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This series is a cooperation between the Jacques Delors Institutes in Berlin and Paris and makes concrete proposals for the EU's next institutional cycle.

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NEW BEGINNINGS

CHALLENGES FOR EU DIGITAL AND INNOVATION POLICY

1 ■ State of Play

Digital policy was a core issue for the Juncker Commission. From 2014-2019 it oversaw the final negotiations around and implementation of the General Data Protection Regulation (GDPR), subjected the market dominance of large American tech

platforms to exhaustive scrutiny and introduced an ambitious set of policies designed to update its regulation of the digital economy via the Digital Single Market (DSM) package. As many as 28 of 30 DSM legislative proposals were agreed between Parliament,

Council and Commission before the end of the five-year mandate in April 2019.

Any political and economic assessment of the outgoing Commission's digital policy must, however, remain mixed. Especially when it comes to GDPR and tackling the market dominance of large online platforms, the EU has started to show a new political assertiveness by standing up for its values of privacy and fair competition. The economic impact of the Juncker Commission is less

impressive. The DSM was a large package of legislation but its overall economic benefits seem so far to fall short of expectations¹. In 2014, the Commission claimed that a fully integrated Digital Single Market could boost the European economy by 415 billion euros per year.² These benefits are still nowhere to be seen, partly because many of

the new rules adopted with the DSM package were updates of older legislation, for example in copyright. In terms of harmonisation within the Single Market opportunities were missed. The new Commission will have to come up with a

robust and effective package to increase the opportunities of the Single Market for European start-ups as well as deploying its new instruments for innovation funding more strategically.

The new Commission also needs to pick up where the last one left off on pressing questions of platform regulation and navigate the conflict between the US and China which is in part a conflict about digital infrastructure and technological sovereignty.

1. Paul-Jasper Dittrich, Balancing Ambition and Pragmatism for the Digital Single Market, 07.09.2017.

2. European Commission, Digital single market. Bringing down barriers to unlock online opportunities. Homepage.

2 Analysis

Two issues are likely going to dominate the debate on digital policy in the EU in the next five years:

- Regulating online platforms (competition, liability, hate speech, algorithmic accountability)
- Improving the parameters for European start-ups and industries undergoing digitalisation

Several aspects can be highlighted here: The EU has shown in recent years that no one should underestimate its power to shape the rules for the global digital society. In the next five years the global debate on the power of platforms will only intensify and probably be accompanied by another one on how to deal with large private sector platforms subject to the intervention of an authoritarian state government such as China's. Despite conventional wisdom to the contrary, there are signs that the European tech ecosystem is slowly but steadily catching up in terms of investment, sophistication and talent. The tech industry is one of the EU's most dynamic sectors, growing five times faster than the rest of the economy. Europe's traditional industries are, on the other hand, still in the early stages of their digital transformation and have the most to gain from productivityenhancing technologies such as machine learning. With an improved regulatory environment it could flourish even more. New instruments for funding innovation and research in the next Multiannual Financial Framework (MFF) should accompany this push.

Going forward, the next Commission's digital policy should hence be driven by two main guiding principles:

1. Protect EU regulatory sovereignty when dealing with large platforms and foreign governments

2. Help start-ups and industries undergoing digitalisation to make better use of the Single Market

2.1 Protect EU regulatory sovereignty

Technological sovereignty over key technologies will become a strategic aim of the new Commission as initial statements by the new Commission president would suggest.³ While this is an important goal, the EU should not forget that it might also have to protect its regulatory sovereignty – the ability to enact legislation in line with its interests and values. As large private sector platforms, for example, increasingly govern the public sphere with their terms and conditions, the EU must ensure that this governance is in line with its core values.

In the last five years the EU has shown that it can both enact legislation driven by values such as (the right to) privacy and is not afraid to scrutinise market dominance of online platforms. The GDPR, legislative initiatives such as the Platform-to-Business regulation and ongoing discussions on the market power of platforms, hate speech as well as the ethical use of algorithms, all show confidence and determination to shape and steer the digital transformation in accordance with European values and interests. The GDPR has already set global standards and is imitated by governments from Japan to Brazil. Rules on the transfer of private data from the Single Market are becoming a pillar of trade agreements (like JEFTA) and have handed European officials a strong lever in trade negotiations.

The outgoing Commission has become more active when it comes to monitoring online platforms and sanctioning and regulating their behaviour. The EU is also seen as spearheading the global push towards stronger regulation of some of the business practices of platforms as well as stepping up antitrust measures from competition authorities. The Platforms-to-Business (p2b) regulation

^{3.} Ursula von der Leyen, A Union that strives for more. My agenda for Europe. Political Guidelines for the next European Commission 2019-2024.

which Parliament passed in April 2019 is the first of its kind that specifically addresses platforms in their role as online intermediaries.

