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PART 10/27

#### COMMISSION STAFF WORKING DOCUMENT

**Digital Decade 2025 country reports** 

Accompanying the document

Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee and the Committee of the Regions

State of the Digital Decade 2025: Keep building the EU's sovereignty and digital future

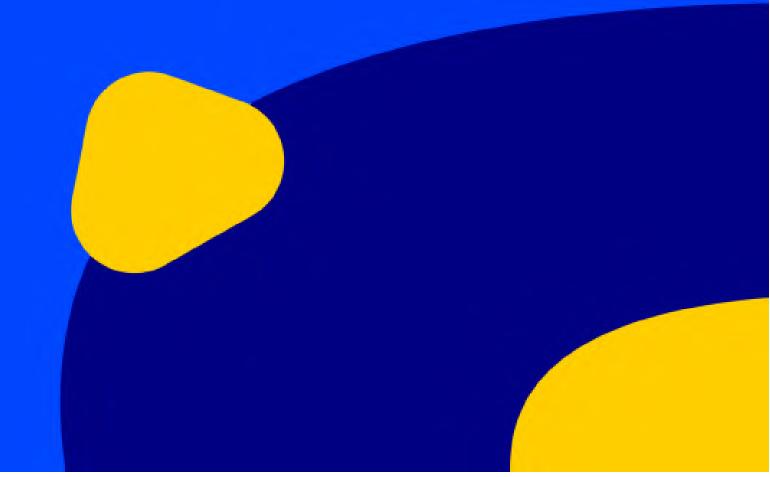
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# **DIGITAL DECADE 2025**COUNTRY REPORTS

**France** 



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### **Executive summary**

France can rely on a very good digital infrastructure but lags behind in the digitalisation of businesses. The country positions itself as a tech leader in AI and green ICT.

France shows a high level of ambition in its contribution to the Digital Decade having set 9 national targets, 100% of which aligned with the EU 2030 targets. The country is following its trajectories moderately well with 50% of them being on track (considering 2024 trajectories defined for 6 KPIs out of 8 analysed). France addressed 77% of the 13 recommendations issued by the Commission in 2024, either by implementing significant policy changes (54%) or making some changes (23%) through new measures.

In 2024, fibre and 5G coverage in France is high despite a large territory. The digitalisation of SMEs and the adoption of advanced digital technologies by businesses remains below average. Recent activities, such as hosting the AI Action Summit in 2025, confirm that France wants to position itself as a leader in AI. The country is also developing initiatives and standards to measure and reduce the environmental footprint of the ICT sector. France's digital policies increasingly emphasise sovereignty by, for example, developing its national production of semiconductors and fostering the adoption of sovereign EU and French solutions by businesses and the public administration. France has set out a very broad portfolio of actions to raise awareness of cyberthreats in all sectors (enterprises, administration, general public) but has also provided support in implementing cybersecurity strategies, especially in the healthcare sector.

	France				EU		Digital Decade target by 2030	
Digital Decade KPI <sup>(1)</sup>	DESI 2024 (year 2023)	DESI 2025 (year 2024)	Annual progress	National trajectory 2024 (3)	DESI 2025	Annual progress	FR	EU
Fixed Very High Capacity Network (VHCN) coverage	81.4%	87.5%	7.5%	90.7%	82.5%	4.9%	100.0%	100%
Fibre to the Premises (FTTP) coverage	81.4%	87.5%	7.5%	-	69.2%	8.4%	-	-
Overall 5G coverage	90.9%	94.3%	3.8%	96.6%	94.3%	5.9%	100.0%	100%
Edge Nodes (estimate)	272	532	95.6%	-	2257	90.5%	-	10000
SMEs with at least a basic level of digital intensity (2)	-	68.5%	3.8%	-	72.9%	2.8%	90.0%	90%
Cloud	23.0%	-	-	-	-	-	-	75%
Artificial Intelligence	5.9%	9.9%	68.5%	-	13.5%	67.2%	-	75%
Data analytics	33.9%	-	-	-	-	-	-	75%
Al or Cloud or Data analytics	44.9%	-	-	-	-	-	65.0%	75%
Unicorns	43	48	11.6%	49	286	4.4%	100	500
At least basic digital skills	59.7%	-	-	-	-	-	80.0%	80%
ICT specialists	4.7%	4.8%	2.1%	5.5%	5.0%	4.2%	10.0%	~10%
e-ID scheme notification		Yes						
Digital public services for citizens	72.1	71.2	-1.2%	76.1	82.3	3.6%	100.0	100
Digital public services for businesses	79.3	76.9	-3.0%	82.3	86.2	0.9%	100.0	100
Access to e-Health records	79.3	84.2	6.2%	82.2	82.7	4.5%	100.0	100

<sup>(1)</sup> See the methodological note for the description of the indicators and other metrics

<sup>(2)</sup> DESI 2025 reports the version 4 of the Digital Intensity Index, that is comparable with the DII value from DESI 2023 (referring to year 2022) for the calculation of the annual progress. It is not comparable to the national trajectory that is based on version 3 of the index.

<sup>(3)</sup> National trajectory value if present in the national roadmap and if the indicator was measured in DESI2025 (year 2024)

According to the special Eurobarometer on 'the Digital Decade' 2025, 65% of French people consider that the digitalisation of daily public and private services is making their lives easier. On the action of the public authorities, 89% consider it important to counter and mitigate the issue of fake news and disinformation online. And on competitiveness, 82% consider it important to ensure that European companies can grow and become 'European Champions' capable of competing globally.

#### A competitive, sovereign, and resilient EU based on technological leadership

Digital infrastructure indicators (very high capacity networks (VHCNs), fibre to the premises (FTTP), 5G) are all above the EU average thanks to effective public policies (plan *'France très haut débit'*, multiple service providers sharing a fibre network). However, the digitalisation of enterprises, especially SMEs, is still lagging. Nonetheless, France has demonstrated leadership in AI and can count on a dynamic start-up ecosystem in this sector and in quantum computing. The country has adjusted its roadmap with additional measures to foster the adoption of generative AI and retrieval-augmented generation technologies by businesses. However, the take-up of advanced digital technologies by businesses is below average. France promotes cyber awareness on all fronts: businesses, population, and administration. The updated roadmap includes a programme for cyber protection of healthcare facilities. The roadmap also includes massive investments in semiconductors (research and production).

#### Protecting and empowering EU people and society

France's digital skills performance reflects inclusive growth across genders and a small urban-rural skills gap, but some disparities persist based on people's education levels. The general population's poor performance in mathematics may limit the pursuit of science, technology, engineering and mathematics (STEM) and ICT specialist training and careers as these skills shortages are persistent. Public service digitalisation is losing ground compared to the EU average. In this area, the authorities are focussing on reducing the administrative burden (dematerialisation – replacing physical documents, processes and transactions with digital equivalents, 'once only' principle). They are also promoting the adoption of sovereign solutions, including cloud, open software, and specialised skills within the administration. On a positive note, the digitalisation of healthcare has made impressive progress in the past two years.

#### Leveraging digital transformation for a smart greening

France is a global leader in monitoring and reducing the environmental impact of its ICT sector. It has developed tools to measure, forecast and monitor the ICT sector's footprint (such as designing carbon reduction trajectories) and plays a key role in green initiatives within the Digital Decade's Best Practice Accelerator.

#### National digital decade strategic roadmap

France submitted a fully revised national Digital Decade roadmap on 3 February 2025, containing six additional measures and revised trajectories. The updates are aligned with the Commission's new priorities on AI, cybersecurity and green ICT. It includes reporting on the consultation of stakeholders. It addresses a substantial number of roadmap recommendations issued in 2024. All targets align with the EU level goals for 2030 (except for the combined indicator on the adoption of AI, cloud, and data analytics technologies where the country aims at 65%, below the EU target of 75%). The revised roadmap continues to prioritise semiconductors, connectivity, and e-Health. It contains of 33

measures with a budget of EUR 18.6 billion, including EUR 11.1 billion from the public budget (equivalent to 0.38% of GDP). It covers all the Digital Decade objectives, such as creating a human-centred digital space, boosting resilience and security, promoting sovereignty, supporting the green transition, and protecting society.

#### Funding & projects for digital

France allocates 22% of its total recovery and resilience plan to digital (EUR 8.1 billion)<sup>1</sup>. In addition, under cohesion policy, EUR 1.9 billion, representing 11% of the country's total cohesion policy funding, is dedicated to advancing France's digital transformation<sup>2</sup>.

France is the host Member State of the Alliance for Language Technologies EDIC (ALT-EDIC). France is also a member of the Local Digital Twins towards CitiVERSE EDIC. The country is directly participating in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT) and in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS). France is also a participating state of the EuroHPC Joint Undertaking (JU) and of the Chips JU.

France has contributed to the Best Practice Accelerator<sup>3</sup> by leading the cluster on Green IT related to public policies on the environmental transition of digital technology. It shared three best practices within this cluster (the general reference framework for the eco-design of digital services, the Alt IMPACT Communication Campaign, and the development of product category rules for environmental evaluation and labelling) and one additional best practice in the Digital Skills cluster (digital advisors).

