EUROPE 2030: ADIGITAL POWERHOUSE

20 solutions to boost European tech leadership and resilience



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EUROPE 2030: A DIGITAL POWERHOUSE 20 solutions to boost European tech leadership and resilience

EXECUTIVE SUMMARY

20 solutions to boost European tech leadership and resilience



FOREWORD

When we sat down to write our last manifesto in 2018, we could not have imagined the impact it would have or how Europe would change over the next five years.

A once-in-a-century pandemic, the looming climate crisis, and war on our borders have brought substantial disruption. But the positive role of digital technologies to mitigate these crises has been constant.

During COVID it was digital that allowed us to continue our lives. Digital tools offer one of the most important pathways to reducing carbon emissions. And it is technologies like drones, 4- and 5G, satellites, cloud and cybersecurity software, and the digital resilience of its society, that have been Ukraine's secret weapon against Russia's illegal invasion.

For us, digital resilience signifies how technology can help us prevent and face crises and strengthen democracies. Without strong and successful digital companies and a close collaboration between public and private sector, the EU and its member states will not be resilient. So, we ask, how can the EU support innovative companies to scale in Europe?

The KPI-led approach we pioneered in 2018 was echoed in a new long-term EU digital strategy, the 'Digital Decade'. The COVID recovery funds set an unprecedented 20% target for digital spending – around €150 billion – to boost Europe's digital transition. It also brought an unprecedented amount of regulation. We are proud of that impact. But at the same time, the increased focus on digital has brought with it an unprecedented quantity and tangle of regulation.

What about the KPIs we set five years ago? Did we create a stronger digital Europe? Let us look at some facts.

Only 10 out of the top 100 tech companies are European, only 8% of SMEs are trading across one European border – the same as five years ago. In a recent survey of our members, 8 out of 10 of our members stated that the business environment and regulatory burden had significantly worsened in the last five years.

We support agile regulation, as long as it is implemented in a clear and unified way across Europe. But we have learned the hard way – we cannot regulate our way to success, we need to think about how we implement, how we incentivise, how we collaborate. We must also learn from best practice, like Spain, which has moved from 14th to 7th place in the EU's digital rankings. We awarded them our Master of Digital prize for their best-in-class investment and skills programmes and law to help start-ups with tax incentives. It is not always about mitigating risk but equally about creating opportunity for citizens.

DIGITALEUROPE is proudly European. Europe is already the best place to live, but we also want to make Europe the best place in the world to do business.

What if Europe was the place companies chose to build the next big thing in Al? What if Europe was the place where everyone had digital skills and the world's best tech specialists? What if Europe was the place where the public and private sectors stood together to guard our democracy and security?

We want Europe in 2030 to be a Digital Powerhouse, leading on innovation in an inclusive and secure digital democracy, supported by a highly skilled population and strong European business. To get there, we have set new targets together, targets for which we can hold each other accountable. Not targets on how much new legislation can be put in place, but on the real results we can achieve together.



Cecilia Bonefeld-Dahl Director General DIGITALEUROPE



Hilary Mine President DIGITALEUROPE

THE VISION FOR EUROPE



We strive for a Europe leading on digital for its people, its businesses, and the climate.

Citizens in 2030 will be able to live and work in any other European country, like at home, supported by digital IDs and fully digitalised and accessible public services. People have the skills needed to thrive, and access to the best technology.



Digital healthcare supports everyone in society, and technologies like automation and AI relieve the burden on a shrinking workforce. Thanks to open innovation, technology is accessible to all to use, collaborate and scale. This is supported by high-speed, reliable connectivity. We live in clean and green cities powered by smart

technologies and automated mobility.

By 2030, industry in

Europe will be thriving in one single scalable market in an open market economy with a network of like-minded trading partners. European industry is highly competitive and innovative thanks to a highly skilled, mobile



workforce and the widespread adoption of cutting-edge technologies. Europe is home to the world's leading technology companies that together help tackle the huge societal challenges of our time, like the climate crisis, cyber-attacks and pandemics. SMEs and start-ups have access to a vibrant European capital market based on diversified funding channels and simplified procurement processes. The European Single Market and innovation-friendly regulatory framework are so easy to navigate that



scaleups choose to invest and headquarter in the EU.





and focus on effectively implementing legislation, and measurably reducing the burdens of complex regulations. Europe can count on a seamless, common, and highly digitalised defence, including in cyberspace, with close collaboration between public and private sectors. EUROPE 2030: A DIGITAL POWERHOUSE 20 solutions to boost European tech leadership and resilience

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## A Stronger Digital Europe? The state of play

In 2019, for our previous manifesto, A Stronger Digital Europe, we outlined KPIs that would tell us by 2025 if Europe was on the right path. This approach influenced the Commission's own target-led approach in its Digital Decade strategy. The below assessment takes into account both sets of KPIs, as well as recent survey data. All statistics come from the Digital Decade Report 2023 unless otherwise stated.



#### On track

#### DIGITAL GOVERNMENT

- In 2021, 33.5% of citizens were able to book an appointment with a doctor or nurse online, hitting our 2025 target of 30%¹.
- Our target for 75% of EU citizens using eGovernment services and 70% using online forms by 2025 looks set to be reached.

#### 100MBPS BROADBAND

We are on track to reach our target of 70% of European households having access to 100Mbps by 2025, although overall, the connectivity picture is not so rosy.



#### Improvement needed

#### CONNECTIVITY:

- In rural areas, 55% of households are not served by any fixed, very-high-capacity network, and 9% are not served by any fixed network at all.
- Overall 5G coverage of 81% is on track for the 2030 target, but this masks huge differences between member states and urban vs rural areas. The allocation of spectrum bands also missed our target of 100% by 2022.
- The EU is also under-investing in connectivity, with per-capita investments lower than in the US, Japan, and China. The Commission estimates more than €200bn required to reach Digital Decade goals.

#### SMES AND SCALABILITY:

- Progress toward the digitalisation of SMEs is off track (69%, compared to a target of 90% of SMEs by 2030) and uneven across member states.
- Against our target of 25% of global unicorns by 2025, Europe has flatlined at around 13%, despite an overall increase in numbers². Without the UK, the number is closer to 6%.

#### INNOVATION:

European countries spent 2.32% of GDP on research and innovation, according to the latest data, climbing slowly but not on track to reach our 3% target.

