

Digital sovereignty:

**LESS A MATTER OF DIGITAL DEPENDENCY
THAN A MATTER OF INDUSTRIAL PATH DEPENDENCY**

The digital sovereignty challenge

On the one hand:

- ✓ Deepening and widening of the EU technological gap
- ✓ From a sectoral dependency to
 - a cross-sectoral dependency
 - and now a geopolitical dependency

On the other hand:

- ✓ Refocusing and realigned industrial policy goals (compared with the Lisbon strategy):
 - Focus on Industry 4.0
- ✓ Industrial policy institutional framework:
 - unchanged
 - reinforced: further decentralized

Strengthening and governing the digital market

✓ Towards a unified digital market

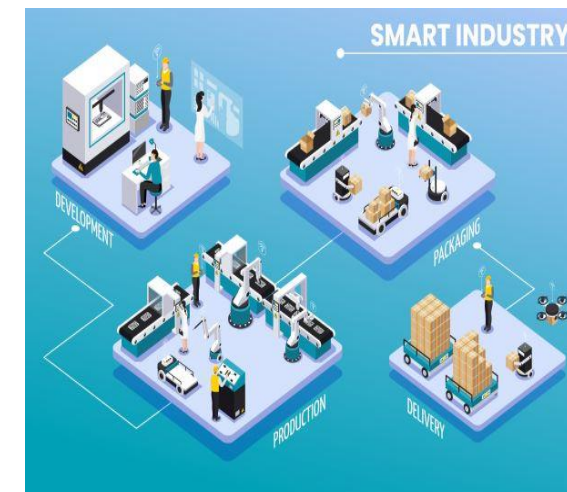
- Ensuring the free flow of digital services and data

✓ Ensuring the sovereignty of European industries operating with foreign technologies

- Regulating and streamlining the legal framework for data ownership, trade, access & use:
 - Consumer & industrial data confidentiality
 - Common data (open source)
 - Trade secrets (and underlying cybersecurity requirements)
 - Data rights and access (underlying intellectual property rights & consent requirements)
- Upholding governance projects such as Gaia-X (sovereignty into the cloud)

Strengthening and governing the single market

- ✓ Keeping control of the industrial value chain (DMA):
 - disciplining the « gatekeepers » or digital giants
 - Ensuring algorithm transparency
 - Ensuring data confidentiality
 - Alleviating rent-seeking behaviours
 - Alleviating the lock-In effects
 - Ensuring industrial data portability
 - Ensuring digital services' interoperability
 - Creating space for innovation



Coordinating national digital policy efforts

✓ A digital compass setting the objectives to be reached:

- Is it different from the Open Method of Coordination?
- Financial stimulus
 - Digital Europe Programme – DEP (€6.7 billion over 7 years)
 - Connecting Europe Facility 2.0 (CEF 2.0)
 - NextGenerationEU, access of which is conditioned to the national implementation of some key digital objectives

AREA	2030 TARGETS	BASELINE 2020
CONNECTIVITY	<ul style="list-style-type: none"> • All European households covered by a Gigabit network • All populated areas covered by 5G 	<ul style="list-style-type: none"> • Gigabit coverage: 59% • 5G coverage: 14% of the population
EDGE & CLOUD ²⁴	<ul style="list-style-type: none"> • 10,000 “climate neutral highly secure edge nodes” deployed in the EU • Distributed in a way that will guarantee access to data services with low latency of a few milliseconds “wherever businesses are located” 	<ul style="list-style-type: none"> • 0 edge nodes
SEMICONDUCTORS	<ul style="list-style-type: none"> • The production of “cutting-edge and sustainable semiconductors” in Europe, including processors, is at least 20% of world production in value 	<ul style="list-style-type: none"> • 10% of world value
QUANTUM COMPUTING	<ul style="list-style-type: none"> • 2025: first European quantum computer • To “pave the way for Europe to be at the cutting edge of quantum capabilities by 2030” 	<ul style="list-style-type: none"> • 1 quantum computer launched in June 2021 in Germany - built by IBM (US) and managed by Fraunhofer Gesellschaft (DE)²⁵
TAKE-UP OF DIGITAL TECHNOLOGIES	75% of European businesses to take up: <ul style="list-style-type: none"> • Cloud computing services • Big data • Artificial intelligence (AI) 	<ul style="list-style-type: none"> • Cloud computing services: 26% • Big data: 14% • AI: 25%

Coordinating national digital policy efforts

- ✓ Research & development programs to reach strategic autonomy in industry 4.0
 - Based on European co-funding (such as Horizon Europe)
 - EU Chip Act (for semiconductors)
 - EuroHPC (implementation of exascale computers)
 - Based on increasingly deregulated state aid programs:
 - IPCEI – Important Projects of Common Interest (on microelectronics, semiconductors)
 - EU Chip Act on the development of the development of Chip production capacities ('First of a kind' = state aid can reach 100%)

Exiting or managing the industrial path dependency?

- ✓ Policies characterized by a strengthened budgetary decentralization
 - Loosening of competition rules and state aid
 - Leading to potential further national rivalries and disparities
 - Technology-intensive economies versus lower-tech economies
 - Reliance upon NextGenerationEU: renationalization of industrial policy budget ?
 - 90% managed by Member States
 - Mutualisation of debts ≠ mutualization of spending
 - Spending remains in national hands (90% managed by Member States)
 - Under the supervision of the European Commission but with what enforcement power ?
 - Does not imply any European preference for procurement and investment

Exiting or managing the industrial path dependency?

✓ What exactly is strategic autonomy about ?

- Is it unilateralism if necessary? (and therefore, a freely chosen transatlantic relation for the EU?) or a transatlantic relation constrained by resilient dependencies?)
- What is the extent of EU's digital specialization strategy ?
 - Semiconductors: is it about producing the complete range of chips or is it about producing Industry 4.0 chips only?
- Is it about localizing production capacities or about mastering the technology?
 - Is it about entrusting IBM/Intel/HP with the development of European production capabilities?
 - Is it about boosting the development of OVH cloud services (FR, 1% of global market shares) against Microsoft and Amazon?