#### Digital rights and principles

According to a support study, France has been relatively active in implementing the <u>European Declaration on Digital Rights and Principles</u>, with 53 initiatives overall but no new initiatives launched in 2024. France is most active in the area of participation in the digital public space. Less activity has been identified with regards to digital public services online. Measures in the area of putting people at the centre of the digital transformation appear to have most impact on the ground, in contrast to those addressing safety, security and empowerment.

#### **Recommendations**

- **SMEs**: Improve digitalisation of SMEs, including by directing existing support schemes to SMEs that lag in digitalisation, independently of their size.
- **ICT specialists and advanced skills**: Increase the job market relevance, improve the visibility, and clarify the offer of digital training and reskilling options.
- Advanced technologies take-up: Support the adoption of advanced digital technologies by businesses (with a particular attention to AI and cloud) via the creation of local ecosystems to

<sup>&</sup>lt;sup>1</sup> The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 16 May 2025.

<sup>&</sup>lt;sup>2</sup> This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

<sup>&</sup>lt;sup>3</sup> The Best Practice Accelerator (BPA) is a platform that enables Member States to share successful measures and challenges encountered in their efforts to meet their Digital Decade targets and objectives. Best practices are made available to Member States via the BPA Repository and showcased in regular workshops, currently focused on three thematic clusters: Digital Skills, Green IT, and the Uptake of Digital Technologies.

- spread technologies and best practices across all economic sectors. Encourage the adoption of sovereign European solutions.
- **Artificial intelligence**: Continue supporting innovation in AI to strengthen France's leadership in the sector and create future global leader companies.
- **Cybersecurity**: Continue efforts in cybersecurity to address evolving threats, particularly for enterprises and administration.
- **Digital public services**: Speed up the digitalisation of public services for both citizen and businesses, in particular by expanding cross-border capabilities.

## A competitive, sovereign and resilient EU based on technological leadership

France's digital competitiveness has been a key focus for policymakers, aiming to position the country as a global leader in the tech landscape. In recent years, significant progress has been made, with growing investments in start-ups, a vibrant tech ecosystem in hubs like Paris, and advances in AI, cybersecurity, and cloud computing. The long-term investment plan, France 2030, with a budget of EUR 54 billion, is pivotal in developing cutting-edge digital technologies such as AI, quantum and cybersecurity. However, recent political instabilities and budget arbitrage are putting this progress at risk, potentially undermining the momentum achieved so far. Reduced funding for digital transformation, infrastructure, and innovation initiatives risks slowing France's ability to compete with other countries. Economic and political visibility is paramount for companies to anticipate and plan their investments.

In France, enterprises' demographic characteristics may account for some of the challenges in adopting digital technologies. SMEs account for approximately 96.8% of the enterprises with more than 10 employees, while large enterprises made up only 3.2%. The French ICT sector represented 4.36% of the gross value added in 2022 <sup>4.</sup> It was then equal to the 2017 value and was lower than the EU average of 5.46%, pointing to an overall underdevelopment. R&D in the ICT sector represented 16.79% of total R&D expenditure by businesses and 22.42% of total R&D personnel.

French digital infrastructures are a significant asset. Despite its expansive territory, France is leading the way in the deployment of Fibre and 5G. The 'symmetrical framework' for the deployment of Fibre played a major role in achieving extensive coverage. This framework aims to ensure fair competition between operators while optimising costs and infrastructure works. According to the 2025 Eurobarometer<sup>5</sup>, 83% of French people think that building efficient and secure digital infrastructures and data processing facilities should be a priority for the public authorities.

France ambitions to be a leader in the AI race. In 2024 and 2025, the country multiplied the initiatives to support and promote its AI ecosystem. Beside a sustained support to investment in all dimensions of AI (infrastructures, adoption by businesses, innovation, skills, ...) from France 2030, Paris hosted the AI Action Summit in February 2025. The event brought together heads of state, leaders of international organisations, CEOs, academics, and civil society representatives to discuss and promote the responsible development and use of AI. In the new government formations, the post of Minister of Digital now mentions specifically AI: 'Minister Delegate responsible for Artificial Intelligence and Digital Technology'.

Sovereignty has become a fundamental issue in all digital initiatives. France is involved in European workstreams aimed at creating sovereign digital tools, with European partners, such as the work carried out on data spaces, or the multilateral cooperation initiated around the construction of sovereign digital suites (Digital Workspaces) based on common open-source technological building blocks.

<sup>&</sup>lt;sup>4</sup> Most of the indicators mentioned in the country report are explained in the DESI 2025 Methodological Note accompanying the State of the Digital Decade report 2025

<sup>&</sup>lt;sup>5</sup> Special Eurobarometer 566 on 'the Digital Decade' 2025: <a href="https://digital-strategy.ec.europa.eu/en/news-redirect/883227">https://digital-strategy.ec.europa.eu/en/news-redirect/883227</a>

#### Building technological leadership: digital infrastructure and technologies

France is very active in the roll-out of connectivity infrastructures. Both Fibre and 5G networks are expected to reach 100% coverage well before 2030, narrowing the geographical divides in a large territory with sizeable rural areas.

#### Connectivity infrastructure

France is at 87.47% of Very-High-Capacity Networks (VHCN) coverage (2030 national target 100%) after a progression of +7.5% in 2024, and standings above the EU average of 82.49%. The country is on track according to its national trajectory. The growth rate of 7.5% from 2023 outperforms the EU's 4.9%. For households in rural areas, France's VHCN coverage was 78.12% in 2024, above the EU's 61.89%. The growth rate for this category was 20.9%, surpassing again the EU's rate of 11.3%.

France is at 87.47% of Fibre-To-The-Premises (FTTP) coverage (2030 national target 100%) after a progression of +7.5% in 2024, far exceeding the EU average of 69.24%. France also outpaced the EU in term of FTTP coverage but with a growth rate of 7.5%, falling lower than the EU's rate of 8.4% that can be explained by France reaching full coverage. For households in sparsely populated areas, France's FTTP coverage was 78.12% in 2024, above the EU's 58.78%. The growth rate for these areas was 20.9%, outperforming the EU's 11.9%. The country did not provide a national trajectory for 2024 but it is assumed to be identical to the VHCN trajectory.

France is at 94.34% of 5G coverage (2030 national target 100%) after a progression of +3.8% in 2024, standing around the EU average of 94.35%. The country is on track according to its national trajectory. France's growth rate of 3.8% was however lower than the EU's 6.0%. For households in rural areas, France's 5G coverage was 77.86% in 2024, below the EU's 79.57%. The growth rate for this category was 6.0%, half of the EU's 11.9%. France's 5G coverage in the 3.4-3.8 GHz band was 73.98% in 2024, higher than the EU's 67.72%. However, France's growth rate of 11.7% was significantly lower than the EU's 32.6%. Regarding 5G spectrum, France's assignment of harmonised spectrum in 5G pioneer bands was 59.17% in 2025 (same value as last year), below the EU's 74.63%.

In France, fixed broadband take-up indicators are excellent while the mobile ones are below the EU average. In 2023, 65.39% of fixed broadband subscriptions in France were at speeds of 100 Mbps or higher, slightly below the EU's 65.9%. However, by 2024, France's share increased to 74.11%, surpassing the EU's 71.88%. The growth rate for this indicator in France was 13.3%, outperforming the EU's 9.1%. In France, fixed broadband subscriptions at speeds >1 Gbps are the highest in the EU. In 2024, France's share reached 58.92%, while the EU's was 22.25%. However, France's annual growth rate of 14.3% lagged behind the EU's 20.5%. The share of the population using 5G SIM cards in France was 15.28% in 2023, lower than the EU's 21.7%. By 2024, this share increased to 27.03%, still below the EU's 35.56%. But France's growth rate in this area was 76.9%, outperforming the EU's 63.9%.

#### **VHCN** and FTTP

**France's VHCN** and **FTTP** targets remain at **100%** with a completion date by **2025**, as set out in the **2023** roadmap. Given these solid figures and the pace of roll-out, both targets seem realistic. It is therefore justified that the current strategy, the plan *'France Très Haut Débit'*, remains the main measure in place and that no new supporting measures were submitted along with the roadmap adjustment. The last connections, the most difficult to complete, will be incentivised by an on-demand mechanism.

In 2025, France started to close its copper network. Incumbent operator Orange started the shutdown by batches of municipalities and the process will take place across the entire territory until 2030. On 31 January 2025, the first batch of 162 municipalities saw its copper network shutdown. The 210 000 people concerned by this shutdown were given support to transition to Fibre. Across the country, a massive migration to Fibre subscriptions can be observed (more than 60% of population), made possible by the widespread availability of the service.

