POLICY PAPER 187 ► 10 MARCH 2017

JACQUES DELORS INSTITUT
BERLIN

#DigitalAmitié A FRANCO-GERMAN AXIS TO DRIVE DIGITAL GROWTH AND INTEGRATION

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SUMMARY

The EU lags behind the US and parts of Asia when it comes to digital growth. Despite of the large potential of the European Single Market, the continent has much fewer "unicorns", lower ICT-led productivity growth and generally less digital innovation. **E-Commerce in Europe, while growing exponentially within the national markets, has yet to show its true potential within a borderless European market.** Only **4% of all online services are sold cross-border.** The reasons for this sluggishness are to be found in different national regulatory environments leading to fragmented service markets and low services trade across the board. This cannot and should not become a current state of affairs: if Europe wants to close up to its international competitors, EU- and national legislation have to speed up.

The EU-Commission identified many of the acute problems holding back the full potential of the digital transformation and put forward an encompassing reform program to counter them: The Digital Single Market Strategy (DSM). But, while **the strategy is ambitious and rests on a solid analysis of many of the EU's problems,** this paper raises **the question whether it will suffice to unleash the full digital potential of the EU and whether it is able to do so in a timely fashion.** The paper therefore examines which additional opportunities individual Member States have at their disposal to complement, deepen and enhance the Digital Single Market. In our view, the Commission does not put enough emphasis on non-digital, national regulation which prevents the opening of service markets and European start-ups from scaling up fast. **Due to a too narrow definition of "digital", the DSM doesn't address national markets for services in the EU, which is where we see the highest potential for disruptive, digital growth.** We are also concerned that the European legislative process might be slow and get bogged down in the arising conflicts between industry stakeholders, new digital players and national governments.

In light of these concerns, we propose **an approach of inter-governmental cooperation of groups of Member States, "coalitions of the willing"** in order to **move towards regulatory convergence within varying geographic and sectoral settings.** This idea rests on the concept of "borderless sectors" of the 2014-Enderlein / Pisani-Ferry Report and entails an approach of positive integration. Concretely and in accordance with the report, **we propose such an approach to be taken up by France and Germany in order to build a joint digital eco-system.** Such a drive towards regulatory convergence initiated by the old engine of European integration, France and Germany, could be particularly effective, when it emphasizes digital growth and complements the strategy of the Commission. France and Germany are recommended to: **i)** Identify emerging technologies as well as sectors and industries with a high chance for disruptive innovation and set up joint regulatory tools for opening them **ii)** Concretely, design a common set of rules for the upcoming sub 700 MHz spectrum band auction and for the regulation of the telecoms sector **iii)** Introduce a joint "innovative company status" for their start-ups allowing them to apply their national regulation even when operating on the other market **iv)** Build a network of French-German coding schools. Taken together, these joint reforms could mark the beginning of a new chapter in the French-German friendship (*amitié*).

INHALTSVERZEICHNIS

1. How to Create a European Digital Champion

New technologies, innovative business models, advanced ways of production, and unprecedented communication channels are transforming economies and societies everywhere in the EU. There is hardly an industry or a sector which has not become affected in one way or the other by the digital transformation. Most service industries are already in the middle of a structural transformation. But manufacturing and traditional industries are now also being affected. Still, Europe is lagging behind. At the moment, it appears that the digital transformation is still largely initiated, designed and carried out outside the EU, with the US and increasingly China in the driver seat.

> "UBER IS VALUATED TWICE AS HIGH AS ALL EUROPEAN UNICORNS COMBINED."

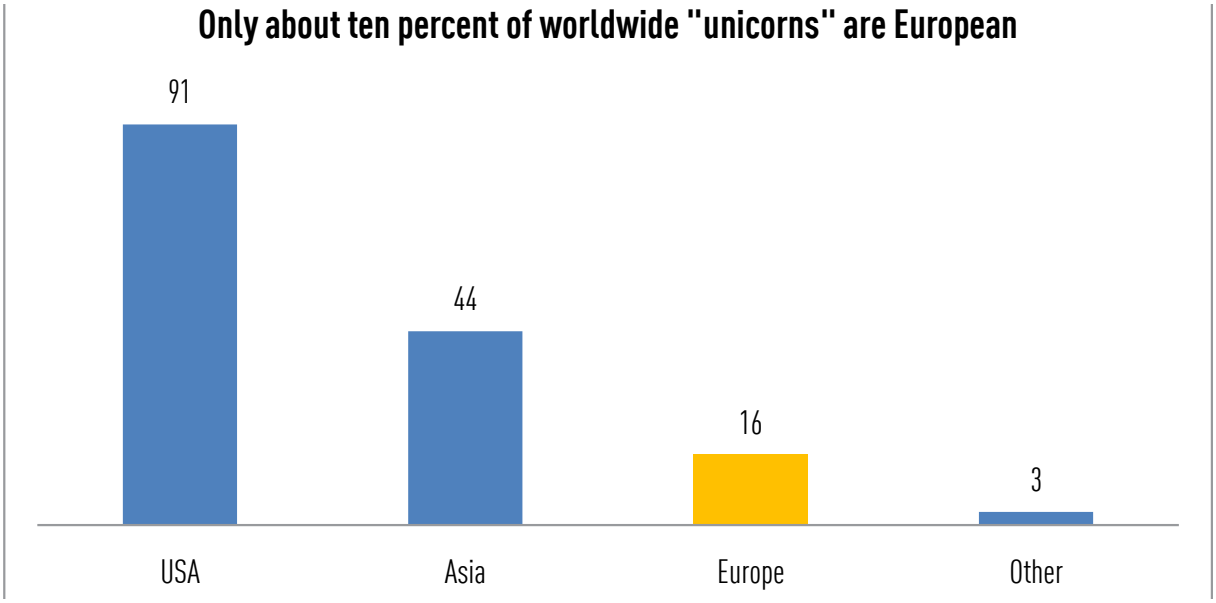
Europe's relative digital malaise is clearly visible—and it could be long-lasting. The digital transformation creates powerful platforms and winner-take-all-markets across many sectors industries. In such an environment, economies of scale and network effects favour companies which can rely on a large domestic market with homogenous regulation in order to gain in size and strength before making the jump to foreign markets. As of the beginning of 2017, it seems that the only two markets large and homogenous enough to create companies with the potential to become global digital champions are the US and China. The chart on the next page is indicative of this trend: Europe's worldwide share of "unicorns", technology companies with a valuation of $1 bn. or more, has been declining in the last two years and is now below ten percent. The figures are even more dramatic comparing the individual height of American and European valuations: The start-up with the highest valuation worldwide at the moment ($64 bn.), Uber, is valuated twice as high as all European unicorns combined. Adding depth to an already bleak picture is the fact that more than half of European unicorns are now owned by American technology corporations and the EU's largest technology unicorn, music-streaming service Spotify, has repeatedly signalled moving operations from Stockholm to the US should regulatory and business environment in the EU and Sweden stay unchanged.[1]

Information technology has long become a pervasive general-purpose technology. The advent of smartphones and the app-economy have further accelerated this trend. Almost no sector is spared out from digital competition anymore. This fact has considerable implications for policy making. It would be a mistake to define "digital" too narrowly and adjust digital policy only according to a narrow definition of a "digital sector".[2]

What should Europe do? Alleviating the backlog and putting the European digital economy on par with worldwide competition will require deep shifts towards regulatory convergence across as many sectors in the EU as possible. The EU still consists of 28 (soon 27?) national markets for most (digital) services. This unnecessary fragmentation is hurting Europe economically. The lack of harmonized regulatory frameworks in network industries, professional services, retail and other service sectors does not only hold back productivity growth in the EU in general:[3] It also hampers the fast growth of new and agile digital competitors in these sectors, who challenge old business models with innovative digital solutions.