Data sharing brings benefits for consumers and spurs competition

AnotherareawheretheEUshoulddevelopnew regulation that reinforces its commitment to fair competition and upholding its values is data sharing. The GDPR has established a legal framework for the portability of personal data. Data can be transferred between companies upon the informed consent of the data subject. However, the specific conditions and requirements for this data portability are not spelled out in detail in the GDPR. Data sharing does have benefits for consumers and competition: Consumers would enjoy a better choice and more personalised services without having to unknowingly give up their privacy. The digital economy as a whole would benefit from higher competition as better-designed data portability will decrease the lock-in effect of many platforms and make it easier for start-ups to attract new users.

2.2 Start-ups and industries need better framework conditions to grow

For all the talk about the comparatively weak European tech ecosystem and lack of "tech giants," the European start-up and technology scene is genuinely making real progress. According to the State of European Tech 2018 report⁴, a record number of European tech companies reached a 1billion dollar ('unicorn') valuation in 2018 and Europe produced three out of the ten biggest venture-backed public listings of tech companies worldwide, with Spotify the most famous example. \$23 billion were invested into tech in 2018 compared to just \$5bn five years ago and the numbers are still rising: The second quarter of 2019 alone saw a record €9.3bn VC investment into European tech.5

1. A fragmented Single Market

But, despite these recent advances, the European start-up ecosystem is still nowhere near reaching its full potential. The relative weakness when it comes to the number of "unicorns" (see below) and tech start-ups,

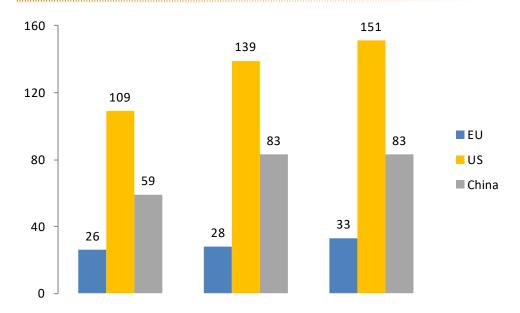


FIGURE 1 ■ Number of unicorns (start-ups valued at €1 bn or higher), source: DG Research and Innovation

^{4.} Atomico, The State of European Tech 2018.

^{5.} Maija Palmer, European tech has record quarter with €9.3bn VC investment, Sifted, 01.07.2019

especially in the Al-sector, constitutes a serious economic disadvantage. Large tech companies and platforms with hundreds of millions of users, more data and the ability to make massive investments are certainly at an advantage in disrupting entire industries (for example Google and autonomous driving or Facebook and payment systems). Scale-ups remain difficult. Various reasons lie behind this impasse. Access to finance remains problematic, especially in laterstage funding rounds. Different languages make it harder to enter new markets. One reason, however, is directly linked to a core EU element : The Single Market is still too fragmented for many companies, especially from the services sector, to penetrate new national markets.6

2. Al for European industries

Europe's older industries, meanwhile, should also not be written off too early. The focus on the European lack of "tech giants" and software prowess in the consumer sector often overlooks Europe's traditional strength in industrial production, business services, process innovation and other sectors less visible to private citizens and consumers. It is here where the EU remains not only globally competitive but where the greatest economic benefits from AI are to be gained.

Data, cooperation and skills are the most urgent issues for the EU to tackle. Most European industrial companies retain their own troves of highly specialized data about their business processes or product lines. Such, usually non-personal, industrial data could generate more value and be used to make productivity gains if it were combined with process data of other companies plus available public data. Another success factor behind faster diffusion of Al-technology to European companies is

enhanced cooperation between companies and universities. Al-researchers are globally sought after but European SMEs and universities often struggle to recruit and keep such highly skilled specialists. A high percentage of top-tier talent is in fact still poached by large American tech corporations whose attractiveness to Al-researchers in terms of salary and working conditions can be matched by only a few European corporations and universities.