The mutualisation of the Fibre networks encourages competition between operators. By the end of 2024, 90% of the 39.3 million existing Fibre lines were covered by the four main operators. It also allows quick migration to Fibre subscriptions, which now represents around 73% of the total internet subscriptions. However, for 2024, although final data are not yet available, analyses suggest a downward trend in investments, which amounted to 13.7 bn in 2023.

With multiple sea fronts and outermost regions, submarine cables are major digital infrastructures to ensure security and sovereignty of France and the EU. Recent developments demonstrated that submarine cables are pivotal in ensuring digital security and sovereignty. Securing the submarine network requires deploying alternative routes and laying redundant cables. These projects are supported by the public sector. In outermost regions, these projects are not often economically viable, which makes European funding an effective way to fill market gaps. To secure this strategic market of building and laying submarine cables, the French State became the major shareholder in the cable making company Alcatel Submarine Networks (ASN) in 2024. As an example of EU funded project, the MEDUSA project involves installing a state-of-the-art, high-capacity fibre-optic submarine cable connecting five EU Mediterranean countries (Cyprus, Spain, France, Italy and Portugal) to four countries in the EU's southern neighbourhood (Algeria, Egypt, Morocco and Tunisia). The PISCES subsea cable system (funded by the Connecting Europe Facility) links the transatlantic and other international cable systems landing in Ireland, France, Spain and Portugal, and will allow for capacity interconnection on these systems. The **CELIA** project aims to build a state-of-the-art submarine cable to improve the connectivity conditions of two French and Dutch Caribbean islands, Martinique and Aruba respectively.

5G

**Following the roadmap adjustment, France's 5G target remains at 100% by 2030**. Given the solid figures and the pace of roll-out, the target seems realistic.

The four operators sustain the deployment of 5G sites. All operators are present in the 3.5 GHz band but follow different strategies in the 700-800 MHz and 1.8-2.1 GHz bands. However, only 59.17% of the 5G pioneer bands are assigned, against 74.63% at the EU level. There is still no commercial demand for the 26 GHz band.

**2024** recommendation on connectivity infrastructure: Ensure sufficient access of new players to spectrum for innovative business-to-business (B2B) and business-to-consumer (B2C) applications and encourage operators to speed up the deployment of 5G stand-alone core networks.

France made efforts to address the recommendation through new policy actions in 2024. The four main operators activated 5G stand-alone in their core networks in 2024. For innovative applications, 26 GHz frequency were attributed to '5G open experimenting platforms', with examples from port of Le Havre for logistical applications, Rennes train station for travellers and internal uses at the

#### <u>France</u>

technical centre, the St Quentin-en-Yvelines velodrome for needs related to events. In addition, the 3.8-4.0 GHz band frequencies have been the subject of more than a hundred requests to experiment with the technology and use cases for a wide variety of economic and geographic sectors.

#### Semiconductors

Semiconductors remain a clear priority highlighted in France's roadmap and the long-term investment strategy, France 2030. While no new measures were presented in the roadmap adjustment this year, the original roadmap already provided for a sizeable support of more than EUR 12 billion to the sector. The blend of measures aims at encouraging the building of semiconductor production capacities in France, supporting innovation and first industrialisation projects, and upscaling the production toward high-end 'chips for AI' to compete against big players from the US and China.

France's efforts in semiconductor production will strengthen the EU's sovereignty and ensure a secure supply. One key example is the semiconductor mega factory in Crolles, which began operations in 2023. Once it will reach full capacity by 2028, it could increase the EU's semiconductor production by nearly 6%. In addition, as part of the France 2030 investment plan, the French government has established a 'Critical Metals Fund' with EUR 500 million. This fund aims to support projects across the entire value chain of essential metals like lithium, nickel, and cobalt.

#### Edge nodes

According to the Edge Node Observatory, France is estimated to have deployed a total of 532 edge nodes by 2024, a progression of +95.6% since 2023. This is almost doubling (+260 edge node) the amount estimated for 2023 (272, number revised since State of the Digital Decare report (SDDR) 2024).

**2024 recommendation on edge nodes**: Consider measures specific to edge nodes deployment, supplementary to the IPCEI-CIS participation.

In 2024, France continued the implementation of existing measures but did not take any new measure. Beyond the IPCEI-CIS, the main national instrument for edge nodes deployment is the Cloud Acceleration Strategy backed by EUR 550 million, partly funded by the RRF and part of the 2023 roadmap. It supports innovation in cloud and edge services while financing early-stage research in resource organisation and optimisation.

#### Quantum technologies

France is a global leader in quantum technologies. The main public support is the national Quantum Strategy for 2030 fostering the development of the large-scale fault tolerant quantum computer (LSQ), of simulators and accelerators of the noisy intermediate scale quantum computer, and of enabling technologies. The target is to produce a LSQ before 2030. France has all the ammunition to compete in the quantum field against other superpowers: access to secure infrastructures, high public investment, leading quantum start-ups (e.g. Quandela, Pasqal, Alice & Bob, C12, Quobly), and a pool of qualified engineers and mathematicians. No additional public measures were presented in the adjusted roadmap.

#### Supporting EU-wide digital ecosystems and scaling up innovative enterprises

France is home of cutting-edge start-ups in AI but the bulk of enterprises are not digitalised sufficiently. By improving the digitalisation of its businesses, France could boost its competitiveness. Indeed, expanding the spread of ICT knowledge and technologies, especially among SMEs, could address one of the weaknesses weighing on total factor productivity of the country.

#### SMEs with at least basic digital intensity

In France, 68.45% of SMEs (10 to 259 employees) showed at least a basic level of digital intensity (2030 national target 90%) after a progression of +3.8% annually between 2022 and 2024, standing below the EU average of 72.91%. The digitalisation of French SMEs is showing a positive trend but still lag behind its EU peers. Looking specifically at top digitalised SMEs, only 21.59% of SMEs in France reached high or very high digital intensity, falling significantly short of the EU average of 32.66%. Overall, France has shown progress, but room for improvement continues to exist in the digital intensity of its SMEs, particularly in terms of advanced digital intensity.

The annual France Num barometer, measuring the perception and usage of digital by SMEs and very small enterprises showed in 2024 that digitalisation is gaining traction. Several metrics are on the rise: 77% of executives surveyed believe that digital technology facilitates communication with customers (+3pp compared to 2023), 42% believe that digital technology allows them to make money (+3pp). The main barrier to digitalisation concerns the need for extra capacities and skills for mastering new technologies. The apparent simplicity of generative AI (spoken language) still appears complex for small structures to implement.

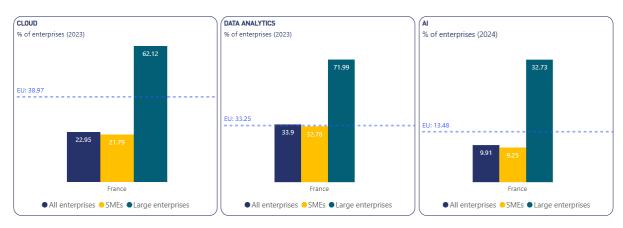
France still aims at 90% of SMEs with basic digital intensity, in line with the EU target for 2030. However, given the current levels and growth metrics, it is unlikely that the target will be reached. Moreover, no new measure targeted specifically to SMEs were presented in the adjusted roadmap. France Num remains the main tool targeting SMEs. But with a focus on enterprises with less than 10 employees, the results of this instrument are hardly captured by the Digital Decade key performance indicator (KPI) which focuses on enterprises 10-249 employees. Recently, France Num has undergone a few improvements such as more targeted actions at the local level, the dissemination of use-case by peers or the Tour France Num to raise awareness of the potential of digital technology.

**2024 recommendation on digitalisation of SMEs**: Set up additional measures and increase resources for existing schemes to improve the SMEs digitalisation performance and to further leverage the impact of the European Digital Innovation Hub in regions and its close presence to regional ecosystems, paying special attention to its outermost regions.

France made some efforts to address the recommendation through new policy actions in 2024. To tackle the low digitalisation level of SMEs, France will leverage the adoption of technologies such as AI and cloud (see dedicated sections). The scheme France Num (targeted at SMEs and VSEs) is in place since 2018 but did not recently benefit from major changes in scope or in resources. For EDIHs, see below.

In 2024, 16 EDIHs started in France, mainly centred around AI. Already 860 digital maturity assessment diagnostics were performed by enterprises. Several EDIHs have partnerships with other Member States. The participants however warn of the need for more communication around these initiatives.

#### Take up of cloud/AI/data analytics



According to new data collected in 2024, 9.91% of French enterprises adopted AI after a progression of +68.5% in a year, but still stands below the EU average. About 1 out of 10 enterprises in France were employing AI technology, falling behind the EU average of 13.48%. Nonetheless, France experienced a similar growth rate from 2023 (+68.5%) as the corresponding EU-level growth rate (+67.2%). More specifically, SMEs had an AI uptake rate of 9.25%, whereas large enterprises demonstrated a higher rate of 32.74%. This resulted in a gap of 23.49 pp. between SMEs and large enterprises, which was lower than the EU gap of 28.53 pp. The country did not provide a national trajectory point for 2024 as it only submitted a trajectory for the KPI on the three technologies (AI, cloud, data analytics) combined.