#### TWIN TRANSITION:

Despite the 'Twin Transition' strategy, only two-thirds of companies are using ICT to reduce their emissions. This must rapidly increase to reach the potential 20% reduction by 2030.³



#### **Cause for concern**

#### TECHNOLOGY ADOPTION:

Against a 2030 target of 75%, the projected trajectory indicates that in 2030, only 66% of businesses will use cloud, 34% big data, and 20% AI.

#### SINGLE MARKET

The number of SMEs selling across at least one European border has flatlined at around 8% since 2019. Our target was 30% by 2025.

#### COMPETITIVENESS

- The EU's share of global revenue in the ICT market has fallen in the last decade, from 21.8% in 2013 to 11.3% in 2022.
- Only 11% of the world's most profitable tech companies have their headquarters in the EU.⁴
- A recent European Roundtable Survey said 80% of European CEOs are pessimistic about Europe's competitiveness, with 60% saying they would consider moving operations or investments to the US.⁵

² CBInsights

³ #SMARTer2030 report, GeSI, 2015

⁴ Most profitable tech companies, CompaniesMarketCap.com, 2023

⁵ CEO Confidence survey, ERT, H1 2023

## KPIs for 2030

Building on the European Commission's excellent work on the Digital Decade, DIGITALEUROPE has set its own KPIs to measure the EU's success in digital by 2030. In some cases, these KPIs are the same as those of the Commission, while in others, they are more ambitious. We have also introduced additional KPIs that we see as good measures of Europe's digital progress.

Crucially, all the KPIs below reflect where DIGITALEUROPE and its members can contribute with policy ideas and concrete action.

#### By 2030:



of EU companies should use cloud computing services, big data, and AI (DESI, 2023: 34%, 14% & 8%).



The EU should double the number of unicorns (CBInsights, 2022 baseline).





of SMEs should reach at least a basic level of digital intensity (DESI, 2023: 69%).



of key public services are available online for European citizens and businesses, including medical records (DESI, 2023: 77%).



Everyone should enjoy gigabit internet, everywhere, eliminating the "digital divide" (DESI, 2023 – 73%).



of European SMEs that operate online should trade across at least one European border (DESI: 2021: 8.7%).



Foreign direct investment from outside the EU should double to €15 billion (Eurostat, 2021: €7.5 bn).



There should be the same amount of legislation as there is today, with the one-in, one-out principle strictly enforced (Bruegel, 2023 baseline)

### European countries should be spending



Business reporting obligations should be cut by



(European Commission informal target 25%).

The EU should account for

of the biggest tech companies

(Companiesmarketcap.com, 2023: 11%).

by earnings



We should cut the shortage of cybersecurity professionals in the EU to zero (ENISA, 2020: 291,000).

### The EU should boost its share of digitally delivered exports to



(WTO World Global Trade Outlook, 2022: 36%).



of EU citizens are using online

financial services

(Eurostat: 2022: 60%)

of citizens should have 'above basic level' digital skills (DESI, 2021: 26.5%), rising to 100% for under 30 year olds (2021: 31%).



of EU companies should use ICT to reduce their environmental footprint (DESI, 2022: 66%).

The EU should boost the collection rate of electronic waste to



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# OUR 20 SOLUTIONS

EUROPE 2030: A DIGITAL POWERHOUSE 4 20 solutions to boost European tech leadership and resilience

# Al Raw Materials Act Competitiveness



01-06 A competitive Europe The Single Man heart of EU int

The Single Market is the beating heart of EU integration. Fifty-six million jobs in the EU depend on it. Yet, it remains a work in progress. We should favour a European approach to regulation and implementation, not 27 different ones, in order to make compliance as easy as possible. Removing Single Market barriers in goods and services could amount to €713 billion of growth by 2029. DIGITALEUROPE has highlighted numerous examples as part of the Single Market Enforcement Taskforce.

Europe's economic success hinges on breaking down internal borders and promoting competition. Many innovative companies, big and small, find doing business in Europe challenging, particularly due to regulatory fragmentation. SMEs, vital to the EU economy, face growth barriers, with only 8.7% trading across borders. This problem is acute in the digital sector, where scaling is crucial.

Implementing the EU Single Market, including the digital aspect, can enhance competitiveness and

the twin transition. Harmonisation and reducing national exemptions is essential. Access to more data and advanced tech can boost European innovation and global competition. However, recent data regulations like the Data Act and Data Governance Act present new potential internal barriers and a new challenge to the single European market for data.

Careful legislation can encourage innovation, but excessive regulation can hinder it. The EU should reduce the regulatory burden, conduct independent competitiveness checks with the private sector, and do thorough regulatory sandboxing before proposing new laws. With rapid digital innovation, laws must be future-proof and adaptable.

### **Relevant KPIs**



of EU companies should use cloud computing services, big data, and AI (DESI, 2023: 34%, 14% & 8%).



The EU should double the number of unicorns (CBInsights, 2022 baseline).

Business reporting obligations should be cut by



(European Commission informal target 25%).

The EU should account for



of the biggest tech companies by earnings (Companiesmarketcap.com, 2023: 11%).



There should be the same amount of legislation as there is today, with the one-in, one-out principle strictly enforced (Bruegel, 2023 baseline)



of European SMEs that operate online should trade across at least one European border (DESI: 2021: 8.7%).

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### One market, one set of digital rules – put the Single Market back at the heart of the EU project

The EU needs to be more forceful in protecting the Single Market by cracking down on unilateral legislative actions at the national level in areas where the EU already has existing provisions or is creating relevant ones.⁶ It should also prioritise reducing derogations.

Equally, it needs to tackle the fragmented implementation of EU laws (such as those on copyright levies or audiovisual media services as an example), which put up barriers to market entry and create significant challenges to the functioning of the Single Market. In such cases, **the Commission should establish a regular and structured dialogue with the industry**, drawing on its technical knowledge and acting with member states to combat unnecessary divergences in the implementation of EU law.

A significant and growing problem in digital regulation is the increasing number of bodies and institutions that companies need to consult with or report to, in order to do business. Allied with differing interpretations of EU law, this makes scaling in Europe doubly difficult.

