



Digital Decade Country Report 2023

Poland

Introduction

Poland has scope to improve its performance in the digital transition and to contribute to the collective efforts to achieve the EU's Digital Decade targets. There has been progress in the digitalisation of public services, with notable improvements to the flagship e-Government app and in e-health. Poland has also made progress on skills, but it should strive further to achieve the Digital Decade targets. Efforts in digital infrastructures also need to be stepped up, as 5G core spectrum bands are still not available, and the EU regulatory framework is not in place. At the same time, operators have continued to invest in fixed connectivity.

Poland's performance in the area of digitalisation of business remains below the EU average with important progress still needed in terms of the uptake of advanced technologies.

The coordination of digital policies was moved to the newly re-created Ministry of Digital Affairs on 1 May 2023.

In cybersecurity, an update of National Cybersecurity System in Poland, that has been for a few years in the making has yet to be adopted and would be a necessary counterpart of the actions undertaken by the public administration bodies.

Poland is collaborating with other Member States in exploring the possibility to set up **European Digital Infrastructure Consortia (EDICs)** on: (i) establishing an Alliance for Language Technologies, to develop a common infrastructure in the field of natural language processing and to develop large multi-language models; and (ii) Innovative Massive Public Administration inter-Connected Transformation Services, to develop a new generation of advanced cross-border services. Poland is one of the Member States that have jointly submitted a formal application to set up the European Blockchain Partnership and the EDIC on European Blockchain Infrastructure, supporting EU-wide cross-border public services.

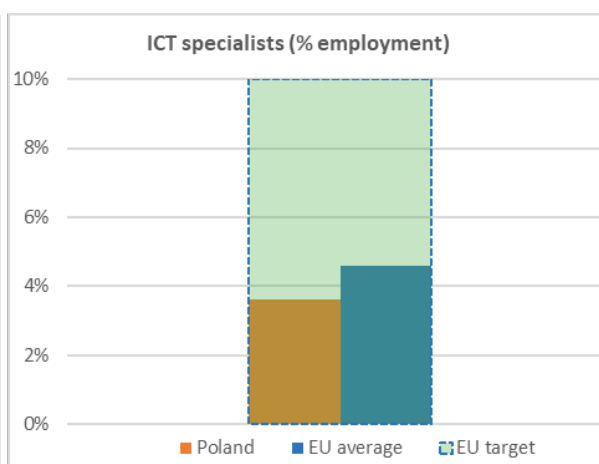
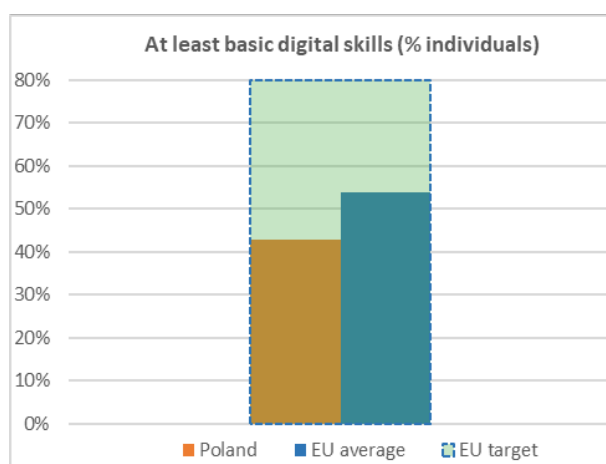
Digital in Poland's Recovery and Resilience Plan (RRP)

Measures contributing to the digital transition account for 21.3% (over EUR 7.5 billion) of the plan's total allocation which EUR 6.8 billion is expected to contribute to achieving the Digital Decade targets¹. The comprehensive set of measures is expected to have a lasting impact on Poland's digital transformation, especially in (i) developing the broadband and 5G network, (ii) improving the delivery of public services to businesses and citizens, digitising public administration, and strengthening resilience and cybersecurity. They will also help digitalising of the education system and the development of digital skills. This is also true for other sectors: the digitalisation of electricity networks should contribute to better integration of renewables and to reducing energy losses and emissions; making greater use of e-health digital solutions is also expected to strengthen the efficiency, accessibility and quality of health services. Poland has yet to submit a payment request for the first instalment of the RRF money.

¹ Each recovery and resilience plan must dedicate at least 20% of the plan's total allocation to digital objectives. To this end, the plans had to specify and justify to what extent each measure contributes fully (100%), partly (40%) or has no impact (0%) on digital objectives, using Annex VII of the RRF Regulation. Combining the coefficients with the cost estimates of each measure allows assessing to what degree the plan contributes to digital objectives and whether it meets the 20% target. Furthermore, a further qualitative assessment of the data took place to allow for an estimation of the possible contribution of RRF measures to the Digital Decade targets. The information provided refers to the Recovery and Resilience Plan as adopted by the Council before 1 September 2023, without prejudice to potential ongoing revisions of the plan.