Adoption of cloud, data analytics, and the three technologies together were not measured in 2024.

In 2023, only 22.95% of French enterprises adopted cloud technologies, considerably lower than the EU average of 38.97%. Moreover, SMEs exhibited a lower adoption rate of 21.79%, whereas 62.12% of large enterprises used advanced cloud services. This resulted in a gap of 40.33 pp. in uptake between SMEs and large enterprises in France, higher than the EU-level gap of 31.68 pp.

Data from 2023 showed that, 33.90% of French enterprises adopted data analytics technologies, in the EU average of 33.25%. More specifically, 32.78% of SMEs adopted data analytics, while the uptake was considerably higher among large enterprises at 71.99%. This led to a difference of 39.21 pp. in engagement between SMEs and large enterprises, aligning with the EU gap.

When taking the three technologies together in 2023, 44.86% of enterprises in France engaged with either AI, cloud, or data analytics technologies (2030 national target of 65%), considerably below the EU average of 54.70%. More specifically, the uptake among SMEs was slightly lower than the national average, at 43.73%, while large enterprises had a markedly higher rate of 83.21%. This indicates a difference of 39.48 pp. in uptake between SMEs and large enterprises in France, which is higher than the EU-level gap of 32.97 pp.

In conclusion, France displayed lower adoption rates of cloud computing and AI technologies among enterprises with 10 or more employees compared to EU averages. On the other hand, adoption of data analytics was slightly higher. Large enterprises consistently reported significantly higher adoption levels across all technologies compared to SMEs. Despite SMEs representing most enterprises in France, their contribution to economic value added remains substantially lower than that of large enterprises. These findings highlight the need for targeted measures to bridge the digitalisation gap and enhance the competitiveness of SMEs.

In its adjusted roadmap, France revised downward its ambition for 2030 with an adoption rate of technologies by enterprises of 65%, potentially jeopardising the EU-level goal. The adjustment does not contain a breakdown per technology anymore but instead presents a single trajectory for the indicators of the three technologies combined (adoption of either cloud or data analytics or AI). The new target is 65% by 2030, lower than the EU-level target of 75%. This decision will have considerable impact on the overall EU performance given the size of the French economy, which hosts almost 12% of European enterprises. In term of achievability of the national target, France chooses mainly to leverage the adoption of AI by all enterprises. Past and new measures might boost the take up of AI by all enterprises, including SMEs which could also influence positively the basic digital intensity of SMEs.

#### • Cloud

The strategy 'Cloud de confiance' ('Trusted cloud') should contribute to the deployment of sovereign cloud solutions. It aims to strengthen France's technological independence by supporting national and European cloud players. This includes initiatives to develop competitive and innovative offers. Increasing trust in the cloud technologies could foster the adoption of such services by enterprises and administrations and decrease dependency to foreign solutions.

#### • Data Analytics

No new development relevant for the 2025 Digital Decade report.

#### • Artificial Intelligence

Al is France's main priority as far as digital technologies are concerned. The national Al strategy, hosting the Al Action Summit, and new measures in the national roadmap adjustment confirm that Al is of utmost importance in the public policies. In 2024, France developed ecosystems for Al take up, placing the State as a trusted third party to showcase Al technologies and facilitate their adoption. Adoption guides (including regulatory topics) will be published to share trusted information on Al technologies and present profitable business cases. In May 2024, the President announced nine new awards of the call for expressions of interest 'Al clusters', centres of excellence in research and training in Al, supported by EUR 360 million from France 2030. Also in 2024, the call for projects Acceleration of the uses of generative Al in the economy was launched and should boost the use of Al by businesses. The 2025 Eurobarometer shows that 79% of French people think that public authorities should prioritise shaping the development of Artificial Intelligence and other digital technologies to ensure that they respect our rights and values. It represents a big increase of 9 percentage points compared to last year, reflecting the growing interest of the citizens at this respect.

France added two new measures on AI in its adjusted roadmap that should foster the adoption of AI technologies.

- Call for projects 'Accelerating the uses of generative AI in the economy' of the France 2030 plan. The call for projects aims to support the development of specialised generative AI solutions for specific use cases, by bringing together technological players and end users for quick adoption. This mechanism is the follow-up of the Digital Commons of Generative AI programme, which aimed to create fundamental technological bricks in open source and to demonstrate the profitability and replicability of generative AI technologies in various economic sectors. Successful bidders should be decided in 2025.
- Guide for the adoption of retrieval-augmented generation (RAG) technology for businesses.
   RAG is a generative AI technology that allows models to be specialised with enterprise data

without retraining, offering simplicity and accessibility for various applications. The Directorate-General for Enterprises published a practical guide in November 2024 to encourage the adoption of RAG, detailing relevant use cases, prerequisites, costs and technological choices, in order to help companies and regional administrations integrate this technology.

**2024 recommendation on AI:** (i) Review the mix of measures to support the adoption of advanced digital technologies (with a particular attention to AI and cloud). (ii) Foster the creation of local ecosystems to allow technologies (AI, cloud, data analytics) and best practices to diffuse across the broader business sector. Build on the recent national AI Commission report to design new measures to develop the AI ecosystem and foster related technologies adoption by enterprises.

**France addressed fully the recommendation by putting significant policy actions into place in 2024.** France has added two new measures in its adjusted roadmap to support the adoption of AI by enterprises. The country also follows an approach of local ecosystems for adoption and dissemination of AI technologies. France also hosted the AI Action Summit in 2025.

Paris hosted the <u>Al Action Summit</u> in February 2025 and will host an EU Al factory. The EU announced investing EUR 200 billion for the development of Al gigafactories and data centres, including <u>one site in France</u> (Al Factory France, Al2F). The funding will come mainly from the private sector: EUR 150 billion will be financed by the European Al Champions Initiative alliance, and the remaining EUR 50 billion by the EU. Also, at the end of the summit, around 60 countries have signed an agreement for an open, inclusive and ethical Al. The text also provides for a global dialogue, coordination for the governance of Al, and the signatories call for avoiding a market concentration and make these tools more accessible. Another axis cited as one of the priorities of this agreement is making Al sustainable for the people and the planet. The Summit was also the occasion for the French company Mistral Al to release its Generative Al application (Le Chat), as a direct contender to non-EU solutions such as ChatGPT or DeepSeek.

**Prior to the summit, the French President announced** EUR 109 billion of private investment in France **to develop AI**. Most of the funds should be earmarked for the construction of data centres. Among the investors, the United Arab Emirates plans to finance a giant data centre in France, with a computing capacity of up to 1GW, as part of the largest AI-focused campus in Europe. The Canadian fund Brookfield has also announced an investment of EUR 20 billion in France by 2030, including EUR 15 billion for new data centres.

#### Unicorns, scale-ups and start-ups

At the beginning of 2025, France had 48 unicorns (2030 national target of 100), which is 5 more than last year (+11.6%). In its adjusted roadmap, France confirms its ambitious goal of 100 unicorns by 2030. This will contribute greatly to achieving the EU-level target of 500 unicorns. The current trajectory will need to be sustained to reach that goal.

Thanks to a range of reforms, France has improved its business environment in recent years but lack of visibility weighs on investment decisions. Several reforms related to the business environment took place since 2017 (e.g. 'État au service d'une société de confiance' ESSOC, 'loi relative à la croissance et la transformation des entreprises' PACTE, 'loi d'accélération et de simplification de l'action publique' ASAP) and are yielding positive results. In 2024, fewer enterprises than in the rest of the EU found that regulations were a major obstacle to attracting investment (18% vs 22%). However, recent difficulties in establishing a stable government and passing the national budget has brought about uncertainty for businesses. The EY attractiveness barometer showed that half of business

managers consider that France's appeal has declined since June 2024 and, as a consequence, 49% of foreign investors have cut back on their investment plans in France.

**Despite economic uncertainties, start-ups employment remained dynamic in 2024.** After a slowdown in job growth between April and September 2024, the dynamic has been on the rise again. The slight recovery observed in October was confirmed in November. Overall, for 2024, French start-ups have generated more than 18 000 jobs, an increase of nearly 6% year-on-year. The Al sector had nearly 1 900 start-ups employing more than 50 000 people. These companies have benefited from nearly 90 fundraising rounds, representing EUR 1.7 billion.

**France is active in identifying legislative or regulatory obstacles encountered by the French tech ecosystem**. In 2017, a consultation called *'Tour des Start-ups'* brought out nearly 100 measures and led to the adoption of a series of simplification measures. Also, since 2022, the French Tech Mission has been providing legal support to Next40 companies (40 most promising young companies), by putting them in touch with the right contacts in public administrations and by assessing proposals that have positive consequences for the ecosystem. Start-ups are consulted when drafting legislation.

