

# Digital Competitiveness of the European Union

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# Introduction

The COVID-19 pandemic demonstrated that the use of digital technologies affects a nation's ability to prosper. When used effectively, digital technologies not only make it possible for **work and education to move online**, but they also offer **effective ways to coordinate business operations and governmental procedures**.

Many of the latest and most promising technologies, including **AI, 6G, quantum computing, virtual worlds like the Metaverse, 3D printing or robotics** will have digital inputs or will be delivered through the Internet.

Therefore, the growth of the digital economy, and its interplay with new technologies, is the **prime force for new patterns of productivity and trade**.

# Introduction

In this context, **digital trade becomes a key determinant of competitiveness**, providing faster and more opportunities for growth, innovation, and increased trade to companies of all sizes. The EU has already taken some steps in embracing the growing importance of digital trade. This is reflected in the EU's trade policy communication, 'An Open, Sustainable and Assertive Trade Policy', where supporting Europe's digital agenda is made a priority for EU trade policy.

However, a parallel policy trend is that most countries have introduced new digital restrictions. The EU has been one of the first major economies to regulate the digital economy and digital technologies, and compared to many other Western economies, it has adopted regulations that are **more restrictive and less predictable than elsewhere**. Adding more regulatory uncertainty and confusion in the rules for the digital economy could stifle innovation and make European companies that compete in the global market less capable to work with frontier technological changes.



# Introduction

1. The EU needs to refocus on competitiveness
2. The EU needs to refocus on its neighbours
3. New Leadership in European digital policy: the D9+



# 1. The EU needs to refocus on competitiveness

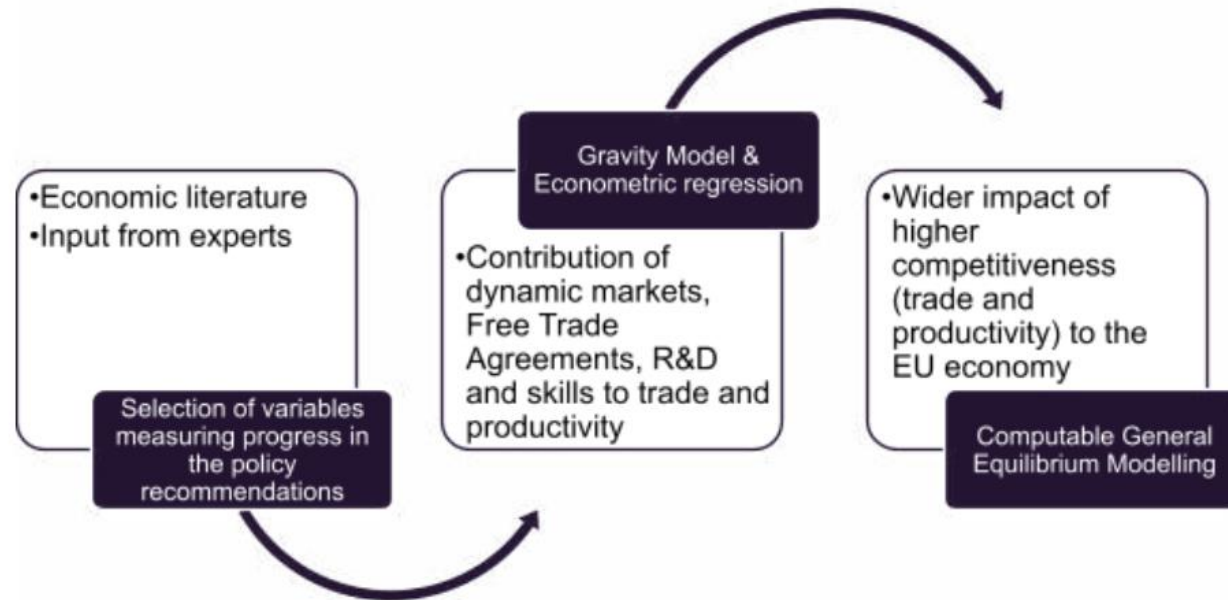
The **OECD Digital Services Trade Restrictiveness Index (DSTRI)** measures cross-cutting barriers that inhibit or prohibit firms' ability to supply services using electronic networks. It includes five measures: **infrastructure and connectivity; electronic transactions; e-payment systems; intellectual property rights; and other barriers to trade in digitally enabled services.** A reduction in the DSTRI is associated with an EU environment for digital regulations that is more growth friendly.