Where member states fail to comply with the spirit of EU rules, the Commission should forcefully pursue infringement procedures. While COVID may have played a role, the number of enforcement actions has dropped in recent years.⁷ As one of its first priorities, the new Commission should commit to tackling the surge of unnecessary national-specific labelling requirements. The Commissioner for the Internal Market should scrutinise all draft proposals for duplications and remove unnecessary implementing acts, as they are one of the main causes of diverging interpretation in member states. Industry expertise should be tapped as part of an additional independent screening mechanism.

⁶ For example, during the negotiations on the Digital Services Act, some member states rushed through national legislation to pre-empt the European discussion and now undermine its regulatory coherence with national frameworks that go beyond.
⁷ Policing of EU market rules drops under von der Leyen's commission, FT, 2023



## Take stock and streamline EU data rules

Regulation on its own will not encourage a vibrant data-sharing economy. On the contrary, it will probably do just the opposite. We have made our concerns clear about the approach of the current EU Data Strategy⁸, which adds layers and layers of new rules whilst the emerging business models remain unclear. At the same time, tensions and overlaps between new and existing data rules will need to be ironed out, and the legal framework for data-sharing must fully respect data privacy and security principles.

The way data is governed today across the continent is fragmented, and will likely be even more so given recently added rules. So far, the main issue has been different interpretations and enforcement approaches around the GDPR across various member states. This problem is likely to intensify with new data bodies created in the Data Act and Data Governance Act.

What is needed now is a thorough stock-taking exercise of the new laws in place. The current GDPR review represents a positive initial step, where we should aim to harmonise the enforcement approaches. However, it is imperative to also evaluate the entire package of regulations impacting data. This process should include industry experts from all industrial sectors to assess how data regulation can facilitate, rather than hinder, European growth.

The EU should remain open to ideas to simplify and harmonise existing legislation. Where necessary, we should also be ready to repeal or significantly amend laws that are ineffective. Instead of introducing additional regulations, the focus for the next five years should be on **boosting EU** funding and providing other support to encourage data-sharing and facilitate businesses to collaborate with those in other sectors. We should continue to build data spaces in strategic economic and societal sectors, like energy and manufacturing, making sure they are interoperable to avoid creating bigger siloes. To fully embrace the data-driven economy, we must also empower citizens and improve data literacy (see section on skills).

Europe should support market-driven standardisation efforts to solve data access and interoperability issues and promote voluntary data-sharing frameworks based on specific use cases that meet actual industrial needs.

In summary, the next Commission should focus on implementing the current data strategy, not adding more regulation.

⁸ CEOs call for urgent rethink on the Data Act, DIGITALEUROPE 2023



## Agile policymaking through compulsory regulatory sandboxing

The current approach of impact assessments, 'better regulation', and a 'competitiveness check' is not delivering legislation that will help us reach our Digital Decade goals.

All proposed rules, particularly complex digital files, should undergo pre-regulation sandboxing to assess whether they are fit for purpose, contribute to European competitiveness, and to see if there are any overlaps with existing laws. DIGITALEUROPE road-tested this pre-regulatory sandbox for the AI Act with 9 European scale-ups and SMEs.⁹ Policy sandboxing should take place before the legislative process so that issues identified can be tackled before proposals are put forward and to provide real-world data and insights to assist policymakers in reaching their final agreements.

After the regulation is in place, all companies in Europe should be granted the freedom to experiment and test innovative technologies, products, and services within a regulatory sandbox framework. Existing **post-regulation** sandboxes in sectors such as financial services and autonomous driving offer valuable examples. **Companies which complete the sandboxing process should benefit from a presumption of conformity with key regulatory requirements**.

Lessons learnt from sandboxing must be acted upon, with review mechanisms in place to adjust the legislation or the way it is being implemented without reopening the whole law again.

⁹ Sandboxing the AI Act, DIGITALEUROPE, 2023



## A new SME strategy and one-stop shops for regulatory questions

The cumulative effect of excessively complex and burdensome legislation results in scarce SME resources being allocated to applying rules rather than to growing and creating jobs. In addition to simplifying the rules, we need to better explain regulation in a way that is easy to understand.

This should include a requirement for every member state and the EU to create an SME one-stop shop that acts as a point of contact for small businesses and helps them with their legislative compliance questions including those relating to information provision, assistance, certification, or simulation online, and the "only once principle". Answers should be delivered in a matter of days not weeks. Particular attention should be given to micro-businesses, where the burden is even heavier, and who, although numerous, are often left out of funding schemes. This should be **supported by** 

**EU funding and provided in the local language**. This is the **first step to a Europe-wide system**, where AI could play a significant role in simplifying compliance.

We also need to kick start an EU-wide conversation with SMEs to build **a new, enforceable EU SME strategy** that identifies and tackles the most common practical difficulties small businesses face when trying to trade across borders. For example, **further encouraging interoperable digital government services for SMEs such as e-invoicing, e-signature, and electronic submissions** (such as fully digital tax administration and a single VAT ID), and **standardising these processes across member states** would revolutionise their trading practices. EUROPE 2030: A DIGITAL POWERHOUSE 0 20 solutions to boost European tech leadership and resilience



### A Commission measured by new KPIs on digital transformation and ease of doing business

Each new Commission brings an opportunity for structural change, new positions and a different way of working. Whilst the previous Commission has rightly placed digital at the centre of its agenda, the current structure has led to confusion over responsibilities and inconsistency in legislation.

To support our goals of digitally transforming all key sectors of the economy, we propose that the next College includes a new horizontal role for the digitalisation of key economic sectors. Crucially, this new role would have access to digitalisation units implanted in the different DGs but reporting centrally. This would support a more coherent approach to digitalisation.

Currently, EU institutions are culturally commended for passing legislation and not for taking unnecessary burdens away. Commission officials are rewarded, MEPs gain stature, and each Presidency competes with the previous one to see how many common Council positions they can find. This approach has served European integration well. However, it also leads to an approach that is heavy on regulation and not good at removing complexity for business. We must also reward those who spend their time assessing existing legislation to see if it is fit for purpose and for repealing it if necessary.

The simplest way of adapting behaviour is by shifting the KPIs. **Digital policymakers in the EU should be measured against the targets set for the Digital Decade**, leading to better outcomes for the digital ecosystem. In addition, **the Commissioner responsible for the Single Market should be measured on barriers to internal commerce removed**.¹⁰ Both should make use of a permanent **advisory group of representatives from key economic sectors**.

DIGITALEUROPE will also produce an annual report against our KPIs to measure our progress, call out instances which add unnecessary burdens, and create **an annual prize to celebrate policymakers who reduce regulatory burden**.

