Bundesministerium
Finanzen

National strategic roadmap for the Austrian Digital Decade

Vienna, 2023

Contents

1. Section: Introduction

1.1. Path to the digital decade

With the "Digital Decade" initiative, the European Union wants to accelerate the digital transformation throughout Europe. Key objectives are

- a digitally skilled population and highly qualified digital specialists
- secure and sustainable digital infrastructures
- successful digital transformation of companies and
- the digitalisation of public services.

With the "Digital Compass", the European Union has mapped out the "Path to the Digital Decade". In addition to the major objectives, the compass also includes specific targets ("digital targets") in the individual fields of action as well as a mechanism for structured collaboration and monitoring.

Austria is strategically implementing the goals of the Digital Decade on the basis of the Digital Compass and has developed target paths (where possible) and key measures.

1.2. Digital Austria Act (DAA) - the digital work programme of the Federal Government

The Digital Austria Act combines 117 measures and 36 digitalisation principles to reshape digitalisation in Austria. Applicable data protection principles and barrier-free accessibility are taken into account. Due to the speed of the digital transformation and the many new application possibilities, there is an opportunity to update the federal government's digitalisation programme and thus secure Austria's prosperity in the future. To this end, we are focussing on the following areas; Details on the individual areas can be found on the website for the Digital Austria Act[1] (attachment to the presentation by the Council of Ministers):

- Smart government of the future
- Digital connectivity
- Cybersecurity and cyber defence
- Digital transformation of the economy

[1] https://www.digitalaustria.gv.at/downloads.html

- Digitalisation for climate protection
- Digital innovation
- Digital healthcare
- Digital expertise
- Digital media, art and culture
- Digital universities and colleges
- Technology assessment

One important aspect is the so-called "Digi-Check", which is used to check whether laws are suitable for digitalisation when they are reviewed. One focus is also on the further development of the Digital Office into a smart government that enables simple and mobile access to all federal administrative services.

2. Section: Analysis of the current state of digital change in Austria

State of the digital transformation

90 % of the existing data has been created in the last two years, i.e: The volume of data doubles approximately every two years. There is no end in sight. Quite the opposite: The "Internet of Things" (IoT), artificial intelligence (AI), *virtual & augmented reality*, autonomous driving and much more will continue to increase the volume of data.

The Republic of Austria has set itself the goal of ensuring that all applications and services meet the requirements of modern, citizen-friendly and user-centred technology. In many years of intensive cooperation between the federal government, federal states, cities and municipalities, constant efforts are being made to establish a standardised, networked and coordinated approach to eGovernment.

Digitalisation has become a key driver for growth and securing the future. The digital transformation is not only changing the way we live and work, but is also having an overall positive impact on economic growth and new jobs. It makes it possible to completely rethink administration. Goal-oriented digitalisation can increase the efficiency and effectiveness of administration and significantly improve the interaction between the state, society and the economy. Citizens and businesses can already complete administrative procedures online via the service portals of the municipalities and federal states, via **"oesterreich.gv.at"** or the **"Digitales Amt"** app and the business service portal. Thanks to faster processes and greater transparency, modern digital administration can help entrepreneurs achieve their goals earlier, increase their productivity and operate even more successfully internationally.

Digital administration with close and cross-administrative collaboration is efficiently enabled by the so-called **Portalverbund**. The individual portals are a good basis, but there is a need for interoperability of horizontal, vertical and sectoral portals as the basis for a **cross-administrative one-stop shop**. Experience from the coronavirus crisis shows that the administration's online services are accepted and used if they are easily accessible, barrier-free and intuitive to use.

As the latest findings in the State of the Digital Decade report show, measures are needed in the area of digital skills, particularly in the area of upskilling and reskilling the labour force, especially women, and especially in the areas of advanced and new technologies (artificial intelligence, big data, cloud). In the area of connectivity, the picture is very good in terms of 5G coverage in all populated areas; further efforts will be required with regard to gigabit connectivity, especially in terms of fibre optic expansion in rural areas. The digitalisation of companies is progressing rapidly in Austria, and measures will still be required with regard to the use and promotion of new and advanced technologies (artificial intelligence, big data, cloud). In the field of artificial intelligence, an AI service centre is planned to provide consulting services regarding the legal framework and the associated development of expertise when placing AI applications on the market or putting them into operation. The Electronic Health Record (ELGA) has been available to Austrian citizens in the healthcare sector since 2012. The picture in Austria is particularly favourable with regard to access to electronic proof of identity (eID), with 100% of citizens already having access to an eID in the form of ID Austria.

Universities, colleges and non-university research provide an essential basis for social development and the digital development that is taking place, both through basic research and application-orientated research. In addition, the Institute of Digital Sciences Austria is a university with a focus on digitalisation and digital transformation, which will also make a significant contribution to Austria's digital sovereignty and competitiveness.

The challenges

Austria is in the upper midfield in the cardinal points of digital skills, integration of digital technologies and digital public services, but is below the EU average in terms of digital infrastructure.

Despite this position, Austria is endeavouring to further improve its performance and is showing more ambition. The "Digital Austria 2040-2050" vision, which encompasses the values and characteristics of a digitally responsible society, together with the principles and guidelines, forms the necessary framework for the digitalisation strategy (Digital Action Plan Austria), which in turn consists of several chapters that focus on selected key topics of the respective responsible departments. These refer to and are aligned with the goals of the Digital Decade.

More than a third of the Austrian population has no **basic digital skills**. Even though Austria is well above the EU average (63% compared to 54%), there is still plenty of room

for improvement on the way to the 2030 target of at least 80% of the population having basic digital skills.

There seems to be a consensus that further efforts need to be made in Austria in this regard, as improving the digital skills of the Austrian workforce would also help to alleviate the significant skills shortage Austria is facing. In addition, digital skills are essential to enable citizens to participate in modern life and leave no one behind.

Austria has a shortage of **ICT specialists**. According to the latest "Austrian Infrastructure Report", two out of three managers complain about too few IT specialists in the company. The relatively low proportion of women among graduates of ICT training programmes means that women also work less frequently in the information and communication sector and are therefore less involved in the design of digital technologies than men.

Austria should strengthen the qualification and retraining of the labour force, especially women, and particularly in the area of advanced and new technologies. These steps are important prerequisites for overcoming the digital divide in Austria's society and economy.

Digitalisation is the technological driver of our time, having a profound impact on many areas of life and changing the economy and society at a rapid pace. Universities are called upon to contribute responsibly to solving social and global challenges (including digital transformation, "twin transition") and to deal with them scientifically in teaching, research and the third mission. In order to be able to actively and reflectively shape the digital transformation and to overcome social and global challenges, experts with critical and innovative approaches are needed, especially in the higher-qualified STEM focus area[2], i.e. in technology and computer science. To this end, a large number of measures and objectives were agreed with the universities in the last performance agreements to make STEM subjects more attractive and strengthen them, particularly in the fields of computer science and technology. STEM will also be a focal topic in the upcoming 2025-2027 performance agreement period.

When it comes to the goals for the Digital Decade in terms of connectivity, the picture for Austria is mixed: The country is rapidly approaching **5G coverage** for all populated areas, but is still a long way from achieving fixed gigabit connectivity for all. Austria should step up its efforts to **expand gigabit connections**, in particular the expansion of fibre optics to

[2] ISCED fields 06 and 07 excl. "Architecture and construction"

premises in rural areas. This requires maintaining the general level of ambition of the measures in the Austrian broadband plan and updating the national broadband plan to ensure targeted and efficient investments without market distortions and to improve the conditions for private investment in rural areas. In addition, the existing obstacles to expansion within the framework of the Platform for Infrastructure Expansion (PIA 2030) should be removed by identifying and implementing concrete measures to simplify and accelerate decentralised approval procedures.

With only two thirds of **SMEs** achieving at least a basic level of **digital intensity**, Austria is still a long way from the Digital Decade target of 90%. Austria is slightly below the EU average for this important performance indicator. This means that there is untapped potential to improve productivity in certain sectors through greater digital intensity. At the same time, Austria supports SMEs via national and European digital innovation hubs and funding programmes.

The **utilisation of artificial intelligence (AI), cloud services and big data** shows a mixed picture in Austria. The use of big data and cloud services in Austrian companies is below the EU average, while Austria performs slightly better than the EU average when it comes to AI. The distance to the associated ambitious goal of the digital decade is considerable. Austria should continue to support the development and use of advanced technologies, including big data, AI and cloud computing, especially in SMEs, including through capacity and knowledge building. At the same time, Austria is actively promoting these new technologies and is taking measures that do not yet appear to be bearing sufficient fruit. But important discussions about the risks of reproducing inequality through stereotyped technologies are also increasingly coming into focus.

Austria should also step up its efforts to ensure that all people **have access to public online services** and should monitor their actual use and possible differences. Further steps to improve the cross-border availability of digital services for both businesses and citizens, including improving user support for users abroad, would not only improve Austria's ability to achieve the goals of the Digital Decade 2030 in terms of digital public services for citizens and businesses, but could also be seen as a driver for increasing Austria's attractiveness for foreigners and thus for overcoming Austria's skills shortage and boosting the Austrian economy as a whole.

Strengths and advantages to be utilised

The digital rankings DESI, eGovernment Benchmark and eGovernment Monitor show: Austria is clearly ahead in Europe in terms of its digital performance and especially in digital services. The ongoing comparison not only provides welcome feedback, but also helps us to further develop our digital performance. This year's eGovernment Benchmark showed that Austria is one of the top 3 nations in the EU27+ with the largest range of proactive services. In addition, Austria is one of a handful of EU27+ countries in which foreign eIDs are already accepted for more than half of the services.

Austria plays a pioneering role in the field of digital public services compared to other European countries. Austria excels in the areas of user-centredness and availability of digital administrative services and achieves above-average values for all measurement indicators.

Digital services such as the central e-government portal site "oesterreich.gv.at", the portals of the provinces, cities and municipalities, the "Digitales Amt" app for mobile e-government, "FinanzOnline", "GISA" as a cross-administration service and the "Business Service Portal" for entrepreneurs can be described as best practice in an international comparison. Austria is one of the frontrunners in the EU when it comes to the expansion of m-government and electronic delivery.

In order to maintain this standard in the future, it is important to expand digital services from the perspective of citizens, entrepreneurs and administrative staff in an integrated and networked manner and to take current technological requirements into account.

Apart from this, Austria is also an international leader when it comes to early-stage support for start-ups.

3. Section: National trajectories and targets that contribute to the realisation of the EU's digital goals

Target path eSkills (target: 80% of all people aged 16 to 74 with basic skills and 20 million ICT professionals across the EU by 2030):

- Basic competences: Initial value 63 % (women: 61 %); Target value: 70 % by 2026, max. 100 % by 2030
- ICT specialists: Baseline value 5 % in Austria (proportion of women in 2023: 19 %) and 4.6 % in the EU (source: DESI 2023), around 9 million people are employed as ICT specialists in the EU; Target value: 20 million skilled workers by 2030 with a balanced gender ratio --> Interim status: 9.37 million will be employed as ICT specialists in 2022, of which 1.77 million will be women (source: DESI 2023)

In Austria, the proportion of people with basic digital skills is 63%. The aim is to increase this proportion to 70 % by 2026 and to 100 % by 2030, for both women and men. A total of 220,700 ICT specialists were employed in Austria in 2022, 42,700 of whom were women. Compared to 2017, this is an increase of 32,900 skilled workers or 17.5 %. Over time, there has been a positive trend in terms of the proportion of ICT specialists in total employment, the proportion of female ICT specialists and the proportion of ICT graduates.

Key measures:

- *"Digital Everywhere" workshop programme as part of the digital skills campaign*
- *Digital Innovation School for graduate training as part of the digital skills campaign*

Target path connectivity (target: 100 % by 2030):

- Gigabit: Initial value 55 % (source: DESI 2023); Target value 2023: 69 %; 2024: 72 %; 2025: 75 %; 2026: 79 %; 2027: 84 %; 2028: 89 %; 2029: 94 %; 2030: 100 %
- 5G: Initial value 92 % (source: DESI 2023); Target value 2023: 96 %; 2024: 97 %; 2025: 97 %; 2026: 98 %; 2027: 99 %; 2028: 99 %; 2029: 99 %; 2030: 100 %

Connectivity comprises two KPIs:

- Availability of fixed lines that can provide reliable high-speed connectivity services (as measured by the VHCN indicator) for all European households
- Availability of a 5G mobile network regardless of the frequency band used in all populated areas

Austria's goals by the end of 2030 are almost nationwide outdoor availability of 5G and almost nationwide availability of gigabit-capable access networks. Gigabit coverage in Austria currently stands at 55%, and 92% for 5G. This development is being driven primarily by the private-sector expansion of telecoms operators. As part of the federal government's broadband initiatives, expansion is also taking place in areas affected by market failure.

Key measures:

- *Broadband Austria 2030 initiative*
- *Supply obligations as part of the multi-band auction*

Ad Gigabit: This development is being driven primarily by the private-sector expansion of telecoms operators. As part of the federal government's broadband initiatives, expansion is also taking place in areas affected by market failure. The aim is to achieve almost nationwide availability of gigabit-capable access networks by the end of 2030.
Ad 5G: This development is being driven exclusively by the private-sector expansion of telecoms operators. The aim is to achieve almost nationwide outdoor availability of 5G by the end of 2030.