1. Alanna Petroff, "3 reasons Spotify could move from Sweden to New York", CNN-Money, 13.04.2016
2. Bauer, Mathias and Erixon, Fredrik, "Competition, Growth and Regulatory Heterogeneity in Europe's Digital Economy", European Centre for Political Economy (ECIPE) Working Paper No. 2/2016, April 2016. Hosuk Lee-Makiyama and Philippe Legrain, "Open Up How to fix the flaws in the EU's Digital Single Market", Open Political Economy Network (OPEN), January 2017.
3. Vincent Aussilloux et al., "Making the best of the European Single Market", Bruegel Policy Contribution Issue No. 3, 2017.

FIGURE 1 ► Companies valued at $1 bn. or more by venture capital firms, Valuations as of January 2017, own visualization



Source: Dow Jones VentureSource and Wall Street Journal.[4]

Yet it seems that the Member States had a rather narrow definition of "digital" in mind when they tasked the Commission to develop the Digital Single Market Strategy (DSM), whose 16 legislative initiatives are being negotiated at the moment between the EU-Parliament and national governments (see section two for a detailed account). This is not meant to criticize the DSM-strategy itself or the EU-institutions: The Commission's plans on the digital sphere defined in the Digital Agenda for Europe and in the DSM-strategy are ambitious and cover a wide set of important policy areas. Issues such as the recently agreed upon temporary portability for audio-visual content or the end of roaming charges will certainly bring benefits to the European consumer as will harmonized rules for E-commerce, parcel delivery and public "Wifi4EU". The question remains though whether these initiatives will be enough to put the EU on par with the US and China and lay the groundwork for more digitally-enabled growth and European digital champions. In addition, we find that the complicated political economy of the DSM-project could still derail its swift and thorough implementation. **This paper thus argues that more policy action is urgently needed to unlock the full digital potential of Europe.** Policies towards establishing a favourable environment for digital growth should be delivered with the following policy goals in mind:

- **Aim for regulatory convergence in selected sectors to open up fragmentized European markets for digital competition and emerging technologies**
- **Facilitate the scaling-up of innovative European start-ups and platforms**
- **Build the foundations for accelerated ICT-led, productivity-enhancing growth**

"AS A CONSEQUENCE, WE ENVISAGE THE OPPORTUNITY FOR AN INTER-GOVERNMENTAL APPROACH TO START."

What should be done to meet these policy goals? Substantial progress in an EU-28/27 setting is unlikely to be delivered in an acceptable timeframe and the current political environment. As a consequence, we envisage the opportunity for an inter-governmental approach to start. Concretely, we propose a Franco-German "DigitalAmitié" as a backbone, a nucleus, to bring about positive integration within "borderless sectors" as suggested by Henrik Enderlein and Jean Pisani-Ferry[5] across as many European countries as possible. Such

4. *Wall Street Journal*, "The Billion Dollar Start-up Club", last accessed 07.02.2017.
5. Enderlein, Henrik and Pisani-Ferry, Jean, Reforms, "Investment and Growth: An agenda for France, Germany and Europe", Report to: Sigmar Gabriel and Emmanuel Macron, 27.11.2014.

a bottom-up Franco-German initiative on digital growth could build on existing digital cooperation projects, which have developed between the two countries in the last years.

The remainder of this paper takes a more detailed look at the issues raised in this introduction and outlines the idea of a far-reaching French-German digital cooperation project in more detail: Section 2 examines the DSM-initiatives by the European Commission in light of their potential for digital growth. In section 3, we outline the rationale for further inter-governmental policy action by Member States **to complement, deepen and enhance the proposals of the Commission.** In order to do so we propose loose, ad-hoc "coalitions of the willing" who decide on integrating faster along flexible geographic and sectoral lines. We follow the logic put forward in the Report by Henrik Enderlein and Jean Pisani-Ferry[6] and see the highest potential for fast growth in a joint French-German approach, which should translate into joint legislation. Accordingly, section 4 explains how a "DigitalAmitié" between France and Germany can offer a crucial basis to promote positive integration and section 5 presents in spotlights concrete proposals around which such a "DigitalAmitié" could be designed. The last section concludes and outlines a possible implementation timeline for a DigitalAmitié.

2. The DSM-Strategy: Fit for Purpose?

When Jean-Claude Juncker took office as President of the Commission in 2014, he made the digital transformation a top priority and pledged to develop a coherent strategy to overcome fragmented national markets for digital services and products.[7] In May 2015, the Commission presented its Digital Single Market Strategy (DSM) as central part of its Digital Agenda. It encompasses an ambitious regulatory overhaul made up of 16 initiatives in various policy areas: *Inter alia,* connected industries, consumer protection and copyright are on the agenda. The Commission estimates that a fully-fledged Digital Single Market will contribute up to €415 bn. per year in economic growth and generate hundreds of thousands of additional jobs.[8] The 16 initiatives have been gradually introduced by the Commission between May 2015 and the end of 2016.[9] Thematically, they are grouped around three areas: **1. Access**, concerning barriers to accessing a product or service online in another country, for example in E-commerce and for copyright-protected content. **2. Network environment** focuses on establishing the technical framework for the future connected economy to thrive seamlessly across borders. **3. Growth** addresses among others opportunities for start-ups and other companies which are challenged by the digital transformation, digital skills and the free flow of data. The recently adopted General Data Protection Regulation (GDPR, national implementation in 2018), new regulation on net neutrality and the abolishing of roaming charges are not part of the DSM-strategy, but should be added to the current legislative wave of digital policies as well.

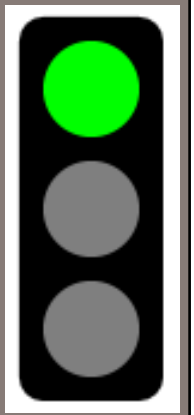
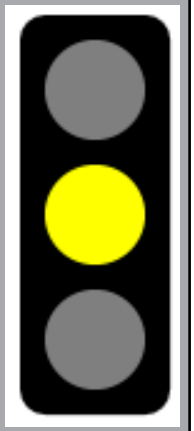
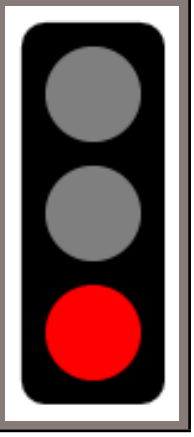
> "BUREAUCRATIC REQUIREMENTS RENDER THE EXPANSION TO OTHER EUROPEAN MARKETS PAINFULLY SLOW AND UNNECESSARILY EXPENSIVE."