Moreover, the DSTRI can be used to benchmark Europe's digital regulatory environment against global frontrunners. For example, embracing digital trade can be tracked by changes in the DSTRI.



# 1. The EU needs to refocus on competitiveness

Figure 1: Methodology of quantitative analysis



Source: ECIPE.

# 1. The EU needs to refocus on competitiveness

Based on the gravity model, it can be computed that a 30 percent fall in the DSTRI is equivalent to a 3.39 percent fall in trade barriers in digital services.

This fall in EU trade barriers will lead to higher economic growth and employment in the EU. EU GDP is estimated to increase by **16 bn euros**. This increase in economic activity would support **200.000 jobs** in the EU.



# 1. Policy recommendations

## **Policy recommendation: Embrace digital trade**

- The EU is behind other advanced economies in digital trade agreements, and it remains all too defensive – which deprives the EU of strong economic gains.
- Further harmonization of rules for digital trade across Europe and with partner countries can help facilitate faster and safer transfer of information for example via stronger engagement in the WTO.
- The EU can also position itself at the frontier of digital trade by embracing Digital Economy Agreements (DEAs) similar to the one between Singapore and Australia, New Zealand, United Kingdom, and South Korea. A DEA is a treaty that establishes digital trade rules and digital economy collaborations between two or more economies. They also encourage domestic regulatory reforms and “soft” cross-border collaboration on issues as wide-ranging as data innovation, digital identities, cybersecurity, consumer protection and digital inclusion.





# 1. Policy recommendations

**Policy recommendation: Urgent need to attract talent**

**Policy recommendation: Digital regulations should support competitiveness and growth**

- While it is important to have rules protecting rights (such as data privacy), these laws should not be cumbersome for businesses to follow or impede the development of new digital technologies.
- The EU needs to simplify and streamline digital regulation EU policy makers need to improve their understanding of the effect new regulation can have on companies, data flows, knowledge, and competitiveness through better impact assessments (IAs).

**Policy recommendation: Improve infrastructure and connectivity**

**Policy recommendation: Encourage venture capital in digital technology**

- Less than 2 percent of all investment funding in EU venture capital funds has come from pension funds. In contrast, up to 20 percent of US venture capital investment funds come from pension funds, which have historically been the largest contributors. The gap between the EU and the US can be closed, or prevented from widening, if financial regulation at the EU level encourages investment by pension funds that is severely lacking. European businesses also have severe financial limits when it comes to AI compared to their American and Chinese competitors.



## 2. The EU needs to refocus on its neighbours

- In recent years, the European Union (EU) has taken significant steps to harmonise its data privacy laws. This includes the implementation of the General Data Protection Regulation (GDPR) in 2018, alongside the introduction of the Digital Markets Act (DMA), Digital Services Act (DSA), and the Data Act. These regulatory changes have **not only unified the digital landscape within the EU but have also extended their impact beyond its borders. This posed significant challenges for neighbouring countries.** These nations are now grappling with increased trade barriers stemming from complex data compliance and governance requirements.
- Ultimately, the aim of EU policies should be to bind the countries in its neighbourhood more closely to it and to seek partnerships that can boost economic performance while also managing threats to security and peace. The countries analysed and considered EU neighbourhood countries in this study comprise the **Western Balkans and Turkey** (Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Serbia, Kosovo and Turkey), the **Eastern Partnership countries** (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine), and the **Southern Neighbourhood countries** (Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria and Tunisia).



