# Memo to the commissioner responsible for digital affairs

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You should pursue two main objectives: first, seek to narrow the digital investment and uptake gap between the United States and the EU; second, aim to better leverage data as a true economic production factor, alongside labour and capital. Both are critical to boost productivity growth in increasingly data-driven industries.

You should push for innovation-friendly implementation of recent regulation, taking advantage, for example, of flexibility given by the Artificial Intelligence Act, and identify areas in which very large EU platforms could be established. Simplification can be pursued when the general data protection regulation comes up for review, and a balance between the benefits of generative AI and copyright protection needs to be struck. Data governance can be improved, with the European Health Data Space as a model. Your objective should be to maximise the societal and innovation value of data pools, over and above the private value of the data.

## Focus on digital investment and productivity

## Push for innovation-friendly implementation

## Maximise the societal value of data

## State of affairs

European Union productivity growth continues to lag behind the United States partly because of weak EU investment in, and uptake of, digital technologies. US R&D spending on ICT software, hardware and services exceeds EU spending by an order of magnitude. The US ICT capital stock grew at about twice the EU rate over the last two decades. US labour productivity growth in the ICT sector (2000-2021) is four times higher than in the EU (Pinkus *et al*, 2024).

Part of the reason for this gap is that the US is home to the world's largest tech companies, which account for the bulk of US ICT R&D. Their market power enables them to hoover up much ICT spending by consumers and businesses worldwide, and to re-invest it in their own R&D priorities. Moreover, their market capitalisation and financial means enable them to integrate innovative start-ups into their ecosystem – including European ones.

**Collaboration with the big US tech companies is often the most promising growth strategy for EU ICT start-ups**

EU ICT firms, meanwhile, are innovative in terms of producing patentable research, but face obstacles in scaling-up that research into viable business models. Barriers include weak EU private equity and venture capital markets and insufficient access to established business channels to expand sales. Collaboration with the big US tech companies is often the most promising growth strategy for EU ICT start-ups.

As the EU is not home to major tech firms, it misses out on the large private R&D budgets they generate and the market reach they can leverage. The EU is also not in a position to compensate for low private R&D and investment through government funding. Instead, the EU has focused on reigning in the market power of very large digital platforms and re-distributing their intermediation rents and data stocks to smaller firms and consumers. The Digital Markets Act (DMA, Regulation (EU) 2022/1925) imposes a series of competition policy measures on very large and mostly US-based 'gatekeeper' platforms to reduce market power and facilitate market entry. The Digital Services Act (DSA, Regulation (EU) 2022/2065) targets very large online social media and other intermediary platforms with responsibility rules to reduce illegal and inappropriate content.

The EU has also launched a plethora of data regulations to open

up access to data and facilitate competition in data-driven services markets, including data access rights in the Data Act (Regulation (EU) 2023/2854), the DMA and specific sectoral data regulations. These seek to bring more competition into data markets and data-driven services markets. At the same time, they create the risk of multiple and partly overlapping regulations, with provisions that are not always consistently defined or applied across sectors and regulatory instruments. Regulatory complexity and compliance are becoming a costly burden on firms (Demirer *et al*, 2024). The General Data Protection Regulation (GDPR, Regulation (EU) 2016/679), a cornerstone of EU data regulation, has been enforced less rigorously than it could have been. Since managing consent is economically costly for firms and for consumers, this is holding up effective implementation.

The EU Artificial Intelligence Act takes a precautionary stance to set product safety standards, including for the latest generation of general purpose AI models that have widely varying applications. General fundamental rights considerations have replaced specific technical safety standards. The Act marks the start of a long regulatory process in which many implementation rules and compliance mechanisms remain to be defined. It focuses on self-standing AI models rather than on rapidly developing ecosystems of AI-driven services.

**There is increasing data-regime competition between the EU, US and China**

There is increasing data-regime competition between the EU, US and China (Bradford, 2023): the design of data regulation matters for competitiveness across the economy. The US takes a *laissez-faire* approach with little regulatory intervention. It counts on homegrown big and small tech firms to take a competitive lead and increase productivity across the economy – so far very successfully. It has opted for a lighter and more flexible approach to regulation of digital competition, data access and AI. China has made some heavy-handed interventions in its domestic big tech industry. However, much of its regulation seeks to promote digital innovation and investment, for example in AI. Whether the EU will remain an attractive location for AI model and services developers will depend on the evolution of compliance costs.

Over the last few years, the EU Digital Single Market has somewhat faded into the policy background. In the past, the EU

put considerable effort into reducing regulatory barriers in the single market as a way to stimulate digital services. The EU Geo-blocking Regulation (Regulation (EU) 2018/302) had some success in promoting online cross-border trade, except for copyright-protected media products, which remain locked up in national markets that are not competitive in an era of global media giants and streaming platforms. However, most remaining obstacles are not specific to digital services; they mirror border costs in offline services, such as product safety and consumer protection legislation, or the absence of a single payment system. Increasing scale through the Digital Single Market may have run out of steam as a driver of digital productivity growth. Weak private financing of R&D and investment, and access to large digital ecosystems, may be more important constraints.