1 Digital skills

	Poland			EU	EU
	DESI 2021	DESI 2022	DESI 2023	DESI 2023	2030 target
1a1 Internet use	81%	84%	86%	89%	
% individuals	2020	2021	2022	2022	
1a2 At least basic digital skills	NA	43%	43%	54%	80%
% individuals		2021	2021	2021	
1a3 Above basic digital skills	NA	21%	21%	26%	
% individuals		2021	2021	2021	
1a4 At least basic digital content creation skills	NA	57%	57%	66%	
% individuals		2021	2021	2021	
1a5 Enterprises providing ICT training	18%	18%	25%	22%	
% enterprises	2020	2020	2022	2022	
1b1 ICT specialists	3.4%	3.5%	3.6%	4.6%	20 million
% individuals in employment aged 15-74	2020	2021	2022	2022	~10%
1b2 ICT graduates	3.8%	3.7%	4.1%	4.2%	
% graduates	2019	2020	2021	2021	



In the digital skills dimension, there is significant room for improvement for Poland. Figures for digital skills remain lower compared to the EU average, with 43% of people aged between 16 and 74 having at least basic digital skills (EU 54%) and 21% having above basic digital skills. On at least basic digital content creation skills, Poland scores 57%, below the EU average of 66%. In addition, ICT specialists account for a slightly lower percentage of the workforce in Poland compared with the EU average. On the other hand, ICT graduates currently account for 4.1% of all graduates in Poland, equal to the EU average. That said, Poland has more enterprises investing in ICT training for their employees than the EU average (25% vs 22%). The AI4Youth pilot project, which was run by the Ministry of Economic Development and Technology in cooperation with a private company, concluding in November 2022, helped young people develop competences in artificial intelligence.

In 2022, the governmental institutions rolled out final projects that started under the 2014-2020 [Operational Programme Digital Poland](#), funded by the European Regional Development Fund (ERDF). This included the [Zdalna Szkoła+](#) (Remote School) project that provided grants to almost 2 800 Polish

municipalities and districts to purchase equipment for pupils and teachers. The [Lekcja:Enter](#) project implemented by three non-profit entities: Orange Foundation, Fundacja Rozwoju Społeczeństwa Informacyjnego and Instytut Spraw Publicznych, provided support to teachers involved in remote education.

Besides comprehensive, long-term programmes, ad hoc courses and conferences took place in 2022. The largest event was the [Digital Festival](#) comprising over 100 events. For pupils, students and teachers in Poland, the EU Code Week continued to be a major event. In 2022, as many as 14 000 activities were organised involving over 300 000 participants, mainly primary school students, the third highest number in the EU in absolute figures and taking into consideration the country's population. As in previous years, the [National Coalition for Digital Skills and Jobs](#) assisted everyone involved in coordinating actions that supported digital skills, upskilling and reskilling.

The Polish regulator (Office of Electronic Communications, UKE) runs a series of educational campaigns to improve digital skills among the population. They form part of the Cybersecurity Strategy of the Republic of Poland for 2019-2024, particularly its objective 4: 'Building public awareness and competencies in the area of cybersecurity'². This includes teaching people how to behave responsibly on the internet, as well as the rights and obligations on the telecommunications services market. UKE runs campaigns targeted at various groups: children and young people, teachers, parents, guardians, consumers, older people, consumer advocates as well as people with special needs.

In 2022, digital subjects were being mainstreamed into formal tertiary education. Universities provided more and more courses focusing or using technologies that helped an increase in the number of ICT graduates. One of the many actions in this area was the EU-financed project [Academy of Innovative Applications of Digital Technologies](#) (AI Tech), led by a consortium of five universities³.

A key government policy document, the **Digital Competence Development Programme**⁴ (*Program Rozwoju Kompetencji Cyfrowych, PRKC*), **was adopted in February 2023**. It is a comprehensive, multiannual document providing both an overview of the situation on digital skills in Poland and a plan for governmental actions. The budget foreseen for the programme is expected to be around EUR 600 million with the bulk (92%) coming from EU funds, including the RRP. The cross-cutting nature of the PRKC means that various entities are involved in its implementation. The Digital Competence Development Center at the Ministry of Digital Affairs will be coordinating the programme which will be both a challenge and an opportunity for it to carry out cross-departmental actions with the Ministry of Education and with the Ministry of Family and Labour, as well as other ministries.

Poland also plans to develop a comprehensive digitalisation strategy for education that would focus on efficient and meaningful integration of digital technologies into teaching, learning and assessment. This would include establishing minimum binding standards for equipping all schools with digital infrastructure to ensure equal access to digital education. At the same time, a participatory approach in the development of any major policies, involving local and regional governments, schools, educators, experts in digital education and civil society, is of particular value. The public consultations on this new policy, that is foreseen in the RRP to constitute the necessary

² <https://digital-skills-jobs.europa.eu/en/actions/national-initiatives/national-strategies/poland-cybersecurity-strategy-republic-poland-2019>

³ The consortium consist of Gdańsk University of Technology, Wrocław University of Science and Technology, Poznań University of Technology, University of Warsaw and Adam Mickiewicz University.

⁴ <https://digital-skills-jobs.europa.eu/en/actions/national-initiatives/national-strategies/poland-digital-competence-development-programme>

basis for the investments in digital infrastructure in schools, including making available computers for pupils, have not started in 2022.

Best practice: Grant project for the development of digital skills

In 2017-2022, a grant project for developing of digital competences worth over EUR 27 million was implemented as part of the Digital Poland Operational Programme. Municipalities received grants worth between EUR 3 300 and EUR 33 000 to organise training for their residents. For their training needs, communes were able purchase IT equipment (up to maximum of 40% of the grant value), which they passed on transferred to the schools after the project ended. The scale of the projects was adapted to the needs of the commune and its inhabitants.

