# Assert European digital sovereignty:

The Rome Consensus



### Summary

















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# **Executive Memo**

# The Digital Sovereignty Roadshow was organized as part of the 2022 French Presidency of the European Union Council.

The primary objective was to generate productive debates around the definition and concepts of European Digital Sovereignty. The second objective was to work on a pragmatic roadmap that allowed Digital Sovereignty to take deep roots across the ecosystem. Gathering key representatives across public institutions, technology leaders and trade associations, a much stronger commitment arose: Europe must take its digital destiny to the next level, building on four key pillars, which are Rules&Regulations, Research&Development, Funding&Tenders and Education&Training.

Europe is indeed experiencing unique momentum and awareness in sowing the seeds of a European Digital Sovereignty. Its technological ecosystem is gaining maturity in all relevant sectors and cloud computing especially is becoming a decisive dimension of Digital Sovereignty. The debates drew strongly on Estonia's unique digital public service model, Spain's humanist approach to a people-centric online life, Germany's Industry 4.0 strategy, France's French Tech movement and Italy's digital strategy.

To secure the organic and harmonious growth of a value-based approach to Digital Sovereignty, several challenges must be tackled simultaneously whilst also anticipating the next stages. That is how this four-pillar approach shall be continuously developed over three main phases, short term (next three months), mid-term (until mid-2023) and long-term (after mid-2023).



### The 4 pillars

#### I. Rules&Regulations



A shared, secure and principled environment with equal rules for all players must be built, especially for data sovereignty. This framework can become a global trend-setter and pioneer, establishing rules that could be emulated throughout the world.



**Phase I,** passing DMA and DSA as groundbreaking regulation.

**Phase II**, passing the Chips Act and AI Act to allow future technological sovereignty.

**Phase III**, adopting the Data Act to fill Europe's gap of regulation on cloud services.

### II. Research&Development



To reach the next stage of innovation and achieve technological sovereignty by pushing Europe's long-standing and vibrant research and development community further. It will be made even stronger by joining the energies of the public and private sector in constant emulation with each other.



**Phase I**, accelerating the Digital Europe and the Horizon research programmes. **Phase II**, promoting GAIA-X for the development of federated innovative services.

**Phase III**, prioritizing research in quantum computing, IA and edge, in order to create levers for future European digital champions.

#### III. Funding&Tenders



To implement strategic, sustainable, and long-term financing to contribute to the emergence of global champions from Europe.



**Phase I**, launching the projects presented in the framework of the IPCEI Cloud.

**Phase II**, reforming public procurement to promote safe European alternatives through a Buy European Tech Act.

**Phase III**, achieving 10 European digital champions with the Scale Up Europe initiative while Euronext's European Leaders takes off.

### IV. Education & Training



To ensure that citizens, business leaders and public sector players are empowered to make safe and efficient choices to secure Digital Sovereignty for all through relentless training and education at all stages of life and levels of expertise.



Phase I, acting in favour of raised science and computer skills in high-school and increased recruitment in higher-education science curricula. Phase II, generalizing the training and awareness of Data Protection Officers (DPO) within internationalized SMEs. Phase III, ensuring the technological independence of schools and universities to favour open-source technologies and interoperability.

### All roads lead to Rome

# The 2022 digital sovereignty roadshow

### From Rome to Rome – the Digital Sovereignty Roadshow at a glance.

In May 2021, the Rome Roundtable on Digital Sovereignty that brought together the voices of stakeholders from public and private sector alike, made clear that the debate on European Digital Sovereignty had entered a new phase. Beyond the question of GAIA-X ability to foster concrete initiatives, a more holistic approach became necessary.

The General Data Protection Regulation had shown in recent years Europe's capacity to have global influence and even leadership when it came to the protection of the citizen's rights.

The French Presidency of the Council of the European Union decided to put it at the top of its agenda. Therefore, it organized a high-level Conference on Digital Sovereignty in Paris, on February 7th and 8th. With the EU Commission and the European Parliament, it also pushed key legislation like the Digital Markets Act and the Digital Services Act.

OVHcloud decided to follow the European path and organized a continent-wide public dialogue for experts and citizens on the state of Digital Sovereignty. Indeed, as a long-time committed actor to "Innovation for Freedom" in the field of data management, the company sees it as its purpose to promote and facilitate a European ecosystem of cloud computing. It endeavours to offer an alternative model and a freedom of choice to Europe's consumers.