Target path of semiconductors (target: In the EU at least 20 % of global production by 2030):
In its government programme for 2020 to 2024, the federal government emphasised the central importance of microelectronics for Austria's location and industrial policy. Austria has an unusually high density of internationally active and research-intensive companies that operate along the value chain of the semiconductor, supplier and user industry and are characterised by a high economic performance.

Pillar 1 of the Chips Act aims to support the development of large-scale technological capacity and innovation in the EU semiconductor manufacturing ecosystem and to improve the transition from lab to production under the title "Chips for Europe". Pillar 1 will be implemented within the framework of a Joint Undertakings Chip (JU Chip). The JU

budget will be funded with a total of EUR 3.3 billion from EU funds for the period 2023-2027 and will be strengthened by further national co-financing.

Pillar 2 creates a framework to improve the security of supply of chips in the EU by attracting domestic and foreign investment and supporting the development of new production capacity. The framework enables subsidies for new innovative production facilities. Pillar 2 is implemented from national funds and offers member states the opportunity to cover the financing gap for new production facilities of companies. In Austria, budget planning is carried out up to the year 2031.

IPCEI's Microelectronics 1 + 2 are ahead of the Chips Act and the projects of the participating companies are already being realised. The focus is on bridging the R&D&I phase from strategically important investments in the semiconductor sector to the first commercial application. The IPCEI ME 1 runs until 2024 and the IPCEI ME 2 until 2026.

Key measure:

- *Investment of three billion euros by 2031*

Target path of edge node (target: In the EU at least 10,000 edge nodes by 2030):
There are currently no surveys regarding the number of existing edge nodes in Austria. The implementation and promotion of edge nodes in communication networks should also be promoted by regulatory means.

Key measure:

- *Introduction of 5G, dedication of the frequency spectrum at 26 GHz and definition of the technical parameters in the Frequency Utilisation Ordinance*

Target path of quantum informatics (target: Provide low-threshold access to quantum computing resources for R&D by 2025):
Austria's aim is to stimulate research, development and innovation activities in the field of quantum research and technology in line with the research, technology and innovation policy objectives of the Austrian federal government. This applies both to basic research and to the development of practical applications. Relevant areas include quantum communication, quantum sensor technology, quantum metrology, quantum simulation, quantum computing and quantum information.

Key measure:

- *Quantum Austria funding initiative*

Target path of cloud computing (target: At least 75% of companies have introduced cloud, big data and/or AI):
Baseline value: 29 % (Source: DESI 2023)

In Austria, 29% of companies use cloud services (DESI 2023). The use of big data and cloud services in Austrian companies is below the EU average. Austria wants to continue to support the use of cloud computing, particularly in SMEs.

Key measures:

- Ö-*Cloud-Initiative*
- *Gaia*-X-Hub AT

Target path of mass data processing (big data) (target: At least 75% of companies have introduced cloud, big data and/or AI):
Currently, 9% of Austrian companies use mass data processing or big data (DESI 2023). In order to support SMEs in particular with their digital transformation, the government is promoting direct access for companies to partners from research and industry, including on the topic of big data.

Key measures:

- *Digital Innovation Hubs*
- *European Digital Innovation Hubs*

Target path of artificial intelligence (target: At least 75% of companies have introduced cloud, big data and/or AI):
To date, only 9% of domestic companies use AI applications (DESI 2023). In order to support SMEs in particular with their digital transformation, the government is facilitating direct access for companies to partners from research and industry, including on the topic of AI.

Key measures:

- AI *Customer Service*
- *AI* marketplace

Target path of SME (basic digital intensity) (target: More than 90% of SMEs in the Union achieve at least basic digital intensity):
National baseline value: 67 % (Source: DESI 2023 Indicator 3a1 SMEs with at least a basic level of digital intensity, SMEs [10-249 persons employed], without financial sector)

With two thirds of SMEs achieving at least a basic level of digital intensity (67% according to DESI 2023), Austria is well below the Digital Decade target and slightly below the EU average. In order to improve productivity in certain sectors through greater digital intensity, Austria is providing SMEs with targeted support in their digital transformation.

Key measures:

- *SME.digital*
- *Digital Innovation Hubs*
- *European Digital Innovation Hubs*
- *AMS qualification campaign*

Target path of unicorns (target: Double the number of unicorns at least):
National baseline value: 6 unicorns

Austria had six "unicorns" in 2022 (*The 2022 European Unicorn & Soonicorn Report, i5invest*). The number of start-ups in Austria is set to increase by at least 20% by 2024. This measure should also make a significant contribution to more unicorns. Another aim is to create a new form of capital company that offers an internationally competitive option, particularly for innovative start-ups and early-stage start-ups.

Key measures:

- *Flexible corporation*
- *aws Start-up Fund II*
- *aws* Start-up Invest

Target path of online provision - citizens (target: 100 per cent online provision of essential public services):
Baseline value: 78 % (Source: DESI 2023)

All regional authorities in Austria have been working on the online provision of essential public services for years. In addition to the central citizen service portal "oesterreich.gv.at", a number of other services such as FinanzOnline, JustizOnline, state and municipal portals and "MeineSV" are already available to citizens. A study

commissioned by the Federal Ministry of Finance (BMF) and planned for 2024 will provide a basis for decisions on the further expansion of services in the coming years.

With the citizen service portal "oesterreich.gv.at" and the "Digitales Amt" app, Austria has attractive central access points to digital services. With a single login via ID Austria, a number of existing electronic services of the administration can be used without a further login (single sign-on). Austria already has a 78% share of online provision of public services (source: DESI 2023). A study commissioned by the Federal Ministry of Finance (BMF) and planned for 2024 will support the further expansion of services in the coming years.

Key measure:

- *Expansion of digital services*

Target path of online provision - company (target: 100 per cent online provision of essential public services):
Baseline value: 83 % (Source: DESI 2023)

The Business Service Portal (USP) is the Austrian administration's central information and service platform for companies to complete their official tasks online at a single centralised location. With just a single registration for the USP, there are numerous ways to deal with the authorities online securely and without long waiting times. Austria already has an 83% share of online provision of essential services for companies (DESI 2023).

Key measures:

- *Once Only*
- *eDelivery*
- *Further development of Business Service Portal (USP)*

Target path of electronic patient records (target: 100% of EU citizens have access to their electronic patient records):
Baseline value: 88 % (Source: DESI 2023)

Around 97.5% of the Austrian population (all registered and socially insured persons in Austria) already have access to their electronic health record ("ELGA") - digitally or analogue via the ELGA ombudsman's office. From 2024, all persons registered in Austria but not covered by social insurance (approx. 200,000) will also have access to their ELGA, i.e. around 99.75 % - but without taking into account the population growth expected by

then. Due to a lack of valid registrations in Austria (approx. 20,000 people), around 0.0022% of the Austrian population will remain without ELGA access after 2024 - again without taking population growth into account.

Due to the opt-out system in ELGA, not only is the digital target of 100% already almost achieved today, but there are also no national target paths, target values or annual data points in this regard, since according to the wording of the key performance indicator pursuant to Art. 2 para. 1 no. 15 of the implementing decision, it is not the actual access of citizens to their ELGA that is important, but only the possibility for them to do so (arg. "nationwide availability of online access" or "percentage of persons who are able to").

As mentioned in Section 1 (Challenges), the results of the study commissioned by the Commission revealed a few shortcomings in the realisation of the key performance indicator and the individual sub-indicators developed as part of the study. Although any measures to remedy these deficiencies would not result in an increase in the percentage of the Austrian population with ELGA access, they will nevertheless be presented in the following section.

Key measure:

- *Availability of medical image data for citizens in ELGA*

Target path of E-ID:

Austria has already achieved the specified target. With ID Austria, 100% of citizens already have access to a secure digital proof of identity that is recognised throughout the European Union and enables unrestricted control over identity transactions and personal data transmitted. Nevertheless, work is continuing on improvements and innovations to the available services in order to achieve 100 per cent online provision of essential public services. As soon as the revision of the eIDAS Regulation, which is currently being negotiated, is finalised and a European Digital Identity Wallet is planned, work will begin on its timely implementation. Austria is already working intensively with the expert groups in the "Toolbox Process" and is actively involved in the large-scale pilot "POTENTIAL".

4. Section: Strategies, measures and actions to achieve the digital goals

4.1. KPI 1 - Skills (basic digital competences)

General overview of the measures by digital objective

Target: At least 80% of all people between the ages of 16 and 74 have at least basic digital skills.

- National baseline value: 63 % (61 % women) (source: DESI 2023)

Digital (basic) skills are to be increased through the "Digital Competence Campaign" (DKO) and the implementation of the strategy.

- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 – *Establishment of a **"Digital Competences" office at the OeAD***								
Measure 2 – *Development and implementation of an overarching **overall strategy to increase digital (basic) skills***								
Measure 3 – *Development of a **3-year programme and implementation***								
Measure 4 – *Introduction and application of a **National Reference Framework***								

Measure 5 – ***Digital Skills for All pilot project:*** *Low-threshold educational programmes to increase digital skills*								
Measure 6 – ***Digital everywhere*** *Low-threshold workshops and events in municipalities and cities*								
Measure 7 – ***Digital Everywhere PLUS*** *Educational institutions offering in-depth qualifications*								
Measure 8 – ***Digital end devices*** *for pupils and teachers*								
Measure 9 – ***(virtual) further education and training for teachers,*** *in particular MOOCs*								
Measure 10 – ***Digital (basic) education from primary school to upper secondary level***								
Measure 11 – ***Education portal - Digital School Portal***								
Measure 12 – ***Repository and Open Educational Resources - Eduthek***								
Measure 13 – ***Digital competence measurement digi.check***								
Measure 14 – ***Teaching programmes at universities*** *to teach digital and AI skills and digital literacy*								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - of which from national sources:
      - already assigned: e.g. 6188 million euros
  - **Challenge 1 - Low basic digital skills**
    - In the age of digital transformation, citizens need to have basic digital skills to be able to survive in their everyday professional and private lives. These basic skills are essential for all target groups (senior citizens, parents, employees, etc.).
  - **Challenge 2 - Development and implementation of new teaching and learning methods, professional understanding of teachers**
    - Measure 8 (Digital end devices): Access to online resources and tools and the opportunity to integrate innovative digital learning approaches into lessons
    - Measure 9 (further education and training): Training teachers to use current and future teaching and learning methods effectively and integrate them into their teaching practice
    - Measure 10 (digital education): Systematic approach to digital education for a continuous and gradual introduction to digital concepts and skills
    - Measure 11 (education portal): SSO, organisation platform
    - Measure 12 (Eduthek): Access to free and high-quality educational resources for all
  - **Challenge 3 - Funding girls in STEM sector**
    - Measure 8 (Digital end devices): Early and equal access to digital devices can help to overcome traditional gender roles and prejudices with regard to technical professions
    - Measure 10 (basic digital education): Consistent basic digital education from primary school to upper secondary level ensures that all pupils, regardless of gender, are equipped with the necessary digital skills
    - Measure 12 (Eduthek): Open Educational Resources that aim to get girls interested in STEM subjects, for example by presenting female role models or materials that are specifically tailored to the interests and needs of girls

Description of measures

4.1.1. Measure 1 - Establishment of a "Digital Competences" office at the OeAD

New measure	☒ Yes ☐ No
Brief description of the measure In order to efficiently improve the framework conditions with regard to the strategic development and expansion of digital skills in the population, the establishment of an office to bundle efforts in the administration was a necessary first step.	To promote the scaling of digital skills in Austria, a coordination centre/office has been set up within the federal government. Among other things, it promotes and coordinates the scaling of digital education programmes and represents Austria and the federal government in international and national committees. The main tasks of the office are to raise awareness of digital skills and to establish and implement incentive and support measures to increase the population's level of digital skills. Connection with the objective: Citizens who want to improve their digital skills are at the centre of the measure. Provisional schedule: The DKO office was established in 2023.
Allocated or planned budget and, where appropriate, other resources, including human resources	National: 5,438,000 euros allocated (2023- incl. 2026)
Intended effect and its occurrence over time	As part of the measure, the DKO office will provide operational support for the national goals of increasing digital skills in the years following its establishment.

4.1.2. Measure 2 - Development of an overarching overall strategy to increase (basic) digital skills

New measure	☒ Yes ☐ No
Brief description of the measure Creation of a nationwide standardised strategic orientation and coordination	Content of the measure: The "Digital Skills Austria" strategy was developed in a broad dialogue process with more than 500 experts and stakeholders in all federal states. This was adopted by the Council of Ministers in July 2023.

	A skills package with eight strategic priorities and implementation projects was derived from the strategy process to help promote digital skills in Austria. These focal points are: • Introduction and dissemination of a national reference framework for digital competences • Target group-orientated development of low-threshold offers • Promotion of qualification through "train the trainer" concepts • Enabling the scaling of effective measures • Fulfilment of the public sector's role model function • Development of IT experts • Addressing current developments such as artificial intelligence and cybersecurity • Taking on an international pioneering role Connection with the objective: The focus of the measure is on citizens who want to improve their digital skills. Provisional schedule: The strategy was developed in 2023.
Allocated or planned budget and, where appropriate, other resources, including human resources	250,000 euros allocated (2023)
Intended effect and its occurrence over time	As part of the measure, the strategy represents the strategic direction of the overarching and national priorities in the years following its development.

