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PART 15/27

COMMISSION STAFF WORKING DOCUMENT

Digital Decade 2026 country report

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

State of the Digital Decade 2026: Closing structural gaps and mobilising investments for 2030 and beyond

{COM(2026) 288 final} - {SWD(2026) 154 final} - {SWD(2026) 156 final} - {SWD(2026) 157 final}

European Commission

DIGITAL DECADE COUNTRY REPORT 2026

Italy

Italy

Contents

Executive summary

Italy has made notable progress in digitalisation in recent years, particularly in rolling out fibre-to-the-premises (FTTP), SME digitalisation, and the uptake of cloud and data analytics. On these metrics, Italy outperforms the EU average. The country also benefits from strong industrial and research foundations and has assets in strategic technologies, notably semiconductors, high-performance computing and quantum. Its digital public services are well developed, including advanced digital identity and digital health. Despite promising growth, structural weaknesses persist, including low FTTP coverage in rural areas, below-EU-average basic digital skills, and uneven uptake and integration of advanced technologies in business operations. These challenges risk delaying the full roll-out of fibre, widening inequalities and fragmenting the national digital ecosystem. At the same time, too few SMEs have reached very high level of digital intensity and challenges of weak technology transfer and persistent ICT skills shortages may hamper their ability to achieve innovation and productivity gains.

Such shortcomings undermine Italy's **competitiveness**, especially in high-value sectors where scaling and innovation are critical. Limited level of AI adoption, combined with weak strategic integration of AI in businesses, reduces the productivity and competitiveness of enterprises, particularly SMEs, which make up most of Italy's business landscape. The limited progress on scaling start-ups also reflects a broader challenge in commercialising research and achieving global market reach.

Italy has the tools needed to consolidate its **digital leadership**. The country has a large and diversified semiconductor ecosystem, combining strong industrial players with a network of specialised SMEs active in equipment, materials and design. It benefits from strong academic and industrial capabilities in quantum technologies, guided by the Italian Strategy for Quantum Technologies (2025). The governance framework for AI and the Italian Strategy for Artificial Intelligence (2024-2026) signal ambition in this area. More broadly, Italy has mobilised national public funding for targeted investment in strategic digital infrastructure, including high-performance computing (HPC) and Important Projects of Common European Interest (IPCEI). This demonstrates strong policy alignment with the EU industrial strategy. The investments are designed to attract private capital, boost domestic industrial capacity and position Italy in key European value chains.

Italy in the Digital Decade

Italy shows a substantial level of ambition in its contribution to the Digital Decade. It has set 14 (out of 14) national targets, 79% of which are aligned with the EU 2030 targets. In its national roadmap, Italy provided 13 trajectory points for 2025 (out of 13 analysed). The country is monitoring progress very well with 92% of the targets considered on track. Italy addressed 13% of the eight recommendations issued by the Commission in 2025 by making some changes through new measures. According to the national roadmap, by the end of 2026, 88% of the measures will come to an end. The total public budget allocated to these measures is EUR 33.95 billion, or 54% of the total public budget outlined in the roadmap.

According to the special **Eurobarometer on 'the Digital Decade' 2026, 81% of Italian people thought that digital policy should have a very high/high priority** in shaping our future in Europe. They also think that, in the next 10 years, the EU should cooperate with Member States to reinforce cybersecurity and protection from online threats (91%), promote digital education and skills programmes (91%) and strengthen the regulation of online platforms (90%).

In addition, **85% of Italian respondents thought that the EU should reduce its dependency on non-EU countries to provide digital services**, and 86% thought that EU should prioritise investments in digital infrastructure and services that are developed and controlled in Europe. Meanwhile, 66% would be willing to switch to an EU-based digital service provider even if it means slightly higher costs.

Funding for digital and multi-country projects

Italy allocates 26.5% of the funding under its total recovery and resilience plan to digital policies (EUR 49.8 billion). In addition, it allocates EUR 6.1 billion of cohesion policy funding, representing 14% of the country's total cohesion policy funding, to action to advance Italy's digital transformation.

Italy is a member of the Alliance for Language Technologies European Digital Infrastructure Consortium (EDIC), the Local Digital Twins towards the CitiVERSE EDIC, the EUROPEUM EDIC and the Digital Commons EDIC. Italy directly participates in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT), in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS) and the Tech4Cure IPCEI. It also participates in the EuroHPC Joint Undertaking and of the Chips Joint Undertaking.

Digital Decade KPI [1]	Italy				EU		Digital Decade target by 2030	
	Last available data (2)	DESI 2026 (year 2025)	Annual progress	National trajectory 2025 (3)	DESI 2026	Annual progress	IT	EU
Fixed Very High-Capacity Network (VHCN) coverage	70.7%	77.6%	9.6%	79.0%	85.5%	3.7%	100.0%	100%
Fibre to the Premises (FTTP) coverage	70.7%	77.6%	9.6%	79.0%	74.1%	7.1%	100.0%	-
Basic 5G coverage	99.5%	99.8%	0.3%	99.7%	96.8%	2.6%	100.0%	100%
Edge Nodes (estimate, new methodology)	-	674	-	269	7451	-	946	10000
SMEs with at least a basic level of digital	60.7%	79.5%	14.4%	78.0%	71.4%	11.0%	90.0%	90%
Cloud *	55.1%	68.1%	11.1%	60.0%	46.7%	9.5%	74.0%	75%
Artificial Intelligence	8.2%	16.4%	100.0%	10.0%	20.0%	48.0%	60.0%	75%
Data analytics *	26.6%	42.7%	26.7%	12.0%	39.9%	9.5%	60.0%	75%
AI or Cloud or Data analytics *	63.1%	77.9%	11.1%	-	63.2%	7.5%	-	75%
Unicorns	11	13	18.2%	3	324	10.2%	16	500
At least basic digital skills *	45.8%	54.3%	8.9%	51.7%	60.4%	4.3%	80.1%	80%
ICT specialists	4.0%	3.8%	-5.0%	5.3%	5.0%	2.0%	8.4%	~10%
e-ID scheme notification		Yes						
Digital public services for citizens	83.6	86.1	3.0%	75.0	84.6	2.8%	100.0	100
Digital public services for businesses	80.9	80.7	-0.2%	82.0	88.6	2.7%	100.0	100
Access to electronic health records	84.1	89.9	6.9%	77.0	86.5	4.6%	100.0	100

[1] Indicators full description, metadata and sources in the DESI 2026 methodological note

[2] Last available data is DESI 2025 (reference year 2024) expect for indicators marked with a star * for which it is DESI 2024 (reference year 2023)

[3] National trajectory value for 2025, if set by the country in its Digital Decade national roadmap"

A competitive, sovereign and resilient EU based on technological leadership

Italy has made strong progress on **connectivity** and it is above the EU average on both fibre-to-the-premises (FTTP) rollout and 5G coverage. However, persisting rural coverage gaps in VHCN/FTTP and low fibre take-up, also due to the persistence of consumers on the copper networks, could delay the transition to a full fibre environment. Italy also plays an important role in advancing EU capabilities in strategic technologies, with a large **semiconductor ecosystem,** strong **high-performance computing** infrastructure and a growing **quantum** sector, supported by national strategies, EU initiatives, and a solid research environment. In the future, it will be important to continue strengthening these capabilities to achieve long-term competitiveness and translate Italy's strengths in research into industrial leadership.

Italian **SMEs** perform well on basic digitalisation and on rate of adoption of technologies such as cloud and data analytics, but they lag behind on high digital intensity rates. Although the uptake of **advanced digital technologies** is improving across the business population, a key gap remains in their full and strategic integration into business models, with take-up varying by technology, region, sector and size of business. In 2025, Italy drew up its AI governance framework (Law n. 132/2025), in line with the EU's AI Act, establishing a comprehensive legal structure for safe, human-centric AI deployment. The framework also includes rules to bolster cybersecurity and enhance public digital literacy and is backed with EUR 1 billion to support AI start-ups and SMEs. Although the uptake of AI is growing rapidly, it remains below potential, particularly for SMEs. At the same time, Italy's strong computing resources and HPC capacity provide a solid basis for AI development, with the main challenge being to consolidate the ecosystem, while attracting capital and talent.

Although in 2026, Italy counts 13 unicorns, signalling a degree of progress, this figure remains low compared with leading European **innovation ecosystems**, indicating structural weaknesses in industrial scaling. The growth trajectory of start-ups is constrained by limited venture capital availability, especially in terms of access to late-stage financing, along with weak technology transfer from universities and research centres.

Protecting and empowering EU people and society

Italy's **digital skills** landscape shows a mixed picture. On the one hand, the country has recorded solid growth in the share of citizens with at least basic digital skills; on the other, it still has a structural gap compared with the EU average. Domestic inequalities remain a challenge, especially by education level, with a wide gap in digital skills for people with low levels of education, alongside persistent gaps by gender, age and the urban-rural divide. The positive trend in digital skills acquisition suggests that public policies (such as the Digital Facilitation Service Network), with substantial support from the recovery and resilience plan (RRP), have had a positive impact. However, continued action will be needed to consolidate this progress.

The shortage of **ICT specialists** represents a structural weakness. Although ICT-related programmes and measures to strengthen skills, attract talent and improve alignment between higher education and labour market needs have expanded, the education and training system still does not fully meet demand, and women remain under-represented in ICT fields.

On **digital public services**, Italy has achieved a solid performance on public services for citizens by creating well-developed online services for national citizens and businesses, but it has room for improvement on cross-border availability of digital public services, especially for businesses. The

country has continued to improve its digital identity systems, for example by further developing the IT Wallet. It has also made progress on data interoperability and on migrating public services to qualified cloud infrastructure. On **digital health**, Italy has advanced significantly, with the Electronic Health Record and the Health Data Ecosystem reaching significant levels of maturity. The focus on AI in healthcare and life sciences is growing, supported by the Italian Strategy for Artificial Intelligence 2024-2026.