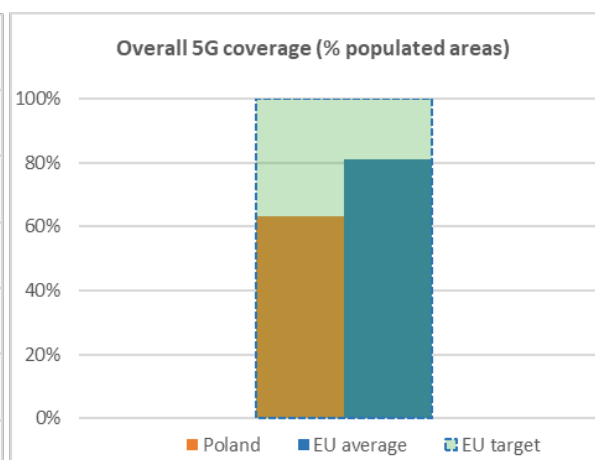
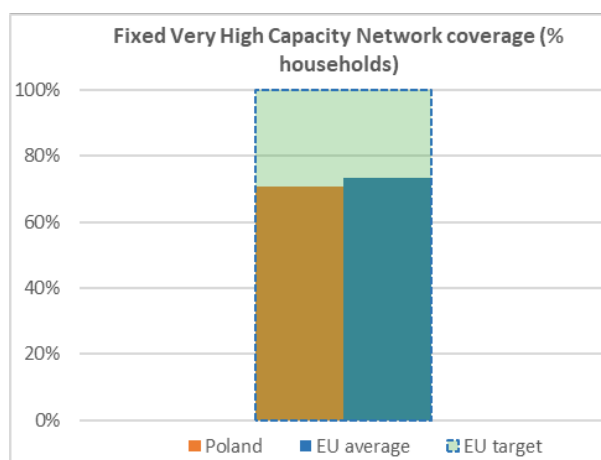
Almost 172 000 people were trained throughout Poland under this project.

Poland should step up its efforts in the area of digital skills. In particular, Poland should strengthen digital skills in primary, secondary, and vocational education and training and step up the upskilling and reskilling of the labour force, paying special attention to advanced and emerging technologies⁵.

⁵ The recommended policies, measures, and actions in this document reflect the Commission Communication 'Report on the state of the Digital Decade' COM(2023) 570.

2 Digital infrastructures

	Poland			EU	EU
	DESI 2021	DESI 2022	DESI 2023	DESI 2023	2030 target
2a1 At least 100 Mbps broadband take-up	49%	58%	65%	55%	
% households	2020	2021	2022	2022	
2a2 At least 1 Gbps broadband take-up	1.5%	2.8%	3.4%	13.8%	
% households	2020	2021	2022	2022	
2a3 Fixed Very High Capacity Network (VHCN) coverage	65%	70%	71%	73%	100%
% households	2020	2021	2022	2022	
2a4 Fibre to the Premises (FTTP) coverage	45%	52%	60%	56%	
% households	2020	2021	2022	2022	
2b1 Mobile broadband take-up	73%	84%	84%	87%	
% individuals	2018	2021	2021	2021	
2b2 Overall 5G coverage	10%	34%	63%	81%	100%
% populated areas	2020	2021	2022	2022	
2b3 5G spectrum	0%	0%	0%	68%	
Assigned spectrum as a % of total harmonised 5G spectrum	2021	2022	2023	2023	



Regarding the digital infrastructure, despite some positive changes, there is still significant room for improvement. Over recent years, Poland experienced a steady increase in the percentage of households covered by fixed very high capacity networks – 71% in 2022 compared to 65% in 2020. Notably, a major part of this increase was recorded in the Fibre-to-the-Premises (FTTP) coverage that increased from 45% in 2020 to 60% in 2022.

Regarding fixed broadband take-up, 65% of households subscribed to at least 100 Mbps fixed broadband connection in 2022, which is above the EU average of 55%. However, at 1.1% of households, the take-up of 1 Gbps broadband remains significantly below the EU average of 3.4%. At the same time broadband prices in Poland remain below the EU average.

The perspective on the developments in fixed broadband should take into consideration that people living in rural areas account for nearly 40% of the country's population and that the average

population density of rural areas in Poland is about 50 people per square kilometre. This continues to be a major factor behind the high costs of building telecommunications infrastructure, resulting in a general low level of attractiveness for investment in rural areas. A potential solution for this problem could be the wider use of smart grids in energy as wind and solar sources are usually dispersed and their integration into the grid needs strong electronic communication.

Poland plans to use a mix of funds from the Recovery and Resilience Facility (RRF) and the European Regional Development Fund (ERDF) to finance its future connectivity actions. Poland estimates that the RRF and the 2021-2027 ERDF actions will together contribute with EUR 2 billion overall, subject to compliance with applicable State aid rules.

This should provide at least 1.5 million households in Next Generation Access-white areas, increasing the rate of those with access to the gigabit society's level of services up to more than 80%. The RRF contains a set of reforms in connectivity, some of which are being implemented in line with the plan. This includes a new regulation on annual telecommunications infrastructure and services inventory⁶, adopted in March 2023.

On mobile connectivity, 63% of households were covered by 5G technology in 2022, which is below the EU average of 81%. Poland has not yet assigned radio spectrum for 5G deployment, and the current deployment is based on other frequencies thereby not allowing for advanced applications. The 5G deployment is moving ahead with some mobile providers replacing their 3G networks with more advanced network services. One big mobile operator is currently switching off the 3G network in the 2.1 GHz band, allocating the released frequencies to increase the capacity and speed of its 4G and 5G networks. Another operator slated a similar process for 2024.

Regarding the legal environment, key EU regulations have not been implemented yet. In particular, the European Electronic Communication Code (Directive 2018/1972) has yet to be transposed into national law the deadline was 21 December 2020 and Poland has yet to notify full transposition to the Commission. As a result, the Commission referred the case to the Court of Justice of the EU in April 2022. Moreover, the deployment of high quality 5G networks is hampered by the failure to assign the 5G pioneer bands. In May 2020, the Polish government cancelled the auction of the 3.6 GHz band, about six weeks after the regulator began the procedure, offering four licences that would have been valid until 30 June 2035. At the end of 2022, the Office of Electronic Communications (Urząd Komunikacji Elektronicznej, UKE) launched a consultation of documentation for an auction of the band, and in June 2023 the auction itself opened for four frequency licences in the 3.4-3.8 GHz range. The selection procedure and issuing the licences is expected to be completed in the fourth quarter of 2023⁷.