## 2. Global Data Regulation Models and How They Impact on Digital Trade

Table 1: Main features of different data models

	Cross-border data transfers	Domestic data processing
<b>Open Transfers and Processing Model</b>	Self-certification; self-assessment schemes; ex-post accountability; trade agreements and plurilateral/bilateral arrangements as only means to regulate data transfers.	Lack of comprehensive data protection framework; lack of informed consent; privacy as a consumer right.
<b>Conditional Transfers and Processing Model</b>	Conditions to be fulfilled ex-ante, including adequacy of the recipient country, binding corporate rules (BCR), standard contract clauses (SCCs,) data subject consent, codes of conduct, among others.	Wide data subject rights; data subject consent; right to access, modify and delete personal data; establishment of data protection authorities (DPAs) or agencies; privacy as fundamental human right.
<b>Limited Transfers and Processing Model</b>	Strict conditions including bans to transfer data cross border; local processing requirements: ad hoc government authorization for data transfers; infrastructure requirements; ex-ante security assessments.	Extensive exceptions for government access to personal data; privacy vs security and social order.

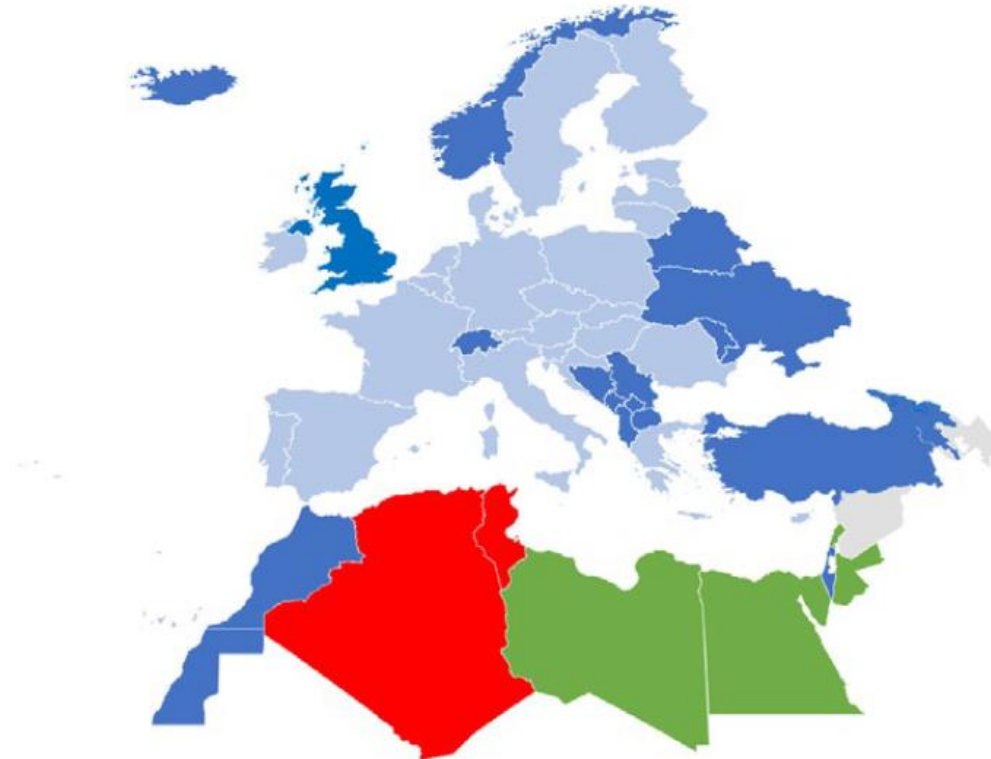
Source: Authors

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## 2. Global Data Regulation Models and How They Impact on Digital Trade

Figure 2: Mapping of EU neighbouring countries according to different data models



Note: Countries following the open model are indicated in green; those following the closed data model are shaded red, and those following the EU data model are shown in blue. The EU countries that have adopted the EU digital regulations are shown in light blue, while other neighbouring countries are shown in dark blue to indicate that they follow the EU model. Countries for which no data is available are shaded grey.