Recommendations

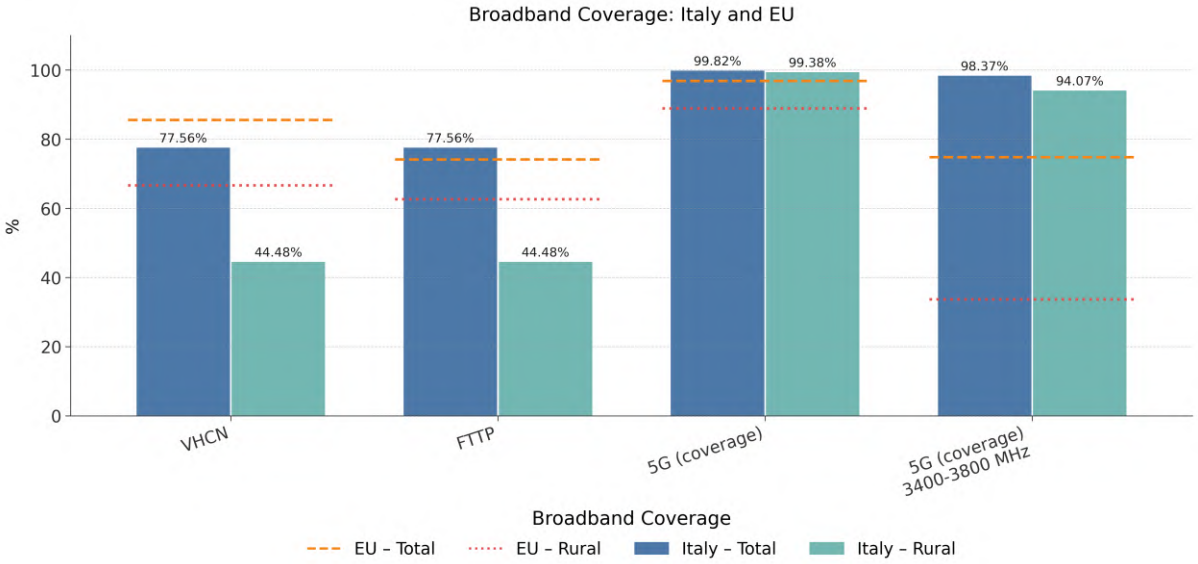
- **Connectivity**: Sustain the roll-out of fibre-to-the-premises infrastructure across the entire country and combine infrastructure support with take-up and spectrum measures to progress towards a full fibre network. Notably, close the persistent gap in rural FTTP coverage, and ensure continuity of public investment in both fixed and mobile network development. Effectively support fibre adoption, including via measures to address the connection to the last meter infrastructure gap, and facilitate the switch-off of copper networks. Promote the deployment of 5G SA (standalone) networks while enabling advanced use cases. In addition, take advantage of the upcoming expiry of rights of use to negotiate pro-investment conditions. Continue to improve high-capacity links with the islands.
- **ICT specialists and basic digital skills**: Strengthen the supply of ICT specialists and close the basic digital skills gap, with particular attention to people with no or low levels of formal education, by combining actions across initial education, continuing education, and digital inclusion infrastructure (e.g. consolidating the Digital Facilitation Service Network as a permanent component of the national digital inclusion infrastructure). Intensify efforts to upskill and reskill in both the private and the public sector, especially in strategic sectors (e.g. quantum, semiconductors, AI), and to increase women's participation in ICT studies and careers.
- **AI**: Accelerate action to operationalise the national AI governance framework, especially by supporting AI adoption by businesses, in particular SMEs, while ensuring close coordination among relevant initiatives and stakeholders. Promote AI use cases in strategic sectors (e.g. manufacturing and robotics), in line with broader EU priorities and initiatives. Reinforce centres of excellence in AI, research and development activities, and related enabling technologies, while maintaining strong links with industry.
- **Quantum**: Strengthen the Italian quantum ecosystem by supporting the development and industrial uptake of quantum technologies and strengthening connections between industrial players, while leveraging emerging regional strengths to support pilot activities. Foster collaboration between academia and industry and integrate national infrastructure into the EU's quantum ecosystem (e.g. through sustained participation in the EuroHPC Joint Undertaking and alignment with the forthcoming Quantum Act).
- **Semiconductors**: Consolidate Italy's position in the semiconductor value chain, by finalising its strategic framework and improving ecosystem coordination, while ensuring complementarity with EU-level capacities and initiatives. Strengthen coordination among research centres, universities, and industry, and provide support, especially for SMEs (e.g. through shared infrastructure, pilot lines, and technology transfer services). Moreover, continue to advance the development and use of the pilot line on wide bandgap semiconductors through effective cross-border collaboration.

A competitive, sovereign and resilient EU based on technological leadership

Building technological leadership: digital infrastructure and technologies

Connectivity infrastructure

Performance assessment



In 2025, Italy's total household coverage for VHCN stood at 77.56%, after an annual growth rate of 9.6%, driven by FTTP rollout. While Italy still lagged behind the EU average of 85.54%, partly due to the historical lack of cable networks, progress on FTTP deployment has been remarkable. Italy is therefore on track according to its trajectory presented in the Digital Decade national roadmap.

Italy's total household FTTP coverage reached 77.56% in 2025, exceeding the EU average of 74.13%, having grown by 9.6%, also above the EU average growth rate of 7.1%. **However, a significant gap persists** in coverage in rural areas. Notwithstanding an annual growth rate of 20.9%, substantially higher than the EU average of 6.5%, Italy's FTTP coverage in rural areas reached 44.48%, below the EU average of 62.61%. In 2024, FTTP coverage in rural areas was 36.78%, below the EU's 58.76%. Overall, Italy is on track according to its trajectory presented in the Digital Decade national roadmap.

In 2025, Italy achieved near universal 5G population coverage at 99.82%, exceeding the EU average of 96.79% after annual growth of 0.3%. This puts the country on track to meet the trajectory presented in the Digital Decade national roadmap. 5G coverage reached 99.49% in 2024, also above the EU's 94.35%. In rural areas, Italy's 5G coverage was 99.1% in 2024, significantly above the EU average of 79.58%. In 2025, Italy's coverage increased to 99.38%, remaining above the EU's 88.88%, following an annual growth rate of 0.3%.

Italy's total household 5G coverage in the 3.4-3.8 GHz band was 98.37% in 2025, far exceeding the EU average of 74.75%, following annual growth of 5.5%. In 2024, 5G coverage in the 3.4-3.8 GHz band was 93.25%, already considerably above the EU's 67.6%. In rural areas, Italy's 5G coverage in the 3.4-

3.8 GHz band reached 94.07%, well above the EU's 33.71%. In 2024, coverage was 74.36% in 2024, already significantly above the EU average of 25.36%.

The table below provides an overview of VHCN, FTTP and 5G coverage across NUTS-2 regions in Italy. While 5G network coverage is distributed fairly evenly both at regional level and between populated and rural areas, FTTP coverage remains uneven. At regional level, there are small differences, with some regions significantly ahead of the national average. Thanks to the investments made by the country, the gap between northern and southern regions appears to have been closed. However, rural areas in all regions – except for the Autonomous Province of Trento and Molise – have a lower level of infrastructure development, albeit to varying degrees, and this is reflected in the national data.

	VHCN coverage		FTTP Coverage		5G Coverage	
	Overall	Rural	Overall	Rural	Overall	Rural
National coverage	77.56%	44.48%	77.56%	44.48%	99.82%	99.38%
Abruzzo	80.52%	56.92%	80.52%	56.92%	99.86%	99.65%
Basilicata	76.99%	52.73%	76.99%	52.73%	99.89%	99.82%
Calabria	64.57%	41.09%	64.57%	41.09%	99.77%	99.40%
Campania	80.03%	32.34%	80.03%	32.34%	99.66%	98.72%
Emilia-Romagna	77.32%	38.75%	77.32%	38.75%	99.91%	99.72%
Friuli-Venezia Giulia	70.67%	48.69%	70.67%	48.69%	99.77%	99.27%
Lazio	83.06%	38.00%	83.06%	38.00%	99.84%	99.02%
Liguria	66.40%	34.52%	66.40%	34.52%	99.70%	97.92%
Lombardia	79.04%	52.77%	79.04%	52.77%	99.93%	99.61%
Marche	75.68%	45.03%	75.68%	45.03%	99.73%	99.18%
Molise	85.86%	70.14%	85.86%	70.14%	99.57%	99.34%
Piemonte	73.20%	41.60%	73.20%	41.60%	99.76%	99.21%
Provincia Autonoma di Bolzano/Bozen	77.60%	41.68%	77.60%	41.68%	99.87%	99.73%
Provincia Autonoma di Trento	87.36%	68.58%	87.36%	68.58%	99.91%	99.79%
Puglia	83.84%	47.60%	83.84%	47.60%	99.96%	99.82%
Sardegna	73.93%	44.33%	73.93%	44.33%	99.94%	99.82%
Sicilia	89.06%	52.59%	89.06%	52.59%	99.93%	99.85%
Toscana	68.28%	34.93%	68.28%	34.93%	99.37%	98.03%
Umbria	69.13%	41.48%	69.13%	41.48%	99.56%	99.04%
Valle d'Aosta/Vallée d'Aoste	58.63%	35.55%	58.63%	35.55%	99.55%	98.98%
Veneto	73.23%	44.02%	73.23%	44.02%	99.91%	99.68%

Italy is at 51.15% of 5G SIM cards share of population in 2025, following a strong increase of 67.3% from the previous year, and remains slightly below the EU average of 55.55%. In 2024, Italy's share was 30.56%, also below the EU average of 35.56%. Despite the lower overall share, Italy's annual growth rate of 67.3% outperforms the EU's average growth rate of 56.2%.

The share of fixed broadband subscriptions with speeds equal to or above 1 Gbps reached 31.16% in 2025, an increase of 23.7% on the previous year and above the EU average of 26.97%. In 2024, Italy's share was 25.18%, already above the EU's 22.25%. Italy's annual growth rate of 23.7% in this category also exceeds the EU's average growth rate of 21.2%.

Policy context and assessment of recommendations

Italy continues to make significant progress in digital connectivity under its national recovery and resilience plan (RRP). This is driven in particular by its Piano Italia a 1 Giga, which now allocates EUR 2.985 billion to achieve gigabit connectivity in market-failure areas by 2026, complemented by an additional EUR 733 million from the Connectivity Fund. As part of this drive, the Department for Digital Transformation mandated Infratel Italia S.p.A. to map 707 092 addresses declared non-connectable by Open Fiber by mid-2026, with the objective of identifying new measures to plan or implement

between 2025 and 2030 in view of further public incentives. Following the 2025 mapping exercise, this number was updated to approximately 385,000 addresses. In addition, the 2025 mapping exercise identified a further 1.3 million addresses expected to remain underserved by networks capable of delivering at least 300 Mbps download speeds under peak-time conditions by 2028, highlighting the need for additional intervention measures. As a result, the Connectivity Fund targets a total potential pool of approximately 1.75 million addresses.

Fibre deployment has expanded steadily, with fibre-to-the-home (FTTH) coverage exceeding 70%. Nonetheless, gaps persist in certain rural areas, requiring additional funding and corrective measures to meet the 2030 full coverage target.

At the same time, regulatory measures to improve consumer awareness and switching have been introduced. In 2025, Italy adopted a Decree-Law on administrative simplification and broadband transparency (RRP implementation), introducing an obligation for operators to inform users of the best available broadband technology at their address. These new transparency rules have the explicit goal of steering consumers toward fibre where available and reducing information asymmetries that may limit adoption. Both measures, along with the progresses made in rolling out fibre, will have an impact on creating the conditions needed to make the transition to full fibre networks.

While performance on 5G coverage is above the EU average, deployment has mainly relied on non-standalone (NSA) architecture built on existing 4G networks. Italy currently has no 5G standalone (SA) base stations and therefore lags behind the EU average of 20.9%. Key spectrum licences (800 MHz, 900 MHz, 1.5 GHz, 1.8 GHz, 2.1 GHz, 2.6 GHz, 3.4-3.8 GHz) expire in 2029. The transition to SA 5G is only now emerging as a new policy priority. This is already reflected in ongoing regulatory initiatives, including public consultations that aim to identify the most appropriate regulatory approach to reassigning spectrum licences due to expire on 31 December 2029. These licences cover key frequency bands that form the core of Italy's mobile networks, which focus on supporting investment while preserving competition and enabling well advanced use cases. The Italian Communications Regulatory Authority (Autorità per le Garanzie nelle Comunicazioni - AGCOM) has set new rules for assigning the lower portion of the 26 GHz spectrum band (24.25-26.5 GHz), with a tender expected in 2026 to complement the upper band allocated in 2018. This initiative aims to strengthen Italy's 5G development, particularly by supporting high-capacity use cases such as fixed wireless access, which can benefit from the technical characteristics of this high-frequency band. **These initiatives will further help strengthen Italy's digital infrastructure and move toward next-generation connectivity**.

To implement the European framework on 5G network security and resilience – particularly the measures set out in the EU 5G Cybersecurity Toolbox – **AGCOM is evaluating the use of its Broadband Map geoportal as part of ongoing efforts to update the national database of mobile and Fixed Wireless Access networks providing internet access**. This initiative would enable the competent authorities to access detailed technical information on the architecture and geographic distribution of network infrastructures, enabling them to assess network security, robustness, and resilience, ensure service continuity and support the effective implementation of technical and strategic risk-mitigation measures.