We were struck by the intensity of the dialogue, the diversity of the points of view and the craving for detailed roadmaps and compasses. All this proved there is unique momentum for an enhanced European Digital Sovereignty. Paris
February 2022

Digital Assembly
Toulouse
June 2022

**Paris Conference on** 

**Digital Sovereignty, FPUE** 

**Digital Sovereignty Roadshow** 

Madrid March 2022







#### What we learnt in Berlin

January 2022

#### **EUROPE IS A POWERHOUSE OF GLOBAL INNOVATION**

The Berlin Roundtable demonstrated the wide-ranging consensus that digital sovereignty is still within Europe's reach, despite the power of rival companies and models. Yet, this means at the same time boosting innovation and simultaneously tackling data sovereignty and technological sovereignty.



We still have the chance to achieve digital sovereignty (...) Without a good digital infrastructure we will not be able to have good applications.

#### **Tobias MIETHANER**

Head of the Digital Society Department at the Federal Ministry of Digital Affairs and Transport

As Europeans, we want to be the first to develop the digital strategy that combines our regulatory strength with innovations and investments. We want to develop a people-based and values-based approach to our digital data and Al sectors. We have a strategy for the future, we have the skills, we have the tools and the people to make it work, and we have the means. Let's make Europe a digital power.



#### **Emmanuel COHET**

Minister-Counsellor at the French Embassy in Germany

There is no digital sovereignty without innovations. There is no digital sovereignty without technological sovereignty, access to technology. That's why in the French presidency, as was mentioned earlier, there are the regulation side but also the innovation side which is critical if you want to sustain digital sovereignty.



#### **Matthieu WEILL**

Head of Digital Economy Department, French ministry of economic affairs and industrial and digital sovereignty



I do believe that **digital sovereignty is still attainable. The several orchestra of Europe's different voices have come together to make it one single one.** Within GAIA-X, there might be different layers of compliance, but the strictest layer will only be reserved for the European companies that fully comply with everything that GAIA-X stands for. And these are going to be European companies.



Managing Director of GAIA-X Hub

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All the points of that data trust, sovereignty are resonating everywhere in the World. (...) what we are promoting as **Europe's values can be exported outside.** 



#### Michel PAULIN CEO OVHcloud



Sovereignty, it's not autarchy, it's not heteronomous: **we need a competitive market** in Europe, where we can choose the best solution.



Managing Director, Regulatory Policy & Security, Bitkom e.V.



#### **The Paris Conference** on Digital Sovereignty February 2022

The FPEU Paris Conference has injected renewed momentum in the European Digital Sovereignty agenda. It stressed the interdependence of innovation, regulation and a new culture of Digital Commons. It defended an open vision based on a free Internet, without compromising on the prevalence of European law on European territory. Technological sovereignty must become the bedrock of political sovereignty.

66 Behind this sovereignty, there is a simple question: who's in control? (...) The models that are drawn up for the 21st century are very different, and even incompatible. You have one model in which this technological sovereignty is in the hands of private giants, the digital giants. (...) In the end the digital sovereignty in the American model is a private sovereignty. You have a second model in which technological sovereignty is in the hands of an authoritarian state, it's the Chinese model. (...) And there is a third model in which the technological sovereignty is in the hands of the people, the sovereign people, the European people.



#### **Bruno LE MAIRE**

Minister of Economy, Finances and Industrial and Digital Sovereignty, France

> There is an exceptional dynamic in Europe concerning digital sovereignty: within eighteen months Europe will have adopted some of the most important regulations of its History.





## What we learnt in Warsaw February 2022 ENABLING EUROPEAN ALTERNATIVES IN A FAIR AND FREE COMPETITION

The Warsaw Roundtable has shown there is room for consensus between Eastern and Western Europeans on a key aspect of the European model, a free and fair competition applying the same rules for all. It's from the initiatives of private companies that concrete innovations, alternatives and future champions will emerge.

Public policy in the 20th century should **not be the monopoly of administration and politics.** (...) We will succeed by saying that if you are a big platform you have to conform to these rules, that **here you have to comply.** 



Frédéric PETIT

Member of the
French Parliament



If we look **long term for Europe**, where do we want **our R&D** to be? Because if you do not **master that complete value chain**, starting with the chipset, the cloud, the software editors, you have no data sovereignty, you have no sovereignty at all.

Michel PAULIN
CEO OVHcloud

Building European Digital sovereignty is (...) really about ensuring conditions where in Europe actual alternatives to other available non-EU solution can be born and can grow. (...) Sovereignty is really the framework that allows companies to grow innovation.