For the 700 MHz band, the situation is unclear as Poland plans to use part of this band for services of the still-to-be appointed Operator of the Strategic Security Network, a state-owned entity that would provide telecommunications services to key public administration entities with the goal to ensure they fulfil tasks for defence, state security and public safety and order.

The Operator will be established by an act amending the law on the National Cybersecurity System (Krajowy System Cyberbezpieczeństwa). The government has adopted the blueprint for legislation and has submitted it to the Parliament. However, there is only a little time to proceed it as the general elections will take place in October 2023.

⁶ [Rozporządzenie Ministra Cyfryzacji z dnia 8 marca 2023 r. w sprawie informacji o infrastrukturze technicznej i kanałach technologicznych oraz o stawkach opłaty za zajęcie pasa drogowego \(sejm.gov.pl\)](#)

⁷ <https://www.uke.gov.pl/akt/ruszyla-aukcja-5g,483.html#!>

During a public consultation on the 26 GHz band between July and September 2020, the Polish operators expressed no interests the band before 2023. Given the ongoing auction of the 3.6 GHz band, there are currently no consultations on the 26 GHz band.

The largest part of the financial resources allocated to digital matters in the RRP is earmarked for connectivity, aimed at boosting the deployment of very high capacity networks, including fibre and 5G as necessary to address identified market failures and in compliance with the applicable State aid rules. This will be done in line with the best practices of the EU Connectivity Toolbox. The total amount allocated to investments in network infrastructure is EUR 1.4 billion for fixed broadband and EUR 1.2 billion for mobile broadband. With these resources Poland aims to provide universal access to high-quality telecommunication infrastructure and modern electronic communication services in areas throughout the country where there has been a market failure, narrowing the gap between urban and rural areas. The investments will focus on:

- (i) covering 930 000 households in areas, not covered by networks providing speeds of at least 30 Mb/s download with broadband internet access with a capacity of at least 100 Mb/s;
- (ii) supporting the roll-out of the 5G network by building the 5G bases stations in areas where there had been a market failure.

These measures are expected to help achieve of the EU's 5G and gigabit connectivity objectives. From the policy perspective, the main goal of the Polish Digital Transformation Strategy for 2025, as outlined in the National Broadband plan, is to ensure that all households have internet access with a downstream connection speed of at least 100 Mbps, with the option to upgrade to gigabit speeds. For Poland to achieve these goals, the plan sets out the required financial and legislative measures, aimed at removing legal barriers hindering the rapid development of broadband networks. However, the goals of the Digital Decade Policy Programme are not currently reflected in the National Broadband plan.

In December 2022, the Information System on Access to Fixed Broadband Internet Services (SIDUSIS) was implemented. The system is a database that collects information about the availability of fixed-line internet services based on notifications from customers and internet service providers. It facilitates access to broadband Internet services for consumers but also enables operators to adjust network expansion plans to the real needs of customers.

On 1 January 2023, the *Regulation on the inventory of telecommunications infrastructure and services* entered into force. The inventory is a source of reliable data on the spatial availability of telecommunications infrastructure and networks. The inventory is also subject to information on the route of fibre-optic and other than fibre-optic cable lines providing or enabling the provision of broadband Internet access. The inventory allows for a significant improvement of the planning and construction of public telecommunications networks, including the rationalization of their location by considering the route of the existing networks.

The Polish authorities are currently working on detailed measures implementing the Connectivity Toolbox, in terms of facilitating 5G network deployment. In one of the planned reforms, Poland would like to use State support to complement for investments incentivising 5G network roll-out. In this context, Poland plans to implement measures supporting the network development in areas with low population density and alongside road infrastructure in 2023.

In 2022, Poland adopted the National Scientific Policy document (*Polityka Naukowa Państwa*), indicating the High Performance Computing and Quantum Computing as the main priorities for Polish science over the coming years. As a result, Poland supports several initiatives to develop quantum computing resources. One of them, EuroQCS-PL, is a project coordinated by the Poznań Supercomputing and Networking Centre (PSNC). It plans to create a quantum computer within 4

years. Poland also takes part in LUMI-Q, multinational consortium coordinated by Czechia, working to provide a Europe-wide quantum computing environment integrated with the EuroHPC infrastructure. Both projects concern quantum computers integrated into existing supercomputers. In all, two of the six quantum computers to be built by EuroHPC Joint Undertaking will be located in, or supported by Poland.

In 2022, also a **Quantum Hub was launched in Poznań** - the Poznań Supercomputing and Networking Center. The Hub develops quantum computing technologies and their implementations thanks to the cooperation of Polish scientists and IBM.