**On the digital hardware side, the EU is vulnerable at times of geopolitical tension**

On the digital hardware side, the EU is vulnerable at times of geopolitical tension. While hardware supply chains were until recently rather diversified, the arrival of large AI models has exposed dependency on very few advanced chip producers and big data centres. Regulatory intervention in chip production and critical raw materials supply chains seeks to address these risks. Increased cybersecurity risks require not only more awareness and investment by firms; they also require closer cooperation with cloud and software providers in a networked security strategy.

## Challenges

You should pursue two main objectives: first, seek to narrow the digital investment and uptake gap between the US and the EU; second, aim to better leverage data as a true economic production factor, alongside labour and capital. Both are critical to boost productivity growth in increasingly data-driven industries.

### Narrowing the digital investment and uptake gap

You will need to continue working on the slow-grinding process of reducing barriers in the Digital Single Market to increase the scale of EU markets, though this may not generate significant leaps in productivity. But increasing market scale is in itself not a

sufficient condition for the successful uptake of digital technology. A complementary challenge is market deepening. Even if the DMA is successful in reducing monopolistic profit margins of US-based gatekeeper platforms, and channelling some of that surplus back to European consumers and businesses, there is no guarantee that this re-direction will result in an increase in EU private investment in digital R&D and firms. This requires flanking measures to stimulate the development of private equity and venture capital markets in the EU to provide private financial resources for R&D and start-ups.

Public R&D and investment funds alone cannot bridge the digital investment gap with the US. Accelerating the uptake of digital technology in EU firms and services requires investment in digital ecosystems that link many types of services. For the time being, EU consumers and businesses still depend on network effects around rapidly evolving and expanding digital ecosystems that work off US-based platforms. Trying to weaken these network effects without alternative sources would only reduce welfare for EU citizens. Instead, investment is required to build alternative and competing EU ecosystems, for example around a single payments platform, identity platforms, industrial data pools or new AI-driven ecosystems.

### Leveraging data as an economic production factor

**Your first challenge in this area is to reduce regulatory fragmentation among the large number of data regulations**

Your first challenge in this area is to reduce regulatory fragmentation among the large number of data regulations where rules intersect, overlap and sometimes lack coherence, and may impose heavy compliance costs on firms. The scope of personal and business data that can be accessed and ported to third parties varies across regulatory instruments, from raw data, to interaction data and to processed data. Data-sharing obligations for very large gatekeeper platforms in the DMA are especially challenging because of the technical complexity and large volumes of data involved. This raises the question why so many regulations are needed: why not just one, or a few, horizontal regulations that cover many conceivable situations? Are the nature and types of market failures in each situation so different that they justify separate regulations?

Another challenge is high GDPR compliance costs for firms and consumers. This results in reduced investment in innovative

consumer services applications. Consumers have no meaningful instruments to exercise their sovereign decisions over personal data. Dumb clicking on irritating pop-up consent notices does not amount to meaningfully informed consent. The costs of the GDPR to firms and consumers should be reduced. Consumer benefits should be made more explicit and transparent.

An important emerging challenge is the tension between the benefits of data-access rights and the protection of prior private rights, including consumer privacy and trade secrets for firms. Policymakers need to reflect on the extent to which private rights can be allowed to undercut the wider societal benefits of data access. Anti-competitive provisions in the Data Act create new obstacles in data markets. Allowing data holders to exclusively license data and charge monopolistic prices for data transfers constitutes a return to the fraught concept of exclusive data ownership. These provisions reduce digital innovation and prevent the realisation of the wider societal value of data.

Creating data-access rights is a necessary but often not sufficient condition for the emergence of efficient data markets. Data exchanges can only happen in the presence of a physical and institutional infrastructure that facilitates exchange. The Data Governance Act (Regulation (EU) 2022/868) has taken a first step to create trustworthy intermediary institutions to facilitate data exchanges. The Commission's announced industrial data pooling initiatives also require viable intermediary institutions to manage data contributions and use rights (European Commission, 2020).

**The EU AI Act is only a first step in AI regulation, with many guidelines and implementing acts still to be drafted**

The EU AI Act is only a first step in AI regulation, with many guidelines and implementing acts still to be drafted by the Commission's newly-created AI Office. This can still steer the Act in different directions and change the relative weights of precaution and innovation measures, spurring or slowing down innovation. The Commission will have to ensure that protecting user safety does not slow AI-driven innovation and instead enables European AI developers and deployers to remain competitive on the global AI market. The emergence of generative AI models has upset the balance between the need for copyright protection on AI training inputs and the potential for AI-driven innovation in creative industries and in the wider economy.