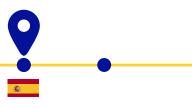
Magdalena PIECH
Chair of the European Tech Alliance





#### **Janusz CIESZYNSKI**

Secretary of State for Digital Affairs in the Chancellery of the Prime Minister



#### What we learnt in Madrid

March 2022

### THE RIGHTS OF THE CITIZENS ARE THE BEATING HEART OF DIGITAL SOVEREIGNTY

Spain has been a pivotal player in the development of a European Way of Digital Life, centred on the citizen's rights, needs and demands. It receives broad support from all over Europe for its valuebased and people-centric approach.



There is one model where the big platforms, private corporations, control the property and use of data. There is another model, of course, in which the data is potentially owned exclusively by the government, requiring a surveillance capitalism. There is a third way, it's the European model, a model in which we can work with an easy prerequisite: data is owned by the citizens. (...) France and Spain, with other European countries, fully agree on the past to follow. We have signed joint declarations, referring to the creation for example of a European Fund for Talent Development, for the role of women in companies and for the reinforcement of cybersecurity.



Secretary of State for Digitalization and AI, Spain



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There are conditions to make this European innovation emerge, **conditions on talents**, and of course, skills are key to everything we can achieve; **conditions on technology** and **conditions on financing innovation** and specially **our ability to make our companies grow.** 



#### **Matthieu WEILL**

Head of Digital Economy Department, French ministry of economic affairs



We must start to set rules in the online world in the same way we did in the offline world, not only to maintain the sovereignty of our states, but to protect our citizens. (...) In Spain we have a vision centred around the human being. We have written a Digital Rights Charter in which we put in writing all the rights individuals should enjoy. They already have offline rights, but online rights are needed.

**Alberto GAGO** 

Advisor to the Secretary of Digital Affairs

We can **restore a balance**, we have the means to do it, we have the talents, we have the **big AI labs all over Europe**, we have the capacities of **universities**, **engineering schools**. We need to trust this ecosystem. **There are champions today**, small for sure, but extremely determined.



#### Michel PAULIN CEO OVECIONA



There are three elements to follow and pursue. First, continue to develop standards, regulation building blocks that help us build the regulation framework. Secondly develop a technological ecosystem that allows the creation of companies that are competitive in terms of costs as well as of quality of provided services, while respecting all these regulations. Thirdly, encourage amongst companies and the population, the use of services that respect these European principles and regulations.



Director of Strategic and Competitive Intelligence at ITI, member of the board of Gaia-X

Every organization, every government, every citizen must **be master of his data.** Everyone must be able to use his data in **a safe, reversible, competitive, trusting manner.** Data is that asset that allows us to move forward as a society.



Pilar TORRES
CEO Atos Iberia



#### What we learnt in Tallinn

May 2022

### TRAINING&EDUCATION IS AT THE HEART OF DIGITAL SOVEREIGNTY

Estonia has been a leader and a pioneer in digital services and administration for several decades. It showed to all of Europe the key role public initiatives and leadership play in creating stable and strong ecosystems. Digital sovereignty needs at to be seen simultaneously both from the demand side and from the supply side to be resilient in times of growing international security challenges.

The goal we should all have before we get into the nuances is ultimately that both market access and the question of who we're able to trust and rely upon, is a global affair of like-minded countries (...) The public sector has not done a great job on creating demand. I'll say that that's something we're very actively working on here in Estonia.



#### **Luukas ILVES**

Government Chief Information Officer, Ministry of Economic Affairs and Communication for Estonia

66 The digital revolution is difficult. And a lot of countries are a lot of stakeholders, a lot of companies have not yet made the shift and figuring out that their data is their major asset. (...) I have incredible difficulty to recruiting European students to become experts and even in France nowadays. 80% of the students that we are getting a PhD nowadays in cybersecurity are extra European. This recruitment hurdle generates a strategic **issue** because at some point in time, you will not have enough European nationals to take on regalian positions.



#### **Kave SALAMATIAN**

European ERA Chair in Cybersecurity, Tallinn University of Technology I think recruitment but also education will be a key of European sovereignty in the long term. (...) Our engineers are as good as the Chinese one, our education level is at the top. You in Estonia are the example of something which is extraordinary. (...) Now we need to go to the action mode. And sometimes we're a little bit slow.



Michel PAULIN
CEO OVHcloud



I mean, like in order to stay sovereign, in order to be able to run your own system to have a strong guarantee on security, we must do many things and having physical infrastructure, our own networks, etc. It's a prerequisite, but also having software that satisfies your users' needs, for your needs, that is efficient. These are prerequisites and this is something that we lacked today.



Arne ANSPER CTO Cybernetica

### **The Rome Consensus**





#### Where we stand

### ACKNOWLEDGING THREATS AND SHORTCOMINGS OF THE PAST

European freedom of action depends on this economic and digital sovereignty.