Best practice: Poland's support for Ukraine in the telecommunications

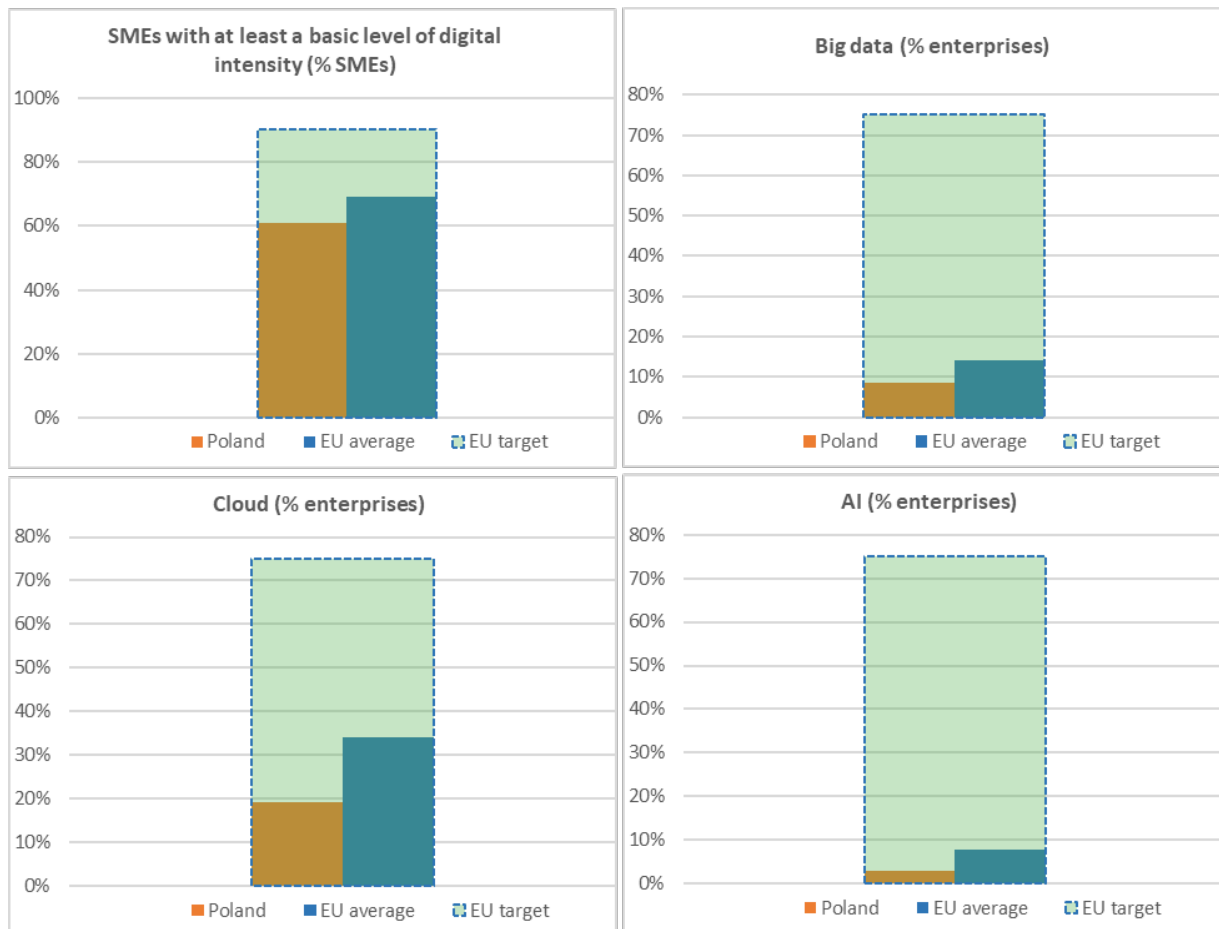
Since the Russian invasion of Ukraine in February 2022, the Polish government has been involved in activities that help Ukrainian citizens. Up until January 2023, Poland has delivered over 14 000 satellite terminals to Ukraine. It also committed to financing the subscription fees for the transferred Starlink terminals until the end of 2023. Furthermore, Poland supports the rebuilding of the civilian telecom infrastructure struck by rocket attacks from Russian forces. In March 2023, devices for storing energy and powering elements of the communication infrastructures were transferred to Ukraine. The devices make it possible to power devices and elements of telecommunications infrastructure anywhere in Ukraine, regardless of damage or destruction of the energy infrastructure from which these devices and infrastructure elements have been powered so far. Since the beginning of the conflict UKE has cooperated with the Ukrainian Regulator in strengthening border communications and security for Ukrainians coming to Poland. In addition, Polish operators signed an agreement at EU level on regarding the support for Ukraine and provided such support, e.g. free SIM cards.

Poland should step up its efforts on connectivity infrastructure. To incentivise the development of robust connectivity, the current EU regulatory framework needs to be transposed into the national regulations. The assignment of the radio spectrum needed for 5G connectivity in a transparent, open and non-discriminatory way is also necessary to achieve the Digital Decade 5G targets. Measures taken by Poland in the field of semiconductors and quantum computing should continue in order to help the EU to become a strong market player in these areas.

3 Digitalisation of businesses

	Poland			EU	EU
	DESI 2021	DESI 2022	DESI 2023	DESI 2023	2030 target
3a1 SMEs with at least a basic level of digital intensity	NA	NA	61%	69%	90%
% SMEs			2022	2022	
3b1 Electronic information sharing	29%	32%	32%	38%	
% enterprises	2019	2021	2021	2021	
3b2 Social media	14%	18%	18%	29%	
% enterprises	2019	2021	2021	2021	
3b3 Big data	9%	9%	9%	14%	75%
% enterprises	2020	2020	2020	2020	
3b4 Cloud⁸	NA	19%	19%	34%	75%
% enterprises		2021	2021	2021	
3b5 AI	NA	3%	3%	8%	75%
% enterprises		2021	2021	2021	
3b6 e-Invoices	13%	13%	13%	32%	
% enterprises	2020	2020	2020	2020	
3c1 SMEs selling online	13%	14%	14%	19%	
% SMEs	2020	2021	2022	2022	
3c2 e-Commerce turnover	NA	NA	8%	11%	
% SME turnover	2020	2021	2022	2022	
3c3 Selling online cross-border	5%	5%	5%	9%	
% SMEs	2019	2021	2021	2021	

⁸ Enterprises buying sophisticated or intermediate cloud computing services indicator, see [Digital Economy and Society Index \(DESI\) 2023 Methodological Note](#).