4.1.3. Measure 3 - Development of a 3-year work programme

New measure	☒ Yes ☐ No
Brief description of the measure Joint overall strategy with a work programme for the federal government and other regional authorities	Content of the measure: An overall concept/work programme for the federal government and other regional authorities will be developed and implemented, including specific recommendations for further measures. Contents of the programme include: • Implementation of the Digital Skills Austria strategy

	• (Further) development and establishment of an Austria-wide concept for quality assurance, standardisation and certification of digital skills on the basis of existing initiatives and work • Establishment, further development and support of the digital skills network and networking of organisations, initiatives and projects with the broad involvement of various stakeholder groups and coordination of relevant public bodies and ministries Connection with the objective: The focus of the measure is on citizens who want to improve their digital skills. Provisional schedule: The work programme is currently being drawn up.
Allocated or planned budget and, where appropriate, other resources, including human resources	The measure is to be seen as a task/part of the DKO office (budgetary) and cannot be explicitly recognised.
Intended effect and its occurrence over time	As part of the measure, the work programme sets out the measures and strategic cornerstones for the following three years from the time it is drawn up.

4.1.4. Measure 4 - Introduction of a National Reference Framework

New measure	☒ Yes ☐ No
Brief description of the measure Further development of the competency model for the National Reference Framework	Content of the measure: The National Reference Framework for Digital Skills is to be used as a standard in training and further education curricula in the fields of business, the labour market, education and public administration and is subsequently firmly anchored in the system. Connection with the objective: The focus of the measure is on citizens who want to improve their digital skills. Provisional schedule: The reference framework is currently being developed.
Allocated or planned budget and, where appropriate, other	The measure is to be seen as a task/part of the DKO office (budgetary) and cannot be explicitly recognised.

resources, including human resources	
Intended effect and its occurrence over time	As part of the measure, the National Reference Framework forms the basis for the transparency and comparability of digital competences.

4.1.5. Measure 5 - Digital Skills for All (Digital Everywhere / Digital Everywhere PLUS)

New measure	☒ Yes ☐ No
Brief description of the measure Measures 1-3 are intended to promote basic digital skills among the population. In order to meet the challenges of the digital age, we need a digitally empowered population. The EU's goal is for at least 80% of all people aged 16 to 74 to have basic digital skills. At 63%, Austria is above the EU average of 54%. Measures 1-3 contribute to achieving the stated objective.	Content of the measure: The pilot project "Digital Skills for All" is planned for 2023 with around 300 workshops, which will be organised and evaluated by the OeAD's Digital Skills Office. The "Digital Everywhere" and "Digital Everywhere PLUS" measures will follow in 2024. The aim of these initiatives is to teach basic digital skills by transforming places such as youth centres, music clubs and retirement homes into places of learning. The focus here is on low-threshold skills transfer. The measure is intended to reach all those target groups who do not attend traditional learning centres; Instead, skills mediators go directly to the target group's places of residence with their training measures. Connection with the objective: The focus of the measure is on citizens who want to improve their digital skills. Provisional schedule: The "Digital Skills for All" programme will begin in autumn 2023, while the "Digital Everywhere" and "Digital Everywhere PLUS" programmes will be available from 2024.
Allocated or planned budget and, where appropriate, other resources, including human resources	The budgets are currently being processed and allocated, no specific information possible.
Intended effect and its occurrence over time	As part of the measures, workshops are developed and offered to increase digital skills.

4.1.6. Measure 6 - Digital devices for pupils and teachers

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: The "Digital Learning" device initiative equips pupils in year 5 at participating schools with a notebook or tablet. Access to the equipment initiative is low-threshold and pragmatic for any interested school. The registration of a school takes place via a declaration of intent. By signing this declaration, each participating school confirms its intention to develop into a digital school and to establish four quality areas step by step. The school decides on the operating system. A total of five device types are available. A one-off contribution of 25% of the price of the equipment to be paid by the federal government is to be paid by the parents/guardians. An application for exemption from the personal contribution can be made under certain conditions. The initiative is supported by the OeAD as an education agency with the involvement of education directorates, university colleges of teacher education and the competence centres based at these, the Virtual University College of Teacher Education and eEducation. Connection with the objective: The purpose of the initiative is to create the pedagogical and technical conditions for IT-supported teaching and to provide pupils with access to digital education under equal conditions. This includes teaching digital skills and learning how to use mobile devices correctly as well as how to optimise the use of these devices for better learning opportunities. Provisional schedule: The programme has been running since the 2021/22 school year with the delivery of the first devices to pupils. There are currently no plans to end the programme.
Intended effect and its occurrence over time	80,000 pupils per year receive access to digital education under the same conditions.

4.1.7. Measure 7 - (Virtual) further education and training for teachers, in particular MOOCs

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: As part of so-called Massive Open Online Courses (MOOCs), educators are trained in various subject areas, such as • Teaching in blended and distance learning settings using information and communication technologies • School development from the perspective of digitalisation • Digitally inclusive specialised didactics • New curricula for primary school and secondary level 1 • New compulsory subject of digital basic education • Safer Internet As a virtual format, a MOOC supplements and expands the extensive programmes offered at universities of teacher education. It is offered as a nationwide training event. The course takes place in a virtual learning environment where an unlimited number of people can participate. No special prior knowledge is required. The course can be completed at any time, at your own pace and from any location. Each of the units contains key learning videos, additional texts and links as well as reflection questions for practical transfer in order to achieve the learning objectives. Connection with the objective: The MOOCs listed are practice-orientated and use precisely the digital tools and methods that the training is about. The direct immersion in these digital technologies enables teachers not only to acquire theoretical knowledge, but also to gain practical experience at the same time. MOOCs also promote networking and exchange with colleagues from all over Austria. In such an environment, teachers can get to know different perspectives and learn from each other, which is particularly valuable when it comes to new and constantly evolving topics such as digitalisation. Provisional schedule: MOOCs at the Virtual University of Teacher Education have been offered since 2020 and their thematic scope is constantly being expanded, also with the involvement of cooperation partners. There are currently no plans to end these activities.

Intended effect and its occurrence over time	A modern training programme is available to all teachers on demand.

4.1.8. Measure 8 - Basic digital education from primary school to upper secondary level

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: In primary schools, the anchoring of digital skills in the curriculum forms the starting point for digital education. As part of the "Learning to think, solving problems" initiative, the focus is on media education and a playful approach to computerised thinking and creative problem solving. In the 2022/23 school year, the compulsory subject "Digital Basic Education" was introduced at secondary schools and AHS lower secondary schools. This is taught for at least one lesson per week from class 5 to class 8. This increases the total number of lessons at lower secondary level by four. The subject-specific concept of the basic digital education curriculum is based on the Frankfurt Triangle, which illuminates the content from the technical perspective of digital technologies and media phenomena as well as their social interactions and the resulting options for action for the students. The content of basic digital education is divided into the three areas of IT education, media education and design skills. This curriculum also serves as a solid basis for computer science lessons in class 9 and the computer science-centred subjects in upper secondary level. The revision of the curriculum, which is currently being implemented, will also make computer science lessons at AHS upper secondary level fit for the future. In addition, this subject is to be expanded to one lesson per week from class 9 to 12 in the AHS upper secondary level. In the course of the new BMHS curriculum generation, which is currently being developed, it will be necessary to expand digital education based on basic digital education - also in the context of an application-orientation. An increase in hours may also be necessary here. Connection with the objective:

	By introducing the teaching of digital skills in primary school, a solid foundation is laid for the understanding and use of digital technologies, which is essential for a modern society that is increasingly permeated by technology. Acquiring problem-solving strategies not only promotes technical understanding, but also innovation and creative thinking - key competences for a successful digital transformation. This path is consistently continued in lower and upper secondary school to prepare students to become active, informed and competent members of a constantly changing digital society. The holistic approach to digital education ensures that young people are not just digital consumers, but are also actively involved in shaping the digital future. Provisional schedule: The projects described are being introduced gradually. The measures at primary and lower secondary level were launched in the 2018/19 school year. Since 2023/24, basic digital education has been compulsory at lower secondary level with at least one lesson per week per year. The continuation of the programme at upper secondary level is currently in preparation and, according to current planning, will start gradually from the 2024/25 school year. There are currently no plans to end these activities.

4.1.9. Measure 9 - Education portal - Digital school portal

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: The sub-project "Education Portal - Digital School Portal" acts as a central hub connecting the various applications at Austrian schools and bundles all important information from the various applications for pupils, teachers and parents/guardians. Between 2020 and 2023, the first version of this portal for federal schools was offered on http://www.pods.gv.at/. In 2023, e-government services for schools were added and a redesign was carried out based on the experience gained. Since summer 2023, this expanded portal has been available to all schools at www.bildung.gv.at and is constantly being expanded with additional functions. The roll-out at the individual schools will take place step by step as soon as the master data recorded at the

	school is available in the school administration register in a quality-assured manner. Connection with the objective: The portal is a central platform for teachers, learners and parents/guardians. It offers the possibility of accessing a variety of functions and applications that are useful for everyday school life through a single sign-on (SSO). The platform strengthens collaboration between teachers, pupils and parents/guardians, making everyday school life easier for everyone involved. A personal dashboard offers users widgets for the applications used at the school. The specific applications are selected by the respective school. Widgets show important information from another application, for example the current timetable, open homework or messages from a message book. With one click, users are taken directly to the right place in the relevant application without having to log in or enter another password. To reduce the workload of the school administration, interfaces have been established via the education portal that ensure regulated, legally compliant and secure data exchange between applications. This Educational Technologies Hub (EdTech Hub) aims to maintain the diversity of applications and the associated innovative strength in the education sector, but to achieve compatibility between the applications by standardising and consolidating the exchange of data. The education portal also offers e-government functions for all schools. These include the electronic ID card for students (edu.digicard), which can be obtained via the portal, as well as an official signature and dual delivery service. This ensures that digitally signed documents (such as certificates) are delivered in a legally valid manner - either electronically or alternatively by post. Provisional schedule: The first version of this portal was offered to federal schools between 2020 and 2023; In 2023, e-government services for schools were added and a redesign was carried out based on the experience gained. There are currently no plans to end these activities.

4.1.10. Measure 10 - Repository and Open Educational Resources - Eduthek

New measure	☐ Yes

	☒ No
Brief description of the measure	Content of the measure: As a digital content platform, the Eduthek provides in-depth practice materials for all types of schools and subjects. The Eduthek bundles content offerings using a standardised catalogue system and makes them available to teachers and students with a comprehensive metadata search and full-text search. It offers clearly organised learning and practice material for pupils of all school grades to practise at home and to consolidate learning material. Connection with the objective: As a central repository for open educational resources, the Eduthek fulfils an important key function as an interface between learning in and outside of school and between students, teachers and guardians to consolidate and deepen what has been learnt. Thanks to its close connection to the curricula and the link to the competence fields to be acquired, it ensures that the digital teaching and learning resources are not only up-to-date and relevant, but also structured in a didactically meaningful way. Provisional schedule: The Eduthek has been available to pupils, teachers and parents/guardians since 2020. There are currently no plans to end this activity. A relaunch and integration into the education portal is currently planned.

4.1.11. Measure 11 - Digital competence measurement digi.check

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: As part of the BMBWF's digi.komp initiative, digi.check helps students and teachers to gain an impression of their digital and IT skills and teachers to gain an impression of the digital and IT skills of their students or, for example, their colleagues as part of school development processes. The digi.komp competence model defines target images of the digital and IT competences that students and teachers should have acquired at certain points in their school or professional careers. The appropriate digi.check is offered for each digi.komp level in

	order to reflect on the skills acquired and to be able to plan further educational steps on the basis of the results. Connection with the objective: Pupils should have acquired their first digital and IT skills by the end of primary school. The digi.komp4 competency model defines the relevant areas. The digi.check4 encourages pupils to illustrate their own step-by-step development with stickers in a scrapbook and thus playfully document their own learning progress. The next milestone on the path to acquiring digital and IT skills is defined by the curriculum for the compulsory subject of basic digital education and is intended for class 8. The accompanying digi.check8 is carried out online or via the ITS R3 in-application test environment. Digital competences for teachers are presented in the digi.kompP competence model, which covers didactic competences as well as application and reflection competences. The associated digi.checkP, which also forms the basis for planned further training and personnel development measures, is also offered via the ITS R3 test environment. The "dashboard" digi.check, which is currently being developed and into which the results of the digi.check competence measurements will be anonymised, will provide teachers, school administrators and school supervisors with an overview of the digital competences of both pupils and teachers. Provisional schedule: As part of the evaluation of the mandatory digital basic education exercise, which was carried out in May/June 2023, new test items were created for digi.check8 and digi.checkP, which were scientifically evaluated and are now available for dissemination. Dissemination is planned for the 2023/24 school year, together with the "dashboard" for visualising the data.
Intended effect and its occurrence over time	A modern training programme is available to all teachers on demand.