February 2020

### **Emmanuel MACRON**President of the French Republic



It is important to us that the global (digital) standards are set by Europe and not by other regions of the world.



### Ursula VON DER LEYEN President of the European Commission



We need a more ambitious regulation towards a fair competition in the digital market.

February 2020

**Olaf WSCHOLZ**Federal Chancellor
of Germany



There is today a new awareness on the way forward to a European Digital Sovereignty.

It is time to build a shared diagnostic and to think about the necessary action. Too much time has been lost and Europe is in danger of being constrained by the existing rival models: one is based on the privatization of data under the control of great corporations. The other relies on strong state control over data access and management. Neither of them alignes with Europe's values and core-beliefs, putting the citizen at the centre of all public action.



- **Europe has for too long let American and Chinese** competitors impose their models and their rules: three non-Europeans have together a 70% market share of the cloud market in Europe.
- Europe has been too slow and too late to build digital champions.
- **Europe has been too candid in the assessment** of essential data

and on its protection from cybercriminality and cyberwarfare. 28% of European SMEs have been victims of a cyberattack in 2021 (Eurobarometer)

Europe is the only global digital actor lacking a cloud regulation to this day,

weakening its stance in the international competition and threatening to let it become prey to foreign actors with first mover advantage.



The demand of citizens and consumers, the attention of the media and the mobilization of **industrial actors has been rising steadily**In France, 76% of people refuse to see their data hosted outside EU (IFOP survey, January 2021)

- There is also a new cultural environment gaining ground through the hardships of recent crisis management, for example through the Covid-19 crisis highlighting the crucial role of data in remote working.
- There is finally, and crucially, a new conflictual environment

imposed by growing external threats, shocks and rivalries. The war in Ukraine has reminded all Europeans that its security depended also on its cyberdefenses and its robust environment.



### There are new battles to be fought and Europe can win them



**Data sovereignty is within** reach through the development and promotion of trusted cloud solutions and the breakthroughs of the new regulations, especially with the Data Act.

Technological sovereignty must be pursued in parallel with a mid-term objective, facilitated by the European Union's shift towards investments really reflecting the level of political ambition.

> The battle for industrial data starts now, and the main battlefield will be Europe. Europe is the world's top industrial continent. We will organize ourselves to win this battle.





EU Commissioner for the Internal Market



**28%** of European SMEs

have been victims of a cyberattack in 2021.

**In France** 76% of people refuse to see their data hosted outside EU.

...new regulations with the Data Act.



### The "Rome Consensus":

### A values-based and citizen-centric approach to digital sovereignty

A broad and deep consensus has emerged amongst all entities involved in the dialogue on European Digital Sovereignty. It acknowledges above all its vital aspect for Europe's future, as a region free of its choices and of its destiny.



\*\* \* The 'Rome Consensus' is grounded in the shared principles and values of the European Union, that are also at the heart of Digital Sovereignty

- Digital Sovereignty will be the continuation of the core values of the European project of openness, transparency and free and fair competition.
- Digital Sovereignty will be achieved on the basis of the key of reversibility, portability, interoperability and open data.



### The 'Rome Consensus' takes root in a common commitment to Digital Sovereignty



#### We recognize and understand Digital Sovereignty

to be the capacity for all Europeans to regain control over their digital destiny. This means the protection and free use of their data guaranteed by freedom of choice within a regulated and transparent competition.



#### We are committed to the protection of data

as the key resource of a highly developed economic zone based on consumption patterns and intellectual property. This will represent a source for emancipation for citizens and an opportunity for European companies to grow and compete.



#### We are convinced that digital sovereignty needs to be seen as the convergence of data sovereignty and technological sovereignty.

Data sovereignty ensures the protection and security of data. Technological sovereignty allows one to master the whole chain of competencies, innovation and production necessary for the adequate infrastructures and products, without dependence on third party technologies.



#### We see it as a long-term strategy that defines a framework capable of evolving with the needs of Europe's knowledge economy and society,

as put forward in the Lisbon Strategy as early as 2000. We also see it as a shared strategy implying a deep and original public-private partnership approach.



### The 'Rome Consensus' converges on a distinctly European approach people-centered



### We put citizens first, as the ultimate owner of their

empowered by the use of their recognized digital rights, adopting in the online world the same principles as in the offline world.