In 2024, Italy successfully completed the Plan 'Isole minori', finalising terrestrial and submarine fibre optic connections on 21 islands in Lazio, Apulia, Sicily, Tuscany, and Sardinia.

Italy is involved in eight submarine cable projects currently funded by CEF Digital (total EU contribution of approximately EUR 60 million). This includes the BlueMed East and the Green Med

(with a total EU contribution of EUR 34 million), both projects being part of the flagship Global Gateway project: Blue Raman, designed to create a digital EU-India corridor through the Middle East.

2025 recommendation on connectivity: continue action to roll out connectivity infrastructure, particularly FTTP, across the whole country and including in sparsely populated areas, and consider using take-up as a driver for deployment. Target the measures in view of the transition to full fibre environment.
In 2025, Italy made some efforts to address the recommendation through new policy actions. Italy has remained above the EU average in fibre deployment. The measures introduced in 2025 reflect the fact that the Recovery and Resilience Facility (RRF) is approaching closure, and therefore they aim to ensure continuity of funding for key initiatives. Looking ahead, it remains essential for Italy to sustain support to develop both its fixed and mobile networks. Public investment continues to play a key role, particularly in light of the recent slowdown in private investment.

Semiconductors

Semiconductors are a strategic component of Italy's industrial policy, with a diversified ecosystem including large businesses and specialised SMEs. As in the rest of the European Union, Italy lacks significant capacity in the manufacturing of leading-edge chips, but it holds potential to specialise in high-value segments of the value chain (e.g. design, specialised manufacturing and enabling equipment) and for further integration into the EU and global semiconductor ecosystems.

Italy has one of the highest number of businesses active in this sector in the EU (estimated at over 1 800, second only to Germany). Large leading companies play a key role, for example the French-Italian STMicroelectronics, which operates both production facilities and R&D activities and is expanding its activities in silicon carbide power devices. In 2024, Silicon Box announced a EUR 3.2 billion investment in advanced semiconductor packaging and chiplet integration, increasing Italy's manufacturing capacity. Alongside global or large players, Italy relies on a dense network of highly specialised SMEs active in equipment, materials, testing and niche design services. These firms are often technologically advanced but **face structural constraints: the need for high R&D expenditure (typical in the sector), global competitive pressure and persistent challenges in attracting qualified workers**.

Italy also benefits from a solid research base and centres of excellence. Key institutions active in research include the Consiglio Nazionale delle Ricerche (CNR), leading universities (such as the Politecnico di Milano, Università di Bologna), and the recently established *Fondazione Chips-IT*, supported by the government with a EUR 225 million investment to promote the design and development of integrated circuits. Based in Pavia, it also aims to strengthen professional training in the microelectronics sector and act as a network linking universities, research centres and businesses working in innovation and technology transfer.

Despite this solid foundation, the talent gap remains a critical bottleneck. Europe faces a projected shortage of tens of thousands of semiconductor professionals by 2030. Italy has strong academic capabilities but they coexist with difficulties in transforming graduates into industry-ready engineers, particularly in advanced IC design and system integration domains.

Work on a new national semiconductor strategy is currently ongoing but its finalisation is on stand-by, in light of evolving developments, including discussions around the Chips Act 2.0. However, there has been an increased focus on this sector and public support over the past four years, with the establishment of dedicated Funds and engagement in EU led initiatives. Italy created a EUR 3.3 billion

Semiconductors Fund in 2022 and reinforced it in 2025 with EUR 1 billion until 2038. An example of the measures supported by the Fund is the incentive scheme Italy launched in 2024 to support large industrial development projects and build manufacturing capacity across the semiconductor supply chain, the 'Sportello Semiconduttori', for which implementation continued throughout 2025. Italy also participates in the IPCEI on Microelectronics and Communication Technologies. In 2025, the Italian chips startup Ephos received a grant of EUR 41.5 million as a first-of-a-kind facility under the Chips Act. The grant will support the manufacturing of ultra-low-loss, fast-switching photonic chips on glass substrates for applications in AI data centres, high-performance computing and quantum computers.

Italy coordinates the wide-bandgap (WBG) pilot line under the EU Chips Act, one of the pilot lines developed under the Chips for Europe Initiative. Led by the National Research Council (CNR), the project brings together partners from seven Member States, with a significant concentration of infrastructure in Catania. It aims to build cutting-edge infrastructure designed to help develop and industrialise wide-bandgap semiconductors, such as Silicon Carbide and Gallium Nitride (GaN). A central part of this approach is the construction of a new facility hosting a clean room, financed with national and regional funds, which will house the pilot line equipment and enable pre-industrial fabrication, prototyping and testing. By making this investment, Italy is reinforcing its microelectronics cluster and strengthening its position in power semiconductors.

Overall, over the last years, Italy has mobilised public resources and attracted relevant private investment, while increasing its focus on this sector, which is expected to continue. A clear and coherent strategic direction will be crucial to build on Italy's existing strengths and position it effectively in the highly complex semiconductor value chain. Ensuring strong coordination across regions and institutions is equally important to avoid dispersion of efforts, to pool capabilities and to achieve impact and scale, including with a focus on the emerging cluster in the South. It will be equally crucial to close the workforce gap and create a steady pipeline of industry-ready professionals.

Edge nodes

Performance assessment

According to the Edge Node Observatory, Italy is estimated to have deployed a total of 674 edge nodes by 2025. Due to a change in methodology, this number cannot be compared with previous estimations.

Policy context and assessment of recommendations

Italy has launched experimental initiatives on Edge Cloud Computing (ECC) within telecom operators' access networks to enable low-latency services and support distributed application models across the territory. The objective is to assess the technical and economic benefits of deploying ECC platforms closer to end users. Since January 2026, three pilot projects led by major universities (La Sapienza, Tor Vergata and Politecnico di Bari) have been testing use cases ranging from smart city applications (such as autonomous driving, traffic management, distributed AI and infrastructure monitoring), to field trials in telecom points of presence, and to testing to improve network efficiency for both telecom operators and over-the-top (OTT) providers. These public initiatives are complemented by private investments, with telecom infrastructure players and global technology companies partnering to accelerate edge deployment and computing capacity.

Quantum technologies

Italy's quantum ecosystem has evolved rapidly in recent years to become a dynamic, growing field. The country benefits from strong academic and industrial capabilities across all the main pillars of quantum technologies, including computing, communication and sensing.

On the academic front, centres of excellence such as, for example, CINECA, CNR, the University of Napoli Federico II and the Politecnico di Torino have strengthened Italy's position within the European quantum computing ecosystem, supporting the deployment of new quantum computing infrastructures. This contributes to enhancing Italy's role in high-level scientific experimentation and advanced training.

As assessed in the **Italian Strategy for Quantum Technologies**, published with the contribution of the Ministry of Enterprises and Made in Italy (MIMIT), the Ministry of University and Research (MUR), Ministry of Defence and National Agency for Cybersecurity (ACN), from an industrial perspective, **quantum computing is still at lower levels of technological maturity** compared with progress in other domains such as quantum communication and sensing technologies. This highlights that systematic access to advanced infrastructure is still crucial to accelerate experimentation, industrial uptake and scale-up. However, a promising industrial ecosystem is emerging, including research and university spin-offs. Italy has large industrial groups that invest in quantum sensing and dual-use applications, international technology players, start-ups and innovative SMEs in enabling areas such as photonics.

Overall, Italy's quantum supply chain is at an early stage of development. It requires more investment and better alignment with global industry trends to mature and compete effectively on the European stage. To turn research leadership into industrial competitiveness and long-term economic impact, consolidating progress, maintaining momentum and strengthening the ecosystem, including by fostering links between micro and small medium quantum enterprises with corporates (e.g. in the semiconductor sector) capable to launch large scale manufacturing processes, will be essential.

Supporting EU-wide digital ecosystems and scaling up innovative enterprises

SMEs with at least basic digital intensity

Performance assessment

Italy is at 79.49% of SMEs with at least a basic level of digital intensity index after an annual progression of +14.4% between 2023 and 2025, standing above the EU average of 71.39%. In 2023, the figure for Italy was 60.69%, also above the EU's 57.9%. Italy's annual growth rate of 14.4% exceeds the EU's growth rate of 11%, indicating a robust improvement in the digitalisation of SMEs. However, when examining SMEs with a very high digital intensity index, Italy's performance is less encouraging. The country is, however, on track to meet its trajectory presented in the Digital Decade national roadmap.

In 2025, only 7.34% of Italian SMEs achieved a very high digital intensity, which is below the EU average of 9.07%. In 2023, this figure was 2.82% for Italy and 4.38% for the EU. Despite this, Italy's annual growth rate of 61.3% in this category outpaces the EU's growth rate of 43.9%, suggesting that Italian SMEs are making strides, albeit from a lower starting point.

Policy context and assessment of recommendations

One of the key measures supporting business digitalisation has been transition 4.0, supported with over EUR 18 billion from the RRP. After five years of tax credits for 4.0 and 5.0 investments, the 2026

Budget Law reintroduces the previous 'super-depreciation' scheme, namely a percentage increase applied to ordinary depreciation allowances. A final evaluation of Transition 4.0 is expected in 2026. However, data on implementation indicates a clearly higher-than-expected uptake, particularly for tangible Industry 4.0 assets such as machinery and equipment, and for standard immaterial assets and training. By contrast, uptake was lower for tax credits for advanced intangible assets (e.g. software, AI applications) and for research, development and innovation[1]. **Overall, investment in infrastructure and equipment has grown rapidly, but organisational readiness and skills lag behind**, limiting the capacity to integrate technology in company strategies and related impact and productivity gains[2].

Recent research carried out by the Observatory for digital innovation in SMEs of Politecnico di Milano shows that, **while technologies are increasingly present in firms, use is often limited to administrative functions and struggle to become cross-cutting drivers of change**. According to the research, a high share of SMEs still take a cautious approach to digital adoption. Although 54% of SMEs report significant digital investment, 46% remain cautious, citing limited relevance of digital in their sector (20%), unclear benefits (10%), high costs (9%) or lack of interest (7%). 83% report difficulties in adopting digital tools, mainly due to shortages of specialised skills (59%), cultural barriers (44%) and costs related to the adoption and maintenance of hardware and software (40%). Connectivity gaps persist, with nearly half of firms reporting critical issues. Financially, almost half of SMEs rely exclusively on their own resources, often discouraged by administrative complexity and limited awareness of the public funding available. Training also remains insufficient and not considered as a key priority. 38% of SMEs do not consider upgrading digital skills a priority, and management involvement is often weak. Only a minority of firms attribute strategic value to digital technologies, with most regarding technology primarily as operational support rather than as tools capable of shaping business decisions.