There is significant room for improvement regarding Poland's performance in the area of digitalisation of businesses, since the country remains – in most of aspects – below the EU average. 61% of Polish SMEs have at least a basic level of digital intensity, which is slightly below the EU average of 69%. Polish enterprises are taking advantage of the digital opportunities and are involved in online commerce, with 14% of SMEs selling online and 5% selling across borders to other Member States. Advanced technologies are slowly but steadily gaining popularity among Polish enterprises, with 19% using cloud computing services (EU average: 34%). 32% of Polish enterprises are using electronic information sharing (EU average: 38%). Nevertheless, only 18% of Polish enterprises actively use social media and 3% are integrating AI technologies into their operations. e-Invoices and big data are not yet widely used. This shows that Poland would have to make a significant effort to help achieve the 2030 Digital Decade target of at least 75% of enterprises taking up cloud services, big data or artificial intelligence (AI).

In 2022, integration of digital technology into businesses' activities has progressed steadily. The private sector has made the most effort, fuelled by the business opportunities and the natural evolution of the economy. However, various governmental bodies have also supported this drive using public funding, in particular from the EU funds. The remaining projects for R&D and innovation under the Smart Growth 2014-2020 Programme were implemented, and the Polish Agency for Enterprise Development (PARP) supported training and advice to managers of micro, small or medium-sized enterprises in adapting their human resources and innovation processes. In September 2022, the European Funds for a Modern Economy (*Fundusze Europejskie dla Nowej Gospodarki, FENG*) a cohesion policy instrument financing digital business, was approved by the European Commission. The projects are expected to be rolled out soon.

As in previous years, **authentication services were heavily used by the companies**, with some banks providing their customers with such services through the 'Trusted Profile' (*Profil Zaufany*), tool which makes it possible to log in to all online public services and securely sign official documents.

Regarding AI, after enacting the national strategy [Policy for the development of artificial intelligence in Poland from 2020](#) in December 2020, government agencies started to promote the goals, set out in the strategy. Poland also continued to support the development of digital technologies through EU-coordinated programmes. It is a member of the EuroHPC Joint Undertaking on high-performance computing and of the European Blockchain Partnership. In 2022, Poland also launched the European Blockchain Service Infrastructure (EBSI) node in NASK National Research Institute and has since been developing various parts of the system since. In February 2023 Poland confirmed its interest in an EDIC on Blockchain.

Eleven Polish European Digital Innovation Hubs (EDIHs), multi-country projects selected under the Digital Europe Programme with a total budget of EUR 23 million, will support the digital transformation of SMEs. Examples of concrete activities proposed by the EDIHs are 'test before investing, short-term advanced digital courses and training and network building events. The EDIHs are part of a European network of soon to be over 200 hubs covering all EU regions (plus Iceland, Norway, Lichtenstein, sectors and technologies).

The Digital Platform, a publicly accessible digital tool operated by the Future Industry Platform Foundation, integrates efforts all interested parties in the Polish 4.0 ecosystem. Poland is one of the 12 Member States participating in the Important Project of Common European Interest on Next Generation Cloud Infrastructure and Services (IPCEI-CIS), which forms part of the Multi-Country Project on a Common Data Infrastructure and Services. The IPCEI-CIS aims to equip the European Union with the next generation of advanced, distributed, secure, sustainable and innovative cloud-to-edge capabilities that citizens and businesses need. It will help boost the cloud services uptake by Polish enterprises, therefore helping achieve the Digital Decade's target for digital transformation of businesses.

With the RRF support, Poland will take part in a multi-country project on Cloud and Edge Computing, to develop joint capabilities in data processing with the participation of Polish businesses and other actors important for digital technology. Moreover, to help businesses become digitalised, the RRP envisages supporting 3 000 micro, small and medium-sized enterprises out of nearly 2 million with advice on digitalisation, remote training for staff and the purchase of licences and software to enable remote communication.

The requirements to make websites and mobile applications accessible were ensured a few years ago with the implementation of the relevant EU directives⁹. The private sector followed with an initiative called the Business Accessibility Forum that provides a platform for organizations to promote accessibility to all internet users. The members committed themselves to developing a common position for the business community in social consultations, and to carrying out public awareness actions.