¹⁰ See section above on single market barriers



## A digital finance action plan

A successful digital finance ecosystem is a must-have if we want a more inclusive and prosperous Europe. To get there, **Europe needs a holistic action plan to unlock the full potential of digital in the financial sector**, which includes leveraging data, promoting financial education, and taking tokenisation to the next level.

Encourage the development of standardised data formats to speed up cross-sector contract-based data

sharing. The use of financial data not only helps develop better business insights and new customer offerings in the financial sphere but also can be a valuable tool, when combined with other data sets, to help tackle societal challenges such as climate change. For example, financial institutions can leverage climate data to make informed decisions about climate-related risks and advise on investments in eco-friendly technologies. Additionally, AI models that incorporate financial, satellite, and client data can help monitor and promote sustainable land development for agriculture.

The EU needs a detailed strategy to boost the development of asset tokenisation to ensure Europe leads

on this technology and captures the opportunity to make financial transactions safer, more efficient and faster. The strategy should create the building blocks for the development of the token economy and a digitalised industry, including fully automated supply chains and logistics, new business models, and improved business relations through added transparency. Tokenisation has the potential to make the EU more competitive by enabling fast, secure, and automated business processes with reduced transaction costs, including cross-border.

Asset tokenisation is when a digital representation of a physical asset (also referred to as a digital twin) is created. The token can be easily traded, exchanged, and counted – making financial transactions more efficient, programmable, automated, accessible, transparent, and trusted.

For example, tokenised concert tickets – represented by unique digital tokens – containing details like the concert date and seat number.

The promotion of digital finance needs to be done hand in hand with campaigns to increase financial education and literacy tailored to the demands of the digital age. European-level action is urgently needed to help educate citizens about online financial scams.¹¹

¹¹ In particular, the rise in impersonation scams (whereby a citizen is manipulated into transferring money to a 'friend' or to 'their bank/post office/tax office' by a fraudster) underlines the need for EU awareness programmes and financial education courses. EUROPE 2030: A DIGITAL POWERHOUS 20 solutions to boost European tech eadership and resilience



## 07–10 A Sustainable and Healthy Europe

Europe has set an ambitious target of reducing its emissions by 55% compared to 1990 levels by 2030 and is transitioning to a low-carbon, more resourceefficient, circular, and sustainable economy. Governments, businesses, and citizens must think digital to reach the goal. The digital sector supports this goal and is ready to play a significant role in making it happen. Already, digital companies are making great strides to tackle their environmental impact. *Studies* have found that by 2030, digital technologies have the potential to help other industries save 20% of global CO₂ emissions.

The transition towards a greener and digital society requires large investments by the public sector, businesses, and individuals and all funding models and incentives should be considered to speed up the twin transition. Substantial amounts of risk-bearing capital will be needed in addition to debt, both for large and small companies. Both a well-functioning, deep and EU-wide capital market and an integrated digital single banking market are necessary to mobilise the funding needed. Central to achieving Europe's overarching goal to become the first climate-neutral continent by 2050 is the drive to make our economy more circular. Europe has had two Circular Economy Action Plans, which set the right ambition to improve the sustainability of our products, but are let down by fragmented implementation.

In addition, technological developments are expected to significantly advance health research and innovation and the delivery of healthcare in the coming years. The 2024–29 term is make-or-break in the digital health sector, as it will determine whether patients and health systems in the EU will have access to state-ofthe-art digital health solutions; whether the EU will become an exporter or importer of innovative digital health products and services; whether the EU can maintain its competitive advantage and yield a return from the investments already made; and whether the EU can make full use of the potential of data to make European health systems more effective, accessible, equitable, resilient and sustainable.

### **Relevant KPIs**







of EU companies should use cloud computing services, big data, and AI (DESI, 2023: 34%, 14% & 8%).

Business reporting obligations should be cut by

of EU companies should

use ICT to reduce their

environmental footprint

(DESI, 2022: 66%).



(European Commission informal target 25%).



of key public services are available online for European citizens and businesses, including medical records (DESI, 2023: 77%).



## Adopt green digital transformation strategies in key economic sectors

To accelerate decarbonisation, Europe must adopt a **twin transition strategy for every key sector** of our economy, starting with those with the biggest potential to reduce their emissions. In our **Digital Action = Climate Action** report, we identified five sectors where digital technology can play an important enabling role in decarbonisation: construction and buildings, manufacturing, energy, agriculture, and transport.

The Commission has shown leadership with the first action plan on the energy sector ("DoEAP"). The phasing out of fossil fuels, together with the growing demand for electricity and flexible management needs, driven by renewables, require a digitalised grid to achieve climate neutrality. However, the DoEAP is not binding and lacks specific KPIs. To address this issue, we have highlighted the role that digital can play in addressing future energy crises and proposed KPIs which can be used to measure the mid/long-term success of the plan (focusing on, e.g., Digital Buildings, investment in digital technologies and digital skills).¹² These include targets to increase investments and the quick rollout of digitized electricity grids (cloud, AI, machine learning, IoT, edge control, smart meters, and connectivity infrastructure). The EU should develop similar KPIs

and action plans for other key sectors, such as construction, buildings, and transport. For instance, in the mobility sector, the **EU should develop a comprehensive strategy to build a safe and sustainable digital mobility future** and reaching a consistent balance between policies and legislation on autonomous driving, multimodality and data sharing. The new Commissioner role that we propose above would be responsible for leading this agenda, which would facilitate the market introduction of digital technologies in these key economy sectors.

The digital agenda should be much more closely aligned with the Green Deal legislation and include the development of standardised, credible, and comparable assessment methodologies for the net impact of green digital solutions on the environment and climate in these priority sectors. Acknowledging the enabling role of digital solutions to reduce carbon emissions across industries, the EU should urgently develop KPIs to measure their impact and build upon the existing work of the European Green Digital Coalition (EGDC).

¹² DIGITALEUROPE's roadmap for Europe's energy ecosystem digital transformation, DIGITALEUROPE, 2023



### A 'Twin Transition Fund' to coordinate investments in transformative green technologies

The European Commission has recognised the greening potential of digital technologies and has taken steps to boost investment for the twin transition.¹³ However, a more coherent and streamlined approach is needed to fully realise the potential of digital technologies for green, bringing together Europe's fragmented research and innovation efforts and mobilising large investments from the public and private sectors into future-proof technologies.