## 2. Digital Trade and Regulatory Alignment: Shaping the EU's Neighbourhood Relations

For those neighbouring states that are either on the path to EU membership or engaged in accession negotiations, adopting the EU's *acquis communautaire* naturally results in harmonising their national laws with EU standards. However, given the prolonged duration of accession negotiations, the **EU should also explore intermediate measures for these countries**, such as granting adequacy.

For those countries that cannot join the EU, there are two primary pathways: the first involves integrating digital standards into trade and association agreements, as exemplified by the agreements with Armenia and the Deep and Comprehensive Free Trade Areas (DCFTA) with Georgia, Moldova and Ukraine; the second involves the EU Commission recognising equivalent data protection levels, which other countries can achieve through different means, as outlined in Art. 45 of the GDPR,<sup>7</sup> and subsequently granting adequacy.

Currently, aside from Israel, no other neighbouring country has secured an adequacy agreement with the EU.

However, existing trade and association agreements between the EU and its neighbours include numerous relevant data handling provisions, some of which carry legal obligations. But gaps exist.

Many neighbouring countries are in the process of taking the necessary steps that could potentially lead to a request for data protection adequacy in the future.



## 2. Digital Trade Patterns: Analysing the EU's Neighbourhood Digital Trade

Table 2: Composition of digital-enabled services exports to the EU (in million USD)

Country	Telecommunications, computer and information services	Insurance and pension services	Financial services	Charges for the use of intellectual property	Other business services	Personal, cultural and recreational services
Israel	2739	324	760	340	2632	106
Türkiye	2254	796	537	1356	3143	240
Ukraine	1197	43	162	461	1696	67
Egypt	849	432	315	174	1507	42
Morocco	614	73	93	99	641	33
Serbia	399	35	55	251	877	17
Bosnia and Herzegovina	106	41	104	48	333	5
Kosovo	92	39	43	34	117	4
Albania	82	13	6	84	22	2
North Macedonia	68	63	10	58	154	5
Algeria	15	0.01	12	15	632	5
Belarus	528	17	19	32	319	9

Note: The data presented is from 2021, the latest available year. "Other business services" encompass a range of services, including but not limited to research and development services, professional and management consulting services, as well as technical, trade-related and various other business services.

## 2. Mitigation Measures the EU Could Pursue

### Policy recommendation: Modernising existing agreements

- Formulate digital policy agreements aimed at promoting increased trade and reducing obstacles for these countries. **Existing provisions related to data and digital regulations are generally insufficient and agreements fail to keep pace with the rapid advancements in technology** and the introduction of new regulations.
- Modernisation of these agreements to better align them with the actual dynamics of cross-border digital integration. While it may be challenging to establish detailed operational rules for data regulations through broader bilateral agreements, there are basic concepts of digital trade that are still missing in many of these agreements. Some agreements are more robust than others, and harmonising the weaker ones with the stronger ones would improve the conditions for digital integration.
- Extending this initiative of **digital partnerships to the EU's neighbourhood countries** could bolster and expedite the aforementioned modernisation process. Expansion of this initiative to the EU's neighbourhood should be tailored to the specific regulatory framework, level of development and capacities of each neighbouring country.