4.1.12. Measure 12 - Teaching programmes at universities to teach digital and AI skills and digital literacy

New measure	☐ Yes ☒ No

Brief description of the measure	Content of the measure: Digital skills must be promoted along the entire education chain, including at universities. For this reason, the promotion of "Digital Skills and Data Literacy" was anchored in the BMBWF's strategic documents for the management of universities, such as the GUEP, HOP and the strategic framework for digitalisation at universities "Universities and Digital Transformation 2030" . As part of the "Digital and social transformation in higher education" call for proposals, numerous university projects are being funded that aim to improve the acquisition of digital skills by students, among other things. "Teaching Digital Thinking" is an Austria-wide concept of the University of Vienna for the education of students in basic computer science and computational thinking. The main aim of the project is to impart digital skills to as broad a spectrum of students as possible, enabling them to understand, critically reflect on and actively shape the digital transformation. To this end, an Austria-wide concept is to be developed for the training of students in basic computer science knowledge and for the prototypical transformation of digital skills into the curricula, with a focus on teaching and teacher training projects. The "DigiFit4All" project at the University of Klagenfurt aims to impart digital skills to all citizens (pupils, students, apprentices, generally interested parties), develop learning resources and provide personalised and skills-oriented knowledge transfer. It enables personalised learning activities that are independent of time and place and thus facilitates access to key digital skills for groups of people with specific requirements. The Institute of Digital Sciences Austria is a university that wants to break new ground in education and produce generalists with a deep understanding of digital transformation for an era characterised by AI, autonomous systems and robotics. Connection with the objective Universities already offer "extension modules", i.e. flexible content for acquiring digital skills, or teach digital skills to students and lecturers as part of the standard degree programme or via MOOCs. The focus is on establishing basic digital techniques and computational thinking as fundamental skills to be acquired by pupils, students, apprentices and all other interested citizens with the aim of enabling them to play an active role in shaping the

	digital transformation . Such measures should be further promoted . The Institute of Digital Sciences Austria is a university dedicated to digitalisation and digital transformation. It will address this topic in all its dimensions and provide students with both sound technological skills (including in the field of AI) and transversal competences. The aim is to rethink education. <u>Provisional schedule:</u> In the upcoming 2025-2027 performance agreements with the universities, corresponding new projects and objectives will be agreed and existing measures will be driven forward. The projects from the tender "Digital and social transformation in higher education" will be continued if the evaluation is positive and will be transferred to regular operations from 2024. The Institute of Digital Sciences Austria will begin developing regular study programmes in 2024 and go into regular operation.
Intended effect and its occurrence over time	Students across all types of higher education institutions and subject groups have digital skills. New, innovative ways and methods of acquiring digital and AI skills are being developed, which not only serve to impart practical skills to increase the employability of graduates, but also allow a comprehensive understanding of digital transformation and its social impact.
Allocated or planned budget and, where appropriate, other resources, including human resources	The projects under the call for proposals "Digital and social transformation in higher education" are to be continued using the university's global funds.

4.2. KPI 2 - ICT specialists

<u>General overview of the measures by digital objective</u>

Target: 20 million ICT specialists EU-wide, promotion of women in this field

- National baseline value: Baseline value 5 % in Austria (source: DESI 2023) (proportion of women in 2023: 19 % - Source: DESI 2023)
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 - ***Support for capacity building*** - *Support programmes for recruitment and training*								
Measure 2 - *Study on the topic of skilled labour as part of the digital skills campaign*	n. A.							
Measure 3 - *Digital Innovation School for graduate education*	n. A.							

- **Challenge 1 - Lack of ICT specialists for cyber security in Austria**
  - The measure "Examination of a possible Austrian contribution to the implementation of the EC Communication Cybersecurity Skills Academy (COM(2023) 207 final) by means of an EDIC" is intended to help end the shortage of skilled workers in the field of cybersecurity and strengthen the EU's competitiveness, growth and resilience. In this way, a possible contribution to a better exchange and higher availability of information regarding potential career paths and training routes should be achieved and the training, education and research infrastructure in Austria, which is available to both individuals and economic actors, should be expanded.

- **Challenge 2 - Compliance with new legal requirements in the area of cyber security, particularly in relation to EU Directive 2022/2555.**
  - EU Directive 2022/2555 significantly expands the group of affected organisations that need to invest in cybersecurity in order to meet the new legal requirements. A funding programme planned for 2023 by the National Cybersecurity Coordination Centre (NCC- AT) will support SMEs with so-called cybersecurity checks to prepare for the requirements of the new directive and at the same time promote the introduction of innovative cybersecurity solutions. A total of EUR 2 million (50% co-financed by the Digital Europe Programme [DEP], 50% co-financed by national funds from the Austrian Future Fund [FZÖ]) will be made available until 2024. Austria assumes that around 200 companies will be reached

(max. 40 % funding of the costs, max. 10,000 euros per SME).

- **Challenge 3 - Proportion of women among ICT specialists**

Description of measures

4.2.1. Measure 1 - Support for capacity building

New measure	☐ Yes ☒ No
Brief description of the measure Support programmes for staff recruitment/search Measures for (new) digital talents Qualification campaign for the further training of employees	<u>Support programmes for staff recruitment/search</u> The competition for digitally savvy specialists is intensifying in Austria and internationally. Many companies lack specialists who can implement digital transformation projects or do not have employees who can be trained for this. The Austrian Economic Chamber is therefore calling for the development of support measures for staff development in the area of digitalisation, e.g: • Creation of a training programme to become a "digital change agent". These are internally trained or externally recruited employees who temporarily support companies during the transformation process <u>Qualification campaign</u> Continuation and expansion of the qualification campaign (BMAW). Three formats will continue to be available for funding: • Skills cheques: Subsidy for qualification measures attended on the market in the areas of Green & Digital Transition • Qualification projects: Customised projects for companies, including the development of skills profiles and implementation of corresponding training measures • Training labs: Laboratories in which companies develop and test specific training formats for the transformation of Austrian companies together with research institutions and experts over a defined period of time <u>Digital talents</u> To increase the availability of digital talent in the medium term, the following measures are essential: • Improving the basic understanding of coding in schools, apprenticeships, vocational training and at universities • Organising hackathons etc. to raise awareness

	• Funded coding initiatives for children during school holidays (e.g. Coding4kids) Connection with the objective: The measure focuses on SMEs that are beginning their digitalisation process. Their fundamental need for digitalisation is supported. The biggest hurdle in digitalisation projects is a lack of human resources and a shortage of digital talent and specialists. Provisional schedule: The programme will start in July 2023 and a review of the programme terms and conditions will take place at the beginning of the fourth quarter of 2023 (revised terms and conditions are expected to be available from the end of the fourth quarter of 2023). The programme is expected to be available until at least the end of 2025.
Intended effect and its occurrence over time	Effect: SMEs are to be supported in building up human resources. A larger pool of digital talent is available for larger companies.

4.2.2. Measure 2 - Study on the topic of skilled labour as part of the digital skills campaign

New measure	☒ Yes ☐ No
Brief description of the measure	Content of the measure: As part of the Digital Skills Campaign (DKO), the KPI on skilled labour is of great importance and the topic of skilled labour has been defined as one of the DKO's objectives. A study was commissioned to present the basics of the topic and define the fields of action to be addressed. Connection with the objective: Increase the number of IT specialists: A total of 220,700 ICT specialists were employed in Austria in 2022. Compared to 2017, this is an increase of 32,900 skilled workers or 17.5 %. Over time, there has been a positive trend in terms of the proportion of ICT specialists in total employment, the proportion of female ICT specialists and the proportion of ICT graduates. Guidelines were formulated for the development of measures in the field of action ICT experts.

	Provisional schedule: The study is available.
Allocated or planned budget and, where appropriate, other resources, including human resources	Cannot be explicitly recognised. Will be dealt with as part of the DKO (comprehensive topic).
Intended effect and its occurrence over time	The proportion of ICT specialists must be increased through targeted measures.

4.2.3. Measure 3 - Digital Innovation School for graduate education

New measure	☒ Yes ☐ No
Brief description of the measure	Content of the measure: As part of the Digital Competence Campaign (DKO) for Austria, the BMF and BMBWF are implementing a joint initiative to develop and secure top IT talent for Austria. Austria gets a Digital Innovation School for graduate education. This Ph.D. training programme is intended to better meet the demand for highly qualified top talent. Graduates should be able to play a leading role in shaping digital transformation at a leading international level. Connection with the objective: In addition to technical skills, the Digital Innovation School also teaches skills for the management of transformation processes. The training programme covers the highest competence levels (seven and eight) in the DigComp 2.3 AT digital competence model for Austria. This graduate training programme will develop and secure first-class digital qualifications for Austria in a future-oriented manner. The Digital Innovation School thus supports the DKO's strategic goal of increasing the number of IT experts. Provisional schedule: We are currently working on the implementation.
Allocated or planned budget and, where appropriate, other resources, including human resources	Budgeting is currently under negotiation.
Intended effect and its occurrence over time	The proportion of ICT specialists must be increased through targeted measures.

4.3. KPI 3 - Gigabit

General overview of the measures by digital objective

A gigabit network connection for all households has been set as a connectivity target for 2030.

- National baseline value: Gigabit-capable broadband (≥ 1000 Mbit/s) is available for 55% of households (source: DESI 2023).
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure – ***Broadband Austria 2030 initiative***								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - already assigned: 1,446 m euro
    - of which from national sources:
      - already assigned: 555 m euro
    - of which from EU sources (RRF):
      - already assigned: 891 m euro
- **Brief description:** One of the main priorities of the Broadband Austria 2030 initiative is to support the digital transformation through connectivity measures aimed in particular at bridging the digital divide between urban and rural areas and counteracting market failure with regard to the expansion of high-performance networks.
  - **Challenge - distortion of competition through state aid**
    - Competition policy, and in particular state aid rules, play an important role in realising the objectives of the digital strategy and developing a coordinated investment strategy for connectivity. State aid control in the broadband sector aims to ensure that state aid leads to higher broadband coverage and utilisation than would be the case without state intervention, while at the same time supporting higher quality and more affordable services and pro-

competitive investment. State intervention should minimise the risk of crowding out private investment, impairing commercial investment incentives and thus ultimately the risk of distortions of competition that run counter to the common interest.

- **Estimated investment gap and possible measures to achieve the national targets**
  The telecommunications sector in Austria has been liberalised since 1998. Investments must therefore be prioritised by the sector. In a study conducted in 2021, an overall assessment showed that investment costs of around EUR 5.2 billion would be required to develop subsidised areas with broadband infrastructure. Investment costs of around EUR 8.7 billion are required for the expansion of broadband infrastructure in subsidised areas and self-developed non-gigabit-capable areas. For information purposes, it was also calculated what investment costs would be necessary to re- lay broadband infrastructure throughout Austria (greenfield expansion). Investments totalling around EUR 10 billion would be required here[3].

Description of measures

4.3.1. Measure - Broadband Austria 2030 initiative

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: One of the main priorities of the Broadband Austria 2030 initiative is to support the digital transformation through connectivity measures aimed in particular at bridging the digital divide between urban and rural areas and counteracting market failure with regard to the expansion of high-performance networks. • The funding programme "BBA2030: Access" aims to ensure the availability of gigabit-capable communications infrastructure in those areas of Austria that are not or only insufficiently accessible through private-sector expansion due to market failure. • The funding programme "BBA2030: OpenNet" aims to ensure the availability of gigabit-capable open access networks in those areas of Austria that are not or only insufficiently covered by private-sector expansion due to market failure.

[3] KPMG, Study on the development and analysis of a model to accelerate broadband expansion in Austria, 2021, https://data.breitbandbuero.gv.at/PUB_KPMG-Studie- Breitbandausbau.pdf

	• The funding programme "BBA2030: Connect" aims to ensure the availability of symmetrical gigabit access in areas with a particular socio-economic focus throughout Germany. • The funding programme "BBA2030: GigaApp" complements infrastructure funding by promoting innovative mobile and stationary applications that will characterise the gigabit society. The aim is the pre-competitive development of innovative, exemplary regional applications and services based on gigabit-capable networks. <u>Connection with the objective:</u> The measure focuses on those areas of Austria that are not or only inadequately covered by a private-sector expansion due to market failure (avoidance of a digital divide between urban and rural areas). The subsidised construction of gigabit access networks is intended to stimulate the wholesale market and ensure competition on the end customer market. <u>Provisional schedule:</u> The programmes "BBA2030: Access" and "BBA2030: OpenNet" were notified by the European Commission by the end of 2026. The first round of tenders as part of the Broadband Austria 2030 initiative started in March 2022. Further funding calls are carried out on the basis of market consultations. An initial external interim evaluation must be carried out by the end of 2025.
Allocated or planned budget and, where appropriate, other resources, including human resources	• National: 555 m euro • EU: 891.3 m euro
Intended effect and its occurrence over time	As many households as possible in areas affected by market failure will have gigabit network access by the end of 2023.

4.4. KPI 4 - 5G

General overview of the measures by digital objective

The connectivity target for 2030 is 5G coverage of all populated areas.

- National baseline value: Outdoor availability of 5G mobile communications exists in 92% of households (source: DESI 2023).
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure – ***Supply obligations as part of the multi-band auction***								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - No public investments are planned.
- **Brief description:** Through the 700/1500/2100 MHz multi-band auction in September 2020, mobile operators acquired 5G frequencies that are particularly suitable for providing coverage in rural regions.
  - Challenge - supplying rural regions with 5G
    - In the run-up to the multi-band auction, the Telekom-Control Commission (TKK) identified 2,100 cadastral communities with inadequate mobile communications coverage. These must be addressed as part of the supply requirements of the multi-band auction.
- **Estimated investment gap and possible measures to achieve the national targets**
  - No public funds are earmarked for the expansion of mobile phone coverage. Investments must therefore be made entirely by the sector.