Table 1 on the next page presents a snapshot of the DSM-strategy against the policy goal of promoting digital growth. While we believe that the first pillar of the DSM works towards this goal, the second and especially the third do less so. The DSM includes in its first pillar (access) a comprehensive package which could bring substantial changes on the first objective, i.e. creating a true Single Market for B2C online cross-border retail trade, by taking on different VAT-systems, consumer protection and unjustified geo-blocking.[10] At the moment bureaucratic requirements (plus translation costs) render the expansion to other European markets painfully slow and unnecessarily expensive, especially for smaller businesses: Legal fees to comply with the local regulations are estimated at €9.000 per country, so that an E-Commerce retailer might face a total of

6. Enderlein, Henrik and Pisani-Ferry, Jean, Reforms, "Investment and Growth: An agenda for France, Germany and Europe", Report to: Sigmar Gabriel and Emmanuel Macron, 27.11.2014.
7. Jean-Claude Juncker's Priorities on the website of the EPP: See https://ec.europa.eu/commission/priorities/digital-single-market_en for more information.
8. EU-Commission, "Why we need a Digital Single Market", Factsheet, 2015.
9. See here for a timeline of the initiatives.
10. See for a comprehensive overview on unjustified geo-blocking Felice Simonelli, "Combating Consumer Discrimination in the Digital Single Market: Preventing Geo-Blocking and other forms of Geo-Discrimination", Study for the IMCO Committee, EU-Parliament, 2016.

€243,000 additional costs for lawyers and accountants only to be present in all "foreign" European markets.[11] The result is low cross-border online trade (see graph in appendix).

TABLE 1 ► Digital Single Market Strategy – Overview

POLICY AREA	MAIN PROPOSALS [12]	RELEVANCE FOR DIGITAL GROWTH	
Access	• Cross-border Ecommerce: Harmonization of VAT and consumer protection, better enforcement of consumer rights, harmonized parcel delivery, end of "unjustified" geo-blocking • Temporary portability for audio-visual content across EU-borders • A reform of copyright legislation	DSM-initiatives will encourage more cross-border Ecommerce, benefitting consumers and companies. However doubts have been raised whether the economic gains of these measures will meet expectations.[13]	
Network Environment	• Telecoms Single Market: Modernisation of EU telecoms legislation • Data Protection and Privacy: Modernisation of the EU data privacy legislation (E-Privacy Directive) • Measures on Cyber Security • Inquiry of Online Platforms	DSM strategy does not focus on increasing competition in network industries, spectrum harmonization not enforced.	
Growth	• Promote Digital Skills • Free Flow of Data: Abolishing barriers for data to flow across Europe, European Cloud Initiative • Definition of Inter-Operability Standards	Not enough emphasis on non-digital barriers to digital growth: reduction of regulatory burden at national level not addressed.	

11. House of Lords, Revised Transcript of evidence taken before The Select Committee on the European Union Internal Market Sub-Committee Inquiry on Online Platforms and the Digital Single Market, Tuesday 10 November 2015.
12. The list does not cover all the areas of the DSM-strategy, but only those, which are the most relevant for the policy area. A full overview over the Commission's 16 initiatives can be found here.
13. For example in Hosuk Lee-Makiyama and Philippe Legrain, Open Up How to Fix the Flaws in the EU's Digital Single Market, Open Political Economy Network (OPEN), January 2017

However positive the proposals of the Commission for E-commerce are, they will have to be made binding for everyone: Current market fragmentation stems mostly from national implementation of EU-legislation of the last E-Commerce Directive in 2011.[14] It is in the second and third objectives that the Commission's plans do not appear as far-reaching as could have been hoped for. A Telecoms Single Market will certainly lead to more competition and thus more investment in productivity enhancements but the plans do not include really substantial change. What is particularly missing is an idea of combining rules aiming at service-based competition with rules promoting facility-based competition. Such change could restore the incentives of the private sector to invest in infrastructure and NGA technologies; an approach which proved to be efficient in supplying large swaths of territory and population in the US with ultra-fast internet connections.[15]

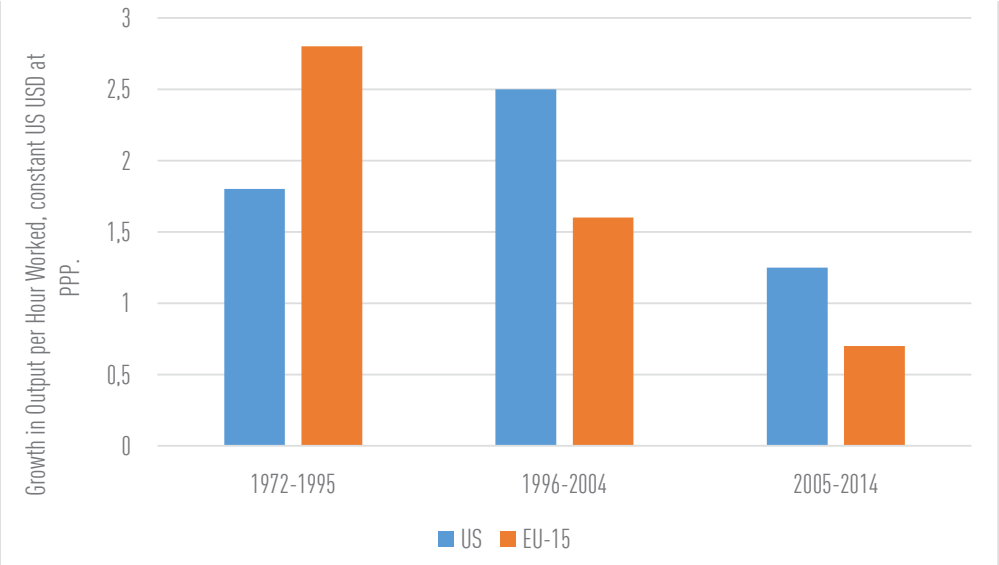
We identify the real blind spot with regards to digital growth in the **lack of attention to domestic non-digital regulation and the narrow definition of "digital"**. Across the EU, excessive heterogeneity of non-digital national regulation prevails, for example in network markets, retail, energy and liberal professions.[16] The most important regulatory fragmentation hampering cross-border services trade as well as the growth of innovative companies is often found in the details of diverse national or sub-national non-digital legislations from the national to the city level. Examples are safety standards to acquire a cab drivers license, health regulations for sub-letting, market entry regulation for retail or hygiene standards for food delivery. The proposals of the Commission to boost "Growth" do not seem to address this. We are not the only ones arguing along these lines: In a study from January 2017, Philipp Legraine and Hosuk Lee-Makiyama of the Open Political Economy Network even go as far as describing the initiatives of the Commission "unfit for purpose" (with regards to digital growth) because of them being "corporatist, protectionist and anti-innovation".[17] They make the correct observation that, while only 4% of internet services in the EU are conducted by a European company across their own borders, 54% of all these services in 2015 were provided by American companies.[18] This American dominance in digital services trade disproves the general idea that European services markets are closed to foreign firms per se. However, it proves that European companies apparently struggle to reach the size and market dominance of American technology companies in the first place.