## 2. Mitigation Measures the EU Could Pursue

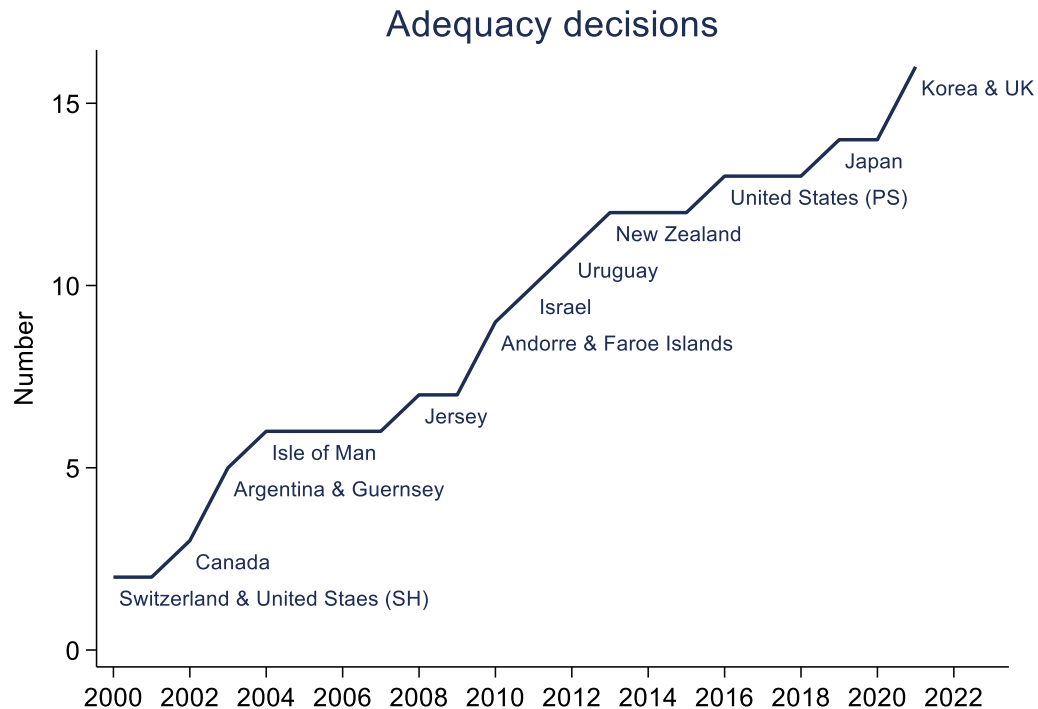
### **Policy recommendation: Adequacy, other mutual recognition mechanisms and standards**

- GDPR stands out as one of few data regulations featuring a specific mechanism that enables other countries to “dock” with the EU regulation and market standards. Most other regulations lack such mechanisms.
- Evidence of trade losses can be drawn from the rise in digital trade, which has shown an **increase ranging from 6% to 14% among countries that have obtained adequacy status from the EU**. This trend implies a potential **reduction in trade costs of up to 9%**. Moreover, a network effect is discernible, as countries with adequacy status also benefit from the EU’s adequacy decisions with other countries such as the United States. Research shows that approximately 7% of digital value-added trade has been redirected from countries lacking adequacy status or from domestic markets towards those integrated into the EU’s adequacy network.
- As the EU contemplates new digital regulations and important regulations related to embodied data flows (e.g. through the AI Act), it is crucial to devise policies and mechanisms that make it easier for neighbours to rely on EU data and digital service markets. To gain a better understanding of their readiness to align with EU regulations, the EU should engage these countries more actively in the policymaking process from the beginning.