# Recommendations

To narrow the productivity gap with the US, you should opt resolutely for a strong pro-innovation approach to the digital transition, while not losing sight of precautionary measures to mitigate negative impacts. Competition, redistribution and precautionary policy measures are necessary and need to be pursued vigorously in a world that is increasingly dominated by a few very large tech companies, which direct R&D and investment towards their own private interests. However, such policy measures need to be accompanied by innovation and private-investment-stimulating measures to accelerate productivity growth.

### Innovation-friendly implementation of recent regulation

You can build on existing and recently introduced digital regulations and ensure that they are implemented in an innovation-promoting and productivity-stimulating way. There is scope and room for adjustment in the implementation of the DMA, the AI Act and several data regulations and policy initiatives, to steer digital data and services markets in a pro-innovation direction. You should resist further fragmentation in the data-regulation landscape and seek to harmonise rules across regulations, in particular with regard to types of data and conditions under which it can be accessed and ported.

**There is still room in the implementation of the Data Act to reduce anti-competitive restrictions on the use of shared data**

There is still room in the implementation of the Data Act to reduce anti-competitive restrictions on the use of shared data and tone down monopolistic pricing of third-party data transfers through the FRAND (fair, reasonable and non-discriminatory) provisions. Data-sharing obligations for gatekeeper platforms in the DMA should be implemented in a way that facilitates access to business network interaction data, rather than being restricted to 'own' data. If not, incumbents will retain an information advantage over competitors. Sharing networked data will weaken the welfare-reducing side of network effects and strengthen their welfare-enhancing impact.

### Create infrastructural EU platforms

An EU-wide identity platform could provide a secure and neutral log-in system to access many consumer services

While the EU is currently not home to very large online platforms, it may seek to create such platforms in still unexplored domains. A digital euro could finally create a single payments platform in the EU. This will facilitate cross-border payments and may also become a launch platform for a variety of innovative financial and other services. An EU-wide identity platform could provide a secure and neutral log-in system to access many consumer services. Just as today's big tech platforms started by attracting many users to a single application and then leveraging that user base into many other complementary applications, large infrastructural EU platforms could become portals to access many services and benefit from welfare-enhancing network effects, while avoiding monopolisation by a single firm.

### Improve data governance

To leverage data as a production factor, the creation of efficient data sharing and pooling institutions is necessary. You should push ahead with data-pooling initiatives launched by your predecessor. The European Health Data Space has a very well-designed set of governance rules that could be a blueprint for ongoing initiatives in other sectors. Your objective should be to maximise the societal and innovation value of data pools, over and above the private value of the data. Data market failures will occur because of the gap between private and social value, and that will require further regulatory intervention. You should promote the use of better data-protection technologies, such as federated machine learning, which can protect private rights while still enabling the extraction of socially valuable benefits from the data. Data pools could also become an attractive launching platform for firms that provide data-driven services. Circumstances may vary across sectors and may require specifically designed data-governance regimes and intermediaries.

### Standardise GDPR consent notices

You could use the review of the GDPR not only to streamline complaint procedures but also to reduce transaction costs related to costly, cumbersome and not easy-to-understand GDPR consent

notices and make it easier for data subjects to meaningfully exercise their data rights. The introduction of standardised and machine-readable consent notices would facilitate personal information and consent management systems with AI-powered personal assistants. This would considerably reduce transaction costs and risks for data subjects, compared to current 'manual' personal information management applications that are too costly to scale up.

### Use guidelines and implementing acts for the AI act to maximum effect

Dozens of guidelines and implementing acts for the AI Act still need to be designed by the new AI Office. This creates an opportunity to keep the AI Act in tune with the rapidly evolving landscape for AI technologies and complex business models. While the AI Act focuses on self-standing models, implementation should take into account AI-driven ecosystems that seek closer collaboration between incumbent services firms and providers of AI models. The dividing lines between AI model developers, deployers and users, and their respective responsibilities, should be clarified in guidelines. Implementation guidelines should avoid excessively precautionary measures and facilitate innovation by keeping market entry and compliance costs low.

**Implementation guidelines should avoid excessively precautionary measures**

### Reduce the scope of copyright protection for AI

Generative AI technology has shifted the balance between exclusive copyright as an incentive to produce innovative artwork and the wider societal innovation benefits. Generative AI technology has reduced the cost of producing creative content and induced positive spillover effects beyond the media sector to the rest of the economy. To sustain these benefits and maintain vigorous competition in AI model development, the widest possible access to training data is required. This may require a revision of the opt-out clause in the EU Copyright Directive (Directive (EU) 2019/79), or at least pro-innovation design of the implementation guidelines for this clause under the AI Act.

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