#### Strengthening Cybersecurity & Resilience

In France, about 3 out of 4 people have basic digital safety skills. 72.69% of individuals reported taking at least one action (see the 6 types of digital safety actions in the graph's legend) to protect their personal data online in 2023, slightly above the EU average of 69.55%. More specifically, 1 out of 2 (49.69%) individuals are considered as having above basic digital safety skills (i.e. engaging in 3 actions). The most common action taken by individuals was refusing the use of personal data for advertising purposes, with 55.82% of individuals taking this step, while reading privacy policy statements was the least frequent action, reported by only 20.45%.

French enterprises tend to experience less incidents related to cyberattacks but employees are less aware of their ICT security related obligations compared to the EU. The number of enterprises that experienced ICT security incidents leading to unavailability of ICT services due to attack from outside (e.g. Ransomware attacks, Denial of Service attacks) slightly increased in France, from 2.36% in 2022 to 2.73% in 2024. It remains below the EU average (3.43%). However, French enterprises are more prone to incidents related to hardware or software failures (21.40%) than their EU peers (17.97%). In terms of measures, 93.20% of enterprises deployed some ICT security measures (around the EU average of 92.76%) but only 48.13% of enterprises made their employees aware of their obligations in ICT security related issues, significantly below the EU average (59.97%).

France leads the EU in the roll-out of the secure Internet Protocol version 6 (IPv6) protocol for end users. Concerning



the deployment of <u>secure internet standards</u>, France leads the EU in the roll-out of IPv6 for the end users (65%, EU average: 36%) and is slightly above the EU average on the server side (23% vs 17% for the EU). IPv6 is an important protocol as it ensures the scalability, stability, and security of the Internet. The deployment of this new version is increasingly urgent, as traditional IPv4 addresses have been

long depleted. Domain Name System Security Extensions (DNSSEC) is also an important standard to be rolled-out as it introduces security features to the Domain Name System. In France, the DNSSEC validation rate (i.e. verification of the authenticity of responses sent by name servers to clients, using a digital signature technology) is 34% (Q3-2024), below the EU average of 47%.

With increasing threats, France develops cyber awareness on all fronts. On the enterprises side, a recent programme called 'cyber PME' proposes solutions for SMEs and mid-cap companies wishing to strengthen their level of security and protect themselves from risks. Up to now, 300 enterprises were accompanied. For administrations and organisations, the National Agency for Information Systems Security (Agence nationale de la sécurité des systèmes d'information, ANSSI) proposes cybersecurity courses ('parcours de cybersécurité') which enable beneficiaries to protect themselves against cybercriminal threats by achieving a cybersecurity objective in a progressive, measurable and adapted way for each beneficiary, in line with the level of threat and maturity. Already 950 companies benefited from these courses. More generally, ANSSI launched a website for the assistance and prevention of digital risk for the general public and also another one to raise awareness on phishing. According to the Digital Decade Eurobarometer 2025, 82% of French citizens think that an improved cybersecurity, better protection of online data and safety of digital technologies would facilitate their daily use of digital technologies.

In its adjusted roadmap, France presents the CaRE programme, aimed at the cyber protection of healthcare establishments. This action programme on cybersecurity acceleration and resilience of healthcare facilities aims to improve the cybersecurity of hospital information systems and to strengthen the resilience of healthcare structures against cyber threats. It pursues two main objectives (i) to prevent attacks; and (ii) to enable fast recovery in the event of an incident. The programme is structured around four axes (i) governance and resilience; (ii) resources and pooling; (iii) awareness; and (iv) operational security. It is funded by EUR 250 million for 2023-2025 but will reach EUR 750 million in total by 2027.

**2024 recommendation on cybersecurity**: (i) Continue efforts in cybersecurity to address evolving threats and restore the confidence of enterprises and general public.

**France addressed fully the recommendation by putting significant policy actions into place in 2024**. France has recently deployed a very broad range of actions to raise awareness about cyber threats in all sectors (enterprises, administration, general public). It has also provided support in implementing cybersecurity strategies with actions, including Cyber PME. The new measure added in the adjusted roadmap (CaRE programme) targets the cybersecurity of the healthcare sector, which is a top priority of the Commission.

## Protecting and empowering EU people and society

## Empowering people and bringing the digital transformation closer to their needs

France's administration aims at making digitalisation inclusive with actions targeting known divides and improving the public services. In term of digital skills of the population, France performs well with only few gaps identified toward the lower educated and based on socio-economic status. The lack of ICT specialists could however create tensions on the job market and slow down the development of the ICT sector. The digitalisation of the public sector benefits from many actions being implemented, including for relieving administrative burden. France is also very active in protecting children online and fighting disinformation with services, including VIGINUM. However, the French population could be seen as less digital savvy than its EU peers as it participates less in civic life online and is less inclined to fact-check information found online. According to the 2025 Eurobarometer, 85% of French people think that accessing public services online will be important for their daily life in 2030. Concerning human support to help access and use digital technologies and services, 73% consider it would improve their daily use of digital technologies, and 88% think public authorities should consider it important to ensure that people receive proper human support to help them adapt to the changes in their lives brought about by digital technologies and services.

#### Equipping people with digital skills

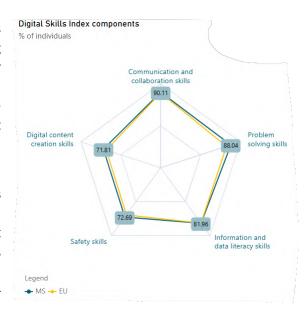
#### Basic Digital Skills

France's digital skills profile is strong, with evidence of inclusive growth across different dimensions. According to data from 2023, 59.67% of France's population with at least basic digital skills (2030 national target 80%) after a small decline of -1.9%, standing above the EU average of 55.56%. While there is no new data for 2024, a breakdown by demographic factors provides for some of insights.

- **Gender Gap:** France shows an uncommon situation in the gender gap, with 59.14% of men and 60.18% of women having at least basic digital skills, creating a small gap of 1.04 pp. in favour of women. This goes against the typical EU trend, where the gap averages 2.23 pp. in favour of men.
- Education Level: Education is a strong indicator of digital proficiency in France. 82.40% of individuals with higher education levels have at least basic digital skills, exceeding the EU average (79.83%). However, those with lower levels of education face challenges, with only 34.59% having basic skills, a gap with the national average of 25.08 pp., larger than the EU average (21.95pp).
- Living Areas: In rural France, 56.17% of people have at least basic digital skills, which is higher than the EU average for rural areas (47.50%). The gap between rural and urban areas in France is a modest 3.50 pp., showcasing a smaller divide than the EU average (8.06 pp.).
- **Age Groups:** Young adults between the ages of 16 and 24 have good digital skills, with a proficiency rate of 76.70%, surpassing the EU average (69.98%). The senior age group of between 65 and 74 has fewer skills at 34.79%. However, this is still above the EU average for that age group (28.19%).

Digital Skills Index components: France performs well in the Digital Skills Index competencies, scoring above the EU average in all five areas. Their strongest area is communication and collaboration skills at 90.11%, slightly above the EU average. The lowest score is for digital content creation at 71.81%, however, this also stands above the EU average (68.28%).

In summary, France's digital skills profile shows inclusive growth across genders and a small urban-rural skills gap. While there's a significant disparity based on education level, overall, France's performance in essential digital skills is good, with room for targeted improvements to support lower-educated individuals and older adults.



**France's target for the basic digital skills of the population remains at 80%.** It is in line with the EU target by 2030. In the absence of new measures in the roadmap adjustment, the SDDR 2024 conclusions still apply. The current rate of progress would require more effort in order to reach this target.

**2024 recommendation on basic digital skills:** Take measures to boost the digital skills of the population on the shorter term, with additional efforts in its outermost regions.

In 2024, France continued the implementation of existing measures but did not take any new measure. France continued to implement measures from its roadmap such as 'Territoires Numériques Educatifs' or 'Compétences métiers d'avenir', while working to reinforce basic training especially in mathematics. However no new measure was proposed in the roadmap adjustment.

The divide in term of digital skills seems to reflect mostly socio-economic disparities. As seen above, education level, strongly linked to socio-economic status, reveals some disparities. It is estimated that 16 million people are 'far from digital'. France's education curriculum is one of the densest and it is not easy to find room to include specific digital training courses. However, public initiatives such as CLEMI ('Centre pour l'éducation aux médias et à l'information') are tasked to train the entire educational system about medias and information. Generative AI could be envisaged as tool to bridge digital divides as it uses daily language. However, it is possible that social disparities are also reproduced in the way people express themselves (e.g. low education or foreign origins). The question of infrastructures and equipment could also help bridging divides. Households could struggle to purchase or access high quality digital equipment, but strong networks are present in France (see Connectivity infrastructure section).

#### ICT specialists

France is at 4.8% of ICT specialists in total employment (2030 national target 10%) after a progression of +2.1% in 2024 and stands below the EU average of 5.0%. The country is lagging behind compared to its national trajectory. It was 4.7% in 2023 and represents half of growth rate observed at EU level (+4.2% in 2024). This indicates that while France is making progress, it is not keeping pace with the EU average.