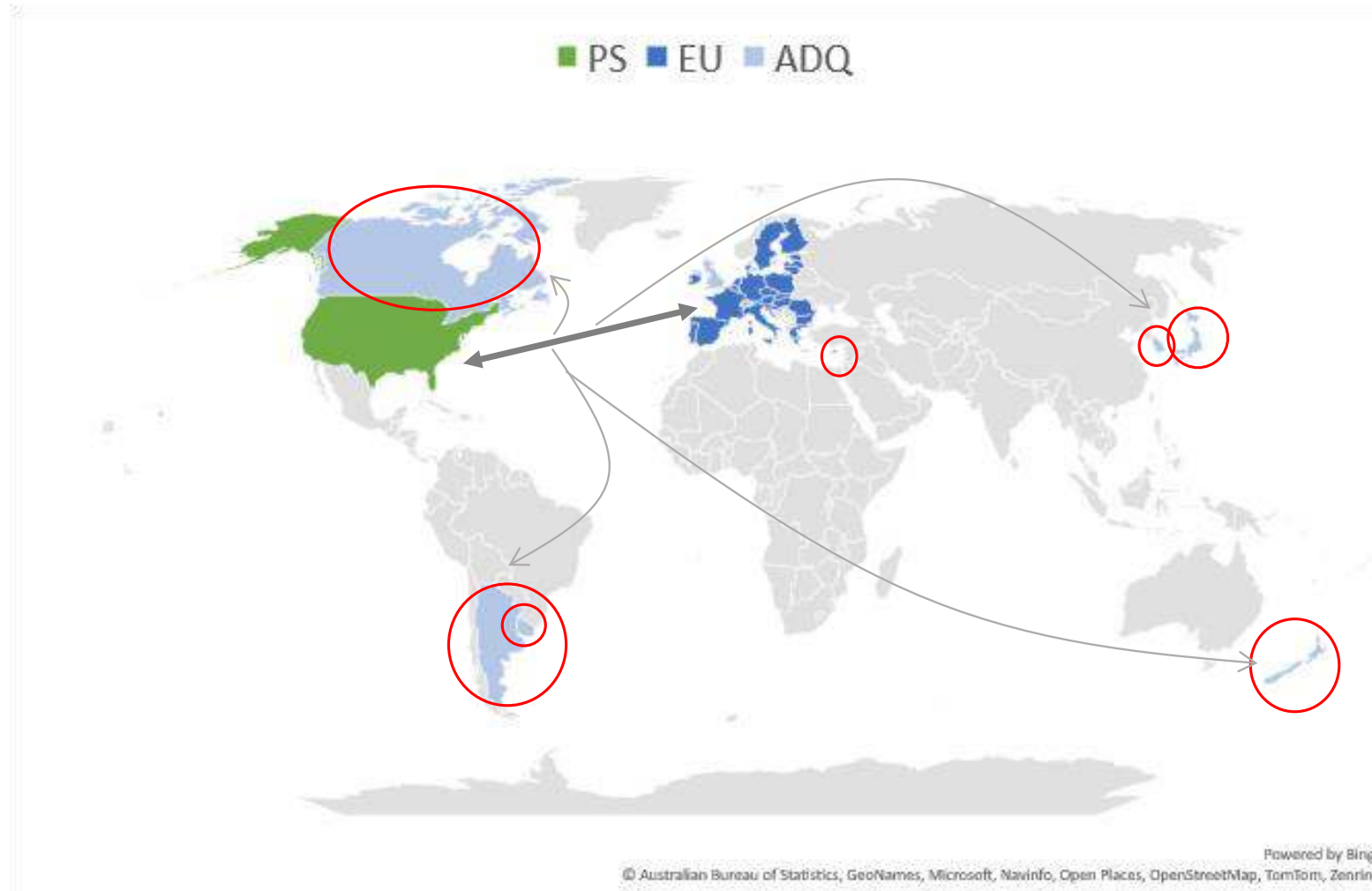


## 2. The EU's adequacy decisions



- “Should offer guarantees ensuring an **adequate level of protection** essentially equivalent to that ensured within the Union, in particular where **personal data** are processed”
- Includes: independent supervision, cooperation mechanisms, enforceable rights, compliance
- If not: firms need to fulfil **expensive** EU privacy safeguard mechanisms, such as Binding Corporate Rules (BCR) or Standard Contractual Clauses (SCC), or others.

## 2. The EU's adequacy decisions: a club effect?



## 2. The EU needs to refocus on its neighbours

- The European Union positions itself as a pioneer in the evolving global landscape of data regulations, asserting that its policies will set a precedent for similar regulations in other major digital markets worldwide.
- However, it is important to exercise caution in overextending this argument. For instance, while the EU's proposed AI regulation wields influence, other countries are advancing their own approaches, often diverging from the EU model.
- Due to its substantial economic influence and interconnectedness, the EU is well-positioned as an influential geoeconomic entity, particularly within its immediate geographic sphere. **Recent and ongoing EU digital policies, such as the GDPR and the AI Act, have introduced complexities for its neighbouring countries that potentially push them away.** Such policies not only risk alienating these countries but also diminishing their interest in economic and political integration with Europe. Mitigating policy measures should be carefully tailored to address the unique circumstances of each neighbouring country to ensure they become more closely aligned with Europe.
- Europe is in need of friends.