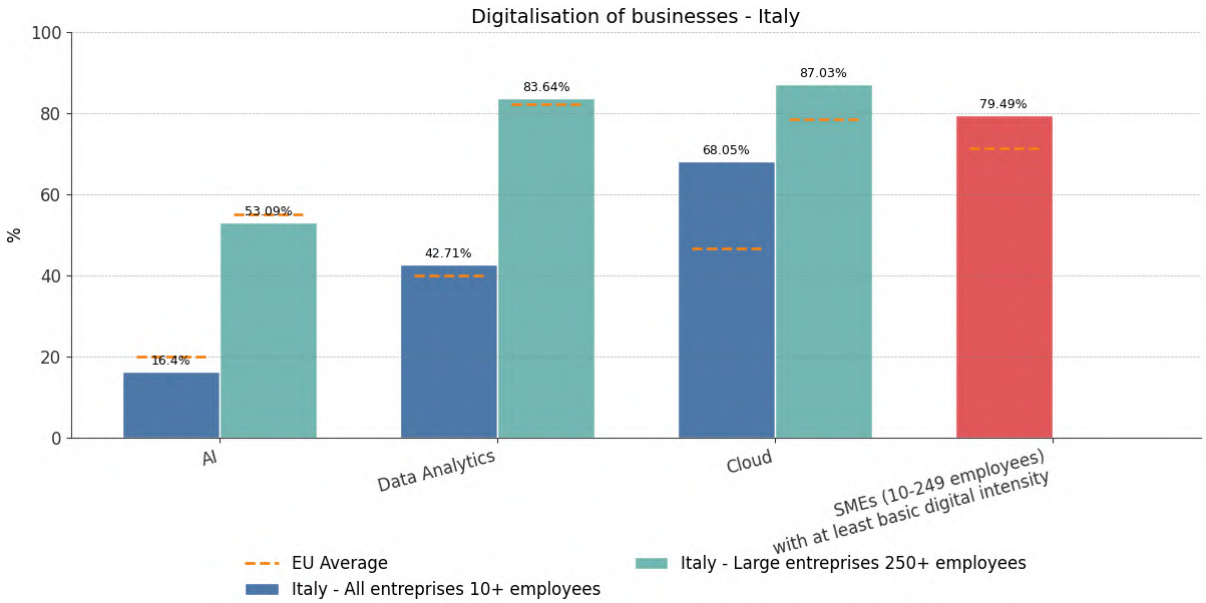
In this context, the role of support services is essential. Italy has developed a broad ecosystem including European Digital Innovation Hubs (EDIHs), *Punti Impresa Digitale* (PID) and eight competence centres (linked to the Transition 4.0 Plan). However, there are still overlaps and regional gaps in coverage. A process to streamline the support services available is ongoing but progressing slowly. The objective is to create around 10 integrated hubs (PIDs, EDIHs) functioning as national single points of contact, with a performance-based system for the resource allocation. The creation of a strong and complementary network of digital innovation hubs, technology transfer and SMEs will be crucial to move beyond tax credits and instead emphasise building capacity.

2025 recommendation on SMEs and Advanced technologies take-up: support measures to build a strong network of technology transfer services, maintain a nationwide presence and increase the emphasis on key technologies such as AI.
In 2025, the MS continued the implementation of existing measures but did not take any new measure. In particular, the network of EDIHs remained central in providing SMEs and public administration with testing, advisory and training services. On AI, Italy participates in two Testing and Experimentation Facilities (TEFs) under the Digital Europe programme: TEF Health (focused on AI and robotics for healthcare) and TEF Agrifood (focused on AI and robotics applications in agriculture and food systems), offering controlled environments for validation and pre-market experimentation. As mentioned above, the expected reform and process to streamline the network of support services/technology transfer centres is still ongoing.

[1] Based on data on implementation of Italy's RRP and intermediate targets.
[2] Corriere della Sera, based on Webidoo SME Digital Growth IndeX 2025.

Take up of advanced technologies

Performance assessment



Italy is at 42.71% of enterprises adopting data analytics after an annual progression of 26.7% since 2023, now surpassing the EU average of 39.85%. In 2023, the adoption rate in Italy was 26.61%, below the EU's 33.25%. Italy's growth rate significantly exceeds the EU's growth rate of 9.5%, demonstrating a rapid uptake of data analytics technologies. Focusing on SMEs, 41.93% of Italian SMEs adopted data analytics in 2025, against the EU average of 38.59%. The annual growth rate for Italian SMEs was 27.80%, above the EU's 9.7%. Large businesses in Italy also recorded a high adoption rate of 83.64% in 2025, slightly above the EU average of 82.03%, though the growth rate of 6.2% is marginally lower than the EU's 6.9%. Overall, Italy is on track according to its trajectory presented in the Digital Decade national roadmap.

In the realm of cloud technologies, Italy is at 68.05% adoption rate, after an annual progression of 11.1% since 2023, which is considerably higher than the EU average of 46.69%. In 2023, the adoption rate in Italy was 55.11%, already above the EU's 38.97%. Italy's growth rate of 11.1% also exceeds the EU's growth rate of 9.5%. For SMEs, the adoption rate in Italy is 67.69%, significantly above the EU average of 45.74%, with a growth rate of 11.3% against the EU's 9.7%. Large businesses in Italy have recorded an even more pronounced lead, with an adoption rate of 87.03% in 2025 against the EU average of 78.32%. However, the growth rate for large businesses is 4.2%, below the EU's 6.0%. Overall, Italy is on track according to its trajectory presented in the Digital Decade national roadmap.

Regarding artificial intelligence, Italy is at 16.4% adoption rate after an annual progression of 100.0% since 2024, yet it remains below the EU average of 19.95%. In 2024, the adoption rate in Italy was 8.2%, compared to the EU's 13.48%. Italy's growth rate of 100.0% is more than double the EU's growth rate of 48.0%. For SMEs, the adoption rate in Italy is 15.70%, below the EU average of 18.90%, but the growth rate of 102.8% is significantly above the EU's 49.5%. Large businesses in Italy have an adoption rate of 53.09%, in line with the EU average of 55.03%, but growing twice as fast at 63.4% against the EU's 33.7%. Overall, Italy is on track according to its trajectory presented in the Digital Decade national roadmap.

When considering the adoption of AI, cloud, or data analytics technologies combined, Italy is at 77.86%, after an annual progression of 11.1% since 2023, which is higher than the EU average of 63.20%. In 2023, the combined adoption rate in Italy was 63.09%, against the EU's 54.70%. Italy's growth rate of 11.1% exceeds the EU's growth rate of 7.5%. For SMEs, the combined adoption rate in Italy is 77.52%, significantly above the EU average of 62.32%, with a growth rate of 11.3% compared with the EU's 7.7%. Large businesses in Italy have a combined adoption rate of 95.66%, above the EU average of 92.78%, though the growth rate of 2.8% is slightly below the EU's average of 3.4%.

Italy has made significant progress in the digitalisation of its businesses, particularly in the adoption of cloud and data analytics technologies. SMEs and large enterprises have recorded robust growth rates in most digitalisation indicators, often exceeding EU averages. However, there is still a significant divide in the uptake of advanced technologies between SMEs and large businesses, mirroring a similar trend at EU level.

Policy context and assessment of recommendations

The uptake of advanced digital technologies such as cloud computing, AI and data analytics, is a key driver of productivity, innovation and competitiveness, but it remains uneven, differing by technology, region, sector and size of business. In Italy, a recent analysis by the Bank of Italy shows that firms adopting these technologies tend to record stronger performance, including higher real and expected employment growth. However, while cloud computing is now widely adopted and increasingly regarded as a standard technology, AI remains at an early stage of deployment. Adoption varies significantly across regions, firm size and sectors. Businesses in southern Italy and smaller businesses are less likely to adopt cloud and AI solutions. Sectoral differences are particularly pronounced for AI, with a higher uptake in services, notably in professional services and telecommunications.

The governance framework for artificial intelligence in Italy was defined through Law No 132/2025, which transposes and integrates the EU's AI Act (EU Regulation 2024/1689) into national law. Italy is the first EU country to have a national framework aligned with the AI Act, approving this legislation to regulate the use of AI in an ethical, transparent and responsible manner. https://innovazione.gov.it/notizie/articoli/approvata-in-via-definitiva-la-legge-italiana-sull-intelligenza-artificiale/**Although the gaps between smaller and larger enterprises have narrowed for many digital indicators in recent years, the opposite is happening for AI**. Based on ISTAT data 2025, the difference in adoption intensity between large firms and SMEs has widened over two past years.

AI use is concentrated in specific functions, meaning that the potential linked to sectors like manufacturing and robotics might be not fully exploited. The businesses that use AI most commonly use it for text mining and knowledge extraction (70.8%), generative AI for text, images and audio (59.1%), and for speech recognition (41.3%). More advanced or operational uses such as machine learning for data analytics (20%), image recognition and workflow automation (around 18%), and robotics or machine movement (5.9%) are less widespread. Nonetheless, Italy's strong manufacturing base and established robotics ecosystem provide favourable conditions for scaling AI applications in industrial processes, quality control, predictive maintenance and advanced automation. The integration of AI into manufacturing value chains therefore holds significant untapped potential.

As with basic digitalisation, structural barriers limit broader adoption. 11% of the businesses that do not use AI have considered doing so (up from 4.6% in 2023). The main obstacles include a lack of skills (58.6%), regulatory uncertainty (47.3%), insufficient or low-quality data (45.2%), privacy and data protection concerns (43.2%), high costs (43.0%) and ethical considerations (25.7%). A further 14.8% consider AI not relevant to their business (ISTAT data 2025).

Italy

Italy can draw on strong computing resources and high-performance computing (HPC) capacity, which provide a solid foundation for AI development. It hosts significant resources, including: specialised research institutions bringing together the broad scientific and industrial ecosystem, such as the AI Factory (IT4LIA) and the Italian Institute of AI (AI for Industry or AI4I), created in Turin in 2024 aiming to both shape the AI research and development agenda in Italy (and Europe) and promote the uptake of AI across strategic industrial sectors; as well as top-notch infrastructure like Megaride at the University Campus of Naples (inaugurated in June 2025). In particular, IT4LIA also benefits from the EuroHPC Leonardo supercomputer, its LISA upgrade, and the GAIA cloud system, providing a computational continuum designed to meet the diverse requirements of AI-related workloads and enabling the management of the entire AI innovation cycle.

Italy is also actively engaged in enhancing synergies between computing resources and high-performance computing capacity, and in other initiatives aimed at fostering AI innovation and competitiveness in the EU. A successful example of such interaction is EUSAiR, a two-year project funded by the Digital Europe programme, which is supporting the implementation of AI regulatory sandboxes across the EU, as mandated under the AI Act. This project is composed of 9 partners and 3 affiliated parties, including, among others, the University of Bologna, the University of Firenze, ICSC (the national research centre for HPC, Big Data and Quantum Computing), CINECA and the Italian Cybersecurity Agency.

A prominent example of Italy's infrastructure base is Leonardo, the EuroHPC supercomputer operated by CINECA. Leonardo allocates a growing share of its capacity to industry, rising from under 1.5% in 2023 to about 5% in 2024 (about 60 million core-hours annually). Although up to 20% of resources are theoretically reserved for industrial use, actual uptake remains below this threshold, indicating room for growth. Companies use Leonardo mainly to carry out advanced simulations (e.g. aerodynamics or ship design), digital twins and large-scale optimisation of supply chains and infrastructure. It is also increasingly applied to AI and big data analytics, including predictive maintenance and risk modelling. Available examples indicate that HPC-based digital twin solutions can produce a measurable impact, such as new products, start-ups and expected revenues (e.g. EUR 1 million in five years). Overall, Leonardo is a strategic enabler of industrial innovation, though adoption remains at an earlier stage than in academic research.

Italy also participates in several EU multi-country projects, particularly through the important projects of common European interest (IPCEI) framework, alongside increasing national investment to support strategic digital infrastructure. A key initiative is the IPCEI on the Compute Infrastructure Continuum (IPCEI CIC), for which expressions of interest closed in May 2026. This initiative complements the IPCEIs on artificial intelligence and advanced semiconductor technologies in which Italy is involved.

To fully realise the potential of this ecosystem, the key challenge will now be to capitalise on Italy's strengths, attract capital and talent, expand the still nascent pipeline of AI-driven businesses and start-ups, as well as developing solutions tailored to Italy's productive system. This objective is consistent with the Italian Strategy for Artificial Intelligence 2024-2026, which sets out a number of strategic actions, including action to increase research, foster start-up creation and scale-up, enhance technology transfer and invest in skills and talent development to secure long-term competitiveness.

2025 recommendation on Artificial Intelligence: step up efforts to take leadership in AI, for example by leveraging existing centres of expertise and capabilities, including in supercomputing.
Italy made some efforts to address the recommendation through new policy actions in 2025.