> "THE GAP BETWEEN U.S. AND EU IN LABOUR PRODUCTIVITY AND MULTI-FACTOR PRODUCTIVITY GROWTH IS WIDENING."

Over-regulated domestic markets for services point to another dimension of digital growth which is not adequately addressed by the DSM-strategy: ICT-led economic and productivity growth, or the lack thereof. **We find that the EU DSM strategy and Digital Agenda for Europe do not provide sufficient support to the large-scale dissemination of digital solutions in the form of investment in ICT-technology.** The EU has been trailing the US in the adaptation of modern information and communication systems, ICT-investment and the diffusion of technology since the 1990s. This is most apparent for investments in market services.[19] One consequence of this development is that the gap between U.S. and EU in labour productivity and multi-factor productivity growth—a measure for technological change and the long-term growth prospects of an economy—is widening. Admittedly, there are many reasons for the relative productivity growth slow-down. However, a lower investment rate in ICT in the EU-15 over the last 20 years is widely regarded as one of them.[20] Recent studies suggest that the positive direct link between ICT-investment and productivity growth is larger than anticipated by many older economic models.[21] The deployment of basic broadband networks alone contributed to an estimated 20% of total productivity growth in the EU since its introduction, with a contribution in the range of 0.5-1.5% to the GDP of the Union.[22]

14. Wubben, Martine et al., "Legal Aspects of the Digital Single Market. Current Framework, barriers and development", Essay commissioned by the Ministry of Economic Affairs, Agriculture and Innovation of the Netherlands, January 2012.
15. Lam, Pun-Lee and Shiu, Alice, "Economic growth, telecommunications development and productivity growth of the telecommunications sector: Evidence around the world", Telecommunications Policy 34 (4), pp. 185-199, 2010.
16. Bauer, Mathias and Erixon, Fredrik, "Competition, Growth and Regulatory Heterogeneity in Europe's Digital Economy", European Centre for Political Economy (ECIPE) Working Paper No. 2/2016, April 2016.
17. Hosuk Lee-Makiyama and Philippe Legrain, "Open Up How to fix the flaws in the EU's Digital Single Market", Open Political Economy Network (OPEN), January 2017.
18. See the fact-sheet "Why we need a Digital Single Market" for more information.
19. Mc-Kinsey Global Institute, "Digital Europe: Pushing the Frontier, Capturing the Benefits", June 2016.
20. Springford, John, "Offline? How Europe can catch up with US technology", Centre for European Reform Report, July 2015.
21. For an overview see Draca, Mirko et al. "Productivity and ICT: A Review of the Evidence", Centre for Economic Performance, CEP Discussion Paper No 749, August 2006.
22. EIB, Restoring EU Competitiveness 2016 updated version, Economics Department, European Investment Bank, 2016.

FIGURE 2 ► Average Labour Productivity Growth in the U.S. and EU-15



Source: Conference Board

What did cause lower European ICT-investments in the first place? We argue in line with large parts of the literature that lower competition in service markets across the EU is one of the main culprits.[23] Due to fragmented and largely national markets for many market services European companies felt much less competitive pressure to innovate, consolidate and make productivity-boosting ICT-investments than in the US.[24] Designing policies beyond a narrowly defined "digital sector" accordingly kills two birds with one stone: **Regulatory convergence across European countries would unleash a wave of ICT-investments by larger corporations as well as open up service markets for digital newcomers with disruptive, innovative business models.**

"MOST COMMENTATORS EXPECT THE FIRST INITIATIVES TO BE PASSED INTO NATIONAL LEGISLATION BY 2020—2021 AT THE EARLIEST."

Apart from the reasons stated above we have further concerns about the proper implementation of the DSM-strategy and its viability and coherence. Most of the policies, notably with regards to E-commerce and the Single Telecoms Market, have been repeatedly on the European agenda but never came to fruition.[25] The DSM could be described as an ambitious pooling and re-packaging of existing proposals into one framework. Its implementation will take time: Most commentators expect the first initiatives to be passed into national legislation by 2020—2021 at the earliest, if they pass the "EU-consensus machine" smoothly.[26] This is all but guaranteed given that the political economy of the DSM is complicated. Numerous conflicts in Brussels among different stakeholders bring about pessimism on the positive outcome of some DSM-initiatives:

- The plans for the Telecoms Single Market pitch traditional players like the net providers against new ones such as OTT-companies. EU policy-making has not yet been able to help redefining this fast changing market where broadcast and broadband services compete in an uncertain and fractionalized setting. Discussions on whether broadcast and broadband markets will converge or co-exist is ongoing from several years and no clear direction has been taken so far, with alarming consequences for incentives to invest in new technology and the creation of veritable pan-European operators.

23. For example Miller, Ben and Robert D. Atkinson, "Raising Productivity Growth Through ICT", The Information Technology & Innovation Foundation, June 2014.
24. See on this point also Springford, John, "Offline? How Europe can catch up with US technology", Centre for European Reform Report, July 2015.
25. Access Now: "EU unveils its digital strategy for the next five years: a crippled unicorn", May 2015.
26. Ryan Heath and Zoya Sheftalovich, "EU digital single market: Death by compromise, A user's guide to the Commission's latest brainstorm", *Politico*, 06.05.2015.

- Despite the overwhelming evidence that a reform of radio spectrum management is necessary[27], the EU is a laggard on spectrum allocation (how to use bands of spectrum for which mobile services) and is very much fractionalized on spectrum assignment (who has the right to use it). The recent proposal by the European Commission to reallocate the 700 MHz band to mobile broadband has met strong resistance from a block of Member States that are intended to postpone spectrum reallocation to 2022 or later. Existing licensing rights, concerns about the potential loss of shared auctions, and a preference for retaining full control over spectrum allocation and assignments is still preventing several Member States to commit to a reform of spectrum management which could set the scene for a proper development of LTE technologies and give a boost to private investment.

While aligning copyrights legislation is one of the leading Commission's priorities and there is consensus on the need to reform it, the concrete design of such a reform is heavily disputed and conflict-laden.[28] Recent proposals for an ancillary copyright for press publishers are a prominent example.

Even where recent EU-regulation is supposed to harmonize legislation, as with the General Data Protection Regulation which will pass into national legislation in 2018, the devil is in the detail: Many observers and legal experts conclude that the regulation despite its legal character (instead of a directive) will in many cases not be as binding as the name suggests – in fact it is seen as something in between a directive and a regulation, leaving Member States leeway for its implementation and drafting into national law (for example with regards to the "Right to erasure").[29] Critics generally see contradictory policy goals between data protection and the aspiration to become a digital industry leader.[30]

Summing up, we have identified three main concerns that may prevent the current strategy to unlock the full potential of the Single Market for digital services and products and digital growth in particular:

"EMERGING CONFLICTS BETWEEN OLD AND NEW PLAYERS, BETWEEN DIFFERENT STAKEHOLDERS AND DIVERGING NATIONAL INTERESTS CAN WATER THE DSM DOWN."