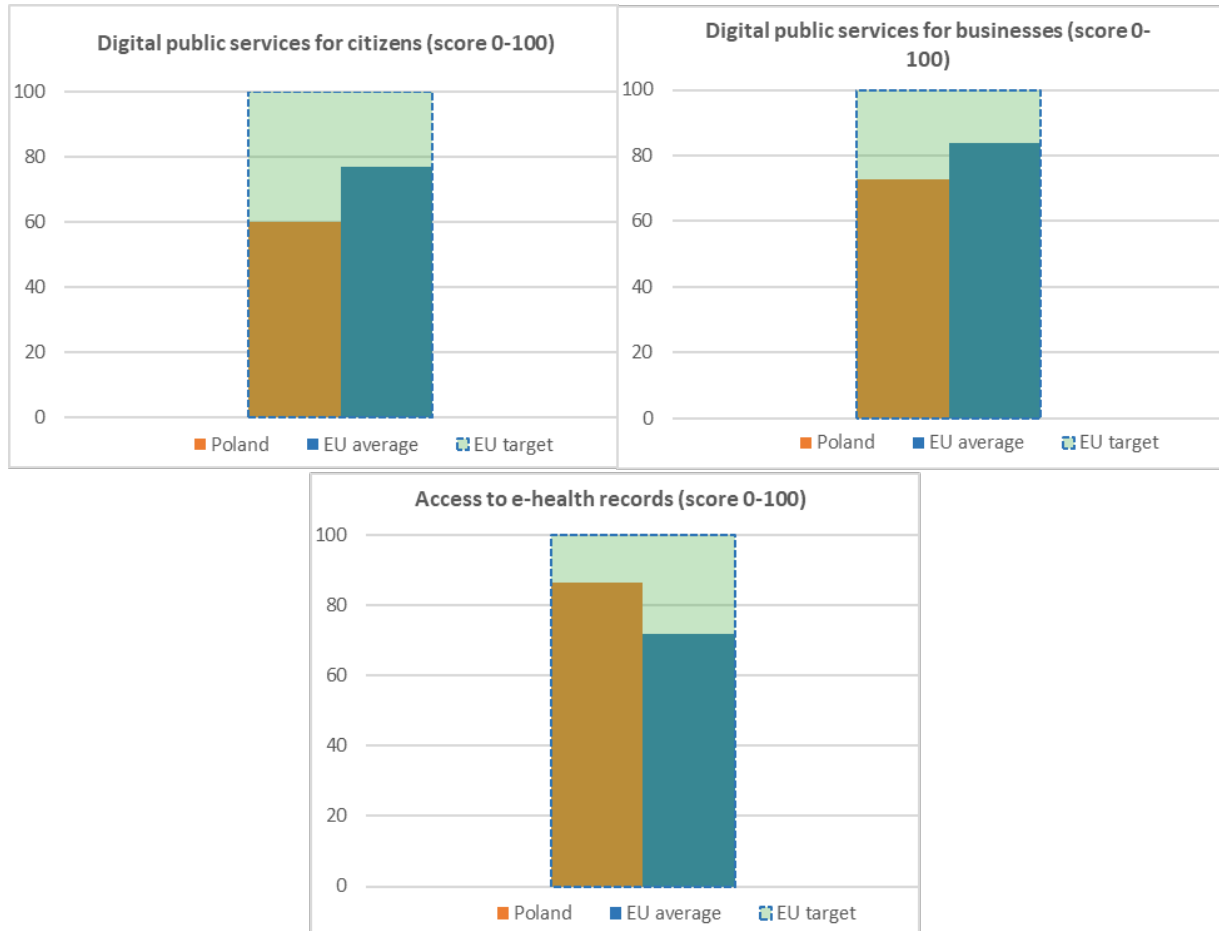
Poland should significantly step up its efforts in the area of digitalisation of businesses. In particular, Poland should facilitate access to advanced technologies including AI, big data and the cloud through sustained measures including improved access to training, incentives and knowledge

⁹ EU 2019/882 and EU 2016/2102.

transfer. It should also continue to support SMEs in their efforts to raise their uptake of advanced technologies and by encouraging start-up ecosystems.

4 Digitalisation of public services

	Poland			EU	EU
	DESI 2021	DESI 2022	DESI 2023	DESI 2023	2030 target
4a1 e-Government users % internet users	NA	NA	63% 2022	74% 2022	
4a2 Digital public services for citizens Score (0 to 100)	NA	57 2021	60 2022	77 2022	100
4a3 Digital public services for businesses Score (0 to 100)	NA	70 2021	73 2022	84 2022	100
4a4 Pre-filled forms Score (0 to 100)	NA	74 2021	78 2022	68 2022	
4a5 Transparency of service delivery, design and personal data Score (0 to 100)	NA	42 2021	57 2022	65 2022	
4a6 User support Score (0 to 100)	NA	60 2021	70 2022	84 2022	
4a7 Mobile friendliness Score (0 to 100)	NA	94 2021	93 2022	93 2022	
4b1 Access to e-health records Score (0 to 100)	NA	NA	86 2022	72 2022	100



Poland has room for improvement as far as the digitalisation of public services is concerned. In 2022, as much as 63% of internet users relied on e-Government services, below the EU average (74% in 2022). For the new target on e-health records access, Poland scores significantly better than EU average (86 against 72). On pre-filled forms, Poland also scores significantly above the EU average (78 against 68).

Thanks to the mObywatel app, Poland excels in mobile friendliness (93, same as the EU average) and performs well in the transparency of service delivery, design, and personal data. However, regarding the Digital Decade targets on availability of services, Poland is still underperforming in the availability of digital online services, scoring 60 on digital public services for citizens (EU average: 77) and 73 for businesses (EU average: 84), while the EU target for both indicators is set to 100 by 2030.

The flagship service provided by the government to the individuals is the mObywatel application. Launched in 2015, it acts as a digital wallet for documents (e.g. ID card, driver's licence or pensioner's card). Recently, it has been transformed into a digital assistant that allows to handle various official matters. It has gained in popularity, with the number of users hitting 2 million in December 2020, rising to 9.1 million by December 2022.

Following the Russian invasion of Ukraine in February 2022, the government also made the mObywatel app available on the [Diia.pl](https://diia.pl) service that allows Ukrainian citizens staying legally in Poland to confirm their identity in the whole EU. The service allows them to download personal data from a dedicated registry, as well as store it in an encrypted form on their mobile device and to present it to other actors to confirm their identity.

In the wake of the changes brought about by the COVID-19 pandemic, the use of e-government services also increased among businesses. To facilitate the move towards the digital sphere, a new version of the [Biznes.gov.pl](https://biznes.gov.pl) portal was launched in January 2022. The portal offers access to about 400 online services and over 1 000 descriptions of procedures. These services are widely used, in particular the authentication service 'Trusted Profile' (*Profil Zaufany*), which enables nearly 16.5 million people to identify and authenticate with a trusted signature in public online services, as well as enables them to sign documents.