As regards the development of capabilities, Italy continued to invest in the development of top infrastructure such as the Leonardo supercomputer, which is also available to private entities, and in June 2025 it inaugurated the new supercomputer Megaride in Naples, designed in particular to work on cybersecurity applications. Italy also participated in the call to host one of the first AI Gigafactories.

Italy's 2026 Budget Law allocated EUR 56 million to the development and strengthening of strategic research infrastructure and project initiatives located in southern regions in the field of highly innovative technologies, with particular reference to quantum, HPC and AI.

In 2026, AI4I presented its Strategic Plan 2026-2030, setting out key action lines that focus on consolidating scientific excellence, expanding industrial partnerships, increasing computing capacity, attracting top research and technical talent, reinforcing technology transfer mechanisms and mobilising additional public and private investment to scale AI solutions. In parallel, four R&D labs were made operational, increasing the capacity for applied research and sector-specific experimentation (the objective is to have 30 labs).

Implementation continued under the National Centre for High-Performance Computing, Big Data and Quantum Computing (ICSC – *Centro Nazionale HPC, Big Data e Quantum Computing*). This centre plays a strategic role in strengthening Italy's capabilities in cloud, HPC and AI, including access for industry to advanced computing resources.

As regards the promotion of AI uptake and technology transfer, key actions to support the uptake of advanced digital technologies, including the deployment of EDIHs and TEFs, continued (see section on SMEs with at least basic digital intensity).

Unicorns, scale-ups and start-ups

Performance assessment

At the beginning of 2026, Italy had 13 unicorns, two more than it had in 2025 (11, figure revised). This puts Italy on track to meet its trajectory presented in the Digital Decade national roadmap.

Policy context and assessment of recommendations

Despite progress in recent years, certain structural factors continue to limit the growth of innovative start-ups, including in digital and deep-tech sectors. Venture capital availability has increased over the past decade, but it remains relatively limited and smaller than the supply of capital in larger European ecosystems, especially later-stage financing. This makes it harder for high-growth companies to scale up. The supply of venture capital for start-ups is also small and insufficient. Universities and research centres produce strong research output but the level of technology transfer remains relatively weak. Evidence from the Bank of Italy suggests that start-ups created from academic research are still comparatively uncommon, reflecting incentives and institutional barriers in the research system.

Italy has seen several developments in recent years on the legislative front (between 2024 and 2025) to revise and expand the original 2012 Startup Act. In particular, subsequent reforms have revised the definition of an innovative start-up, focusing on firms that meet specific growth or innovation conditions such as higher R&D spending, patents, higher revenue or employment growth, or qualified capital raising, and greater incentives for investors. The reforms also brought in new rules for certified incubators and accelerators[3].

[3] Law No 193/24 of 16 December 2024; Law No162/24 of 28 October 2024.

In terms of support measures, CDP Venture Capital remains central to the Italian venture capital ecosystem. According to its 2024 annual report, its intervention strategy is implemented through 15 specialised funds, while CDP Venture Capital states that it manages public and private resources in strategic sectors including AI and cybersecurity. The CDP's 2025-2027 Strategic Plan also confirms support for business growth, technological innovation and private capital markets as core priorities.

Additional funding instruments have been introduced by Law n. 132/2025 on Artificial Intelligence. Article 23 of Law n. 132/2025 provides for the possibility to use up to 1 billion euros of the public Venture Capital Support Fund for investments, in the form of equity and quasi-equity, in the venture capital of Italian-established companies, especially SMEs, with high growth potential in innovative technologies.

2025 recommendation on innovation ecosystems: Boost innovation in the area of digital technologies by enhancing the national ecosystem, from research/university to technology transfer centres, start-ups and scale-ups, and considering targeted incentives for key strategic sectors.
In 2025, Italy continued the implementation of existing measures but did not take any new measure. In particular, support continues through the funds managed by Cassa Depositi e Prestiti, which remain a central instrument for financing innovation and for scaling innovative firms (see above). Italy also continued efforts to strengthen technology transfer (see the section on SMEs with at least basic digital intensity).

Strengthening Cybersecurity & Resilience

Italian businesses slightly lag behind EU peers on implementing cybersecurity measures. In 2024, 53.37% of businesses applied at least five cybersecurity measures (out of 11 measures as measured by Eurostat), a touch below the EU average of 56.85%. This disparity is most evident in the adoption of encryption techniques (Italy: 23.87%, EU: 39.72%) in the use of Virtual Private Network - VPN (Italy: 42.18%, EU: 49.64%), and in the use of a monitoring system used to detect suspicious activities in ICT systems (Italy: 38.99%, EU: 45.08%). Conversely, Italy outperforms the EU average on basic access control, with 86.6% of businesses using strong password authentication (three percentage points above the EU average).

Italy's National Cybersecurity Strategy 2022-2026 has made significant progress in strengthening the country's digital resilience. The strategy focuses on protecting critical infrastructure, enhancing prevention and response capabilities, and fostering secure digital technologies. The strategy is supported by an implementation plan comprising 82 measures, all of which are now underway, involving over 200 public administrations. Funding has been secured through dedicated budgetary funds from the Ministry of Economy and Finance, as well as funding under the RRP.

In the second half of 2025, **Italy experienced significant growth in cyber threats**, with 1 253 cyber incidents recorded by the National Cybersecurity Agency (ACN), a 30% increase on the same period in 2024, involving 830 national entities. Despite the increase in events, the number of incidents with a confirmed impact decreased to 304 (-25%). The most affected sectors were the public administration (local and central) and telecommunications. Among the most significant data points was a substantial increase in distributed denial of service attacks (+101%), with 366 incidents, linked mainly to geopolitical tensions, although only 7% caused measurable disruptions.

Proactive monitoring carried out by the ACN's **Computer Security Incident Response Team** also enabled 23 724 alerts to be sent and 15 360 services to be identified as at risk. In particular, monitoring activities resulted in the detection of exposure of IP cameras exploited by hacktivist groups and identified a national malware distribution infrastructure.

Italy is currently rolling out various initiatives aimed at fortifying its national cybersecurity infrastructure and expertise. As part of these efforts, the ACN is tasked with protecting the country's resilience by promoting joint measures for private actors and public entities. With regard to the latter, it has developed ahttps://www.acn.gov.it/portale/en/w/buone-pratiche-di-cybersicurezza-il-vademecum-per-i-dipendenti-della-pa-on-line-il-nuovo-programma training program on "Cybersecurity Best Practices: A Guide for Public Sector Employees", which aims to strengthen digital security by raising public sector employees' awareness of cybersecurity best practices.

Furthermore, the ACN promotes dialogue among ministries, other public administrations and private actors through key coordination bodies, especially through the **National Cybersecurity Cell**, which constitutes a recognised best practice for interinstitutional coordination and dialogue.

Additionally, **Law No. 132/2025 on Artificial Intelligence introduces critical regulatory criteria to address advanced technology threats**. This legislative framework bridges cybersecurity standards with algorithm safety, creating mandatory benchmarks for ethical deployment, transparency, and data protection, safeguarding national infrastructure from sophisticated AI-driven automation.

Italy plays a leading role in EU-funded cybersecurity initiatives, cooperating with other EU Member States. The SECURE project, funded under the Digital Europe programme and coordinated by the ACN, is implemented by a European consortium of 14 organisations from six different countries (Italy, Belgium, Luxembourg, Romania, Spain, and Poland). The project is the sole EU initiative distributing EUR 16.5 million in cascade funding to SMEs to enhance their cyber resilience and compliance with the Cyber Resilience Act.

On skills and training, the ACN has expanded initiatives to address the cybersecurity skills gap and promote gender balance in STEM careers. Collaborative initiatives with the Ministry of Education have delivered training to 900 school leaders and teachers, while partnerships with the National School of Administration reached 1 200 public sector employees. **The 2026 update of the Cybersecurity Research & Innovation Agenda further develops its scope**, strengthening its cross-cutting framework with targeted deep-dives addressing the cybersecurity challenges introduced by general-purpose artificial intelligence, quantum technologies, and operational technologies.

Tailored programmes have also been developed for local governments, law enforcement, the military, and professional associations, including lawyers, notaries, and engineers. The E-Academy project provides public access to verified cybersecurity training materials, and partnerships with ITS Academies have funded 123 scholarships for cybersecurity courses. Competitions like Cyber-Trials engaged 500 schools, while EUR 1 million in prizes has been allocated for cybersecurity graduates (2024-2026). Internship regulations have also been introduced to facilitate workforce integration, starting in 2026.

The **national cybersecurity strategy is currently undergoing an update**, as required by the EU NIS2 Directive, to ensure alignment with evolving threats and technological advancements. The overall progress demonstrates Italy's commitment to building a cohesive, resilient, and skilled cybersecurity ecosystem, both nationally and within the broader European framework.

2025 recommendation on cybersecurity: improve cybersecurity priorities in view of evolving threats, building capacity in both enterprises and public administrations.

In 2025, Italy continued the implementation of existing measures but did not take any new measure.The cybersecurity actions described in the previous Digital Decade reports and included in the National Cybersecurity Strategy continued to be implemented through the ad hoc plan (e.g. E-Academy project). Tools and measures have strengthened security in public administrations through concrete cyber resilience measures, such as expanding regional Computer Security Incident Response Team capacities and progressing toward the goal of a unified national network. Notably, the Italian CERT (Computer Emergency Response Team) network, coordinated by ACN through CSIRT Italia, serves as the single point of contact for the prevention, management, and response to cyber incidents at the national level.

This consolidation process is consistent with the evolution of the national regulatory framework on emerging technologies, particularly the guiding principles set forth in Article 24 of Law n. 132/2025 on artificial intelligence. Aligning the legal framework with compliance requirements and defining liability profiles for the safe and lawful use of algorithms strengthens and complements the protection strategies for public digital infrastructure.

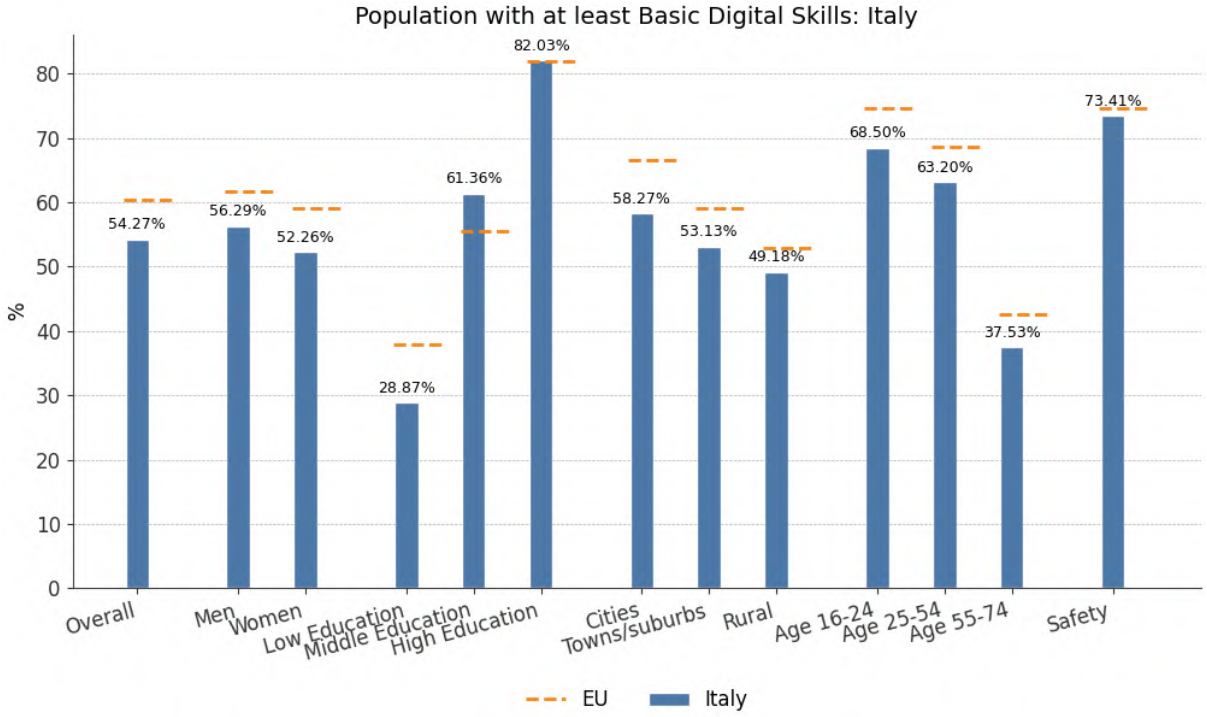
Protecting and empowering EU people and society

Empowering people and bringing the digital transformation closer to their needs

Equipping people with digital skills

Basic digital skills

Performance assessment



In Italy, 54.27% of people aged 16-74 have at least basic digital skills, following a 8.9% annual increase since 2023, though this remains below the EU average of 60.40%. This growth outpaces the EU's average annual growth rate of 4.3%, a positive trend in digital skills acquisition. Nonetheless, Italy is on track according to its trajectory presented in the Digital Decade national roadmap.