Description of measures

4.4.1. Measure - Supply obligations as part of the multi-band auction

New measure	☐ Yes

	☒ No
Brief description of the measure	Content of the measure: The 5G strategy was published by the Federal Government in the Council of Ministers presentation 15/11 of 25 April 2018[4]. The aim of the 5G strategy is to accelerate the introduction of 5G mobile communications technology in Austria through optimised framework conditions. The first 5G frequency auction in the 3.4-3.8 GHz range was completed in March 2019[5]. This enabled all mobile network operators to acquire sufficient and homogeneous 5G frequency coverage for the whole of Austria (between 100 and 140 MHz, depending on the region). Thanks to the early allocation of frequencies, the three mobile network operators were able to start commercial operation of 5G at the beginning of 2020. Through the 700/1500/2100 MHz multi-band auction in September 2020, mobile operators have already acquired 5G frequencies that are particularly suitable for providing coverage in rural regions.[6] In order to incentivise additional availability, the Telekom-Control Commission (TKK) has created a bonus system: The bidders were able to bid at a discount on the previously submitted bids in exchange for the obligation of additional availability. This incentive system has ensured that a total of 1,702 cadastral communities will have nationwide 5G availability in the future. That is around 80 % of all cadastral communities in Austria that have been poorly supplied or not supplied at all to date. Connection with the objective: The measure focuses on those rural areas of Austria that previously had inadequate mobile phone coverage (avoiding a digital divide between urban and rural areas). The supply obligations are intended to improve supply and at the same time stimulate competition on the end customer market. Provisional schedule:

[4] https://www.bundeskanzleramt.gv.at/dam/jcr:2a2b6005-8f93-44d2-9ea5-5e853c74b591/15_11_mrv.pdf

[5] https://www.rtr.at/TKP/was_wir_tun/telekommunikation/spectrum/procedures/5G_Frequenzvergabe_3_4-3_8GHz/5G-Auction.de.html

[6] https://www.rtr.at/TKP/was_wir_tun/telekommunikation/spectrum/procedures/Multibandauktion_700-1500-2100MHz_2020/FRQ5G_2020.de.html

	The first 5G frequency auction in the 3.4-3.8 GHz range was completed in March 2019.[7] The second 5G frequency auction in the 700/1500/2100 MHz range took place in September 2020. In order to create planning certainty for market participants, the regulatory authority, together with the Federal Ministry of Finance, has published a rough schedule of future frequency allocations in the Spectrum Release Plan 2022 to 2026.[8] However, the Spectrum Release Plan is not legally binding and is without prejudice to any decisions by the Telekom-Control Commission (TKK) that deviate from it.
Allocated or planned budget and, where appropriate, other resources, including human resources	No public funding provided.
Intended effect and its occurrence over time	5G availability for at least 1,702 cadastral communities. That is around 80 % of all cadastral communities in Austria that have been poorly supplied or not supplied at all to date.

4.5. KPI 5 - Semiconductors

General overview of the measures by digital objective

Target: The production of advanced semiconductors in the Union in compliance with Union legislation on environmental sustainability shall account for at least 20 % of global production in value terms.

Objective: Strengthening the strengths of the Austrian semiconductor sector. AT is currently in 4th place in the EU in absolute terms (turnover). In relative terms (% of GDP), we are in first place. Against the background of the multiple crises and the enormous importance of semiconductors/chips (90 % of the industry is dependent on chips in AT; 50 % of global GDP depends on semiconductors), Austria/Europe's position needs to be strengthened here. No region or company in the world can produce all types of chips and unite all stages of the value chain. The aim must therefore be to strengthen the strategic position of Austria/the EU in this sector in order to strengthen its negotiating position on the global playing field. In addition to national measures (IPCEI ME1, IPCEI ME2, Lab2FAb,

[7] https://www.rtr.at/TKP/was_wir_tun/telekommunikation/spectrum/procedures/5G_Frequenzvergabe_3_4-3_8GHz/5G-Auction.de.html

[8] Spectrum Release Plan | RTR

Microelectronics2Market and horizontal instruments [research premium etc.]), the implementation of the Chips Act is currently being prepared at EU level - the aim here is to increase the EU's share of international value chains from the current 9% to 20% by 2030.

- National baseline value: 7 million euros (for the year 2023); 0.2 % global market share (total sales)
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 – ***Participation in the Joint Undertaking Key Digital Technologies (KDT) to strengthen research and development in the field of microelectronics***								
Measure 2 – ***Chips Act Pillar 1 + 2 Implementation from 2024 ongoing***								
Measure 3 – ***IPCEI ME1 – Implementation 2021-2024***								
Measure 4 – ***IPCEI ME II – Implementation 2024-2026***								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - Chips Act Pillar 1: Public funds totalling xx million euros are earmarked to strengthen the R&D&I system (budget for this has not yet been determined).
    - Chips Act Pillar 2: Public funds totalling xx billion euros are available until 2031 to support business investments in the area of production development (budget for this has not yet been determined).
    - IPCEI ME 1: Public funds totalling 145 million euros

- IPCEI ME II: Public funds totalling 175 million euros (budget negotiations are still pending)

- **Brief description:**
  Semiconductors (or chips) are not only the driving force of digital change, their availability and technical functionality are also essential prerequisites for a sustainable transformation of the economy. Against the backdrop of the global shortage of chips, intensifying geopolitical conflicts, increasing national protectionism and the global "subsidy race" in the world's most important production regions, the European Chip Act was adopted by the EU Parliament and the Council of the EU in July 2023 and came into force on 21 September. The aim is to double the EU's share of global chip production from the current level of less than 10% to 20% by 2030. Investments in first-of-a-kind production facilities will further strengthen the strengths (power semiconductors, sensors, packaging, equipment) in AT via Pillar 2 of the Chips Act. Pillar 1 of the Chips Act is intended to strengthen the R&D&I ecosystem (incl. skills). IPCEI funds R&D&I projects beyond the Chips Act up to the first industrial application.
- **Challenge - strong global dependence on chips**
  - Multiple crises have revealed strong dependencies on semiconductors. When there is a shortage of chips, entire industries come to a standstill. Therefore, the demand for chips for the European industry in particular must be covered (i.e. not leading-edge).

Description of measures

4.5.1. Measure 1 - Participation in the Joint Undertaking Key Digital Technologies (KDT) and the successor Chips Joint Undertaking to strengthen research and development in the field of microelectronics

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: Participation in the Joint Undertaking Key Digital Technologies (KDT) to strengthen research and development in the field of microelectronics. Following its transfer to the Chips Joint Undertaking, increased participation in the implementation of Pillar 1 of the Chips Act with the new instruments pilot lines, competence centres and design platforms until 2027.
Allocated or planned budget and, where appropriate, other	National: 7 million Euro (up to and including 2023); Budget for the Chips Joint Undertaking (successor) until 2027 still being planned

resources, including human resources	
Intended effect and its occurrence over time	Strengthening research and development in the field of microelectronics

4.5.2. Measure 2 - Chips Act Pillar 1 + 2 - implementation from 2024 ongoing

New measure	☒ Yes ☐ No
Brief description of the measure	• Content of the measure: • The European Chip Act was adopted by the EU Parliament and the Council of the EU in July 2023 and came into force on 21 September. The aim is to double the EU's share of global chip production from the current level of less than 10% to 20% by 2030. The legal act comprises several levels of intervention and is based on a three-pillar structure: – Pillar 1: "Chips for Europe" initiative - aims to support the development of large-scale technological capacity and innovation in the EU semiconductor manufacturing ecosystem and to improve the transition from lab to production under the title "Chips for Europe". Pillar 1 will be implemented within the framework of a Joint Undertaking, the Chips Joint Undertaking (Chips-JU). • Initiatives from the multiannual research programmes have already preceded this: The Chips JU in Pillar 1 of the Chips Act is the fifth consecutive major European research programme in the hardware/electronics environment in the last 15 years. Following the establishment of the two JUs ARTEMIS and ENIAC (2009-2013), the merger of these two JUs into the integrated ECSEL (2014-2020) and the continuation with the KDT-JU (2021-2023), the Chips-JU (2023-2027) is now continuing with the doubling of its funding volume and the expansion of its portfolio. • Austria, which is one of the founding members of these initiatives, has been actively involved in the activities of the JUs from the very beginning. Around 70 organisations from industry and research took part in the calls for tenders during the 2009-2020 period. With 434 individual participations, Austria was one of the most active member countries during the term of these programmes. The total Austrian project

	volume awarded from 2009 to date as part of the JU tenders amounts to over 530 million euros (of which around 114 million was national funding, 110 million European was co-financing and 308 million was industrial equity capital). Several case studies have demonstrated the strong correlation between successful programme participation and prosperity and growth. – Pillar 2: creates a framework to improve the security of supply of chips in the EU by attracting domestic and foreign investment and supporting the development of new production capacity. The framework enables the promotion of new innovative production facilities. Pillar 2 is implemented from national funds and offers member states the opportunity to cover the financing gap for new production facilities of companies. – Pillar 3: serves to establish a mechanism for monitoring and crisis response along the entire supply chain. In close dialogue with the relevant companies, the resilience of the value chain is monitored for crisis detection ("Phase 1") on the basis of early warning indicators and, in the event of a crisis, a crisis response toolbox is established for crisis management ("Phase 2").
Allocated or planned budget and, where appropriate, other resources, including human resources	For Chips Act Pillar 1 and 2, Federal Finance Act/Federal Budgetary Framework Act must still be awaited.
Intended effect and its occurrence over time	• Chips Act Pillar 1: Strengthening the R&D&I system • Chips Act Pillar 2: until 2031 to support business investments in the area of production development

4.5.3. Measure 3 - IPCEI ME I - Implementation 2021-2024

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: IPCEI Microelectronics: A total of 32 direct partners (including 30 companies and two research institutions) from four European Union member states are involved in the overall European IPCEI Microelectronics project. In addition to France, Italy, Germany and now Austria, the UK is also involved. In addition to private

	investments totalling more than 6.1 billion euros, the five participating countries are authorised to distribute subsidies amounting to almost 1.9 billion euros. The overall project aims to promote research and the development of innovative technologies and components that can be used in numerous fields, such as electromobility or consumer appliances. The focus here is particularly on the five technology fields of energy-efficient chips, power semiconductors, intelligent sensors, advanced optical devices and composite materials.
Allocated or planned budget and, where appropriate, other resources, including human resources	Public funds totalling 145 million euros
Intended effect and its occurrence over time	Promoting research and the development of innovative technologies and components that can be used in numerous fields, such as electromobility or consumer appliances.

4.5.4. Measure 4 - IPCEI ME II - Implementation 2024-2026

New measure	☒ Yes ☐ No
Brief description of the measure	Content of the measure: IPCEI Microelectronics and Communication Sciences: EC approves 2nd major microelectronics project with total investment of around 22 billion euros - 100 company projects from 20 European countries involved - 6 Austrian companies are involved in the microelectronics initiative - 125 million euros provided from the Austrian EU recovery plan. The microelectronics initiative aims to significantly increase the energy-efficient production of chips in Europe, thereby driving forward the digital and "green" transformation and strengthening Europe's resilience and sovereignty. Among other things, the IPCEI places the promotion of highly innovative projects in research and development as well as the first commercial use before the mass production phase at the centre of the initiative.
Allocated or planned budget and, where appropriate, other resources, including human resources	Public funds in the amount of 175 million euros (budget negotiations are still pending)

Intended effect and its occurrence over time	Promotion of highly innovative projects in research and development as well as the first commercial utilisation before the mass production phase

4.6. KPI 6 - Edge Nodes

General overview of the measures by digital objective

Target: At least 10,000 climate-neutral, highly secure edge nodes in the Union.

- National baseline value: There are currently no surveys on the number of existing edge nodes.
- Total time schedule: In any case, the regulatory environment should promote the implementation and promotion of edge nodes in communication networks.

Description of measures

Edge nodes are small devices with limited resources and are designed to accelerate the processing and forwarding of data between end points, such as sensors. By outsourcing computing power to the ends of networks, the data throughput to and from the central logic and the latency time are reduced.

The development and use of so-called edge nodes or edge computing is the responsibility of the installers or operators of communication networks and no measures should be taken at administrative level that could hinder implementation. Implementation is supported by the following measures:

Brief description of the measure:	With the introduction of 5G and the associated dedication of the frequency spectrum at 26 GHz as well as the definition of the technical parameters in the Frequency Utilisation Ordinance, the technical basis for spatially limited communication over short distances with a high data throughput (bandwidth) of IoT (edge nodes) is fundamentally enabled and promoted.

An increasing number of network elements also increases the need for protective mechanisms in terms of security (incomplete list of examples: authentication, authorisation, encryption, access control, updating the operating system, etc.).

Brief description of the measure:	The increased requirements in terms of protection and cyber security (incomplete list of examples: authentication,

	authorisation, encryption, access control, operating system updates, etc.) must be implemented in accordance with the European legal framework, such as the NIS 2 Directive. This also applies to radio products (wireless connection of edge nodes, e.g. via 5G), which must in any case comply with the Radio Equipment Directive (2014/53/EU). Observation and participation in European standardisation committees promotes uniform national implementation.

4.7. KPI 7 - Quantum Informatics

General overview of the measures by digital objective

Target: By 2025, several quantum computer systems will be available in the EU, one of them in Austria with a connection to the national HPC system.