### 3. New Leadership in European digital policy: the D9+

- Launched in 2016 on the initiative of former Swedish trade minister, Ann Linde, nine countries with a particular interest in matters of the digital economy met to learn from each other and seek common ground on policy issues.
- The Digital Nine (D9) is now the D9+ group. The original group of nine countries (**Sweden, Finland, Denmark, Netherlands, Luxembourg, Belgium, Estonia, Ireland and the UK**) is now a group of twelve, having added **Portugal, Spain, Poland, and Czech Republic**.
- The D9+ initiative is important and its work should focus on expanding the scale and scope of digital technological change in the European economy while addressing risks that an over-powering regulatory approach to digital policies in Europe reduces the benefits of the digital transformation.
- Importantly, the D9+ Group has a special interest to promote digital openness and avoid the agenda for technology sovereignty and strategic autonomy sliding into digital protectionism. Finding the right direction of policy is of fundamental importance for Europe's long-run economic growth, and the D9+ Group should take a stronger leadership role.

### 3. New Leadership in European digital policy: the D9+

- EU governments have different positions on matters of digital openness, and those differences typically reflect how the digital sector sits in national economies and the capabilities of countries to thrive on the back of faster digitalisation. The differences between EU countries are substantial but they are rarely outlined – not even by the D9+ countries.
- Old challenges remain. While many D9+ countries understand that the wave of digital restrictions in Europe is problematic for their economic interests, they rarely know how and why it is problematic.
- **D9+ countries need to shape a much better understanding of how and why the recent wave of digital restrictions are especially problematic** for them, and to outline basic principles and policy recommendations that could serve as the core of new policy advocacy from the D9+ group and its individual members.



### 3. New Leadership in European digital policy: the D9+

There are five key arguments:

- First, **all countries in the EU stand to benefit from digital openness** – an approach that deepens the single market while keeping borders open for deep digital integration with other countries. In fact, this is of central importance for Europe’s future competitiveness.
- Second, **a restrictive regulatory environment will depress activity in the digital economy and reduce the positive effect of digitalisation on productivity and prosperity**. Notwithstanding big differences between EU countries, there are worrying gaps between the EU and other economies at the frontier of technology and digital change – for instance on metrics like equity investments in Artificial Intelligence (AI) – and the risk is that future developments will agglomerate to regions with better conditions for technological change than Europe.
- Third, **D9+ countries have a lot in common – digital and general economic characteristics that should prompt them to be far more ambitious in promoting Europe’s digital competitiveness**. The group is based on small and mid-sized open-oriented economies that all think it is crucial for Europe to run an open digital economy with large space for entrepreneurial experimentation and intensive integration with leading digital regions in the world.



### 3. New Leadership in European digital policy: the D9+

- Fourth, D9+ countries should take on greater leadership for the development of digital regulations and the broader policy for an open digital economy in Europe. In the last decade, the voice of small and mid-sized open-oriented economies in Brussels have been challenged by a changing global landscape and new policies have increasingly reflected the economic interests of larger European economies. D9+ countries have a key task in front of them: **to be more proactive in developing new ideas for how European policy should evolve**, advance the economic reforms that are necessary for deep digital integration, and ensure that the voice of digitally open economies is heard around the negotiation tables when policy is decided in Brussels.
- Fifth, **the D9+ countries have a clear role in establishing better frameworks in the EU for sharing experiences and learning from each other.** EU countries have made different experiences in technological specialisation and they all have important knowledge to share – and lessons to learn. Some of the D9+ countries are consistently ranked very high in global league tables over technology, innovation and digital competitiveness and have economic and political experiences that are relevant for the general EU policy direction. Therefore, these countries have a special responsibility to carve out a new function in EU digital policy-making that provide for positive examples to be imitated.



# Digital Competitiveness of the European Union

*Thank you for your attention!*