In terms of the **gender gap**, Italy has a 4.03 percentage point gap in favour of men, as 56.29% of men and 52.26% of women have basic digital skills. This gap is wider than the EU average of 2.75 percentage points.

Education level significantly influences digital skills in Italy. People with no or low levels of formal education have a basic digital skills rate of 28.87%, 25.4 percentage points lower than the national average. This gap is wider than the EU average of 22.84 percentage points.

In urban areas, 58.27% of people have at least basic digital skills, below the EU average of 66.50%. In rural areas, digital skills levels are lower, with 49.18% of people with at least basic digital skills, against the EU average of 52.83%. However, the gap between urban and rural areas in Italy is 9.09 percentage

points, narrower than the EU average gap of 13.67 percentage points. This suggests a more balanced distribution of digital skills across the country in Italy compared to the EU.

Young adults aged 16 to 24 in Italy have a digital skills proficiency rate of 68.50%, below the EU average of 74.55%. The gap between this age group and those aged 55 to 74 is 30.97 percentage points, slightly smaller than the EU average of 31.95 percentage points. This indicates that while younger Italians are digitally proficient, there is still a notable age-related disparity.

In terms of **digital safety skills**, 73.41% of individuals in Italy have at least basic safety skills, slightly below the EU average of 74.63%. However, Italy's annual growth rate of 11.5% in this area surpasses the EU's growth rate of 3.6%, showing a strong improvement in digital safety awareness.

The **use of generative AI** in Italy is lower than the EU average, used by 19.86% of people for all purposes compared to the EU average of 32.66%. Only 8.0% of Italians use generative AI for professional purposes, significantly below the EU average of 15.36%. According to the 2026 Digital Decade Eurobarometer, when asked about the most important obstacles to use more generative AI tools, Italians cited 'concerns about privacy or data protection' (45%), 'lack of training or relevant skills to use generative AI tools' (39%), and 'concerns about accuracy or incorrect information' (38%).

In summary, Italy's digital skills profile shows promising growth across various dimensions, particularly on the urban-rural balance and on digital safety awareness. However, there are still gaps by education level, gender, and age. Promoting the use of generative AI could enhance Italy's digital competitiveness in the broader European context.

The data on online content behaviour reveal a nuanced picture.

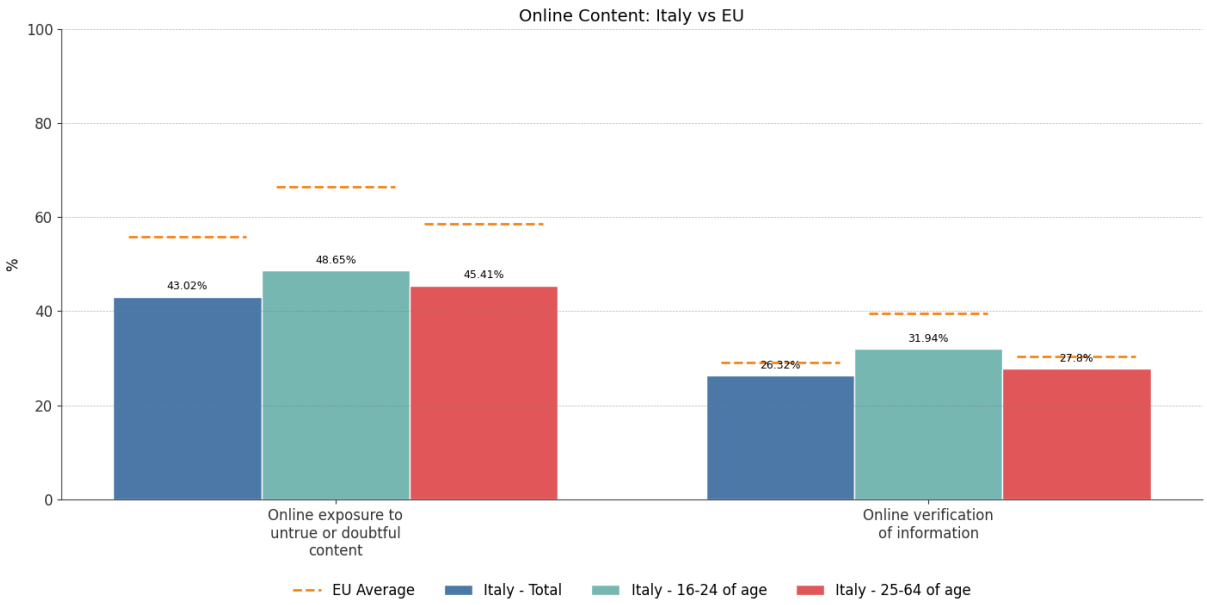
In 2025, 43.02% of people in Italy were exposed to untrue or doubtful content online, an annual increase of 7.2% from 37.42% in 2023. This figure remains below the EU average, which rose from 49.25% in 2023 to 55.90% in 2025 at an annual growth rate of 6.5%. Focusing on the age group 16-24, 48.65% of young people in Italy were exposed to such content in 2025, up from 46.19% in 2023. This is below the EU average for the same age group, which increased from 61.66% to 66.34%. The gap between the youngest group (16-24) and older adults (25-64) in Italy is 3.24 pp., significantly smaller than the 7.77 pp. gap observed at EU level. For adults aged 25-64, the figure in Italy rose from 39.55% in 2023 to 45.41% in 2025, compared with the EU average of 51.70% in 2023 and 58.57% in 2025.

Italy saw an increase in the verification of online information, with 26.32% of people verifying content in 2025, up from 20.95% in 2023, reflecting an annual growth rate of 12.1%. As such, Italy falls below the EU average, which increased from 24.29% to 29.16%, at an annual growth rate of 9.6%. For the age group 16-24, 31.94% of young people in Italy verified online content in 2025, an increase from 29.63% in 2023. This is below the EU average for the same age group, which grew from 34.68% to 39.49%. The gap between the youngest group (16-24) and older adults (25-64) in Italy is 4.14 pp., smaller than the 9.09 pp. gap at EU level. For adults aged 25-64, verification rose from 21.81% in 2023 to 27.8% in 2025, below the EU average of 25.18% in 2023 and 30.40% in 2025 for the same group.

Overall, although the share of individuals exposed to untrue or doubtful online content is below the EU average, and awareness and verification of online content are increasing, there is still room for improvement given the broader European context. An analysis by age group highlights that there is a narrower gap between young people and older adults in Italy than the EU average, indicating more consistent behaviour across age groups.

Data for Italy is not available on online exposure to hostile or degrading messages.

Italy



According to the 2026 **Digital Decade Eurobarometer**, 90% of Italian people agree that online manipulation (such as disinformation, foreign interference, AI-generated content, deepfakes) poses a threat to our democratic processes (EU average: 87%). When asked about the online issues that have the biggest personal impact on them, Italian citizens highlighted 'fake news and disinformation' (53%, EU 53%), 'misuse of personal data' (48%, EU 47%), and 'insufficient protections for minors' (41%, EU 41%). On the latter, 92% of respondents think it should be a priority for the EU to further strengthen the protection of children and young people online (EU 92%).

Overall, **75% of Italians think digitalisation of daily public and private services makes their life easier (EU 73%)**.

Policy context and assessment of the recommendations

Italy has achieved a notable improvement in basic digital skills over the past two years, reflecting sustained efforts to expand digital inclusion policies and support programmes across the country. With support from the RRF, Italy has implemented a range of measures aimed at strengthening digital skills across the population, including initiatives targeting citizens, schools, businesses and workers. A key example is the roll-out of digital facilitation centres (Digital Facilitation Service Network), established under the national digital skills strategy and supported through the RRP. These centres provide people with guidance, training and one-to-one assistance to access online public services, develop basic digital competences and participate in the digital economy. They complement a broader ecosystem of initiatives and local organisations that work on digital inclusion.

Despite this progress, there are still major gaps, notably by age, education levels and region. Older people and people with lower levels of education are significantly less likely to have at least basic digital skills. Continued efforts are needed to improve outreach, promote the effective use of digital services, and support the uptake of basic digital competences across the population. It will also be important to ensure the most successful measures launched under the RRP continue and are consolidated.

2025 recommendation on basic digital skills: strengthen training opportunities and support services for all population groups, reinforce education on digital skills in schools and incentivise reskilling and upskilling for workers.

In 2025, Italy continued the implementation of existing measures but did not take any new measure.

In terms of training and support services for all population groups, Italy has made major progress in expanding support services to improve basic digital skills across the population. Progress has also been made to implement two flagship measures financed by the RRP, the Digital Facilitation Service Network and the Digital Civil Service.

The Digital Civil Service has mobilised around 9 300 volunteers, organised approximately 590 000 initiatives and reached around 290 000 citizens. In parallel, the Digital Facilitation Service Network has expanded to around 4 000 active facilitation points, providing support to approximately 2.5 million people to develop basic digital skills. Participants covered all the different target groups: mainly people aged 30-54 (42%), including employees (23%), unemployed people (16%) and pensioners (15%), usually with medium (36%) or low levels (29%) of formal education. These initiatives are complemented by the cross-cutting *Repubblica Digitale* programme, which brings together public and private bodies to promote digital inclusion and skills development across society.

As regards education on digital skills in schools, measures have focused both on teacher training and on upgrading school infrastructure, with support from the RRP. Under the *Scuola Futura* platform, large-scale training programmes have been organised to support the digital transition of school staff, providing courses for teachers, school leaders and administrative personnel on integrating digital tools into teaching practices. These measures are expected to continue after the end of RRF implementation. In parallel, the *Scuola 4.0* programme has supported measures to modernise schools, including classroom renovation and the creation of innovative laboratories equipped with digital technologies.

Finally, in terms of **reskilling and upskilling, several initiatives support digital skills development for workers and jobseekers**, including vocational training and reskilling programmes for unemployed and workers in transition, notably through the National Plan for New Skills, the GOL (*Garanzia di Occupabilità dei Lavoratori*) programme and the Digital Republic Fund. In addition, targeted training initiatives for entrepreneurs and employees, such as the PID Academy, provide online courses and learning materials to strengthen digital competences in businesses.

ICT specialists

Performance assessment

Italy is at 3.8% of ICT specialists in total employment after a regression of 5% in 2025, below the EU average of 5.0%. The country is lagging behind compared to its trajectory presented in the Digital Decade national roadmap.