#### <u>France</u>

The share of French women as ICT specialists and ICT training show a concerning trend. In terms of women ICT specialists, France had a higher share in 2023 at 20.1%, compared to the EU's 19.4%. However, by 2024, this figure dropped to 19.3%, falling below the EU's 19.5%. The growth rate for women ICT specialists in France was -4.0%, significantly lower than the EU's 0.5%. This suggests that France is not effectively retaining or attracting female talent in the ICT sector. In 2022, 15.09% of enterprises with 10 or more employees in France provided ICT training, which was lower than the EU's 22.37%. By 2024, this figure fell further to 13.07%, while the EU's percentage slightly declined to 22.29%. The decline in the share of women ICT specialists and enterprises providing ICT training, combined with a poor dynamic for overall ICT specialists in employment are a cause for concern.

In terms of labour market demand, Eurostat experimental statistics based on web scraping show that in France, the profiles of 'software and applications developers and analysts' are the most sought after, representing 55.1% of online job advertisements for ICT specialists (58.0% at EU level). Three types of profile are sought after in France than in the EU on average: 'information and communications technology service managers' (4.5% of online job advertisements for ICT specialists), 'information and communications technology operations and user support technicians' (11.6%), and 'telecommunications and broadcasting technicians' (3.5%).

Recent studies still underline weaknesses in the maths skills of French pupils. The Trends in Mathematics and Science Study 2023 (TIMSS) reveals that France ranks bottom of EU Member States and below the OECD average for maths. The trend is getting worse for secondary school students. While France is implementing a targeted strategy to overcome this problem, it will take time to bear fruit. The training of ICT specialists is closely linked to performances in maths and more generally Science, Technology, Engineering, and Mathematics (STEM) disciplines.

France still aims to reach 10% of ICT specialists in employment by 2030. Given the absence of new measures in the roadmap adjustment and the intrinsic inertia of the indicator, it seems that the target will be difficult to reach.

**2024 recommendation on ICT specialists:** Increase the attractiveness of STEM disciplines at school to boost the number of young people, including girls, interested in taking up ICT-related studies or careers. Increase the visibility and readability of training and reskilling options. Design incentive schemes to attract and retain ICT specialists.

In 2024, France continued the implementation of existing measures but did not take any new measure. Several stakeholders share the opinion that training blocks in digital are somewhat heterogeneous. The ICT sector suffers from an image deficit (as compared to well identified flagship sectors such as aeronautics) which can lead to less visible job careers.

Following its ambitious AI strategy, France aims to run a large-scale training to acquire experts in AI. In May 2024, nine new winners of the call for expressions of interest 'AI clusters' were selected. These centres of excellence in research and training in AI will be supported with EUR 360 million.

A slow down in ICT employment growth has eased the lack of available ICT experts. The lack of ICT specialists was declared as one of the main barriers to growth for ICT enterprises. But during summer 2024, growth in employment by the ICT sector <u>slowed down markedly</u> which could partly ease these tensions.

Key digital public services and solutions – trusted, user-friendly, and accessible to all

For digital public services for citizens, France scored at 71.19 (2030 national target of 100) after a small decline of -1.2%, below the EU average of 82.32. The country is lagging behind compared to its national trajectory. In 2023, France's total digital public services score for citizens was 72.09, below the EU's 79.44. In 2024, it dropped to 71.19, still below the EU's 82.32. France's growth rate of -1.2% in this area is lower than the EU's 3.6%. The slight fall can be explained by weaknesses in cross-border services (related to the Single Digital Gateway Regulation (SDGR) and the translation of municipality webpages). On cross-border digital public services for citizens, France scored 50.92 in 2024, standing far below the EU's 71.28. The share of people using government websites or apps is increasing year-on-year, from 89.99% in 2022 to 91.60% in 2024. It is far above the EU average of 74.71% in 2024.

For digital public services for business, France scored 76.90 (2030 national target of 100) after a decline of -3.0%, below the EU average of 86.23. The country is lagging behind compared to its national trajectory. France's total score was 79.31 in 2023 and 76.90 in 2024, both below the EU's 85.42 and 86.23, respectively. The country's growth rate of -3.0% is notably lower than the EU's 0.9% because of a newly introduced SDGR-related service that was not found online. For cross-border digital public services for businesses, France's score was 56.07 in 2024, below the EU's 73.76.

France's access to e-Health records tells a different story with a score of 84.23 (2030 national target of 100) after a growth of 6.2%, above the EU average of 82.7. The country is on track according to its national trajectory. In 2023, France's total score was 79.27, slightly above the EU's 79.12, and in 2024, it rose to 84.23, above the EU's 82.7. France's growth rate of 6.2% in this area outperforms the EU's 4.5%, continuing the fast growth that was already observed in 2023.

e-ID

French authorities are aligned with the European framework of the eIDAS Regulation with a view to offering an EU Digital Wallet by the end of 2026. The government is working to increase the number of digital identity use cases, in order to achieve a complete and secure digital identity wallet. For example, at the beginning of 2024, the digitalised driving licence has joined the *France Identité* application. With the FranceConnect service, users can carry out a very large number of online procedures with a digital identity that they choose from several providers. FranceConnect+ is available as a reinforced level of identification to carry out the most sensitive procedures, in particular financial ones.

France leads the consortium Advanced Project for Trusted Identity Technologies and Unified Digital Ecosystem (APTITUDE) that will pilot the usage of EU Digital Wallets. The project involves strong public and private engagement across 11 Member States and Ukraine, bringing together over 110 participants. This project focuses on advancing the use of wallets for travel and payment purposes across 4 use cases: payments, mobile vehicle registration certificates, digital travel credentials, and tickets and travel check-in. Building on the foundational work carried by the Commission and the experience of ongoing large-scale pilot projects, APTITUDE is planned to start in autumn 2025 and run for two years.

Digitalisation of public services for citizens and businesses

France still aims at reaching a score of 100 for the digitalisation of public services for citizen and businesses. The adjusted roadmap encloses clear intermediary goals such as the availability digitalised

services, user satisfaction, simplicity, accessibility and authentication processes. Current observed sluggish progress suggest that France will have to accelerate in order to reach its target.

**2024 recommendation on key digital public services:** Make efforts to digitalise public services, with particular attention to re-use of information available to public administrations and user support.

France addressed fully the recommendation by putting significant policy actions into place in 2024. The updated national roadmap clearly identifies the re-use of information as a priority axis. The 'once-only' principle is to be implemented at 100% of online public services (currently at 69%) by December 2026. For user support, the target is to reach 100% of online services with a user satisfaction rate of 8/10 (currently 53%).

The simplification of administrative procedures is a priority in the digitalisation of French public services. Several dematerialisation principles are being implemented: i) the circulation of data between administrations (in particular via a reinforced network of application programming interfaces APIs); ii) the proactivity of the administration to go towards citizens, with a view to reduce the non-use of public services; and iii) the 'once-only' principle which requires the administration to no longer ask the user for data or supporting documents that it already holds. Furthermore, a draft law on simplification should be presented in 2025, consecutive to the recent public action simplification law ('loi d'accélération et de simplification de l'action publique' ASAP)

Administrative and regulatory burden is being cut in France. According to the OECD's iREG indicators on administrative and regulatory burden, France performs better than the OECD average (1.16 in France vs 1.68 in the OECD in 2023) and much lower than in 2018 (1.88). However, businesses, especially the smaller ones, report complexities of administrative services (sometimes related to increased cybersecurity measures), a high number of regulations, and call for impact assessments of the cost for businesses to implement those regulations.

On sovereignty of the digital administration, the State's digital strategy prioritises the control of its information systems. It guides choices in terms of investments in infrastructure such as cloud, in collaborative applications and tools (La Suite) and in AI (Albert). A proactive strategy based on the use of free software will reinforce sovereignty, while fully controlling costs while aiming for excellence. Sovereignty also happens on the skills side by re-internalising digital know-how with 345 full-time equivalents positions created in 2024 in the administrations. On top of the national actions, France joined forces with Germany and the Netherlands to promote the use of free software to offer public officials truly sovereign digital workspaces. In December 2024, the three countries signed a declaration of intent for trilateral cooperation aimed at strengthening digital sovereignty in public administration.

In 2024, France continued its actions to digitalise the public sector. The 'Public Digital Campus', launched in January 2024, is a training centre centralising and disseminating an interministerial training offer adapted to the needs identified for digital. This campus has designed and established mandatory training for senior civil service executives and is initiating the deployment of Pix, a digital skills diagnostic tool, for all public officials by 2026. In parallel, the administration continued to promote the circulation and exchange of data, in particular with the launch of experiments in the use of generative AI based on the <a href="ALLiaNCe incubator">ALLiaNCe incubator</a>. The digitalisation of 'Maprocuration' and 'Plainte En Ligne' was achieved, two essential high-volume services, which significantly improved the citizen's experience in the run-up to June 2024 elections and that of victims of crimes against their property. Since March 2025, the Vitale card (health insurance) is also available in electronic form.