- National baseline value: -
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure – Quantum Austria funding initiative								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - of which from EU sources:
      - planned utilisation 107 million euros (2023: 42 m euro; 2024: 21 m euro; 2025: 22 m euro; 2026: 22 m euro)
- **The challenge**
  - See description of the project
- **Estimated investment gap and possible measures to achieve the national targets**

Description of measures

4.7.1. Measure - The Quantum Austria funding initiative

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: On behalf of the Federal Ministry of Education, Science and Research (BMBWF) and funded by the European Union as part of the Next Generation EU recovery and resilience plan (2020-2026), the Austrian Research Promotion Agency FFG and the Austrian Science Fund FWF are implementing the Quantum Austria funding initiative in the years 2021-2026. Austria is investing 107 million euros in the expansion of quantum research and technologies with funds from the recovery and resilience plan. The aim is to stimulate research, development and innovation activities in the field of quantum research and technology in accordance with the research, technology and innovation policy objectives of the Austrian federal government, taking into account the targets set in the Austrian Recovery and Resilience Plan 2020-2026. The programme supports both basic research and the development of practical applications. The FFG and FWF agencies work closely together to award funding and utilise a selection of their respective funding instruments for personnel and infrastructure. Part of the funding is earmarked for research infrastructure in the highly innovative field of Next Generation High Performance Computing, quantum computing and their combination. Funding is provided for projects that are clearly defined in terms of time, budget, objectives and methodology in accordance with the conditions of the respective funding agency. Thematically, applications must be in the field of quantum research and quantum technology. The scientific questions concern the following topics, among others: Developments and applications in the fields of quantum communication, quantum sensor technology, quantum metrology, quantum simulation, quantum computing and quantum information Target group: Researchers, universities, non-university research centres and companies in the field of quantum research and technologies can choose from existing offers from the FFG and FWF as part of the

	Quantum Austria funding initiative. The cooperation between the two funding organisations covers a wide range of funding requirements - from funding for researchers at universities and non-university research institutions to R&D activities by start-ups, companies and industry.
Intended effect and its occurrence over time	Milestones, goals and timeline • Investment: Quantum Austria - Promotion of Quantum Sciences • Milestone/target 1: Q4/2021: Call for expressions of interest (BMBWF); Identification of a settlement agency • Milestone/target 2: Q4/2024: Interim report showing progress • Milestone/target 3: Q1/2026: Transfer to regular operations as part of the performance agreements with the universities

4.8. KPI 8 - Cloud computing

General overview of the measures by digital objective

Target: At least 75% of companies in the Union have introduced one or more of the following techniques, depending on their business activity: i) cloud computing services, ii) mass data processing (big data), iii) artificial intelligence.

- National baseline value: 29 % (Source: DESI 2023 – Data from 2021)
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure – ***Support for the establishment of a Gaia-X Hub in Austria***								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - already assigned: 1,200,000 euros
    - planned: 1,200,000 euros

Description of measures

4.8.1. Measure - Gaia-X Hub AT - Support for the establishment of a Gaia-X Hub in Austria

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: **Description:** Based on the national Ö-Cloud initiative, the Federal Ministry of Finance (BMF) is supporting the establishment of a national Gaia-X Hub Austria (Gaia-X Hub AT) in cooperation with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). The measure aims to establish a strong link between the Austrian economy (especially SMEs), science, research, society and public administration as well as the international Gaia-X initiative. This is a project that develops digital governance that can be applied to any existing cloud/edge technology stack to achieve transparency, controllability, portability and interoperability for data and services. **Activities:** • Basic conception and implementation of organisational structures • Establishment of efficient and effective mechanisms for cooperation • Dissemination of information and networking • Supporting Austrian companies with their entry into data-based business models • Establishment of concrete implementation alliances • Connection to the international network of Gaia-X Hubs Connection with the objective: Actively supporting the participation of Austrian public and private organisations in the international Gaia-X project could promote the adoption of cutting-edge (cloud) solutions and the development of innovative data-driven use cases in the continuously evolving European data economy. Provisional schedule: In 2020, a national cross-sector cooperation platform was set up as part of the Ö-Cloud initiative, which served as the core basis for the actual Gaia-X Hub AT, which was officially inaugurated in March

	2022. The first set-up/launch phase of the Gaia-X Hub AT will last until the end of 2023.
Allocated or planned budget and, where appropriate, other resources, including human resources	• Public funding for 2022 totalled around 400,000 euros (BMF + BMK). • EUR 800,000 in public funding has been made available for 2023 (BMF + BMK).
Intended effect and its occurrence over time	The Gaia-X Hub AT acts as a national contact point (single point of contact) for Gaia-X-related tasks and topics (dissemination of relevant knowledge); Dissemination, promotion and application of Gaia-X concepts in specific use cases). This will lower the entry barriers for interested Austrian public and private organisations to participate in the joint Gaia-X project, promote takeover by Austrian organisations and ensure that Austrian national interests are taken into account on a broad basis. A detailed list of current targets and non-targets can be found on the official website of the Gaia-X Hub AT (https://www.gaia-x.at/de/gaia-x-oesterreich/).

4.9. KPI 9 + 10 - AI and data

General overview of the measures by digital objective

Target: At least 75% of companies in the Union have introduced one or more of the following techniques, depending on their business activity: i) cloud computing services, ii) mass data processing (big data), iii) artificial intelligence.

- National baseline value: 9 % each (source: DESI 2023 - data from 2021 and 2020)
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 – ***AI marketplace****: Overview of the Austrian AI landscape and networking of AI providers with potential customers*								
Measure 2 –								

KI strategy and funding initiative Artificial Intelligence Mission Austria: *Comprehensive funding for basic research, applied research and entrepreneurial realisation*								
Measure 3 – ***Digital technologies e.g. AI for Green*** *Funding of interdisciplinary R&D projects that (further) develop artificial intelligence (AI) technologies and thereby contribute to overcoming environmental challenges (Green)*								
Measure 4 – ***Data & AI funding programme:*** *Investing in companies' entry into working with data & AI*								
Measure 5 – ***Digital innovation centres:*** *Central contact points for companies with a focus on data & AI*								

Description of measures

4.9.1. Measure 1 - AI marketplace

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: The aws AI marketplace serves as a central platform for networking over 170 AI providers with users from all sectors throughout Austria and is supported by a variety of services and initiatives. Since its foundation, the marketplace has organised around five networking events per year, which have facilitated hundreds of matches between companies from all sectors and suitable AI providers. Examples of success include collaborations between AI providers and AI users that have been created through matching, which can

	be found on the aws website. In addition, the marketplace offers the opportunity to submit AI challenges in order to connect solution seekers with suitable solution providers in a targeted manner. The aws AI marketplace was founded with several core objectives. Firstly, the platform will act as a central point of contact for AI providers and AI users in Austria and support the digital transformation in business and society. Secondly, the marketplace aims to promote practical and cross-industry cooperation by registering over 170 providers and organising annual networking events. Thirdly, the platform serves as a spotlight for innovative AI offerings in Austria by organising AI challenges and other initiatives to address specific AI-related problems and promote innovative solutions. Fourthly, the marketplace acts as an advice centre for companies that want to use AI and are looking for the right methods and cooperation partners. In this role, the aws AI Marketplace actively contributes to increasing AI expertise and networking key players in Austria.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (assigned): 1.1 million euros (2023-2025)
Intended effect and its occurrence over time	• **Networking of AI providers and AI consumers** • **Support for SMEs**

4.9.2. Measure 2 - AI strategy and AIM AT funding initiative

New measure	☐ Yes ☒ No
Brief description of the measure	<u>Content of the measure:</u> The AI strategy contains 64 measures in 13 fields of action, which are implemented by the respective ministries. Many of these have already been implemented or are in the process of being implemented. **Core elements of our strategy are, for example:** Compliance with ethical principles in accordance with the European ethical guidelines on AI • Creating legal clarity without hindering innovation, in line with European activities on AI (AI Act, AI Liability Directive, etc.) • Improving the use and availability of data

	• Strengthening AI in education and training (digital skills and cutting-edge AI research) • Facilitating the conversion of innovations into marketable products (transfer and takeover) • Modernisation of public administration through AI • Establishment of normative standards to promote trust in AI and legal certainty for developers • Improving access to capital and expanding and developing the necessary infrastructure **Concrete measures:** • AI focus of the Austrian Future Fund: – In the coming years, the Austrian Future Fund's AI focus will provide EUR 12 million per year not only for (applied) AI research, but also for improving the transfer of applied AI knowledge to the economy, with the aim of ensuring that companies not only use AI technologies and products, but also develop them and integrate them into their business processes. – The focus is on AI-specific support for SMEs when introducing AI into their business processes and on teaching data skills. The funding initiative "AI Mission Austria" (AIM AT) forms a common umbrella under which the modules "AI Basic Research" (FWF), "Application-oriented AI Research" (FFG) and "AI Enterprise & Growth" (aws) are implemented. As a new key technology, artificial intelligence (AI) has enormous potential to significantly develop the economy and society. In order to realise this potential and create added value for Austria as a business and research location, the three agencies aws, FFG and FWF have launched a joint funding initiative entitled "AI Mission Austria (AIM AT)". Through comprehensive funding for basic research, applied research and entrepreneurial implementation, a contribution is being made to building a sustainable ecosystem around the key technology of artificial intelligence. The funding is realised with funds from the Fonds Zukunft Österreich [Austrian Future Fund]. A total of EUR 12 million was approved by the Austrian Future Fund in 2022. AI basic research (FWF) Application-oriented AI research (FFG) AI Enterprise & Growth (aws)

Allocated or planned budget and, where appropriate, other resources, including human resources	National (assigned): 12 m euro
Intended effect and its occurrence over time	**Promotion of AI along the entire value chain**

4.9.3. Measure 3 - Digital technologies, e.g. AI for Green

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: Promotion of cooperative R&D in digital and key technologies, e.g. **AI, quantum technologies, semiconductor technologies with a special focus on sustainability (incl. technology sovereignty and social sustainability)** Description of the individual initiative "AI for Green": The focus of "AI for Green" is on research-intensive technology developments in the field of artificial intelligence, including the energy transition, circular economy and mobility transition. The "AI for Green 2023" call is specifically aimed at funding projects that address the following two call objectives in equal measure: AI technologies are being newly developed or further developed AND The use of AI technologies will make a significant contribution to (Austria's) climate targets. This is done by: • Reduction in the use of resources and energy, • Avoidance of greenhouse gas emissions and/or • Conservation of natural areas and ecosystems. In addition, projects submitted for funding must demonstrate the impact of using AI to achieve the climate targets. The Artificial Intelligence Act of the European Union for the realisation of trustworthy AI must be taken into account in the conception and implementation of the project, equality must be established and diversity must be taken into account. The project aims to bring together interdisciplinary expertise from different specialist disciplines and contribute to the networking of the AI and climate/environmental research communities.

	In addition to the co-operative R&D projects, three R&D services will be put out to tender; the topics are described in the tender guidelines.
Allocated or planned budget and, where appropriate, other resources, including human resources	• National (assigned): approx. 150 million euros (2023-2026) in total for digital and key technologies • National (assigned): 12 million euros AI for Green (2023)
Intended effect and its occurrence over time	**Promotion of digital technologies whose application contributes to achieving climate targets**

4.9.4. Measure 4 – Data & AI funding programme

New measure	☒ Yes ☐No
Brief description of the measure The aim of the Data & AI funding programme is to promote the data economy and the use of AI at companies in Austria.	Content of the measure: In order to support companies that have successfully taken the first steps towards digitalisation, follow-up funding should be provided for the application of data & AI. The funding programme supports companies from all sectors of the economy that invest in improving their processes or changing their business model by using data and AI. The investments can be for digitalisation • of products: e.g. use of predictive maintenance applications • in production: e.g. testing processes using digital twins • in procurement: Digital mapping of supply chains • from services: e.g. introduction of data-supported services (e.g. through the use of AI-supported applications), • Introduction of a digital product passport • etc. Connection with the objective: The programme focuses on companies that are starting to work with the data they have collected. Their fundamental need for digitalisation and the introduction of AI tools etc. are supported. Provisional schedule: Funding must first be designed/implemented from 2025

4.9.5. Measure 5 - Digital innovation centres

New measure	☒ Yes ☐No
Brief description of the measure The digital innovation centres offer low-threshold support for working with data & AI.	Content of the measure: The utilisation of data has great economic potential and can create important competitive advantages for companies. For many companies, the challenge of utilising the right tools to unearth these data treasures is crucial to success. As an interface between companies, research institutions and experts, the centres are available to companies as a specialised point of contact for challenges relating to data use and AI. Among other things, they offer information on the opportunities and added value of data utilisation, best practices, use cases and tools for implementing data projects as well as AI starter packages. SMEs and larger companies (e.g. as network partners) benefit from the consolidation of business issues and data models as well as from networking with national and international stakeholders. The digital innovation centres are intended to offer low-threshold support when working with data & AI. "KI Austria", an initiative of the Carinthian, Styrian and Burgenland Chambers of Commerce in co-operation with DIH SÜD, can serve as a model. Connection with the objective: The programme focuses on SMEs that are starting to work with data. They are supported through skills development, networking with stakeholders and dialogue within the community. Provisional schedule: The "AI Austria" initiative was launched in October 2022. Assuming a positive funding commitment, the programme is to be rolled out across Austria in 2024.
Allocated or planned budget and, where appropriate, other resources, including human resources	• National: is currently funded by DIH SÜD with the support of the Austrian Chamber of Commerce and the Burgenland, Styrian and Carinthian Chambers of Commerce • EU: 0 m euro
Intended effect and its occurrence over time	• Around 1,000 SMEs will increase their expertise in the area of intelligent data utilisation and AI by the end of 2023 • A further 2,000 SMEs will increase their expertise in the area of intelligent data utilisation and AI by the end of 2025.