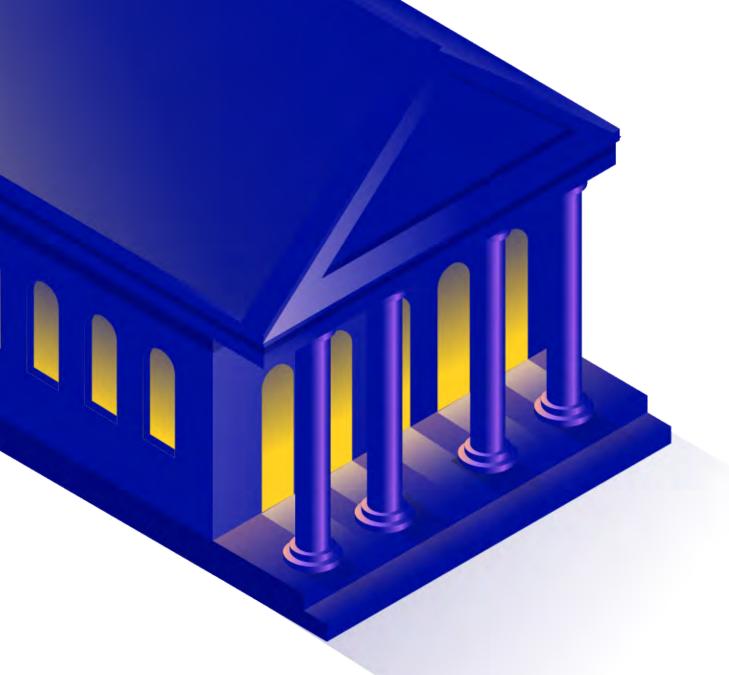
#### We believe in the necessity to have an approach based on the concrete needs of three types of players involved:

#### The users public or private, that need to keep full control and free use of their data

#### The industry

#### that must be able to offer trusted cloud services to users guaranteeing the safety of the solutions and the protection of the data

who need to guarantee freedom of choice and protection for users' data.



The Rome
Consensus
proposes a holistic
framework resting
on four pillars



#### I FIRST PILLAR

### **Rules&Regulations**

The objective is to build a shared, secured and principled environment with equal rules for all players. Implementation will need to be coherent and consistent in time, with regular adaptations to new evolutions.



#### **II SECOND PILLAR**

## Research & Development

The objective is to put Europe at the forefront of innovation and excellence, setting priorities for breakthrough techs and achieving technological sovereignty. The implementation will require long term financing and selection of projects as well as enhanced cooperation between private and public players.



#### **III THIRD PILLAR**

## Funding & Tenders

The objective is to materialize a truly European ecosystem of Digital Sovereignty, that will allow the emergence of global champions from Europe. Implementation should focus on public-private cooperation, public procurement rules and fair and free competition.



#### **IV FOURTH PILLAR**

# Training &Learning

The objective is to promote and widely share our people-centric and values-based approach. The implementation will require the constant and sustained communication, mobilization and awareness of all relevant entities.

### A vision for the future

### **European digital sovereignty** ten years from now



#### We envision a future in which the constant development of digital solutions will empower the citizen,

contribute to the energy transition and allow for more inclusive societies. All the breakthrough innovations that lie ahead of us rely massively on data management: autonomous vehicles, e-Health, Artificial Intelligence, cloud computing, the Internet of Things, smart cities, smart grids, green techs and quantum computing, in brief the whole Fourth Industrial Revolution will depend on a safe, open, transparent digital services, starting with cloud computing. An ethical cloud will be embedded in the community, taking into account sustainability, social responsibility in the countries of operation, compliance with the highest ethical standards.



#### We envision a future in which the economy of data will be a key dimension of the European economy and even more of its growth,

with potential access to important global markets. In line with the history of its economic and corporate endeavours, European digital companies will be able to offer state-of-the-art, efficient and original services all over the world.



#### We envision a future in which an independent and influential Europe

can rely with security and confidence on its model to maintain its freedom and independence in a conflictual world of global power rivalries, while promoting peace, dialogue and prosperity through its promotion of its digital sovereignty model abroad.

### Our goal:

# Making and continuing European history





#### A European Single Market for Data

Europe has built its peace and prosperity on the construction of an expanding and deepening Single Market allowing the people to grow together and share the dividends of cooperation.

The European Single Market for Data is the next step of this common enterprise, opening new virtual spaces to which the long-held principles of the Single Market can be extended and applied.



### The European Digital Way of Life

Europe has thrived since its first steps in 1951 on the defense of a specific European Way of Life, based on freedom and solidarities and rooted in a citizen-centric and values-based model.

The European Digital Way of Life, as expressed in the Declaration on Digital Rights, puts the European citizen in charge of his data, because he is in charge of his life: protecting and empowering all citizens, offering them opportunities and guarantees for the common good.