We call for the EU to **create a dedicated Twin Transition Fund**, a new dedicated financing instrument to pool EU, national and private resources to centralise current initiatives and speed up the transition towards a greener and more digital future. This fund would **centralise R&I initiatives on green technologies to avoid duplication** while **offering all stakeholders an open, transparent, and collaborative platform to boost investments**.

Concretely, the Twin Transition Fund should build on synergies between digital and green solutions and

support projects specifically targeting twin transition technologies, such as digital twins, industrial data spaces, and virtual worlds for industrial manufacturing. Part of the funding should be dedicated to monitoring new emerging technologies, and it should be flexible enough to be able to ramp up spending in promising new tech in an open and inclusive way. Transparency and visibility of project results are also key to promoting stability and certainty for industry, and the process should include as many stakeholders as possible (research centres, SMEs, large companies, and public authorities).

Finally, the fund should focus on **bridging the gap between research, innovation, and marketable solutions**. From 2016 to 2021, Europe produced 30 % of all green inventions worldwide, but support is needed to bring them to market, **for example, through investments in standardisation**.

¹³ Examples include digital commitments in the European Agricultural Fund for Rural Development, European Agricultural Guarantee Fund, European Regional Development Fund, Cohesion Fund, and Horizon Europe and Life funds.



## Create a green & circular single market and take advantage of digital tools like the Digital Product Passport

At every stage of the life cycle of our products, from the design phase, the use and reuse, and the end-of-life, the digital sector offers innovative and sustainable solutions.

Through the use of digital solutions, such as robotics and AI, Europe has the potential to transform its resource and waste management and boost circularity. In Belgium, the producer responsibility organisation Recupel has developed an AI-enabled solution that helps sort small waste electronics via product image recognition and will soon be able to sort and recover 20,000 tonnes of non-ferrous metals per year.¹⁴ By 2030, Europe should lead in using digitalisation to improve waste prevention, collection and recycling and minimise exports.

As an industry, we are committed to reducing the impact of our products. We work to ensure that our products are designed, produced, used, and, where possible, reused, repaired, refurbished, or recycled in a sustainable and safe manner. However, a fully circular system is needed to keep products in the loop. Europe needs a system where **recycled materials are available and competitive, standardisation drives manufacturing processes and material quality, and reverse logistics are efficient and effective.** This would incentivise European citizens to return their electrical products at the end of the life cycle, helping recover millions of tonnes of crucial materials for the green transition.¹⁵ We are ready to work with policymakers to offer digital solutions to enable behavioural change, promote science, and encourage citizen participation in the green transition. If designed well, the **Digital Product Passport** can become an active tool for reinforcing circular economy practices like **simplifying product repairs and recycling and reducing waste**. We support its wide uptake in Europe and internationally.

The creative potential of companies is wasted on compliance with national, often diverging, sustainability requirements and overly prescriptive rules. This has been recognised at the highest level by French President Macron and Belgian Prime Minister De Croo, amongst others.¹⁶ This needs to be filtered down to policymakers in Brussels. Europe should make it easy for businesses to do the right thing by promoting a European, technology-neutral approach to sustainability, incentivising innovation, while protecting companies' intellectual property rights and designing goals instead of prescribing solutions. We, therefore, need an action plan for a Green & Circular Single Market focused on simplifying and harmonising compliance.

- ¹⁵ According to the WEEE Forum, households across the EU own on average 74 electronic products, 17 of which are lying unused in our
- drawers and closets. ⁶ Macron's calls for 'regulatory pause' in EU environmental laws wink at conservatives, Politico, 2023

¹⁴ Obourg : les groupes Comet et Recupel ont présenté au roi un nouveau dispositif technologique de tri, RTBF 2023



## A new health strategy with digital and data at its core

The COVID pandemic underlined the societal importance of getting healthcare right. We must build on what we learned to be ready for whatever comes next.

The use of data has huge potential to cut red tape for healthcare professionals, save money, and ensure a timely and tailored approach to patient care.

In the next mandate, the EU should adopt a digitally oriented EU health strategy as a cross-cutting pillar of the European Health Union, with an action plan for the European Health Data Space (EHDS) that advances the adoption of more efficient, digital approaches in healthcare.¹⁷ This should include breaking down barriers to the use of health data, enabling the scalability of digital health solutions, and powering AI tools for the benefit of EU patients and healthcare systems.

The Commission and member states should also make a concerted effort to ensure legal clarity and consistency in digital legislation affecting the healthcare sector. This includes precise and implementable rules, consistent application of data rules (see above), data governance mechanisms that protect citizens' fundamental rights and intellectual property, and the recognition of global standards. At the same time, the EU should strive to take full advantage of available health data to provide personalised treatments to patients while scaling up the development of new technologies and deploying real world data and evidence to better inform research and decision-making in the healthcare sector.

Skills are another huge factor in the successful utilisation and scaling of digital health technologies. This is both through educating the general public, improving digital health literacy and building patient trust, but also by boosting the competencies of medical staff to be able to use the new technologies to their full potential.¹⁸

In terms of funding, we propose a dedicated EU funding programme to support the digitalisation of health systems and the impactful implementation of the EHDS, as well as funding high-impact digital health pilots and large-scale deployments. For greater efficiency, this funding could be tied to outcomes, harmonised across borders, and provide incentives to make up-front investments. Special attention should be given to the migration to cloud-based, scalable, and software-driven ICT solutions. Comprehensive and widespread deployment of digital health technologies will subsequently improve the efficiency and resilience of EU healthcare systems.

¹⁷ (e.g. personalised healthcare; telehealth and hybrid healthcare; real-world evidence; decentralised, pragmatic and registry-based clinical trials; precision medicine; patient twinning; population health management; precision public health; value-based care).

¹⁸ See digital skills section for more details



digital Europe

Since the Russian invasion of Ukraine, digital resilience has shot up in the political agenda. Cyber-attacks have risen sharply, and Russia has shown that ICT and telecoms infrastructure is a prime target. The war in Ukraine has highlighted the need for Europe and its partners to boost cybersecurity, invest in new technologies, and nurture innovation.