Allocated or planned budget and, where appropriate, other resources, including human resources	National (please indicate whether funds are allocated or planned): Funding amount most recently 6.4 million euros

4.10. KPI 11 - SME

General overview of the measures by digital objective

Target: More than 90% of SMEs in the Union achieve at least basic digital intensity (measured as the percentage of SMEs using at least four out of twelve selected digital technologies).

- National baseline value: 67 % according to DESI 2023 indicator 3a1 (SMEs with at least a basic level of digital intensity, SMEs [10-249 persons employed], without financial sector)
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 – ***SME funding programme KMU.DIGITAL*** *- Investments in the digitalisation of companies*								
Measure 2 – ***National and European Digital Innovation Hubs -*** *Supporting the digital transformation of companies*								

- **Funding for all measures that can be allocated to the objective:**
  - Public investments:
    - already assigned: around 30 million euros
    - planned: around 57 million euros
  - of which from national sources:
    - already assigned: around 22 million euros
    - planned: around 46 million euros
  - of which from EU sources:

  - already assigned: 8.39 m euro
  - Planned use: around 11 million euros
- **Brief description:**
  - Challenge - lack of human and financial resources at SMEs for digital transformation
    - with measure 1 (SME funding programme KMU.DIGITAL) [Raising the level of digitalisation in 12,000 companies by the end of 2027]
    - with measure 2 (National and European Digital Innovation Hubs) [raising awareness of digital change among SMEs, increasing expertise in digitalisation, promoting the use/implementation of digital solutions]
- **Estimated investment gap and possible measures to achieve the national targets**
  - According to DESI 2023, only two thirds of Austrian SMEs achieve a basic level of digital intensity (i.e. use of at least four out of twelve selected digital technologies; Indicator 3a1). Due to the lack of human and financial resources in Austrian SMEs (challenge 1) to drive the digital transformation forward, comprehensive support measures are required. It is not possible to quantify the need for support due to insufficient data. The SME funding programme KMU.DIGITAL and the national and European Digital Innovation Hubs should in any case contribute to increasing the digital intensity of Austrian SMEs.

Description of measures:

4.10.1. Measure 1 - SME funding programme KMU.DIGITAL

New measure	☐ Yes ☒ No
Brief description of the measure The "KMU.DIGITAL" funding programme aims to promote the digital and green transformation of SMEs based or operating in Austria. SMEs receive support in various stages of digitalisation. Students can choose from tools with different focal points (e.g. "Business models and processes", "E-Commerce,	• The strategic goal is to support Austrian SMEs in utilising the opportunities of digital and sustainable transformation and mastering the new digital and environmental challenges. Over 22,000 advisory and implementation initiatives have been supported since 2017 thanks to the programme. <u>Content of the measure:</u> The "KMU.DIGITAL" funding programme aims to enable Austrian small and medium-sized enterprises (SMEs) to exploit the huge potential of the opportunities offered by digitalisation. In connection with the increasing automation and digitalisation of all service and production areas, the challenges for Austrian SMEs are also increasing. The KMU.DIGITAL funding programme therefore

online marketing & social media", "IT and cybersecurity").	creates an incentive for SMEs to design and implement digitalisation projects and bring them to market. The funding is also intended to help support the Austrian economy in its transformation to a sustainable, renewable energy-based and digitalised economy in the coming years. For this reason, "KMU-DIGITAL 4.0 & GREEN" is to be offered in addition to the standard "KMU.DIGITAL 4.0" funding programme. The aim is to promote digitalisation projects by SMEs that also contribute to the transformation of SMEs towards ecological sustainability. • In the consulting module, SMEs can take advantage of status and potential analyses as well as in- depth strategy consulting. The counselling sessions are carried out and promoted by suitably qualified experts on various focal points/topics and in various depths. By means of differentiated subsidy amounts for the various advisory formats, particular attention is paid to motivating companies that are not yet digitally savvy to start digitalisation and to show them the next steps. • In the implementation module, digitisation projects are eligible for funding through new investments (subject to capitalisation under income tax law) and related services from external providers (e.g. programming activities, [cloud] software licences) that are implemented in a permanent establishment in Austria. The new investments must be directly related to the investment project. • Further information on KMU.DIGITAL can be found at http://www.kmudigital.at/. Connection with the objective: The programme focuses on SMEs that want to drive forward their digital and sustainable transformation. It is therefore expected that this measure will contribute to the realisation of the objective for *digital late adopters*. Provisional schedule: The programme has been running since 2017, was evaluated in 2023 and is due to be relaunched in 2024. It is planned that KMU.DIGITAL 2024-2026 will be continued and further expanded with a total budget of around 35 million euros.
Allocated or planned budget and, where appropriate, other resources, including human resources	National: around 35 million euros 2024-2026 (planned)

Intended effect and its occurrence over time	KMU.DIGITAL 2024-2026: Budget of 35 million euros (planned), 12,000 companies to raise their level of digitalisation by the end of 2027

4.10.2. Measure 2 – National and European Digital Innovation Hubs - Supporting the digital transformation of companies

New measure	☐ Yes ☒ No
Brief description of the measure Digital Innovation Hubs (DIH) have been set up in Austria to support companies - especially SMEs - in their digital transformation (expertise, infrastructure). This gives companies direct access to partners from research and industry on topics such as AI, IT and cyber security, blockchain, big data, Industry 4.0 and digital transformation in general. As part of the "Digital Europe" programme, 4 European Digital Innovation Hubs (EDIH) were established in Austria from Q4 2022, which complement the national DIHs to form a comprehensive network/ecosystem.	The national Digital Innovation Hubs (DIH) are regional points of contact for small and medium- sized enterprises from all sectors for questions relating to digitalisation. They are generally designed to be open to all sectors and offer the opportunity to find out about digitalisation on site, experience digitalisation, develop and test new ideas for digital projects and receive further training. The European Digital Innovation Hubs (EDIH) play a central role in the "Digital Europe" programme. The EDIHs complement the existing national DIHs and aim to promote the introduction of digital technologies in business and administration - by stimulating and disseminating artificial intelligence, implementing cybersecurity aspects and utilising high-performance computers and other current digital technologies. This comprehensive network of digital centres brings together a wide range of skills, disciplines, ideas, technologies and creativity. <u>Content of the measure:</u> With its expertise and infrastructure, DIH supports Austrian SMEs in digitalisation and offers a wide range of services in the information, training and digital innovation modules. <u>The range of services offered by EDIHs includes</u> Test before invest: Provision of technological expertise and services, including testing and experimental facilities, or guaranteeing access to them Training/Skills Development: Support in the development of in-depth digitalisation skills, e.g. by coordinating with training providers to provide short-term vocational training and further education opportunities. Help with the search for investors: Support to become more competitive and improve business models through the use of new technologies funded by the Digital Europe programme

	Innovation ecosystem and networking: Networking to bring companies that need new technological solutions together with providers, especially start-ups and SMEs, that have market-ready solutions Further information on EDIH can be found at https://www.ffg.at/europa/digitaleurope/edih, information on DIH at https://www.ffg.at/dih. Connection with the objective: The programme focuses on companies that want to drive forward their digital transformation. It is therefore expected that this measure will contribute to the realisation of the "Take-up of digital technologies" objective. Provisional schedule: The national DIHs have been running since 2020 and the EDIHs since the end of 2022, each with an initial duration of three years. An extension of the respective hubs for a further four years is planned (following a positive interim evaluation).
Allocated or planned budget and, where appropriate, other resources, including human resources	• National 2020-2030: around EUR 22 million (already assigned); around 11 million euros (planned) • EU: 8.39 million euros (EDIH co-financing; already assigned) ; around 11 million euros (planned)
Intended effect and its occurrence over time	Raising awareness of digital change among SMEs, increasing expertise in digitalisation, promoting the use/implementation of digital solutions

4.11. KPI 12 – Unicorns

General overview of the measures by digital objective

Target: The Union facilitates the expansion of its innovative growing companies and improves their access to finance, which will at least double the number of unicorns.

Objective pursuant to Art. 4 para. 1 no. 3 lit. c Decision (EU) 2022/2481: Facilitating the expansion of start-ups and doubling the number of "unicorns"

- National baseline value of unicorns (source: The 2022 European Unicorn & Soonicorn Report, i5invest): in 2022 - six unicorns

- National baseline value of start-ups (source: Austrian Startup Monitor 2022, AIT Austrian Institute of Technology): in 2020 - 323 startups (data collection is delayed by approx. 2 years)
- The number of start-ups in Austria is set to increase by at least 20% by 2024. This measure is also intended (among other things) to make a significant contribution to the realisation of the doubling of unicorns in the EU (Art. 4 para. 1 no. 3 lit. c Decision [EU] 2022/2481).
- Another aim is to create a new form of capital company that builds on international examples and offers an internationally competitive option, particularly for innovative start-ups and founders in the early stages. This measure is also intended (among other things) to make a significant contribution to the realisation of the doubling of unicorns in the EU (Art. 4 para. 1 no. 3 lit. c Decision [EU] 2022/2481).
- Total time schedule:

	2020	2021	2022	2023	2024	2025	2026	2027
Measures that contribute to achieving the objective Art. 4 para. 1 no. 3 lit. c Decision (EU) 2022/2481								
Measure 1 (new) - ***aws Start-up Fund II***								(until min 2033)
Measure 2 - ***aws Guarantees***								
Measure 3 - ***Competitions***								
Measure 4 – ***aws First Incubator***								
Measure 5 – ***aws PreSeed – Deep Tech***								
Measure 6 - ***aws Seedfinancing - Deep Tech***								
Measure 7 - ***aws PreSeed - Innovative Solutions***								
Measure 8 - ***aws Seedfinancing - Innovative Solutions***								

Measure 9 - ***Global Incubator Network Austria (GIN)***								
Measure 10 - ***aws connect***								
Measure 11 - ***Start-up Council***								
Measure 12 - ***Platform and consulting - EIC Accelerator***								
Measure 13 - ***Flexible corporation***								
Measure 14 - ***aws Start-up Invest***								(until appro x. 2034)
Measure 15 - ***Startup Navigator***								
Measure 16 - ***SME funding "CYBER SECURITY SCHECK 2023"***								
Measure 17 - ***Start-up ecosystem package of measures***								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - of which from national sources:
      - already planned or assigned: 1,225.8 m euro
  - Private investments:
    - Leverage of EUR 428 million expected in the course of measure 1
    - Investments of EUR 100 million expected as part of measure 14
- **Brief description:**
  - **Challenge 1 - Venture Capital Expenditures: Austria needs to catch up in venture capital funding**

- Measure 1 (aws Start-up Fund II) provides support through targeted venture capital investments not only from the state but also from the private sector and is intended to leverage at least EUR 500 million in venture capital and increase the share of international co-investors after the end of the fund term.
- Measure 11 (aws Start-up Invest) provides additional venture capital for innovative start-ups in the form of co-investments with experienced investors.
- In addition, the following measures (among others) contribute to overcoming this challenge: Measure 2 (aws guarantees), Measure 5 (aws PreSeed - Deep Tech), Measure 6 - (aws Seedfinancing - Deep Tech), Measure 9 (EIC funds) and Measure 7 (aws connect) through the networking opportunities.

– **Challenge 2 - Further process simplifications for start-ups**
  - Measure 10 (flexible corporation) includes, among other things, facilitations for the formation of companies, such as simplifications in formal requirements, in the adoption of resolutions and in the acquisition of employees.
  - The following measures (among others) make additional contributions to this challenge: Measure 3 (competitions) in the course of possible networking, measure 5 (aws PreSeed - Deep Tech) and measure 6 (aws Seedfinancing - Deep Tech) in the course of the consulting and coaching services offered.
– **Challenge 3 - Compliance with new legal requirements in the area of cyber security, particularly in relation to EU Directive 2022/2555.**
  - EU Directive 2022/2555 significantly expands the group of affected organisations that need to invest in cybersecurity in order to meet the new legal requirements. A funding programme planned for 2023 by the National Cybersecurity Coordination Centre (NCC- AT) will support SMEs with so-called cybersecurity checks to prepare for the requirements of the new directive and at the same time promote the introduction of innovative cybersecurity solutions. A total of EUR 2 million (50% co-financed by the Digital Europe Programme [DEP], 50% co- financed by national funds from the Austrian Future Fund [FZÖ]) will be made available until 2024. Austria assumes that around 200 companies will be reached (max. 40 % funding of the costs, max. 10,000 euros per SME).

Description of measures

4.11.1. Measure 1 - aws Start-up Fund II

New measure	☒ Yes ☐ No
Brief description of the measure For fast-growing small and medium-sized start-ups in the foundation and initial growth phase.	Content of the measure: Supporting fast-growing small and medium-sized start-ups with seed and follow-on financing in the foundation and early growth phase Venture capital funds Connection with the objective: The aim of the measure is to mobilise venture capital for investments in Austrian innovative technology-oriented companies in the start-up and growth phase. In addition, the aws Start-up Fund II aims to improve Austrian start-ups' access to international investors. The measure is aimed at increasing the number of start-ups in Austria and thus also the goal of doubling the number of unicorns in the EU. Provisional schedule: The programme applies from 1.7.2023 to provisionally 2033/2037.
Allocated or planned budget and, where appropriate, other resources, including human resources	• National (planned or assigned): up to 72 million euros • Leverage from the private sector: around 428 million euros
Intended effect and its occurrence over time	• After five years, at least EUR 100 million in additional private funds should have been mobilised and at the end of the fund term at least EUR 500 million in risk capital via co-investors. • After five years, the share of international (non-Austrian) co-investors in the mobilisation of private capital should also be at least 30%.