1. The implementation process is not fast enough to catch up with the fast-moving developments of the Internet age. Emerging conflicts between old and new players, between different stakeholders and diverging national interests can water the DSM down.

2. There is a need to partly redress the strategy towards dismantling national non-digital barriers to growth and facilitating the adoption of ICT-solutions to all sectors of the economy, especially for services.

3. The narrow definition of "digital" forgoes the opportunity to use the current digital transformation for a progressive overhaul of European services markets.

For all the reasons laid out above we believe that an approach following an inter-governmental logic could be more helpful at the moment. The question is: How can we get there? The next section details why we find an inter-governmental setting most suitable to achieving this goal.

27. See Lamy Pascal, Results of the Works of the High Level Group on the Future Use of the UHF Band, Report to the European Commission, 2014, Bohlin Erik, Caves Kevin and Eisenach Jeffrey, "Mobile Wireless Performance in the EU and the US: Implications for Policy", DigiWorld Economic Journal, Rethinking the EU telecom regulation, n° 93, 2014, pp. 35- 58 and Mariniello Mario and Salemi Francesco (2015), "Addressing Fragmentation in EU Mobile Telecoms Markets", Bruegel Policy Contribution, issue 2015/13.
28. Möller, Marie, Digitisation and European Copyright Protection: Between economic challenges and stakeholder interests, IW Policy Paper, No. 4/2016E.
29. See for example Datenschutzblog, Datenschutz: Auswirkungen der EU-Datenschutzgrundverordnung, for a list of all the regulatory details that can potentially be implemented differently into national legislation (in German).
30. Xavier-Bender, Guillaume, "Seeing the Forest for the Trees. Why the Digital Single Market matters for Transatlantic Relations", The German Marshall Fund of the United States, January 2016.

3. An Inter-governmental Approach towards Integration in "Borderless Sectors"

It is generally acknowledged that negative integration alone is not sufficient to create space for a veritable internal market and eliminating barriers harming growth. When it comes to promoting economic policy coordination, with a specific urgency, an intergovernmental setting can therefore represent a viable way to get groups of Member States together to define the lines of positive integration. Through an intergovernmental approach it is possible to ensure Member States that centralization will not be too heavy and at the same time it will be feasible to respect domestically defined priorities. As the approximation of regulations and standards is one of the most decisive tools to remedy to the excessive fractionalization and unlock the growth potential of the digital transformation, positive integration from the side of Member States willing to cooperate must be prioritized.

Where should positive integration take place exactly? Despite much talk and some relative successes – for example in the air transport sector – most services markets, especially in network sectors, remain fragmented. This is the case in the energy sector, rail transport, telecoms, but also consumer insurance markets, banking, health care and professional services, among others. In an age of digital transformation of these industries, this seems antiquated, especially considering many of these sectors have large cross-border externalities and the potential for economies of scale.[31] Yet, earlier negative experiences with attempts to thoroughly liberalize services markets have left the EU and Member States wary of further encompassing integration. The reality of the EU in 2017 is that the vast socio-economic heterogeneity of 28 (soon 27) EU-countries and growing dissent to find common solutions over conflicting interests have rendered it more and more difficult to come to binding decisions and achieve tangible results on the European level.

> "WE PROPOSE A DRIVE TOWARDS MORE REGULATORY CONVERGENCE FROM THE BOTTOM-UP CONDUCTED BY TEAMS OF LIKE-MINDED MEMBER STATES."

Such conflicted and cumbersome decision making should not become a permanent state of affairs, especially given current global economic and political developments and the speed of the ongoing digital transformation. Regulatory harmonization should still be paramount for all European governments, but its outcome has to be results- and not process-driven and it needs to allow for a faster decision making process. We therefore propose a drive towards more regulatory convergence from the bottom-up conducted by teams of like-minded Member States governments, around flexible sectoral and geographic boundaries. We need "coalitions of the willing", which identify an economic sector where they want to integrate faster and further and then go on about it. This idea rests on the concept of "borderless sectors", which Henrik Enderlein and Jean Pisani-Ferry originally proposed in their joint report to the French and German government in 2014. In the report, they identify the energy and transportation sector, but also the "digital sector" as parts of the economy where regulatory convergence could be brought about by a smaller group of countries within the Union. Defining the "digital sector" more broadly we can include service sectors with large network effects and a high likelihood of disruption by new digital business models as "borderless". Such a broader definition should however not only include all network industries, but also retail and professional services.

The form of bottom-up integration we are proposing here would be far-reaching: *"Building 'borderless sectors', … involves much more than just agreeing on coordination and joint initiatives: it implies going all the way to a common legislation, a common regulatory rulebook and even a common regulator."*[32] We think that the possible implications, caveats and pitfalls of such an approach could exemplarily be shown by outlining in some details one such possible cooperation: We therefore propose in the next section a Franco-German "DigitalAmitié", a close cooperation of the old engine of European integration, France and Germany, to issue joint legislation to tear down barriers to digital growth, especially those which are left out or only marginally addressed in the DSM-strategy of the Commission.

31. See on this point also Vincent Aussilloux et al., "Making the best of the European Single Market", Bruegel Policy Contribution Issue No. 3, 2017, which explicitly states the concept of "borderless sectors" with regards to the development of the Single Market.which explicitly states the concept of "borderless sectors" with regards to the development of the Single Market.
32. Enderlein, Henrik and Pisani-Ferry, Jean, "Reforms, Investment and Growth: An economic Agenda for France and Germany", Joint Report to Sigmar Gabriel and Emmanuel Macron, 27.11.2014, p.4.

4. #DigitalAmitié: An Opportunity for enhanced French-German Cooperation

The idea is straightforward and builds on the long-dated fruitful collaboration between Germany and France in paving the way for deeper integration in Europe: the establishment of a common Franco-German regulatory framework and digital ecosystem can kick-start that of rest of Europe. Why France and Germany in particular? We have five reasons for this:

1. France and Germany have already committed themselves to enhancing bilateral cooperation with regards to digital policy. The process has been accelerated with two joint-French-German digital conferences in October 2015 and December 2016. France and Germany will collaborate closer with regards to the transformation of their industries as they embark on the fourth industrial revolution, muster € 1 bn. to support French and German start-ups and invest in broadband together. For a more detailed list on the existing and envisaged cooperation projects, see the info box on page 14.

2. Historically, Franco-German cooperation has been the engine of European integration. From the Treaties of Rome to the introduction of the Euro and the Lisbon Treaty, whenever France and Germany were able to agree on a common way forward towards a shared goal, the EU as a whole could make leaps forward in integration. In the last years however, it seems that the Franco-German engine started to sputter and it has become more and more difficult for the two nations to find common ground on the way ahead. A joint effort towards a truly borderless regulation for the digital transformation would thus constitute a powerful re-start for the tandem.