#### A Digital Green Deal

Facing the challenge of our century in the fight against climate change, Europe has taken the lead through exemplarity and initiative, as show in the Paris Accords of 2015.

The European Union has been committed to shift gear and accelerate through the New Green Deal. Digital responsibility allows exemplarity and efficiency in developing technologies that make it possible to limit energy use in the digital sector but also transversally.

# Switching to hyperspeed: three phases of acceleration towards digital sovereignty



# From here to there: a pledge for change

Continued energy, continued commitment and continued acceleration are the conditions to achieve a full-fledged data and technological sovereignty by 2030. Beyond the sense of consensus on the path we have to follow, we have all felt the urgency of stepping up our action, doubling down on past achievements and engaging in a new phase of the gradual acceleration. This is key to achieving a lasting, robust, internationally credible and self-sustained digital sovereignty. It's a race against time.



#### **PHASE 1**

**Next three months** 

The first phase of acceleration, in the short term of the next three months, continues and deepens the momentum and achievements of the French Presidency of the Council of the EU. Much has already been achieved in the past months to tackle the challenges of data sovereignty, more is currently in the process of negotiation, and parliamentary discussion, with hallmark legislation being pushed through the European Parliament. Even more needs to be done and programmed to prepare for the next steps.



#### PHASE 2

**Autumn 2022 - Summer 2023** 

In a second medium-term phase, will come the time for further acceleration, both in broadening and deepening public awareness and on defending new initiatives and gathering support around them.



#### PHASE 3

**Beyond mid-2023** 

In the long run, the EU and the member states will need to maintain their effort, mobilization, and coordination to allow the emergence of a self-sustaining ecosystem of digital sovereignty, with global influence.



### **Acceleration**

**PHASE 1** 



All stakeholders need to contribute, in their respective fields of action, to the coordinated and synchronized implementation of relevant initiatives. European institutions - the EU Commission, the Parliament, ENISA and the European Court of Justice – member states and national or regional regulators, industrial cooperation networks, specific industrial actors, universities and higher education institutions all have their own unique role to play to make Digital Sovereignty a reality. The toolbox is in the hands of these diverse, yet united actors to achieve this ambition.

### I. Rules&Regulations

- Adopting the **Digital Markets Act** to create a safer digital space in which the fundamental rights of all users are protected, guaranteeing a fair and competitive digital single market through ex ante regulation applicable to players in the sector.
- Adopting the **Digital Services Act** to establish a level playing field to foster innovation, growth, and competitiveness, both in the European Single Market and globally, by regulating platforms and gatekeepers to limit bottlenecks for European users.
- Adopting the **Declaration on Digital Rights and Principles** for a citizencentric digital transition shaped by European values, empowering people to enjoy the digital transformation and offering a clear reference point on Europe's digital transformation.
- Finalizing the consultations of the **EU Cloud Rule Book**, that must to become a reference tool on the rules applied to cloud services (regularly updated).
- Monitoring the implementation of the "cloud-at-the-center" strategy in France and promoting among EU states the experience of national certification schemes, the SecNumCloud certification update in France, C5 in Germany or AgID in Italy. They will allow users to identify the services guaranteeing the highest levels of security and immunity to extraterritorial laws depending on their needs.







### II. Research&Development

- Identifying through GAIA-X or the European Alliance for Cloud the niche sectors strongly linking research and training, for instance research centres, post-doctoral programmes, and PhD.
- Developing **open-source and interoperable technologies** reducing the carbon impact of the key projects to be supported.
- through the AI Act and the revision of the Energy Efficiency Directive.

  Accelerating the financing of projects selected within the Horizon Europe

Favouring research through better regulation, especially in Al and sustainability,

- Accelerating the financing of projects selected within the **Horizon Europe** research programme, endowed with almost 100 bn EUR to promote breakthrough innovation research until 2027, that are consistent with Digital Sovereignty to support the EU's competitiveness and growth.
- Creation of a large EU-wide research academic network in order to promote doctoral research on digital sovereignty-related issues and attracting European talents.

### III. Funding&Tenders

- Notifying and launching the projects within the Important Project of Common European Interest on Next Generation Cloud Infrastructure Services (IPCEICIS), to push forward innovation in Europe and the development of a European industrial ecosystem, through the creation of a multi-vendor cloud-edge continuum enabling data-driven innovative businesses.
- Accelerating the works of the **European Alliance for Industrial Data, Edge and Cloud**, making private players a major driver of the EU's thinking on digital sovereignty issues.
- Establishing a multiannual financial framework, including the Digital Europe programme, with red-tape simplification, to support investments in frontier technologies (i.e. Al, IoT, blockchain, high performance computing and quantum techs) and for advanced digital skills.
- Showing the example on a local basis to **facilitate procurement of digital services** by European companies to promote European alternatives, by putting forward sustainability and legal criteria (immunity level to extraterritorial laws).