3. Innovation and the research-investment gap

Last but not least, the new Commission will have to address innovation and innovation funding. As the 2017 Commission report on innovation (Lamy Report) noted: "the EU's innovation deficit is not due to a lack of knowledge or ideas, but because we do not capitalise on them." The bloc has top universities and its publicly-funded theoretical research, for example on Al, is among the best in the world. Europe (including Switzerland and Turkey) is home to the largest share of the top 100 Al research institutions worldwide. Yet, when it comes to the use of new technologies in innovative products and services and investment in disruptive innovation, the EU still trails behind many other countries. There is ample room for improvement. Firstly, there is less capital available for funding at the seed stage. Secondly, because capital is comparatively scarce in the growth or scaling-up stage for innovation founded out of university campuses. Research institutions and private companies have weaker links with each other than they do in the US. The EU also lacks an equivalent of DARPA, the American government agency in charge of missionled research and strategic procurement administered by the US Pentagon, which helped bring to life many ground-breaking

^{6.} Paul-Jasper Dittrich, How to Scale Up in the EU? Creating a better Integrated Single Market for Start-Ups, 10.11.2017.

^{7.} European Commission, Investing in the Future we want, Report July 2017.

innovations, from the Internet itself to GPS and the touch screen ⁸

How can the new Commission address these problems, spur the growth of innovative companies and fund disruptive innovation in the EU? One possible way forward is to efficiently use and further develop the new tools of Horizon Europe, the successor programme to Horizon 2020. Two instruments could become particularly relevant: The European Innovation Council (EIC) and the new focus on strategic missions.

3 - Recommendations

The focus for 2019-2024 should be on five areas: Artificial Intelligence (AI), a new data strategy, pan-European innovation ecosystems, a plan to curb excessive platform power and, finally, a new approach to funding and scaling innovation in the EU.

3.1 Speed up the diffusion of AI to European industries

The strengthening of the EU's industrial core and its existing prowess in B2B services (logistics, process optimization...) could be achieved through a policy mix that encourages and incentivises data pooling between companies, establishes better links between researchers and industry and creates new coalitions for re-skilling industrial workers.

- Encourage data pooling among companies, the public and potential third actors by developing new rules for commonly shared data pools and establishing procedures and safety standards for these.
- Incentivise the formation of deeper links among European Al-departments, administrations and local companies, start-ups and larger corporations as part

of a strategy to develop local ecosystems. This could be done by awarding grants for cooperation projects and installing test beds, for example in the areas of mobility, logistics or connected factories.

• Build a new coalition on reskilling workers for the digital transformation of European industries together with technology companies, industry leaders and SMEs.

3.2 Data sharing

• Facilitate GDPR-conform data portability via a sector-based approach. One recent example for such sector-based regulation to facilitate data portability and enhance competition is the Payment Services Directive (PSD2). This enjoins upon financial services actors to set up the technical means to give access to a customer's account data, for example, of transaction banking history to Third Party Providers (TTPs). The Commission should closely monitor its effect on data portability practices and then create similar provisions for sectors such as healthcare, education and/or retail.

3.3 Pan-European innovation ecosystems

- Help start-ups to make better use of the Single Market. This can be done through support programmes for entrepreneurs, including help desks for administrative procedures (in the form of one-stop shops), simplified access to incubation or acceleration programmes and public funding.
- Revive the idea of 3-year regulatory visas for start-ups. With regulatory visas, a plan the Commission already had in 2014 young companies with a digital business model could apply to earn a special regulatory status. Companies that acquire this status

^{8.} Philipp Ständer, Paul-Jasper Dittrich, A European agency for disruptive innovation: How could it look like and what would it do?, Blog Post, 11.12.2017.

could then, for example, be allowed to apply their own country's health & safety and taxation regulations when they enter another country's market for a period of time, e.g. three years or until they reach a certain revenue or market share threshold.

whether the regulation has the intended effect of keeping platforms from engaging in unfair behaviour towards businesses (for example by self-referencing its own products). If these effect do not materialise the regulation should be tightened.

Use the new mission instruments in

Horizon Europe to help address/solve the

climate crisis, for example, by involving

public procurement in setting the targets for

missions. A mission in this sense might be

3.4 Platform regulation

3.5 Innovation funding

- · Take steps against the proliferation of hate speech online and disinformation. Social media platforms need to be held accountable for their actions against hate speech and extremist propaganda. A new agency tasked with oversight of social media platforms should be created and given the right to look into the inner mechanics of these platforms, monitoring whether they take effective measures against disinformation. In this process it will be very important to take civil society actors on board as neutral third parties.
 - - to reduce CO2-emissions in European cities by funding research for new intelligent traffic systems that help to reduce congestion and pollution. **Encourage more university researchers** to start their own companies by using the new pathfinder grants of Horizon Europe to provide seed funding for such universitybased start-ups.

Monitor the impact of the P2Bregulation. The Platform-to-business (P2B) regulation will enter into force in mid-2020. It is the first piece of regulation which directly addresses platforms as intermediary actors and balances some of the power asymmetries between businesses selling on platforms and the platforms itself. One of the main tools to do so is via transparency requirements. It should be closely monitored





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