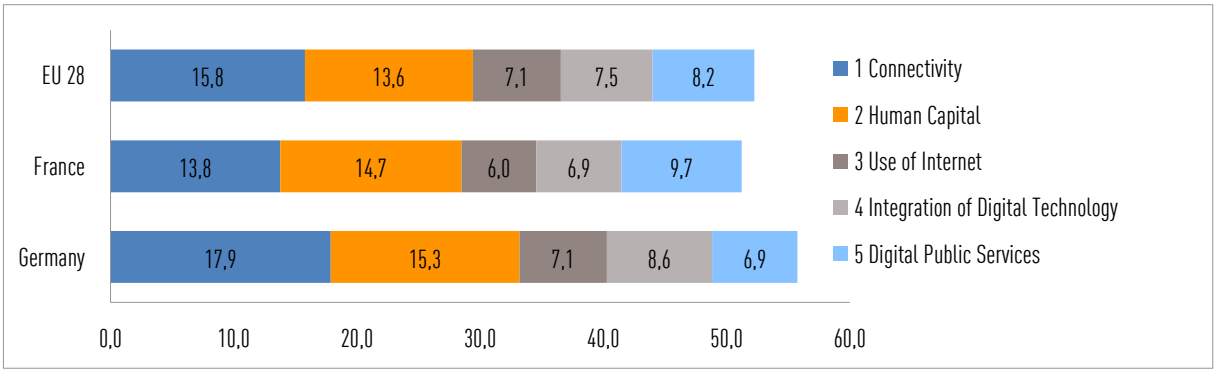
3. France and Germany have already proved to be among the most determined EU-countries in making progress in the digital sphere. Auctions for the allocation of the 700 MHz radio spectrum band to wireless broadband took place in 2015, even before the Commission proposal. At the moment, they are the only two countries in the EU that have auctioned the UHT band together with Finland, Sweden will follow in 2017. Furthermore, France and Germany have also been very much engaged to promote the roll-out of wired broadband in rural areas.[33]

4. From a very pragmatic viewpoint, France and Germany alone represent a large enough market for the implementation of economies of scale and investment incentives. Together they comprise about 35% of the EU-GDP (pre-Brexit) with a market of 145 million people. Their economic development, productivity rates and standards of living are comparably on par and they both show similar values on digitalization-related indicators (See below). Both countries are home to at least one big international start-up hub (Berlin and Paris) and several smaller yet considerable ones (Hamburg, Munich, Marseille, Lyon-Grenoble). Nonetheless Germany and France both import much more ICT-goods and -services than they export, a sign that there is a high demand for digital services, which is met largely by American and Asian companies.

5. The interconnections between the French and the German private sector are well-advanced, creating a very fertile setting for further cooperation in the digital sector. In fact, at the industry level, France and Germany have already embarked on a strategic cooperation. Their two biggest employer's organizations, BDI and MEDEF already cooperate tightly with each other and have repeatedly called for further coordination between France and Germany with regards to the digitalization of their industries.[34]

33. In 2015, an EIB-backed project was developed in Germany to bring optical fibre to rural areas of Lower Saxony, in partnership with NBank and Deutsche Telekom AG run an extensive programme for the deployment of ultra-fast broadband (fibre and copper access technology. In France, central and local authorities, together with the Caisse des Dépôts Group and the EIB, came up with several projects to deploy NGA technologies in Haute-Savoie, Alsace, and Nord-Pas-De-Calais by employing different EU-funding schemes, project bonds, framework loans and the EFSI guarantee.
34. For example BDI, MEDEF, Common Declaration for a French-German Cooperation on Digitalisation of Industry by BDI and MEDEF, 05.04.2016.

FIGURE 3 ► Digital Economy and Society Index for France, Germany and EU-28 2017



Source: EU-Digital Scoreboard, DESI-Index.

To sum it up: The ground is prepared, what is needed now is the courage to enact deep and far-reaching reforms together. If other countries join in, for example the Benelux countries, the impact would be even greater. Deeper integration among countries within the framework of the EU is not without precedent: Scandinavian countries for example have closely cooperated for a long time. The Schengen-Agreement started as an initiative of a limited number of countries and gradually took more countries on board. A common French-German regulatory and political agenda could serve as a corner stone for cooperation with a larger group of interested partner countries. In fact, it would be an "economic Schengen".

BOX 1 ► Current and envisaged Franco-German digital cooperation

In October 2015, the French and German governments held a joint conference to promote a common digital agenda in Paris.[35] This kick-off event for a genuine French-German digital agenda and vessel for deepened cooperation was followed by a second French-German conference in December 2016.[36] In a joint declaration[37] the two ministers of the economy agreed to foster French-German cooperation in the following areas:

- **Connected industries**: The two platforms "Industrie 4.0" and "Alliance Industrie du Futur" will, among other things, cooperate tightly to accelerate the formulation of international standards and norms to ensure global interoperability of connected manufacturing solutions.
- **Start-ups and new business models:** Several joint measures are planned to increase entrepreneurial mobility, facilitate access to finance and promote a French-German start-up ecosystem internationally. € 1 bn.-fund planned to support start-ups on both side of the Rhine.
- **Innovation and new technologies**: France and Germany want to introduce joint measures to promote the use of cloud technology for SMEs, develop one Important Project of Common European Interest (IPCEI) for micro-electronics with partner countries and two for nano-electronics and High Performance Computers (HPC) and foster joint industry clusters for big data-solutions
- **Regulation**: Both countries welcome the DSM-strategy and seek to complete the legislative process by 2018.

35. Robert, Aline, "France and Germany push their own digital agenda", *EurActiv*, 27.10.2015
36. See BMWi, Deutsch-französische Digitalkonferenz, Homepage of the conference.
37. See the full document here.

5. #DigitalAmitié: Spotlights

In what follows we put four concrete policy areas and proposals in the spotlight where we think that French-German cooperation towards regulatory convergence can be most beneficial. We make proposals to identify sectors where digital disruption is the most likely in the future and to pursue a common forward-looking regulatory approach in these sectors. This seems most appropriate in "borderless" network sectors. Concretely we show how positive integration should be fostered in the telecommunications sector. Furthermore, we propose to help young companies to scale up and ease regulatory burden by introducing a special status for French and German start-ups for a 5-year period of time. Lastly, we propose the introduction of French-German coding schools to accompany the joint framework. The following list of proposals is not intended to be exhaustive at all. Rather, we want to give an idea what the DigitalAmitié we are proposing could look like in reality.