Whilst the EU has made progress in the cyber realm with legislative initiatives such as the NIS2 Directive, the Cybersecurity Act, and the Cyber Resilience Act, the threat posed by cyber-attacks remains omnipresent. Examples are the recent attacks on railways in Denmark and Poland, where, in both cases, trains were forced to a standstill, and the Saint-Pierre hospital in Brussels, where IT applications were disconnected from the internet for hours. Cybersecurity is among the top strategic skills for the workforce. Europe also needs a digitalisation of defence strategy, with public-private cooperation at its heart.

Europe cannot afford to fall behind in investment in technology. Our resilience relies on access to the latest digital tools, and investing in technologies like cybersecurity, AI, and quantum computing. Defence budgets are often national but European companies rely on scale – we need greater coordination at EU level. Unfortunately, access to EU and NATO funding often proves difficult for SMEs due to complex application processes, limited awareness of available opportunities and eligibility criteria, stringent financial requirements, intense competition, language, and the focus on large-scale projects that may not align with SME capacities.

#### **Relevant KPIs**



The EU should double the number of unicorns (CBInsights, 2022 baseline).



We should cut the shortage of cybersecurity professionals in the EU to zero (ENISA, 2020: 291,000).

European countries should be spending





of citizens should have 'above basic level' digital skills (DESI, 2021: 26.5%), rising to 100% for under 30 year olds (2021: 31%).

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### Mandatory cyber check for all legislation, boosting the role of ENISA

Enhancing the coherence and impact of EU cybersecurity policymaking will be a central theme up to 2030. In the past five years we have seen regulation like the Data Act and others unintentionally jeopardizing European cybersecurity.

This will require the European Cybersecurity Agency, ENISA, to play a more prominent role. ENISA needs to function as an independent watchdog that critically scrutinises EU policy to ensure it promotes cybersecurity. To do so, we should grant ENISA more explicit power to be consulted and provide Opinions on planned EU cybersecurity laws. The European Commission should be obliged to consult them. To do this effectively, it will need more resources.

In preparing its Opinions, ENISA should engage with a wide range of stakeholders, including industry, civil society organisations and academia. Mandatory ENISA consultation on legislative initiatives related to cybersecurity would contribute to more effective and comprehensive cybersecurity policies, ultimately enhancing the EU's digital resilience.



### Public and private cooperation on cyber to keep us safe and cut the skills gap

The current security situation demands that Europe's cyber defenders leave their siloes. Private companies are de facto on the front line, yet cooperation with the public sector is lacking. A new governance model must ensure that private companies from like-minded countries are involved. While areat strides have been made to better coordinate between various cyber agencies and units across the EU and its member states, two key elements are missing. One is the absence of a clear chain of command, and the other is a meaningful and complementary role for the private sector.

Building on the Cyber Solidarity Act, by 2030, Europe should have structured cooperation between national cyber authorities, creating **an effective chain of command and a pan-European cyber defence**. The network of command centres should be supported by a **cyber reserve from trusted companies** with expertise and information to share, all within a clear legal framework for information sharing between companies and governments.

Another idea is to create a new position of **European Cyber coordinator**, supported by those trusted companies, with enhanced responsibilities for coordinating cyber activities across the EU.

To tackle the one million cyber skills gap and fully operationalise the **Cyber** Skills Academy, we need the public and private sectors to unite. Inspired by the Campus Cyber in France, Europe should establish at least ten cyber campuses. Given education is a national competence, this requires member states to step up and make this a priority. Our members, the national digital associations in each country, are ready and willing to act as the industry link. The EU should carefully consider how member states could be supported in education and mobility initiatives that promote a dynamic and vibrant European-wide labour market for cybersecurity professionals from diverse backgrounds. One of the most pressing policy issues is to support the re- and upskilling of existing talent.

Additional actions associated with the campuses include the establishment of a common ENISA cybersecurity educational certification based on international standards, market-led credentials, and increased funding for skills that support our collective digital resilience.



### A 25% digital target for all EU and NATO funds and simplified procurement processes

The Recovery and Resilience Facility made history by reserving one-fifth of the funding for digital projects, skills, and other priorities aimed at transforming Europe. The latest estimations suggest that the number was closer to 26%.¹⁹

Considering the cross-cutting relevance of digital to practically every policy area, from climate change to social policy, and from energy security to defence and agriculture, we should roll out a 25% digital target across all EU funding programmes. This would send a strong signal that the EU is committed to the use of digital as a transformative tool.

In addition to consolidating the digital target across policy areas, the EU should also raise the ambition on digitally focused funding programmes such as Horizon Europe and the Digital Europe Programme. Recent Joint Undertakings and Public-Private Partnerships implemented under Horizon Europe have been successful at attracting billions in industry commitments²⁰. Businesses, especially large enterprises, play an essential role in bringing innovations to the market, creating economic growth in Europe and incentivising R&I investments. The next Framework Programme 2027-2034 (FP10) must offer attractive conditions to stimulate industry participation. This includes **increasing the contribution to projects in the digital sector**, **guaranteeing budgetary continuity**, **incentivising close-to-market innovations, maintaining R&I efforts until commercialisation, simplifying reporting obligations, and streamlining procedures**.

Putting the funding in place is only one piece of the puzzle. Onerous procurement practices and a complex web of funding opportunities without a common application process often make funding inaccessible for SMEs. Streamlining application procedures, providing better outreach and support, and tailoring funding opportunities can help SMEs overcome these challenges and foster innovation and diversity. NATO's Defence Innovation Accelerator for the North Atlantic (DIANA) is an excellent example of an agile procurement scheme for small businesses.

¹⁹ Europe's Recovery and Resilience Scoreboard, European Commission, 2023

²⁰ Biennial Monitoring Report (BMR) on partnerships in Horizon Europe, EU Publications Office, 2022

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Where possible, we should avoid duplication and create common portals for companies to apply for funding. In addition, we should earmark funding for smaller companies and non-traditional defence players to ensure that good ideas are not lost due to a lack of money or bureaucratic hurdles. We need to scale up DIANA and encourage greater collaboration between the EU and NATO to ensure we are all pushing in the same direction.

14–16 A global Europe

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> Global trade is essential for Europe's growth, jobs, and competitiveness. According to Commission estimates, 85% of future GDP growth will come from outside of Europe.

ICT is global by default and enables global value chains for every sector of the economy. A stable, predictable, and open global economy is therefore crucial. With the rising threat of protectionism and increased pressure on the multilateral trading system, we believe that Europe should continue to promote an open and rules-based trading system. Europe needs to lead by example, strive for market access and preserve openness, including with like-minded partners such as the US.