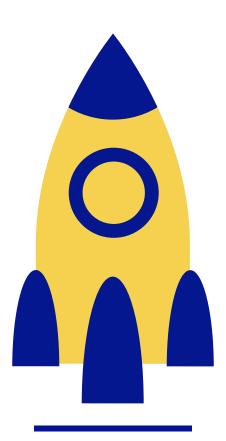




### IV. Education&Training



- Promoting national high-school programmes for education on data protection and cybersecurity awareness.
- Promoting **national high-school programmes** for sciences and applied sciences, with specific targets on rising the international TIMMS and PISA evaluation scores and on reaching ambitious levels of training of computer and data scientists and experts.
- Promoting the **use of open-source standards and software** that don't lock-in users within proprietary systems.









### Acceleration PHASE 2

# Speeding up the European alternatives

#### 10.22-07.2023

Research&Development, as well as competences and skills, will become even more central in this second phase. For this we need to extend its scope and engage in concrete partnerships to build on the existing assets of Europe's education system and industrial know-how. This happens at a time where other competing powers around the world are scaling up their technological research and production.

Yet efforts to complete and align the different regulations will also be a crucial aim in this phase. It's especially true of those aiming at restoring fair competition in the market, making data generated in Europe benefit the EU economy, and ensuring the highest level of protection in the digital world.

### I. Rules&Regulations

- **Enforcing the Digital Markets act,** which should ensure that all cloud services (IaaS, SaaS, PaaS) are properly integrated in ex ante regulation on anti-competitive practices.
- Negotiating an **EU/US Agreement on digital services and products** that respects and enshrines the EU-principles of data protection.
- Adopting the **Data Act**, which aims to regulate the use and portability of data and cloud services for business users with the aim of establishing more competitive markets. It also aims to speed up discussions to impose standards on cloud providers that allow for true interoperability, thus facilitating the migration from one cloud service to another and the emergence of the multicloud, to reduce digital dependencies.
- Publishing and promoting the **EU Cloud Rule Book to all users.**
- Protecting the infrastructures by enforcing the NIS2 Directive (Network and Information Security), in order to ensure a high level of cybersecurity in the EU, and adopting the Directive on the Resilience of Critical Entities based on the NIS2 Directive, which will extend the scope of the provisions governing critical infrastructure to so-called "essential" service infrastructures, including digital services.
- **■** Enforcing applicability of EU rules to non-European actors.
- Adopting the European Cybersecurity Certification Scheme for Cloud Services (EUCS) that will allow users to identify the cloud services guaranteeing the highest levels of security, data protection and immunity to extraterritorial laws.
- Creating European Data Spaces.

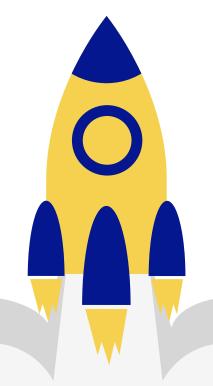




### II. Research&Development

- Adopting the **Chips Act** to ensure that the EU has the necessary tools, skills and technological capabilities to become a leader in this field, beyond research and technology in the design, manufacturing and packaging of advanced chips, to secure its supply of semiconductors and to reduce its dependencies.
- Promoting **ambitious national research programs** at member state level, through partnership between public and private labs, in order to identify breakthrough technologies in need of specific acceleration strategies.
- Implementing the Calls for Projects of the industry-oriented **Digital Europe**Programme in order to create an environment of growth and opportunity that can stimulate awareness to data safety issues among companies and consumers.
- Promoting the role of **GAIA-X** in the creation of federated services respecting the key principles of an open, transparent and sovereign cloud ecosystem in Europe.
- Applying the AI Act in order to promote European technological development in the sector.
- Revising the **Energy Efficiency Directive** to give the sector's players the visibility to adapt their business models, through ambitious and harmonized objectives.
- Developing the **European Cloud Alliance** initiated by the European Commission. The Alliance will help define roadmaps that will encourage secure, interoperable and energy-efficient technological solutions.







### III. Funding&Tenders



- Building the architecture for a **European DARPA** for breakthrough technological projects and putting Digital Sovereignty among the core ambitions of technological development in Europe, promoting a strategic, targeted and fast method of research financing, based on clear divisions of responsibility between the guidance of public decision-makers and the freedom of action and initiative of private research labs.
- Implementing the **Chips For Europe Initiative**, offering a new framework for supply chain security within the European Single Market, in order to tackle the geopolitical and Geoeconomics issues of supply chains.
- Promoting mechanisms similar to White Certificates on digital sovereignty to impulse corporate financing, in the service of EU players.