The eID card is a secure tool containing certificates enabling electronic identification (an eID called personal profile) and the creation of an advanced electronic signature (called a personal signature). It may contain a qualified electronic signature from a trust service provider (chosen by the holder). Moreover, the ICAO application is also implemented in the ID card. Between March 2019 and December 2022, over 10 million eID cards were issued and more than 3.6 million people have activated the electronic layer in these cards and can use identification and authentication certificates and personal signatures.

The podatki.gov.pl portal allows legal and natural persons to declare their taxes online, obtain all necessary tax information and make an appointment with a tax office. In 2020 a new service called *e-Urząd Skarbowy* ([eTax Office](https://eTaxOffice.gov.pl)) was launched on the podatki.gov.pl portal, allowing all of the National Tax Administration' customers to handle their tax affairs quickly, easily and comprehensively, at any time and from any device. In 2022, there were almost 30 million logins to the *e-Urząd Skarbowy* portal with over 120 000 certificate requests made, of which around 90000 were processed automatically. A total of 11.27 million annual tax declarations were filed through the Your e-PIT service, accounting for 52.1% of all documents filed. Over a 2-year period, customer satisfaction after a visit to the offices increased reportedly from 78% to 92%, and the rate of dealing with cases during the first visit to the office increased from 77% to 86%.

In the **cloud domain**, the ZUCH system¹⁰, an IT tool available to both central and local public administration for searching, comparing, and purchasing cloud services has been operating over recent years, based on the 2019 Common State Information Infrastructure (WIIP) program. Expanding the programme, in the first quarter of 2023, a government cloud service (*Rządowa Chmura Obliczeniowa*¹¹, RChO) was launched. As part of RChO, cloud infrastructure services are available, allowing for key IT environments for the public administration to be built.

The government has announced it will set up a National Centre of Data Processing (*Krajowe Centrum Przetwarzania Danych*) that will ensure public services continue to be provided. It plans to build three standardised and energy-efficient data processing establishments connected by dedicated fibre links and powered by green energy. The government submitted a special bill about building this centre to the Polish parliament in April 2023.

In healthcare, the [Patient's Portal](https://portalpacjenta.gov.pl) provides increasingly more sophisticated services capitalising on the successful introduction of e-prescriptions in January 2020. Access to the patient's online account (*Internetowe Konto Pacjenta, IKP*) is enabled through the *mObywatel* and *mojeIKP* applications. Using the IKP, a patient can also authorise other people, including medical staff, to access their health data, submit a declaration of choice of their general practitioner, or apply for the Electronic Health Insurance Card. Recently, the prescription renewal system was rolled out.

The *mojeIKP* app, a mobile version of the IKP, is constantly being upgraded. The citizens can access their electronic health data, comprising identification and personal information, data on procedures

¹⁰ [System Zapewniania Usług Chmurowych - Gov.pl \(chmura.gov.pl\)](https://systemzapewniania.uslugchmurowych.gov.pl)

¹¹ [ZUCH - Informacje \(chmura.gov.pl\)](https://zuch.gov.pl)

or operations and prescribed medicines. People can also view electronic results and reports, including medical images, updated e-Prescription, and the e-Dispensation information. The system emphasises the need for security as it requires citizens to authenticate themselves in the online portal and mobile app using a notified eID that complies with the eIDAS Regulation.

Until June 2023 more than 17.2 million patients have accessed their individual IKP. The app is also provided in Ukrainian and English, making it available to Ukraine's citizens.

Regarding objectives on cybersecurity, to improve the way it works and adjust it to the requirements set at the EU level, the government set out in 2020 to amend the National Cybersecurity System (*Krajowy System Cyberbezpieczeństwa*, KSC). However, the related legislative proposal has yet to be adopted.

The public sector was facing difficulties in attracting cybersecurity experts due to the wage levels offered in key public institutions. To address this problem, the Cybersecurity Fund was created, and in 2022 more than 3000 cybersecurity experts working for national institutions received additional remuneration to increase the attractiveness of the posts.

The government and some private companies also participate in the PWCyber - Cybersecurity Cooperation Programme, established in 2019. It is run in the form of a public-private partnership in order to step up cybersecurity for both public and private entities.

In 2022, the upgrade of the Safer Internet Centre started with an EU funded project worth EUR 1.6 million. The Centre is managed by NASK and the Empowering Children Foundation and runs several very practical programmes: (i) 'Saferinternet.pl', comprehensive awareness-raising activities children and young people aimed at promoting safer use of the internet and new technologies; (ii) a hotline helping provide assistance to young internet users, parents and professionals in cases of risks associated with internet use; and (iii) a Dyzurnet.pl hotline that received reports about illegal internet content, such as child abuse images, racism and xenophobia.

Digitalisation of public services has enabled them to be more user-friendly and easier to access, as evidenced by the mObywatel app. It can also pave the way for the digital transformation, provided that complementary rules are in place. Promoting the use and understanding of the benefits of these services would further increase demand. In this context, proper implementation of the EU cybersecurity rules is currently a pressing issue in Poland.

Best practice: Open data

Poland performs very well, when it comes to open data, both in terms of regulation and practical tools. In the 'Open Data Maturity 2022', it ranked third, scoring well above the average for Member States. The government's actions are guided by the [Data Opening Programme](#) for 2021-2027. The aim of the strategy is not only to increase the volume of valuable public data available for re-use but also to promote a proactive model of data sharing by the public sector, including local authorities, so that the useful information is available in the user-friendly formats directly on the Internet. It creates an environment in which various actors may use the data to deliver new products and services. The figures show the continuous efforts to increase the supply of data available on the [Dane.gov.pl](#) for re-use: there are currently 31 250 resources published, 298 data publishers and 502 application programming interfaces (APIs) registered.

Poland should step up its efforts to digitalise public services.