In addition, a new approach to digital resilience should acknowledge the essential role of like-minded countries and companies and work together to set global standards.

### **Relevant KPIs**

**2X** 

Foreign direct investment from outside the EU should double to €15 billion (Eurostat, 2021: €7.5 bn). The EU should account for



of the biggest tech companies by earnings (Companiesmarketcap.com, 2023: 11%). The EU should boost its share of digitally delivered exports to



(WTO World Global Trade Outlook, 2022: 36%). EUROPE 2030: A DIGITAL POWERHOUSE 6 20 solutions to boost European tech leadership and resilience



### Strengthen transatlantic relations and build a wider network of digital partners

In the face of significant global challenges, there has never been a more pressing time for international cooperation. The launch of the EU-US Trade and Technology Council (TTC) marked a transatlantic cooperation reboot. However, it is time for **Europe** and the US to find concrete solutions to boost their technological strengths, collaborate on setting standards, and defend a open, rules-based trading system. Whether on digital regulation, clean tech subsidies, supply chain due diligence, or semiconductors, the EU and the US should use the TTC to raise concerns and ask questions about each other's rules that could impact the transatlantic partnership. Export control coordination against Russia is a positive example of what can be achieved through transatlantic cooperation and should be used more widely as a best practice for tackling trade concerns with third countries.

Since the **Schrems II ruling**²¹, European industry has needed more legal certainty about US data flows for smooth trade to occur. We welcome the new EU-US Data Privacy Framework, but an agreement must stand the test of time and practice. We must also continue to build the accompanying framework, including a swift conclusion of the EU-US Cloud Act Agreement.

The EU should also redouble its efforts in international fora like the WTO and ensure that cooperation with like-minded countries is a reality, not just a buzzword. We should expand digital trade chapters in Free Trade Agreements (FTAs) that aim to scale up the free flow of data and combat challenges related to forced localisation, such as the obligation to disclose source code or data storage and handling restrictions. This builds on the success of the TTC and Digital Partnership Agreement (DPAs) formats.

²¹ The 2020 European Court of Justice case brought by Austrian activist Max Schrems under the GDPR



## Renewed focus on global standards, starting with Al

To create global economies of scale, Europe should prioritise consensusbased, industry-driven global standards. Through active participation in the international standards-setting process, the EU can leverage global expertise, promote European standards internationally, foster competitiveness, and reduce the compliance costs for European companies.

EU leadership should be manifested in several ways, including strengthening and promoting the CE mark. The New Legislative Framework (NLF) is one of Europe's success stories and helps the functioning of the Single Market. The CE mark, one of the tangible assets of NLF, is a trusted mark for trade, not only within Europe but globally. Through the extension and modernisation of the NLF to include compliance for services such as AI (AI Act), cybersecurity (CRA), and the digital product passport (Ecodesign for Sustainable Products Regulation), CE marking can position Europe as the place for trusted digital and green business applications, and Europe can lead on emerging technologies.

This needs to be done in tandem with **growing a new generation of European standardisation experts**. As the European Standardisation Strategy rightly highlights, Europe's current generation of standardisation experts is ageing. Rebuilding a European talent pool that pursues standardisation as a career path is the way to boost Europe's international leadership and promote an inclusive European standardisation system.

Europe should also be a world leader by spearheading the development of global standards in partnership with global stakeholders and within international fora. For EU-developed standards to reach their full potential as fit for global adoption, the EU standards development process must be inclusive by ensuring the full opportunity to participate by the world's foremost subject matter experts, including those based outside of the EU. This approach will help Europe get invaluable insights, drive technological evolution and ensure that EU-led standards are also embraced in other jurisdictions. European standards should be the preferred approach only where there is a need to address a uniquely European requirement.

As a priority, **Europe should drive the development of a global standard on responsible AI** to ensure ethical use, protect human rights, and foster trust in AI systems globally. EUROPE 2030: A DIGITAL POWERHOUSE 8 20 solutions to boost European tech leadership and resilience



### Secure and diversify our supply chains and build our digital resilience

Digital resilience is about society's ability to employ digital technologies to prevent and address crises like pandemics, natural disasters, cyberattacks and hybrid wars, while sustaining our financial and security assets.

As COVID and the war in Ukraine have highlighted, society needs a resilient supply chain of critical components like cables, servers, radio masts and antennas, and other digital components, as well as critical raw materials.

Europe can quickly increase production of vital components like chips and speed up the extraction of critical raw materials **by easing permitting procedures and the reducing of regulatory reporting burdens.** 

'Friend-shoring' and building a global network of trade partners will also help us reduce dependencies on individual countries or vendors. The current Commission has pursued a number of actions to protect sensitive assets. These actions should enable companies in Europe to choose the best available technologies without restricting possibilities for cooperation with our closest allies. A balance needs to be struck between enhancing the EU's digital resilience on the one hand, while maintaining competitiveness and open trade links on the other. We must also ensure that our actions do not have counterproductive effects.

We should work to **remove unjustified tariffs and non-tariff barriers with likeminded partners**. The EU should also prioritise internal capacity building rather than limiting competition from non-EU players.

This principle, of course, extends to our major trading partners, and DIGITALEUROPE will work hard to avoid unilateral actions that harm European interests.

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IIII



17–20 A Digital European Society

Europe needs digital skills to create the foundations for success and build a more prosperous, inclusive, and resilient society. According to the European Commission's Digital Economy and Society Index (DESI) for 2021, only 43% of Europeans have advanced digital skills, and 27% of EU citizens still lack basic digital skills. Connectivity, digital skills, talent programmes, and online public services are pivotal for Europe's competitiveness and societal well-being.

Widespread connectivity is the backbone of a modern society, enabling communication and innovation.

Digital skills empower individuals to participate in the digital economy and bridge the digital divide. Online public services enhance efficiency and accessibility, improving citizens' lives. A thriving tech talent pool drives innovation and economic growth. These elements collectively strengthen Europe's position in the global tech landscape, ensuring its prosperity and resilience in the digital age.

### **Relevant KPIs**



of EU citizens are using online financial services (Eurostat: 2022: 60%)



of citizens should have 'above basic level' digital skills (DESI, 2021: 26.5%), rising to 100% for under 30 year olds (2021: 31%).



of key public services are available online for European citizens and businesses, including medical records (DESI, 2023: 77%).