### IV. Education&Training

- Generalizing the training and awareness of Data Protection Officers (DPO) within internationalized SMEs.
- Setting up a **European Diversity, Equality and Inclusivity Charter** for higher education institutions and engineering schools, especially to foster gender equality.
- Favouring initial training in business schools and engineer curriculae in order to promote a European vision and comprehension of data security and data sovereignty.
- Creating training programmes for civil servants on the uses of data and the challenges of data sovereignty at state and the European Union level.
- Creating **European Centres of Excellence** in computer and data sciences bringing together the know-how of public, private and academic sectors, inspired by the experience of the CyberCampus in Paris.
- Creating common research programs with high-level partner countries, sharing common principles on Digital Sovereignty, as for instance the Republic of Korea or <u>Japan</u> to develop Europe's influence on global research.











### **Acceleration**

PHASE 3

# Turbocharging digital sovereignty in the long run

The marathon that is digital sovereignty will require long-term efforts and even need to increase its pace in order to complete a cooperative, innovative and protective environment of digital sovereignty on behalf of the EU citizens. It will be even more crucial to win the hearts and minds of European citizens, companies and civil societies to make digital sovereignty a concrete reality of everyday life and to educate younger generations to the need to protect their data

Long-term financing capacities and instruments will be crucial to allow a sustained effort, towards a technological sovereignty based on the control of the supply chain and several continent-wide champions in the field of data sovereignty.

### I. Rules&Regulations

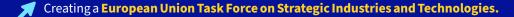
- Monitoring and adapting the **implementation of the DMA and DSA**, coherently with the evolutions of markets and technologies, ensuring the efficient enforcement of antitrust and antimonopoly rules.
- Implementing the Foreign Direct Investment screening mechanism of the European Union, with a special attention to extraterritoriality risks in cases of takeover initiatives of high-tech EU companies by foreign players, and to the harmonization of the member states' criteria.



- Adopting and initiating the implementation of the **Data Act**, to fill the regulation gap regarding cloud services in Europe, at a time when other major powers have clarified their framework on cloud services, jurisdiction and data access, focusing on the interoperability of switching and transfers, and enshrining the self-regulation principles of codes of conduct as SWIPO.
- Regularly **updating the EU Cloud Rule Book** with evolutions in regulation, technologies and markets.
- Fostering **open digital ecosystems** through ex ante rules creating a level playing field among companies, independently of their origin, to allow fair and free competition and facilitate the emergence of European alternatives.
- (MS) Coordinating the interpretation of GDPR rules in national (and infra-national) contexts and possibly initiating a review of the GDPR to enhance implementation and applicability.
- Extending the ENISA and National Certification Schemes processes to other non-public actors, depending on the criticality of data.



### II. Research&Development





- Discussing the basis and innovative mechanisms of a **new generation Horizon Europe** after 2027, avoiding bridging issues in project financing and dispersion of the allocation of resources.
- Applying the **CHIPS Act** in order to ensure a safe and resilient value chain in the key technologies.
- Defining three major priorities for **research in quantum computing**, **IA and edge**, in order to create levers for future European digital champions and reduce our dependencies through at least partial control of the value chains.
- Defining three major priorities for **research in quantum computing, AI and edge**, in order to create levers for future European digital champions and reduce our dependencies through at least partial control of the value chains. It will be important to guarantee their ethical development respecting European values.

### III. Funding&Tenders



- Initiating the discussions on the **next phase of the European Digital Strategy**, to anticipate opportunities and challenges beyond 2030 and adapt the necessary financial capacities.
- Assessing the first phases of **Scale Up Europe**, an initiative of 19 members states ambitioning to create 10 global digital champions from Europe valued above 100 bn Euros.
- Initiation of **Public Private Partnerships in data, AI and robotics** to finance longhaul breakthrough projects with impact on overall economies.



### IV. Education&Training



- **I** Educating the **public and businesses** on the need for high-level data security.
- Committing to **PhD and postdoc fellowships and recruitments programmes** from European universities and institutions.
- **■** Education programs in favour of **personal data protection and cybersecurity.**
- Integrating digital sovereignty as a specific item of **national security reviews**, including training of defence officials on relevant issues.
- Ensuring the **technological independence of schools and universities**, to diversify contact with technological cultures, favour open-source technologies and promote interoperability.