#### e-Health

France still aims at a score of 100 for the access to medical records, in line with the 2030 EU target. Recent impressive progress (see State of the 2024 Digital Decade report) hint that this target is realistic. Moreover, in its roadmap adjustment, France revised the budget of the existing measure 'digital health acceleration strategy', from EUR 718 million to 750 million.

**2024 recommendation on e-Health:** (i) Make all data types available to citizens through the online access service; (ii) Enhance the authentication method for logging in to the online access service by using a (pre)notified e-ID; (iii) Introduce a legal basis and provide the technical functionality for authorised persons to access electronic health data on behalf of others.

France made some efforts to address the recommendation through new policy actions in 2024. First, 10 of the 13 data categories are now made available, with the data category of procedures/operations newly reported to be available. Data on medical devices/implants, medical images, and eDispensation remains unavailable to citizens. Second, citizens can now authenticate using an eIDAS-compliant eID when accessing their health records. Third, on access for authorised persons, there is currently no legal basis nor functions in place to grant others access to your e-Health data. However, a feature is reportedly underdevelopment.

## Building a safe and human centric digital environment and preserving our democracy

In France, the online participation to political and civic life is declining. In 2024, 15.02% of people used the internet to participate to consultations, for voting or sharing opinions online. This share is below the EU average and trending downward (16.44% in 2022), which is the opposite of the trend observed at the EU level (17.59% in 2022 and 20.45% in 2024).

Due to its influence, France is a preferred target for disinformation attacks but it set up countermeasures. Due to the size of its economy, its diversity, its military and soft power, being the home of critical industries and host of international events (2024 Summer Olympics), France suffers regular disinformation and destabilisation campaigns often happening online. More and more, disinformation takes the form of amplified true but irrelevant information, playing with the freedom of speech. As a response, France set up VIGINUM, the technical and operational service of the State responsible for monitoring and protecting against foreign digital interferences. VIGINUM is part of the General Secretariat for Defence and National Security and monitors inauthentic phenomena (suspicious accounts, malicious content, abnormal, aberrant or coordinated behaviour) that appear on digital platforms.

Only 1 out of 4 French internet users declare fact-checking doubtful online information. In 2023, 53.00% of French people declared having encountered untrue or doubtful information or content on internet news sites or social media, above the EU average of 49.25%. Of these individuals, 25.42% fact-checked its truthfulness, representing a modest level of critical evaluation among those who perceived such content as misleading. Young people (16-24) (74.86%) reported significantly more exposure than adults (24-64) (53.92%), which may be linked to different trends in internet usage. A notable difference in verification rates also emerged: 41.44% of young people verified content compared to 25.11% of adults. Men (54.25%) and women (51.82%) reported similar exposure rates, with men being slightly more likely to verify content, at 28.7% compared to 22.31% for women.

A high share of the French population, especially young people, is often encountering hostile and degrading messages online. Data shows that in 2023, 40.96% of individuals encountered messages

online that were considered hostile or degrading towards groups based on factors such as political views, ethnicity, or LGBTIQ identities. This figure was significantly above the EU average of 33.5%. Young people aged 16-24 (62.95%) reported significantly higher exposure than adults aged 25-64 (40.65%), highlighting a pronounced age disparity. Conversely, men (41.10%) and women (40.83%) experienced nearly the same exposure.

Since 11 January 2025, 'double anonymity' age verification is mandatory for adult sites in France. The Audiovisual and Digital Communication Regulatory Authority (ARCOM) standard provides that the sites concerned, after a transitional period (until 11 April 2025), offer Internet users at least one 'double anonymity' age verification solution. This type of solution allows to best protect the privacy of the users. The website accessed receives proof of age but not the identity of the user and the provider of the age control solution knows the identity of the Internet user but does not know which sites they consult. This verification process raises several challenges on the social acceptation (need to be easy to use), on data protection (should be handled by a third party), and on competition between providers. The latter calls for a <a href="European collaboration">European collaboration</a> on the matter to provide resources for a common and robust standard solution for the EU. According to the Digital Decade Eurobarometer 2025, French people strongly think that the action of the public authorities is urgent to protect children online regarding the negative impact of social media on children's mental health (97% of French people), cyberbullying and online harassment (96%) and to put in place age assurance mechanisms to restrict age-inappropriate content (95%).

## Leveraging digital transformation for a smart greening

France is a world leader in monitoring the environmental impact of its ICT sector and setting up measures to decrease it. France designed monitoring tools to measure, anticipate and control the footprint of the ICT sector. It also contributes as a leader for green initiatives within the Digital Decade framework.

Half of the carbon footprint of the ICT sector in France is carried by equipment but the impact of datacentres grows rapidly. Recent figures show that equipment represents 50% of the ICT sector's footprint and that datacentres' greenhouse gas emissions made up 46% of the total driven by rising electricity consumption and an extension of the perimeter of the studies, now including the storage of French data in datacentres abroad. Water consumption of the datacentres also grew by 20% in one year, for the second year in a row.

The French population recycles only a small part of its ICT equipment. French people tend to recycle more their laptops and desktop devices (12.14% for laptops and tablets, 14.96% for desktops) than the EU average (11.31% and 14.66%, respectively), but recycle less their mobile phones (7.83%, 10.93% for the EU). Moreover, only 15.56% of people considered the energy efficiency as important when purchasing ICT devices (EU: 19.35%) but the ecodesign of the device was considered important by 12.99%, which is above the EU average (12.04%). However, those two eco-friendly criteria take on less importance for the French consumer than the price, the performance, and the design of the ICT device. One in five smartphones sold in France is second-hand, contributing to increasing the total lifespan of mobile phones.

**France goes all out on green ICT in its adjusted roadmap**. Three measures were added to the Digital Decade roadmap and should reinforce even more the leadership of France on the matter.

- Publication of the General Reference Framework for the Ecodesign of Digital Services. It is a
  technical document intended for digital experts and professions wishing to implement an
  ecodesign approach for a service (sites, applications, AI, software, API ...). The 78 practical
  factsheets in the reference document detail the essential criteria to consider reducing the
  environmental impact of a service.
- Publication of the first reference framework on the environmental impact of AI. France has
  produced the first reference framework on the environmental impact of AI, which resulted in
  the production of a norm from the French Association for Standardisation (AFNOR). The norm
  for frugal AI sets out calculation methodologies and good practices for measuring and
  reducing the environmental impact of AI, and for communicating with common, fair, and
  verifiable claims.
- Implementation of bonuses linked to the repairability index. A bonus of EUR 20 will be paid for the most repairable laptops, mobile phones and televisions, applicable to the sector of electrical and electronic equipment falling within the extended producer responsibility framework.

France is very active in the Digital Decade's Best Practice Accelerator, in the Green and Digital cluster. France is piloting, alongside Finland, the working group aimed at promoting the sharing of information relating to public policies on the environmental transition of digital technology. This

working group aims to create a forum for inter-administration dialogue, bringing together specialists in the environmental transition of digital technologies from the EU-27 in order to promote communication around virtuous public policies and the sharing of common issues. The French authorities have carried out extensive cooperation work with the French digital ecosystem to identify instruments to reduce the environmental footprint of the sector, such as the general reference framework for the ecodesign of digital services. They also shared two additional best practices. First, the Alt IMPACT Communication Campaign which aims at raising public awareness about the environmental impact of digital technologies and promote sobriety; and second, the development and availability of product category rules for environmental evaluation and labelling to ensure the comparability and robustness of environmental information provided to consumers.

France also participates in the Digital Skills cluster, presenting the measure on digital counsellors who are professionals that help people develop basic digital skills.

Smart territories and cities and other initiatives use digital for more sobriety. Based on the French model for smart territories, several actions have been implemented on the ground such as the use of frugal AI, energy consumption reduction with digital, or the use of low-energy digital solutions (some application only require minimal technologies and performances). More generally, the deployment of Fibre in the whole country also participates to the reduction of energy use of the digital sector. According to the Digital Decade Eurobarometer 2025, 72% of French people consider digital technologies important to help fight climate change, while 80% of French respondents think that ensuring that digital technologies serve the green transition should be an important action for public authorities.

**2024 recommendation on green ICT:** (i) Develop a coherent approach to twinning the digital and green transitions. First, promote improvements in energy and material efficiency of digital infrastructures, in particular datacentres. Second, support the development and deployment of digital solutions that reduce the carbon footprint in other sectors, such as energy, transport, buildings, and agriculture, including the uptake of such solutions by SMEs.

(ii) Demonstrate leadership and continue monitoring and quantifying the emission reductions of the deployed digital solutions in line with the relevant EU guidance and with the support of the methodology developed by the European Green Digital Coalition, in view of future policy development, as well as of attracting relevant financing.

### France addressed fully the recommendation by putting significant policy actions into place in 2024.

The three additional measures in the adjusted roadmap contribute to reduce the footprint of the ICT sector while reinforcing the leadership role of France in this domain. It adds up to three other measures on green ICT from the original roadmap.