Everyone should enjoy gigabit internet, everywhere, eliminating the "digital divide" (DESI, 2023 – 73%). More than



of SMEs should reach at least a basic level of digital intensity (DESI, 2023: 69%). EUROPE 2030: A DIGITAL POWERHOUSE 2 20 solutions to boost European tech leadership and resilience



## A 5G connectivity framework fit for 6G rollout

Achieving gigabit connectivity for everyone and everywhere in Europe by 2030 is crucial. Connectivity plays a pivotal role in various aspects of our lives, from enabling businesses to thrive and innovate to ensuring that citizens have access to essential services and information. Without gigabit connectivity, Europe will fail to achieve all of its other societal goals, including tackling the climate crisis.

The 5G rollout has been disappointingly slow in Europe, and without action, we risk repeating the same mistakes when deploying 6G in the future. To address this and meet Europe's 2030 connectivity targets, we must improve the regulatory environment to make it more investment-conducive to unleash private investments in network upgrades. Poor return on investment and significant delays in spectrum auctions across member states are deepening the fragmentation of the Single Market and deterring investment. Costly spectrum prices and fragmented auction rules, nationally and across member states, are among the top reasons for the delay. Fragmentation is heightening market uncertainty and making many European countries unattractive for business.

We call on European leaders to initiate a long-overdue discussion and radically overhaul telecom governance with a new Connectivity Act.²² This should include the establishment of a single EU-wide spectrum governance authority to ensure consistent spectrum policy and binding EU decisions.

Additionally, we must reevaluate the attractiveness of the European market for EU and foreign investors, which is damaged by poor public funding and a lack of ability for telecom operators to merge and scale up across Europe to tackle national fragmentation in auctions.

²² Mind the Gap: A New Connectivity Act for the Digital Decade, DIGITALEUROPE, 2022



## Fully online public services and digital IDs

The pandemic helped to rapidly boost the digitisation of government services across Europe. However, work remains to be done. Currently, only 84% of government services across the EU are accessible online; of those, only 49% can be used cross-border.²³

Our citizens and businesses ought to be able to conduct all their day-today transactions and interactions with central and local government services online, in a smooth, trustworthy, and transparent way, from wherever they are in Europe.

To achieve this, every central and local government authority needs to adopt a mandatory strategy to achieve fully online public services in Europe by the end of this decade. Building on the eIDAS, all citizens should also have access to interoperable digital IDs based on global standards, which empower them to securely identify themselves and conduct activities wherever they are. The Commission must work with the member states to break down the barriers to adoption and ensure these services are interoperable and work cross-border, creating a 'real-time economy'.

Around 87 million people in the EU have some form of disability. As people age, that number becomes even more profound across society. Disability is a wide spectrum, and we believe digitalisation has a central role to play in treating all citizens with dignity and respect. That includes building technology that works no matter what your needs may be. The EU has been a driving force globally with the recent adoption of the European Accessibility Act. Accessibility should remain a core focus of the next Commission, ensuring adopted legislation is consistently transposed across member states and associated voluntary, consensusbased, industry-led standards are developed where needed and recognised at international level.

EUROPE 2030: A DIGITAL POWERHOUSE 4 20 solutions to boost European tech leadership and resilience



## A European Skills Passport and digital competency classes for all

Europe needs a highly skilled workforce to drive its digitalising industries. All of Europe's goals for new investment and measures on digital will fail to materialise unless the workforce and society have appropriate digital competencies.

The demand for highly skilled cyber, Al, and data science specialists continues to outpace supply. Only 14 of 27 member states currently include computer science in the primary and secondary school curricula. This means that future generations in Europe may be unprepared for the advanced digital skill sets demanded by the future job market. We will also require an increasing number of civil servants with the skills to understand complex Al models and cybersecurity to staff the growing number of digital regulatory bodies.

In 2021, just 26% of the EU's adult population possessed above-basic overall digital skills, with a notable disparity persisting between urban and rural areas. The private sector has a huge role to play in helping to design courses that respond to industry needs. Policymakers should support these efforts by better-integrating industry into the education framework through measures like promoting microcredential validation and individual learning accounts, which are personal training accounts to encourage lifelong learning. More should also be done to scale up promising public-private partnerships.

#### A European skills passport would serve as a powerful tool to support mobility, jobseekers, lifelong learning, transparency, and the recognition of skills and qualifications across

**Europe**. Introducing an interoperable and universally recognised European skills passport would gather citizens' competencies in an easily accessible and shareable file, allowing workers to document and showcase their skills, qualifications, and work experience to potential employers across Europe in one central place. The passport would also encourage the validation of industry-driven credentials, such as micro-credentials, which can be earned upon completing focused, jobready courses. A skills passport would also help employers by providing a clear, comprehensive and comparable overview of an individual's skills and qualifications.



## New programmes to attract and retain tech talent

Digital education is crucial for cultivating the next generation of talent. However, in the meantime, Europe's digital industry **needs new tools to** attract and retain talent in a global race. From data analysts and software/ hardware engineers to coders, software developers, security engineers and more, Europe's digital industry suffers from unfilled positions due to the skills shortage. Too often, our brightest and best talents are being lured outside of Europe with lucrative offers. Our businesses require various tools to compete globally, including simplified migration rules for highly qualified non-EU professionals and more flexible and attractive options for offering company shares to employees.

The Spanish government adopted tax incentives for companies that hire highly skilled talents from third countries and has facilitated work permits for workers in industries facing high demand. The EU should promote these best practices to inspire other member states.

We must also examine our rules to handle emerging work trends, including hybrid work, mobile workers, and digital nomads. Greater certainty of applicable tax and social security rules to support remote cross-border working would provide individuals with greater flexibility, and employers would also have access to a broader and more diversified talent pool.

## Conclusion

To reach our ambitious targets for 2030, the digital industry will have to work closely with policymakers. DIGITALEUROPE and its members are ready to step up to this challenge.

We don't just tell the EU what to do. We walk the talk. Already, we are involved in 20 projects to help advance Europe's digital transformation in diverse areas like skills, cybersecurity, cloud and digital health.



## **Our mission**

As leaders of digital industries, we engage with policymakers and citizens to shape a more competitive, business & policy environment for a stronger digital Europe.



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