In 2025, **Italy has one of the lowest proportions of women working as ICT specialists in the EU** at just 16.6%, below the EU average of 19.5%.

Similarly, Italy's share of ICT graduates, at just 1.6% in 2024, is significantly lower than the share in other Member States.

Policy context and assessment of the recommendations

Italy faces a structural shortage of ICT specialists, largely linked to the limited supply of graduates and specialised trainees in ICT-related fields. According to Eurostat, only 1.6% of all tertiary graduates in Italy in 2024 were ICT graduates, indicating that relatively few students pursue ICT studies. Gender imbalances also remain significant: only a small share of students in ICT programmes are women.

Italy

While the number of ICT-related university programmes has gradually increased, the education and training system still struggles to keep pace with labour market demand. Alongside universities, ITS Academies (higher technical institutes) provide short-cycle tertiary programmes closely linked to industry needs and represent an important channel for training digital professionals. However, the overall output of graduates from universities, ITS programmes1) and other specialised training remains insufficient. Estimates indicate that, based on 2025 data, the annual supply of ICT graduates and specialised trainees is roughly half the number of vacancies, meaning that for every new ICT professional entering the labour market there are about two open positions. This persistent gap creates recruitment difficulties for businesses and may slow down the adoption of digital technologies and innovation across the economy.

Addressing this challenge will require strengthening ICT education and training pathways, expanding participation in ICT studies – particularly among women – and further developing vocational and tertiary technical programmes, including ITS Academies, in closer alignment with labour market needs.

2025 recommendation on ICT specialists: expand ICT higher education and align it with labour market needs, promote women's participation in ICT education and careers, and introduce measures to attract and retain ICT professionals.

In 2025, Italy continued the implementation of existing measures but did not take any new measure.

With support from the RRP, Italy has carried out a number of measures designed to support higher education, vocational training and skills development programmes.

Several initiatives aimed to expand and better align higher education with labour market needs. Measures implemented by the Ministry of Universities and Research included innovative doctoral programmes for businesses designed to meet business needs for innovation and to encourage businesses to recruit researchers. Digital Education Hubs were launched to strengthen the capacity of higher education institutions to deliver digital training to students, professionals and businesses, including inter-university digital programmes and cooperation with the private sector to identify emerging needs for skills. Efforts were also made to strengthen the ITS Academies system, with the objective of expanding training capacity, upgrading laboratories and increasing the number of highly specialised technicians trained in areas linked to the digital and green transitions.

Italy also carried out measures designed to support skills development and talent attraction in businesses and the broader labour market. Initiatives included the Innovation Manager Voucher, which supported businesses in recruiting specialised managerial profiles able to implement digital technologies and innovation processes, as well as training under the national cybersecurity strategy with the aim of upskilling ICT professionals. At the same time, the Digital Republic Fund launched new large-scale calls such as *Futura+* and *Onlife+* (published in 2025) to develop digital skills for women and people not in education, employment, or training, with a broader scale-up phase allocating around EUR 90 million to digital skills projects.

Lastly, it expanded **initiatives under the National Coalition for Digital Skills (*Repubblica Digitale*)**, for example by creating a Network of Academies bringing together training academies set up within ICT businesses to support reskilling and upskilling programmes for workers and young people. These initiatives helped strengthen cooperation between education providers and industry.

Notably, this advanced ecosystem intersects with the new legislative framework introduced by Law n. 132/2025 on Artificial Intelligence. The guiding principles of the government delegation in Article 24 establish key criteria to embed AI proficiency into higher education, professional qualifications and corporate governance.

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

Performance assessment

In 2025, Italy's total digital public services score for citizens (which covers both national and cross-border users) reached 86.11/100 points. This represents a 3.0% increase compared to 2024. As such, Italy is above the EU average of 84.64/100 points. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

When looking specifically at digital public services for national citizens, Italy reached an almost perfect score of 96.77/100 points in 2025. This is above the EU average of 94.01/100 points, and it marks a 2.5% increase since 2024. It recorded a weaker performance on cross-border digital public services for citizens with a score in 2025 of 75.45/100 points. However, this is above the EU average of 75.28/100 points and, compared to 2024, it reflects a 3.8% increase.

Digital public services related to life events that score particularly well include moving (100.0), studying (93.25), and family (93.19). Conversely, digital public services related to health (57.29), transport (82.13), and starting a small claims procedure (87.50) show the most room for improvement. Across levels of government for national digital public services, central government services scored 89.58/100 points, regional government services scored 89.07/100 points, and local government services scored 81.25/100 points.

Italy's overall digital public services score for businesses (covering both national and cross-border businesses) was 80.74/100 points in 2025, below the EU average of 88.59/100 points and unchanged since 2024. The country is on track to meet its trajectory presented in the Digital Decade national roadmap. It scores particularly highly on the business-related life event described as Regular Business Operations (86.11), whereas Business Start-Up (75.38) has the most room for improvement.

Italy reached a perfect score of 100.0/100 points for national business users. This is 1.3% higher than the score in 2024, placing the country above the EU average of 98.81/100 points. Conversely, Italy's cross-border digital public services score for businesses was 61.49/100 points in 2025. These results are below the EU average of 78.37/100 points.

In terms of the underlying features of online public services, there is room for improvement on user-friendliness, efficiency and transparency. In 2025, Italy scored 70.37 on user support, well below the EU average of 90.01. This suggests that a comparatively smaller share of Italian online services provide support tools such as online assistance, help functions and feedback mechanisms for both national and cross-border users.

Italy scored 89.83 on mobile friendliness, indicating that most online public services are accessible via a mobile-friendly interface. However, this remains below the EU average of 97.35. On the share of administrative steps in which online forms display pre-filled data already held by public administrations, Italy scored 63.55, against the EU average of 75.93. The availability of pre-filled forms is important for improving efficiency and reducing the administrative burden on users.

Lastly, on the transparency of service delivery, service design and personal data, Italy scored 59.38, again below the EU average of 69.59. This is mainly due to relatively low scores on the transparency of service delivery (42.47, against the EU average of 60.82) and the transparency of service design (58.33, against 71.81 at EU level). By contrast, Italy performs slightly above the EU average on transparency of personal data, scoring 77.33 versus 76.13.

Italy has a score of 89.93 in the access to e-health records, after a growth of 6.9%, above the EU average of 86.51. The country is on track according to its trajectory presented in the Digital Decade national roadmap.

Policy context and assessment of the recommendations

Italy continued to make progress on implementing digital identity systems, building on two widely used digital identity schemes and further developing the IT Wallet. The country uses two digital identity solutions notified under the eIDAS Regulation, which are widely adopted by the population and constitute a central access point for online public services. Work also progressed on the development of the IT Wallet, currently under pilot testing with a group of users, which is expected to enable citizens to store and use digital credentials and attestations both online and offline.

Italy continues to be an active participant in European working groups and pilot activities contributing to the development of the European Digital Identity Wallet, for example in projects such as Aptitude, which focuses on use cases related to mobility (e.g. digital travel credentials, smart ticketing and check-in) and payments, and We Build, which explores applications in payment systems and digital transaction flows, including business-to-business (B2B), business-to-government (B2G) and business-to-consumer (B2C) interactions.

In parallel, the country continued to implement key projects that aim to digitalise public services and ensure that public administration data is interoperable. For example, the *Piattaforma Digitale Nazionale Dati* provides the technological infrastructure enabling technical interoperability between public administrations through application programming interfaces that give access to their data assets. Operating in line with the national Digital Administration Code, the platform contributes to simplifying administrative procedures and improving the efficiency of public processes. To date, more than 9 000 public entities have joined the platform and over 1.1 billion data-exchange sessions have been carried out, a significant increase compared to previous years. Progress also continued on the *Anagrafe Nazionale dello Stato Civile*, a centralised platform for the management, storage and communication of civil status records, with the objective of connecting 100% of municipalities by 2026.

Italy has provided support under to RRP to modernise public administration infrastructure by migrating public services and data from local (on-premise) data centres to qualified cloud infrastructures. The aim of this measure is to modernise the IT infrastructure of the public administration, making it more secure, reliable, scalable and flexible, while improving cost-efficiency over the medium to long term. According to the latest available information, around 85% of the target has already been completed.

Italy has accelerated its digital health transformation, with the **Electronic Health Record** (*Fascicolo Sanitario Elettronico FSE 2.0*) and the **Health Data Ecosystem** (*Ecosistema Dati Sanitari - EDS*), reaching key maturity stages. Roll-out of FSE 2.0 has progressed, with a focus on strengthening national **interoperability**, expanding the set of available clinical documents, and improving data quality and **standardisation across regions**, while respecting the regional organisation of healthcare services. The FSE 2.0 governance has focused on balancing innovation with strict **cybersecurity** measures and data protection activities.

As of February 2026, **95% of general practitioners and paediatricians** have successfully submitted signed digital documents or processed electronic prescriptions through the national system. Italy is now expanding this initiative to include other categories such as pharmacists, nurses and midwives. For all health document types provided for under the applicable legislation, including the FSE 2.0 Decree of 7 September 2023, **a standardised embedded structured-data component based on CDA2**

and/or FHIR is now available for implementation. The Italian strategy has prioritised responsive web portals over native apps. However, integration with the App IO is currently underway.

These achievements are supported by a **comprehensive legal framework** (notably Law No 132 of September 2025, which established Italy's first organic regulation governing artificial intelligence in healthcare). A **massive nationwide communication campaign** was launched to guide citizens through the new digital services.

Italy also adopted the Italian Strategy for Artificial Intelligence 2024-2026, which identifies healthcare and life sciences as priority sectors, while a health-specific strategy is under development. To date, **15 Italian organisations have joined the Network of AI-powered Advanced Medical Centres**, which aims to speed up the use of innovative solutions for prevention, early detection and diagnosis in cancer and cardiovascular disease.

Furthermore, Italy is an active leader in the **European Health Data Space**, participating in key initiatives like **MyHealth@EU**, **TEHDAS 2**, and **Xt-EHR**. By contributing to the **eHealth Network** and the **European Genomic Data Infrastructure project**, Italy helps define EU-wide standards for secure, interoperable health data exchange.

Italy is implementing significant investments towards the digitalisation of its healthcare system, financed by the RRP as well as by other streams of EU funding. Notably, Italy is continuing to implement the RRP investments detailed in 2021 in the field of **advanced digital technologies in healthcare**. In particular, AGENAS, as a national public body, is implementing a RRP-funded investment aimed at developing an artificial intelligence infrastructure to support primary and community-based care, with specific reference to **community health centres** (*Case della Comunità*). Other RRF-financed projects have also achieved notable progress, including the digitalisation of first- and second-level Emergency and Acceptance Departments and further advances in the use of the Electronic Health Record system by general practitioners. Overall, the RRP has provided a strong impulse to the digitalisation of public services in recent years. As these programmes approach completion, a major challenge will be to maintain the drive to simplify the underlying administrative processes so that work to digitalise services translates into visibly simpler procedures and greater usability for citizens and businesses.

2025 recommendation: maintain momentum in deploying digital public services, focusing on simplification and take-up by users.

In 2025, Italy continued the implementation of existing measures but did not take any new measure.

Italy continued implementing the measures described above to strengthen digital identity, interoperability and public administration infrastructure. In addition, the country has pursued a comprehensive set of initiatives under the RRP aimed at accelerating the digitalisation of the public administration and its services. These include initiatives to improve the citizens' experience of public services, the digitalisation of central administrations, and the adoption of national digital platforms such as PagoPA and the IO app, which facilitate access to public services and digital payments.