Under the measure '2030 acceleration strategy for eco-responsible, competitive and sovereign digital technology' (from the original roadmap), the call for projects 'ECONUM' aims to bring out innovative projects to reduce the environmental footprint of digital technology. Several awards were selected in 2024.

To better monitor and quantify emission reductions, France will propose a dedicated reduction trajectory for the ICT sector in its national low carbon strategy in 2025, associated with coherent measures and policies.

On reinforcing leadership, France participates to the Digital Decade's best practice accelerator as a leader for sharing information on the digital environmental transition. The French national regulatory authority (ARCEP) also co-chairs the BEREC's working group on 'Sustainability'.

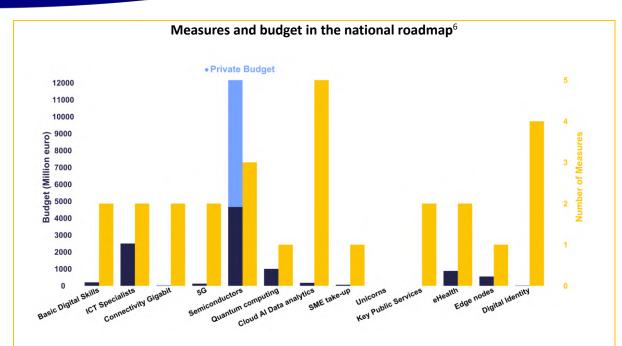
### **Annex I – National roadmap analysis**

#### France's national Digital Decade strategic roadmap

France submitted a fully revised national Digital Decade roadmap on 3 February 2025, containing six additional measures and revised trajectories. The updates clearly align with the new Commission's priorities on AI, cybersecurity and green ICT. It includes reporting on the stakeholder consultation. However, while the AI measures presented could partly contribute to the digitalisation of SMEs, it lacks additional targeted measures to support them.

The new roadmap addresses a substantial number of the 2024 roadmap recommendations.

- Provide a target and trajectory for edge node, design a trajectory for unicorns, and
  formalise the trajectory for FTTP. The new roadmap now includes a trajectory for unicorns
  and while not presented in the roadmap, the VHCN trajectory is still considered identical to
  the FTTP one. France argues that trajectories for edge nodes (as well as for semiconductor
  and quantum) are better placed at EU level and therefore does not present any national
  trajectories.
- Consider aligning the level of ambition of the targets for the uptake of three technologies by enterprises (AI, cloud, data analytics) to the EU's targets. France has revised downward the target on adoption by enterprises of either AI, cloud or data analytics to 65%, arguing it is a more realistic target. While it could be justified by a modest starting point, it has a heavy impact on reaching the target of 75% at the EU level by 2030. Individual trajectories for the three technologies were removed.
- Strengthen the measures contributing to targets that are the most difficult to achieve, especially on the skills and digitalisation of enterprises. Two new measures on AI were added for adoption by enterprises. None on digital skills.
- Review the budget description of all measures presented, highlighting EU funding sources such as the Recovery and Resilience Facility (RRF). The measure 'Digital Health Acceleration Strategy Programme' saw its budget revised upward from EUR 718 m to 750 m. It is not clear if the EU funding is reported for each measure since RRF contributes to funding France 2030 strategies or the plan 'France très haut débit' and it does not appear as such in the roadmap.
- Provide more information on the implementation of digital rights and principles (and Digital Decade general objectives), including what national measures contribute to it.
   While a systematic contribution to the digital rights and principles was not carried out, the roadmap clearly reinforces the contribution of France to the Digital Decade objectives of green ICT and cybersecurity.
- Report on the consultation of stakeholders in the roadmap. The new roadmap now includes reporting on the stakeholder consultation.



The revised roadmap continues to prioritise semiconductors, connectivity, and e-Health. It is composed of 33 measures with a budget of EUR 18.6 bn, comprising EUR 11.1 bn from public budgets (equivalent to 0.38% of GDP). It covers all of the Digital Decade's objectives such as a human-centred digital space, resilience and security, sovereignty, green, and protection of society.

## Annex II - Factsheet on multi-country projects (MCPs) and funding

#### Multi-country projects and best practices

France is hosting the Alliance for Language Technologies EDIC (ALT-EDIC) which gathers 26 members states and is candidate to host two more EDICs in the making, in the area of agri-food and digital commons. France is also a member of the Local Digital Twins towards the CitiVERSE EDIC. In addition, France is working towards setting up an EDIC in the area of cancer imaging. France is directly participating in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT) and in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS). It is also a participating state in the EuroHPC Joint Undertaking (JU) and of the Chips JU.

France has contributed to the Best Practice Accelerator, leading the GreenIT cluster by sharing three best practices (General Policy Framework for the Ecodesign of Digital Services, Alt IMPACT Communication Campaign, and Development and availability of Product Category Rules for environmental evaluation and labelling). France also shared one best practice (Digital advisors) in the Digital Skills cluster.

<sup>&</sup>lt;sup>6</sup> When referring to national roadmaps, data used in this report are those declared by the Member States in their national roadmaps, on the basis of the Commission's guidance (C(2023) 4025 final). Data might reflect possible variations in reporting practices and methodological choices across Member States. No systematic assessment of the extent to which Member States followed the guidance was carried out.

#### **EU funding for digital policies in France**

France allocates 22% of its total recovery and resilience plan to digital (EUR 8.1 billion)<sup>7</sup>. In addition, under cohesion policy, EUR 1.9 billion (representing 11% of the country's total cohesion policy funding), is dedicated to advancing France's digital transformation<sup>8</sup>. According to JRC estimates, EUR 8.95 billion directly contribute to achieving Digital Decade targets (of which EUR 7.73 billion comes from the RRF and EUR 1.22 billion from cohesion policy funding)<sup>9</sup>. The largest digital measure of the recovery and resilience plan is targeted to the modernisation of the public health sector (EUR 2 billion). The measure 'Innovating for the resilience of our business models' (EUR 1.8 billion) supports R&D in key digital technologies such as 5G, cloud, quantum, cybersecurity and digital skills. The high-speed broadband plan (*'France Très Haut Débit'*) receives EUR 240 million from the RRF.

The Digital Decade-relevant budget from cohesion policy funds focuses on enterprises.

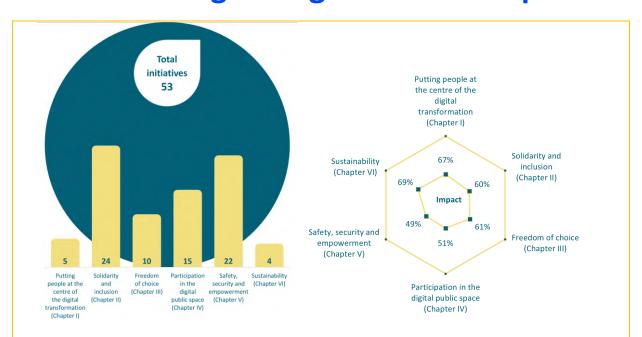
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<sup>&</sup>lt;sup>7</sup> The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 16 May 2025.

<sup>&</sup>lt;sup>8</sup> This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

<sup>&</sup>lt;sup>9</sup> Joint Research Centre, Nepelski, D. and Torrecillas, J. Mapping EU level funding instruments 2021-2027 to Digital Decade targets – 2025 update, Publications Office of the European Union, Luxembourg, 2025, JRC141966. Last data update: 10 March 2025.

## **Annex III – Digital Rights and Principles**<sup>10</sup>



#### **Activity on Digital Rights and Principles** (figure 1)

France has been relatively active in implementing digital rights and principles, with 53 initiatives overall. No information is available on new initiatives launched in 2024. France is most active in the area of Participation in the digital public space (IV). There is room for improvement, especially with regards to Digital public services online (II) where less activity has been identified.

#### **Impact of Digital Rights Initiatives** (figure 2)

Quantitative impact indicators, developed by the support study, illustrate the level of implementation of digital rights initiatives on the ground. Based on available data, they estimate the impact of measures implemented by key stakeholders in France (mainly national government) and how these are perceived by citizens.

The indicators suggest that France is most successful in implementing commitments related to Putting people at the centre of the digital transformation (I). France should review and strengthen efforts in areas where the impact of digital rights initiatives appears to be limited despite relative activity, notably on Safety, security and empowerment (V).

According to the Special Eurobarometer 'Digital Decade 2025', **37% of citizens in France think that the EU protects their digital rights well** (a 2% decrease since 2024). This is below the EU average of 44%. Citizens are particularly confident about getting basic and advanced digital education, training and skills (63%, above the EU average of 60%). They are most worried that their right to a safe digital environment and content for children and young people is not well protected (47%, below EU average of 48%).

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<sup>&</sup>lt;sup>10</sup> Based on a study to support the Monitoring of the Implementation of the Declaration on Digital Rights and Principles, available <a href="https://example.com/here">here</a>. For a more detailed country factsheet accompanying the study, click <a href="https://example.com/here">here</a>.