5.1. Regulatory convergence in "borderless sectors" and for emerging technologies with disruptive potential

Once France and Germany have agreed on a roadmap for common regulation in "borderless sectors" they should immediately identify sectors where innovative digital solutions could benefit most from regulatory convergence. Germany and France host already a large variety of start-ups in the mobility and transportation sector, but also for 3-D printing, artificial intelligence or Internet of Things-applications. It will be very important that France and Germany pay high attention to their potential to disrupt traditional services sectors. To give a concrete example: Distributed ledger-technologies (based on a blockchain) will soon see a large wave of commercially viable applications beyond crypto-currencies, which would also mean that the need for forward-looking regulation is growing.[38] Distributed ledgers for example in the form of "smart contracts" have a very disruptive potential by enabling complex, yet secure peer-to-peer transactions circumventing established players. Both in Berlin and in Paris there are large communities of developers scrambling to develop innovative solutions for numerous industries, for example decentralised platforms to manage peer-to-peer energy-trading. Professional services based on legal guarantees, for example the validation of a contract by a notary is another potential field for applications based on distributed ledger technologies. France and Germany should closely monitor these innovative developments to be prepared to draft common regulation for innovative solutions early on. In addition, France and Germany should set up a committee to identify further "borderless sectors", in network sectors such as utility and energy markets and potentially in retail, in order to open them up to digital competition by the means of joint, innovation-friendly regulation allowing swift market entry and prompt scaling of promising business models.

5.2. Integration for telecoms and spectrum management

> "THE OVERALL OBJECTIVE OF A FRANCO-GERMAN PARTNERSHIP SHOULD BE THAT OF DESIGNING A COMPETITIVE TELECOM MARKET."

In this second spotlight we want to exemplarily show how regulatory convergence could look like in practice: Telecommunications is a network sector where positive integration is mostly needed. A Franco-German DigitalAmitié should therefore focus on the creation of a shared strategy for the telecom sector based on a common regulatory approach. As highlighted in the DSM strategy, the potential areas for cross-country regulatory harmonization in telecommunications are numerous: enforcement of telecoms regulation, consumer protection, cost-pricing rules, security of mobile online transactions, universal service provisions. The fast evolution of technology and markets, such as the upcoming Internet of Things, not only requires increased connectivity and network development. It also demands a clear setting for the development of old business models and the creation of new ones. Price-based competition is certainly one aspect to be taken into consideration, but the overall objective of a Franco-German partnership in the field

38. PYMNTS, Blockchain Tracker: Will 2017 Be The Year Of Regulation?, 22.12.2016.

should be that of designing a competitive telecom market, so that consumers and businesses can benefit both from affordable prices and latest technologies. In other words, price competition should not be pushed to the extent that it curbs tech-infrastructure and innovation.

Radio spectrum management is one of the areas where the DigitalAmitié could help speeding up towards the development of LTE/5G technologies and save Europe from an ill-fated impasse. Putting forward a common vision and a certain regulatory setting can substantially help the private sector to face the fast-developing technology and markets; by decreasing regulatory uncertainty and fragmentation on radio spectrum management, France and Germany can boost investment in NGA and 5G technologies.

The two countries have already shown a particular sensibility to the issue and have been the first EU countries to open up the Ultra High Frequency (UHF) spectrum for wireless broadband; they auctioned the 700 MHz band in 2015 and can now lead the way for enhanced cooperation towards:

- Assigning in a joint auction the nationally-defined licences for the sub-700MHz band[39]. France and Germany should closely cooperate to harmonize assignment procedure, licences rights and obligations following best practices and with a common award method.

- Ensuring alignment between spectrum policy and audio-visual policy, so that a virtuous circle between content creation, technology deployment and business development can be achieved.

A sustainable harmonized long term strategy for radio spectrum can be defined along the Franco-German axis, on the basis of usage scenarios and customer demand.

5.3. A "special status" to help French and German start-ups scaling up

France and Germany should help their start-ups grow fast where they are at a disadvantage to their American and Asian counterparts due to the fragmentation of the European Single Market. Start-ups eager to launch their service in other countries have to cope with high legal costs and undergo a lengthy process of adapting their business to the individual regulatory environment of each Member State. France and Germany should closely observe where young companies face regulatory barriers and develop fast and un-bureaucratic schemes to overcome them and facilitate market entry even before regulatory convergence is achieved. For example, they could render the costs for legal and regulatory adaptation for start-ups in the other market tax-deductible. Another possibility would be to set up advisory offices in France and Germany where legal and business experts advise start-ups on the regulatory peculiarities of the other market.

"START-UPS SHOULD ALSO GET EASIER ACCESS TO GOVERNMENTAL SUPPORT IN THE OTHER COUNTRY"

But there are even better solutions at hand: Following advice of their own digital start-up councils (Beirat Junge Digital Wirtschaft and Conseil national numérique) France and Germany could agree on introducing an "innovative company" status for promising, innovative young companies.[40] Young Companies which have earned this status could for example be allowed to apply their own country's safety, health and taxation regulation when they enter the other country's market for a period of time, e.g. five years. This would allow for much less physical and monetary resources devoted to regulatory compliance and more room for experimenting and tinkering. Start-ups should also get easier access to governmental support in the other country or be exempt from taxation during the period of the special status. In fact, the EU-Commission had something similar in mind in early drafts of the DSM (a "three year regulatory visa"), but this far-reaching scheme never made it into the final concepts of the Commission.[41]

39. The US have auctioned 126 MHz in the sub-700 MHz band for mobile broadband in May 2016.
40. Beirate Junge Digitale Wirtschaft and Conseil National du Numérique, "Digitale Innovation and Digitale Transformation in Europa. Ein deutsch-französischer Aktionsplan für Innovation (API)", Position Paper, 27.10.2015.
41. Ryan Heath and Zoya Sheftalovich, „6 Takeaways on the EU Single Market Plan", *Politico* 28.10.2015.

Such a status would not only allow for more experimenting and faster market entry, but it would probably also help attract more funding from investors as they see the new possibilities of innovative companies in France and Germany and will be more willing to fund further growth.

5.4. Promotion of the digital transition in education

Another policy area where we see potential for closer French-German cooperation is the area of education, skills and especially re-skilling.[42] Employees with practical digital skills, especially in coding, are increasingly required by companies both in France and Germany as well as across Europe. The skills mismatch affecting European labours market is in part due to the hesitation of European education systems to adapt their curricula to the fast-moving demand industries undergoing the digital transformation. The internet has created various new possibilities for learning and training, such as MOOCs and France and Germany have experiences in setting up joint or bilingual schools. So why not setting up a network of coding schools which relies on innovative teaching methods and is open to everyone who passes a competence-based admission test? As it happens, in Paris there is already a role model for an innovative approach to teaching and coding: the École 42 is a unique school project because it defies all typical stereotypes of a typical learning institution.[43] Set up in 2013 by French telecoms entrepreneur Xavier Niel, the school has no lectures, books or grades. Coding is told by learning by doing and in small groups of students teaching each other. 70,000 aspirants applied for the 900 initial available places. Niel just announced to spend $ 100 million to open another branch, unfortunately in the Silicon Valley.

Governments should carefully observe these innovative private-sector developments. France and Germany could take a truly visionary step forward by funding and setting up an entire network of coding schools. One requirement could be that at least 30% of students in each of the two countries come from the partner country with English as the main language for the classroom. Such innovative teaching methods could also be integrated into existing education facilities such as the vocational colleges in Germany whose network could be used to integrate joint coding schools in them.