The country has also focused on improving system interoperability and usability, with the objective of simplifying administrative procedures and making digital public services more accessible to citizens and businesses. These measures help maintain momentum in the digitalisation of public services and support greater user take-up, although it will be important to continue efforts to streamline underlying administrative processes and sustain adoption beyond the RRP implementation period.

Leveraging digital transformation for a smart greening

Italy's ICT sector generates a relatively lower share of emissions than the EU average. Italy reported 14.9 kg of CO_2 equivalent emissions per capita linked to ICT-related activities in 2022, below the EU average of 22.8 kg of CO_2 equivalent per capita. The ICT sector contributes 0.28% to the air emissions generated by the Italian economy (below the EU average of 0.35%), with ICT services generating a higher share of emissions than ICT manufacturing. **Italy recycles 80.71% of ICT-related waste collected (corresponding to two categories of waste electrical and electronic equipment), in line with the EU average of 80.23%**.

According to the 2026 Digital Decade Eurobarometer, **57% of Italian citizens perceive that green digital technologies (e.g. energy-saving tech) will have a positive impact over the next 10 years (above the EU average of 50%)**.

In 2025, the Italian government continued to promote the use of digital technologies to support environmental sustainability, notably through the *Piano Transizione 5.0*, introduced under the RRP to link digital investments with energy efficiency improvements in industry. The scheme provided tax credits to companies investing in advanced digital technologies – such as automation systems, digital monitoring tools and data-driven production management – provided that the investments resulted in measurable reductions in energy consumption, either at the level of production processes or of the entire facility. However, the programme finished earlier than expected, in late 2025, as the available resources were rapidly exhausted following the high number of applications.

When the funds available had been fully used, the government revised the incentive framework. From 2026, it replaces the tax-credit mechanism used in 2024-2025 with a hyper-depreciation scheme (*iperammortamento*) for innovative assets. **This measure ended earlier than expected too due to the rapid uptake of resources. The high number of applications highlighted strong corporate interest in investments that combine digitalisation and energy efficiency**.

Alongside these measures, the Italian government has also begun to address the sustainability of digital infrastructure. On this front, several administrations have started to collaborate to strengthen the link between digitalisation and energy efficiency in the built environment. An interinstitutional working group has been established involving the Department for Digital Transformation, the Ministry of Infrastructure and Transport, the Ministry of Environment and Energy Security, the energy regulator ARERA and the communications authority AGCOM. The working group will coordinate policies on the digitalisation of buildings, energy efficiency and urban regeneration. The objective is to identify integrated solutions consistent with national strategies and aligned with the objectives of the Energy Performance of Buildings Directive and the Digital Decade 2030. The working group has outlined a 'smart building model' that can be implemented in a modular way depending on the local context. The model aims to combine high-quality connectivity, energy efficiency, energy security and advanced digital services, supporting the development of more connected, efficient and sustainable buildings. The funding, however, has yet to be specified.

Annex I: National roadmap analysis

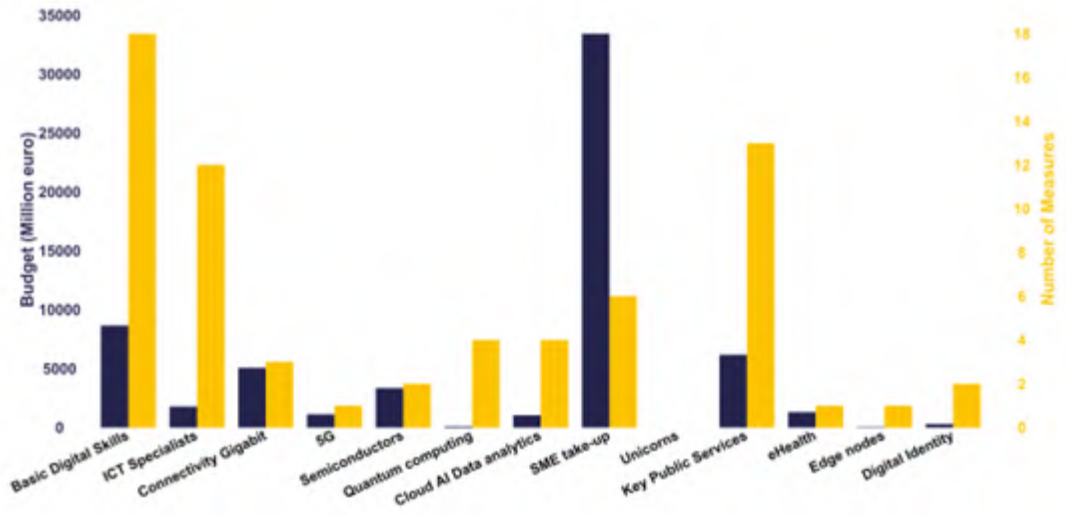
The adjusted roadmap submitted in 2025 addresses a substantial number of roadmap recommendations issued in 2024.

Italy revised the trajectories and the list of measures that contribute to their achievement, while submitting an explanation of the revisions made and of the reactions to the 2024 recommendations. Italy's roadmap has not been published.

The adjustment **adapted some of the 2030 national targets** to respond to the recommendations issued in 2024. In particular, it increased the 2030 targets on basic digital skills and ICT specialists respectively, to 80.1% and 8.4%, and extended and strengthened some of the measures in place. However, the adjustment did not revise the targets for the uptake of AI and data analytics. It should be noted that those targets, although they are below the EU ones, are ambitious, i.e. 60% by 2030 (the EU targets are 75%). Overall, the Italian roadmap covers all targets and provides the corresponding trajectories to 2030. It details 67 measures for a total budget of €62.3 billion (equivalent to 2.84% of GDP).

As part of the roadmap adjustment, **Italy revised several existing measures and introduced five new ones**. The new measures include three that focus on enhancing basic digital skills, reinforcing efforts to promote digital competence across all population groups and target audiences.

Measures and budget in national roadmap[4]



The adjustment also incorporates two major national policy initiatives into the roadmap for business digitalisation: transition 4.0 (on the uptake of 4.0 technologies) and transition 5.0 (which supports investments in technologies for the green transition of Italian enterprises).

Finally, it adds the measure for the development of the IT Wallet to the roadmap, supporting the roll-out of the EUDI Wallet.

Additionally, the addendum offers further details on implementation and outlines several new initiatives. However, these are not formally included in the repository of measures (e.g. policies

[4] 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.

to support unicorns). Some of these initiatives are still under development (e.g. the quantum strategy).

As part of the adjustment, Italy also extensively revised the set of measures to ensure the **accuracy of the information reported and the budget** (in line with the 2024 recommendation).

Measures included in the roadmap were also linked to the relevant parts of the declaration on **digital rights and principles** and the Digital Decade general objectives.

Several stakeholders were consulted for the adjustment of the roadmaps, including Italian public administrations in charge of the different areas of action, members of the Italian Digital Skills and Jobs Coalition, and regions.

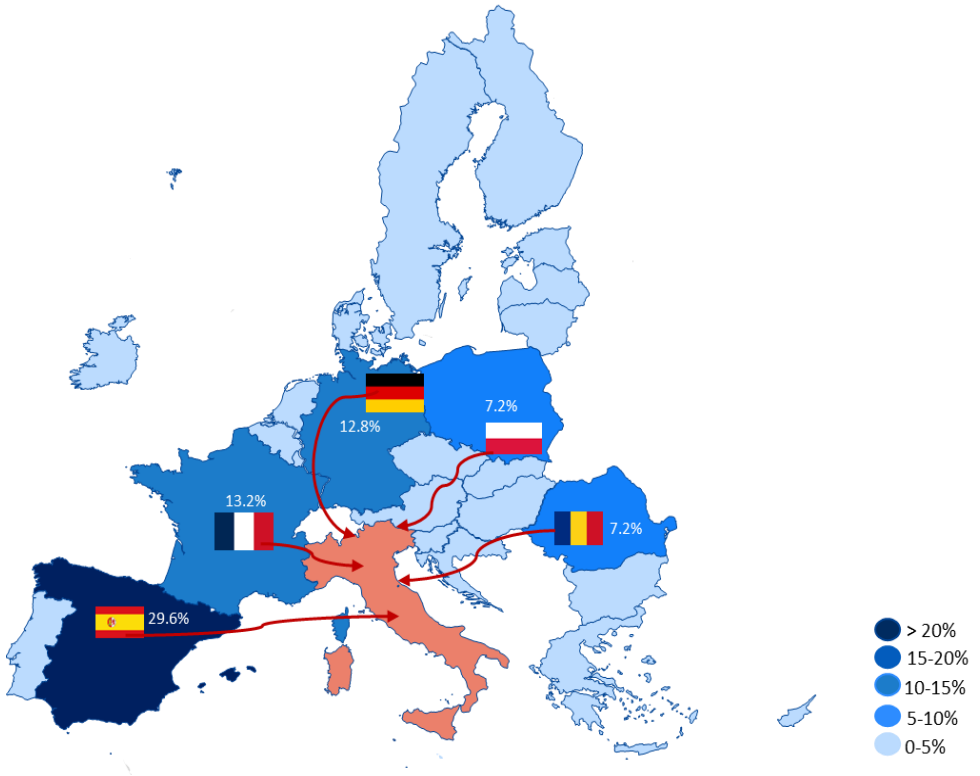
Overall, the **roadmap reflects a solid effort. It remains highly ambitious, both in terms of targets set, financial resources mobilised and the scope of measures introduced**. The inclusion of new initiatives and the strengthening of existing ones demonstrate commitment to accelerating progress towards the targets. At the same time, there is room to further consolidate the roadmap initiatives in certain areas – such as artificial intelligence and support for unicorns – to enhance coherence and strategic impact.

Annex II: Funding, economic impacts & Multi-Country Projects

Country results from the study 'Assessing the Economic Impact of Digital Investments under the Recovery and Resilience Facility'

A modelling study conducted by the European Commission services, with the FIDELIO model, assesses the economic impact of the digital component of the RRF. As of November 2025, the digital part of the Recovery and Resilience Plan of Italy was evaluated to EUR 46.8 billion with approximately 7 billion for digital infrastructures, EUR 7.19 billion for digital skills, EUR 1.7 billion for the digitalisation of businesses, EUR 1.1 billion for the digitalisation of public services, and EUR 4.6 billion for other digital priorities.

The total economic impact of RRF digital measures is estimated to EUR 56.7 billion for the national economy. Of this, EUR 52.5 billion stems from the direct effects of Italy's own RRP and EUR 4.20 billion corresponds to spillover effects from the implementation of other EU Member States' plans. Italy benefited the most from spillover effects from RRPs of Spain (EUR 1.24 billion), France (EUR 555 million), Germany (EUR 536 million). The most impacted sectors are ICT Services (EUR 9.31 billion), Professional Services (EUR 8.51 billion), and Construction (EUR 8.43 billion).



RRF spillover effects to Italy

Italy

Funding from the Recovery and Resilience Facility (RRF) & Cohesion Policy

Italy allocates 26.5% of its total recovery and resilience plan to digital (EUR 49.8 billion)[5]. In addition, under cohesion policy, it allocates EUR 6.1 billion, or 14% of the country's total cohesion policy funding, to fund action that advances Italy's digital transformation[6].

Multi-Country Projects

Italy is a member of the Alliance for Language Technologies EDIC, the Local Digital Twins towards the CitiVERSE EDIC, the EUROPEUM EDIC and the Digital Commons EDIC. Italy directly participates in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT), the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS) and the Tech4Cure IPCEI. Italy is also a participating state of the EuroHPC Joint Undertaking and the Chips Joint Undertaking.

[5] 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: 23 April 2026.

[6] This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 cohesion policy programming period. The source of funds are the European Regional Development Fund (including Interreg), the Cohesion Fund, the European Social Fund Plus and the Just Transition Fund.