bet on the most appropriate technology to do the job (for example mobile broadband in rural areas). The best way to find out how to do it is to let consumer preferences and needs shape your action plans.

NOTES

01 EU PRESIDENTS

1. 'Strategic agenda for the Union in times of change', European Council conclusions, 26-27 June 2014.
2. Also, the President of the European Parliament should accept that national parliaments use the subsidiarity review more often.

04 COMPETITION

1. The antitrust definition of a market is conventionally based on tests that identify the boundaries of a market by measuring the degree of competition that different products exert on each other. If two products are very good substitutes – such that a significant proportion of demand and/or of supply would shift to one product if the price of the other is changed – then the products are considered to belong to the same market.

2. All figures quotes are up to April 2014.

3. See Mario Monti (2010) *A new strategy for the single market*, report to the president of the European Commission José Manuel Barroso, available at http://ec.europa.eu/bepa/pdf/monti_report_final_10_05_2010_en.pdf.

05 SINGLE MARKET

1. The European House – *Ambrosetti, 2014 European Business Leaders Survey*, June.

2. Eyal Dvir and Georg Strasser (2014) 'Does Marketing Widen Borders? Cross-Country Price Dispersion in the European Car Market', mimeo, available at <http://fmwww.bc.edu/EC-P/wp831.pdf>.

3. Trade integration of goods (or services) as a share of GDP is defined as the average of imports and exports of goods (or services) divided by GDP.

4. See for instance the series of reports accompanying the 2007 Single Market Review exercise http://ec.europa.eu/citizens_agenda/single_market_review/index_en.htm

5. Some initial steps towards a framework for implementing a market monitoring exercise in the Commission were already developed in 2008, laid down in Commission Staff Working Document SEC(2008) 3074.

06 DIGITAL AGENDA

1. Sources: Domo.com: www.domo.com; onesecond.designly.com; and Intel: <http://www.intel.com/content/www/us/en/communications/internet-minute-infographic.html>.

2. Scott Marcus, J., I. Godlovitch, P. Nooren, D. Elixmann, B. van der Ende, and J. Cave (2013) *Entertainment x.0 to boost broadband deployment*, ISBN: 978-92-823-4760-7.

08 MIGRATION

1. This memo is written to a European Commissioner responsible for EU mobility, international migration, border management and asylum. In the past, these competences were divided between DG Home, DG Justice and DG Employment. A few points raised in this memo cut across other portfolios (European External Action Service, DG Development and Cooperation). The author would like to thank Elizabeth Collett, Robert Holzmann, Khalid Koser and André Sapir for their helpful comments.

09 TRADE

1. Global trade in goods fell by 12.2 percent in 2009, by far the largest decline since 1950.

2. The direction of trade and ordering of trade partners varies for exports and imports. In 2013, the EU28's top three import sources were (in descending order) China, Russia and the US, while the top three export destinations were the US, Switzerland and China. All the data in this Memo excludes intra-EU trade.

3. As of 31 January 2014, 435 physical RTAs (counting goods, services and accessions together) were notified to the GATT/WTO, of which 248 are currently in force. The overall number of RTAs in force has increased steadily since the 1990s, a trend likely to be buttressed by the many RTAs currently under negotiation.

4. US domestic law permits targeted energy exports only to countries with which the US has free-trade agreements.

10 ENERGY

1. That is, it should discuss the schemes to remunerate electricity, the roll-out of renewables, networks, demand response, capacity, system services, etc, and assign the responsibility for the development and operation of networks, renewables, etc.

2. There is some legal issue with delegating powers from the Council and the Commission to community agencies ('Meroni Doctrine') that has been widely discussed in the context of the institutions of the 'banking union'.