42. See for further information on digital skills and the need for re-skilling in the face of the "fourth industrial revolution: Paul-Jasper Dittrich, „Re-Skilling for the Fourth Industrial Revolution. Formulating a European Strategy". Jacques Delors Institut Policy Paper No. 175, 03.11.2016.
43. Sayare, Scott, "In France, New Tech Academy defies conventional wisdom", *New York Times*, 15.11.2013.

TABLE 2 ► DigitalAmitié - Concrete Proposals and Policy Aims

POLICY AREA	CONCRETE PROPOSALS	POLICY AIM
Regulatory convergence in "borderless sectors"	• Identify sectors and industries with a high possibility of future disruption by digital competitors. • Set up common regulatory committees in order to draft common regulation designed to facilitate disruption and innovative new business models.	• Give companies the possibility to sell their services in a larger and more open market from the very beginning.
Telecommunication	• Cooperate on harmonization of spectrum allocation • Cooperate on broadband investment in border regions.	• Swift introduction of G5-standard (IoT as backbone of autonomous driving, Industrie 4.0 etc...) • Encourage Higher investment in productivity-enhancing technology
Start-ups	• Help start-ups with the costs of legal and regulatory adaption in the other market. • Set up mechanism to exempt French and German startups from regulatory burden in the other market for a certain period of time ("Innovative Company Status", "Regulatory Visa")	• Encourage market entry • Allow for "permissionless innovation", risk-taking, experimenting • Facilitate scaling-up processes of promising start-ups
Education	• Set up network of French-German coding schools modelled on École 42, under cooperation of local educational institutions, for example vocational colleges.	• Increase practical digital skills • Increase mutual understanding of labour markets and work culture for citizens of both countries.

6. The Way Forward. How to implement a DigitalAmitié?

In this paper we have set out an ambitious plan. An analysis of the proposals of the Commission for a Digital Single Market showed that there is a gap in proposals for digital growth which France and Germany should fill. In order to do so France and Germany should develop a digital ecosystem from the bottom up, by making use of an intergovernmental approach to strengthen the economic and social ties between the two countries. The graph below sums up our spotlights, concrete proposals where we see the most promising gains from such a DigitalAmitié.

FIGURE 4 ► **DigitalAmitié - Concrete Proposals and Policy Aims**

Illustration: Cinthya Nataly Haas-Arana © Jacques Delors institut – Berlin

How and when could our proposals be implemented? A renewed Franco-German cooperation project should not end up in building new large bureaucratic entities, but some institutional set-ups will be needed to advise and monitor the project as well as to develop future areas of digital cooperation. Such institutions could be modelled in a first step after the already existing Franco-German joint office for renewable energy (Office franco-allemand pour la transition énergétique/Deutsch-französisches Büro für die Energiewende).[44] This office, which is built on a French-German association is attached to the Ministries of the Economy in both countries and collaborates with experts from the industry and academia. In a second step, joint regulatory committees of both countries should get to work in order to identify the areas where common regulation looks the most promising. Eventually, joint public authorities will also be needed to monitor implementation and compliance with regulation.

Regarding the timeframe for implementation we see a strategic window of opportunity emerging after the French and German elections, starting in the last quarter of 2017 until maybe the end of 2018. During that time, and given an outcome of both elections which is favourable to a profound revival of French-German cooperation, we call on the leaders of France and Germany to waste no time setting up the right parameters. Once a

44. See the website of the joint office at http://enr-ee.com/de/startseite.html.

> "WE CALL ON THE LEADERS OF FRANCE AND GERMANY TO WASTE NO TIME SETTING UP THE RIGHT PARAMETERS."

general political agreement is reached, joint groups of technical experts could immediately be put to work in order develop the details of joint regulatory approaches, under the auspices of a possible French-German Joint Office for Digital Integration. At a later stage, other countries favourably inclined to the process could be asked to join in.

However, we think that even in the current context of high political uncertainty due to the elections and the spectre of populism there could be some common ground on shared goals. The digital transformation is a high-priority objective in both countries and perhaps the policy area least affected by the ongoing political turmoil. Politically, they are priorities for every political platform. Thus, we do have hope that a common sense of urgency would triumph over short-sighted political considerations.

In the second half of the 20th century France and Germany were considered the "engine of European integration". Yet, in the 21st century innovation and economic growth are less and less driven by physical engines and more and more by digital networks. If France and Germany want to politically emulate this economic and social development, maybe they should think of themselves as a network of integration as well. A DigitalAmitié will certainly look different then the integration steps of the past, but could be all the more powerful.

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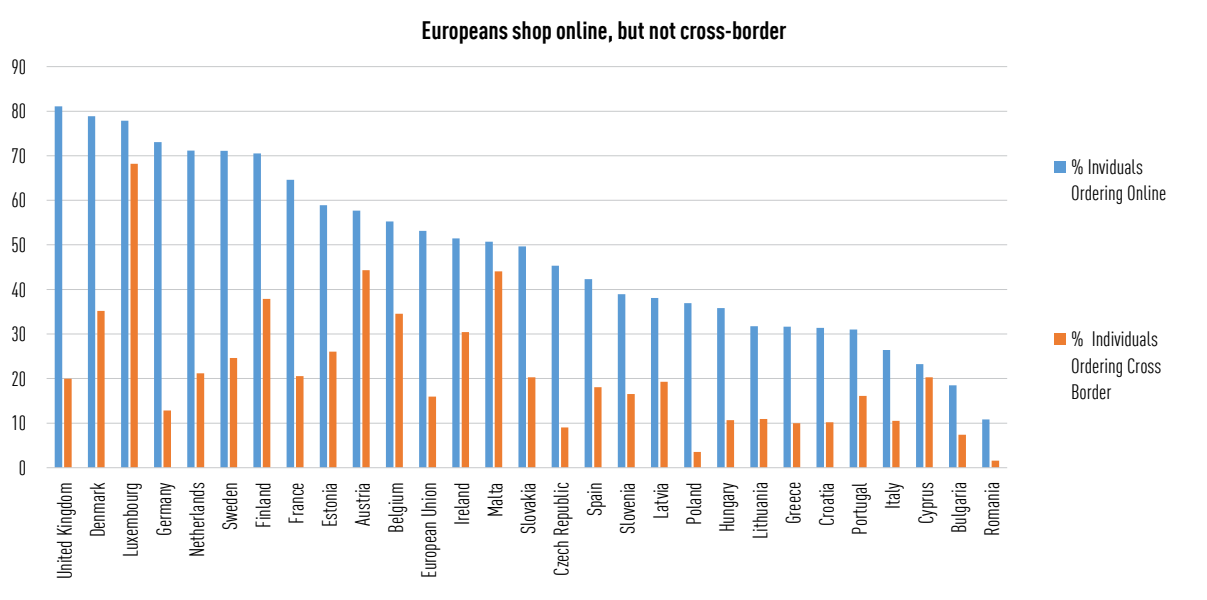
APPENDIX

FIGURE A ► National and Cross-Border E-Commerce in Europe, 2015



Source: EU-Commission Digital Scoreboard, own visualization. Notes: Individuals Ordering Online and Cross Border, 2015, % of all individuals.

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