4.11.2. Measure 2 - aws Guarantees

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: • aws Double Equity

With guarantees, the aws offers securities that can be required by banks when granting a loan. The aim is to increase the chance of obtaining a loan.	This measure is a guarantee to double private equity for innovation/growth projects of SMEs. • aws guarantees for young companies This is a guarantee of up to 80 % of a loan of up to EUR 2.5 million per SME with the aim of facilitating the financing of economically independent, commercial small and medium-sized enterprises in the first six years after foundation or takeover. Connection with the objective: A sub-goal of the aws guarantees is the realisation of a guarantee capability for digitalisation projects. In Austria, projects on AI, quantum technology and cybersecurity infrastructure are to be implemented - also to achieve the digital goals of InvestEU. Provisional schedule: The aws guarantee guideline for SMEs came into force on 1.7.2022 and is valid until 30.6.2024.
Allocated or planned budget and, where appropriate, other resources, including human resources	• National (assigned): EUR 1,000 million maximum liability limit pursuant to Section 7 (2) of the SME Promotion Act • EU: There are counter-guarantees with EIF and InvestEU.
Intended effect and its occurrence over time	Increase in the number of start-ups founded by assuming guarantees

4.11.3. Measure 3 - Competitions

New measure	☐ Yes ☒ No
Brief description of the measure Competitions for start-ups to win prizes, raise the company's profile, convince investors and find networks.	Content of the measure: • PHOENIX - The Austrian start-up prize This measure is an award for female entrepreneurs, start-ups, spin-offs and the development of prototypes and shows how essential successful knowledge transfer is for Austria as a centre of innovation. • State Prize for Innovation Award for companies that contribute significantly to the sustainable economic development of the country through their innovative solution expertise. In addition, there are the ECONOVIUS (for particularly innovative services) and VERENA (for innovative co-operation projects, e.g. with universities) awards.

	• aws Best of Biotech International start-up competition in the field of life sciences with the aim of providing the industry with start-up impetus, identifying ideas with commercial potential and providing the best possible support for entrepreneurial talent in research. The programme offers the opportunity to develop viable business concepts and put them into competition with other projects in the sector. • "Verified Social Enterprise" label (VSE label) In order to raise public awareness of social enterprises, all social enterprises that fulfil certain criteria can apply for the VSE label from the aws. <u>Connection with the objective:</u> Start-ups can not only win prizes through competitions, but also raise the profile of their company, convince investors and find networks. These effects should have a positive impact on the growth of the respective company. These measures will therefore help to double the number of unicorns in the EU. <u>Provisional schedule:</u> The measures have been running for several years, are partially being adapted and are expected to be available until at least the end of 2026.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (planned or assigned): 1.3 million euros per annum.
Intended effect and its occurrence over time	<u>Nominations after the individual competitions:</u> • PHOENIX: 18 nominations per year and one winner in each of four categories • State Prize for Innovation: Six nominations and one winner each year <u>Awards:</u> • VSE label: 16 companies, organisations and associations have already been awarded a VSE label.

4.11.4. Measure 4 – aws First Incubator

New measure	☐ Yes ☒ No

Brief description of the measure aws First Incubator supports the incubation of innovative business ideas from the idea phase to the start-up phase.	Content of the measure: aws First Incubator supports the incubation of innovative business ideas from the idea phase to the start-up phase with grants of up to EUR 55,000 per project. Consultancy services worth EUR 20,000 or EUR 1,700 are also offered. Grants to: • Personnel costs • Costs for instruments and equipment • Travel costs • Costs associated with setting up, founding and growing a company Connection with the objective: The strategic objective of the funding programme is to support applied research and its impact on the economy and society. For example, the focus is on funding in the area of innovative technologies, new business models and digital skills. The funding programme is also intended to help achieve the following objectives: • Promotion of technology and knowledge-intensive start-ups • Professionalisation of companies in innovation protection Schedule: The programme is valid from 1.1.2022 to 31.12.2026.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (planned or assigned): 3 million euros per annum (rounded)
Intended effect and its occurrence over time	The aim is to achieve an increase in the following areas, among others: • Number of highly innovative start-up projects • Percentage of projects related to digitalisation

4.11.5. Measure 5 – aws PreSeed – Deep Tech

New measure	☐ Yes ☒ No
Brief description of the measure The measure represents a financing and support option	Content of the measure: aws PreSeed - Deep Tech is a funding and support programme for deep tech companies in the pre-seed phase. Support is provided in the form of grants, advice, coaching and the development of

for deep-tech companies in the pre- foundation phase, with the aim of technical and economic preparation, implementation and validation of the proof of concept.	funding sources. The amount of the grant is max. 270,000 euros. Consultancy services worth EUR 7,600 and EUR 3,400 respectively are also offered. Grants to (among others): • Personnel costs • Travel costs • Other operating costs Connection with the objective: The aim of the programme is to enable young, innovative deep-tech projects with outstanding ideas and a business model that is scalable to prepare, implement and validate the proof of concept. The international market provides the benchmark for evaluating innovation. Schedule: The programme is valid from 1.1.2022 to provisionally 31.12.2026.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (planned or assigned): 14 million euros per annum (rounded) (measures 5 and 6 share the budget)
Intended effect and its occurrence over time	The aim is to achieve an increase in the following areas, among others: • Number of highly innovative start-up projects • Percentage of companies with above-average growth • Percentage of projects related to digitalisation

4.11.6. Measure 6 – aws Seedfinancing – Deep Tech

New measure	☐ Yes ☒ No
Brief description of the measure The measure represents a financing and support option for deep-tech start-ups with the aim of enabling sustainable growth.	Content of the measure: aws Seedfinancing - Deep Tech is a financing and support programme for deep-tech start-ups, for example in the life sciences or quantum technology sectors. Support is provided in the form of grants, advice, coaching and the development of funding sources. The amount of the grant is max. 1,000,000 euros. Grants to (among others): • Personnel costs • Tangible and intangible investments • Operating materials

	Connection with the objective: The aim of the programme is to enable sustainable growth for young, innovative deep-tech companies with outstanding ideas and a business model based on a significant technological innovation leap that is scalable. The international market provides the benchmark for assessing the significant technological innovation leap. Schedule: The programme is valid from 1.1.2022 to provisionally 31.12.2026.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (planned or assigned): 14 million euros per annum (measures 5 and 6 share the budget)
Intended effect and its occurrence over time	The aim is to achieve an increase in the following areas, among others: • Number of highly innovative start-up projects • Percentage of companies with above-average growth • Percentage of projects related to digitalisation

4.11.7. Measure 7 - aws PreSeed - Innovative Solutions

New measure	☐ Yes ☒ No
Brief description of the measure The measure represents a financing and support option for companies in the creative industries, soft/low-tech and social entrepreneurship sectors in the pre-start-up phase.	Content of the measure: aws PreSeed - Innovative Solutions is a financing and support programme for companies in all sectors, from the creative industries to soft/low tech and social entrepreneurship in the pre-seed phase. Support is provided in the form of grants totalling a maximum of 100,000 euros and advice totalling a maximum of 6,700 euros. Grants to (among others): • Personnel costs • Material costs • Third-party costs (e.g. IT services, project-specific consulting services, etc.) Connection with the objective: The aim of the programme is to finance and support projects from all sectors with an innovative start-up idea that generates positive social added value (impact) beyond company boundaries and high

	market opportunities within the framework of scalable business models. Schedule: The programme is valid from 1.1.2022 to provisionally 31.12.2026.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (planned or assigned): 8.9 million per annum (measures 7 and 8 share the budget).
Intended effect and its occurrence over time	The aim is to increase (among others) in the following areas: • Number of highly innovative start-up projects • Percentage of companies with above-average growth • Percentage of projects related to digitalisation

4.11.8. Measure 8 - aws Seedfinancing - Innovative Solutions

New measure	☐ Yes ☒ No
Brief description of the measure The measure represents a financing and support option for companies in all sectors, from the creative industries to soft/low tech and social entrepreneurship in the start-up phase.	Content of the measure: aws Seedfinancing - Innovative Solutions is a funding and support programme for companies in all sectors, from the creative industries to soft/low tech and social entrepreneurship in the start-up phase. Support is provided in the form of grants totalling a maximum of 400,000 euros, as well as advice totalling a maximum of 8,400 euros. Grants to (among others): • Personnel costs • Material costs • Third-party costs (e.g. IT services, project-specific consulting services, etc.) Connection with the objective: The aim of the programme is to finance and support projects from all sectors in the further development of an innovative start-up idea that generates positive social added value (impact) beyond company boundaries as well as high market opportunities within the framework of scalable business models. Schedule: The programme is valid from 1.1.2022 to provisionally 31.12.2026.

Allocated or planned budget and, where appropriate, other resources, including human resources	National (planned or assigned): 8.9 million euros per annum (measures 7 and 8 share the budget)
Intended effect and its occurrence over time	The aim is to achieve an increase in the following areas (among others): • Number of highly innovative start-up projects • Percentage of companies with above-average growth • Percentage of projects related to digitalisation

4.11.9. Measure 9 - Global Incubator Network Austria (GIN)

New measure	☐ Yes ☒ No
Brief description of the measure As a network with the GO ASIA internationalisation programmes, GIN brings Austrian start-ups to the world's most innovative start-up hubs and connects them with international strategic partners (corporates, investors, etc.). The programme also includes support in the form of know-how and grants.	Content of the measure: As a network with the GO ASIA and GO AUSTRIA internationalisation programmes, GIN brings Austrian start-ups to the world's most innovative start-up hubs and connects them with international strategic partners (corporates, investors, etc.). The programme also includes support in the form of know-how and grants. Support is provided in the form of grants totalling a maximum of 15,000 or 25,000 euros, as well as advice totalling a maximum of 3,700 euros. Grants to (among others): • Travel costs • Rental, set-up and operating costs • Costs for consulting services Connection with the objective: The aim of the programme is to bring together numerous players from Austria and Asia at an international level. Co-operations, market entry, investments, networking and knowledge transfer are facilitated. These effects should have a positive impact on the growth of the respective company. These measures will therefore help to double the number of unicorns in the EU. Schedule: The programme is valid from 1.1.2024 to provisionally 31.12.2026.
Allocated or planned budget and, where appropriate, other	National (planned): 1.2 million euros per annum

resources, including human resources	
Intended effect and its occurrence over time	The aim is to achieve an increase in the following areas (among others): • Percentage of companies with above-average growth • Percentage of projects related to digitalisation

4.11.10. Measure 10 - aws connect

New measure	☐ Yes ☒ No
Brief description of the measure This is an aws digital networking platform for start-ups, companies and investors with the aim of promoting cooperation, investment and internationalisation. The measure includes various sub-services.	<u>Content of the measure:</u> • aws AI marketplace The aws AI marketplace is an online platform for the best providers of artificial intelligence (AI) and for companies that want to integrate AI into their production processes. • aws Industry-Startup.Net This measure is a neutral matching service for start-ups and established SMEs as well as large companies wishing to enter into a cooperation partnership. • aws i2 Business Angels aws i2 Business Angels is an independent, neutral Austrian platform for the structured and transparent matching of promising start-ups with financially strong and experienced investors. • aws Equity Finder This is a networking platform for companies that are looking for or want to provide venture capital. This gives innovative companies transparent access to investment providers. <u>Connection with the objective:</u> Start-ups or innovative companies can use aws connect to quickly and easily find contacts with investors and SMEs and large companies willing to cooperate in the further development of their business. These sectors should have a positive impact on the growth of the respective company. These measures will therefore help to double the number of unicorns in the EU. <u>Schedule:</u> The programmes are valid from 1.1.2024 to provisionally 31.12.2026.

Allocated or planned budget and, where appropriate, other resources, including human resources	• National (planned or assigned): EUR 4.2 million per annum (for ISN, i2, EF) • The aws AI Marketplace is the responsibility of the Federal Ministry of Finance.
Intended effect and its occurrence over time	The aim of aws i2 Business Angels is to achieve an increase in the following areas (among others): • Number of highly innovative start-up projects

4.11.11. Measure 11 - Start-up Council

New measure	☐ Yes ☒ No
Brief description of the measure The Start-up Council is a committee of experts from the start-up ecosystem with an advisory function for the Federal Ministry of Labour and Economic Affairs and as a mouthpiece for the start-up community.	Content of the measure: The Start-up Council is a committee of experts from the start-up ecosystem with the aim of improving the framework conditions for start-ups and innovative growth companies in Austria. It advises the Federal Ministry of Labour and Economic Affairs on start-up matters and acts as a mouthpiece for the start-up community. Connection with the objective: The programme focuses on content-related work in close dialogue with the entrepreneurial innovation ecosystem, stakeholders and political decision-makers. The involvement of the Start-up Council as an advisory body of the Federal Ministry of Labour and Economic Affairs provides a voice for the current requirements of the start-up community. Schedule: The Start-up Council was appointed until 31.12.2026.
Allocated or planned budget and, where appropriate, other resources, including human resources	This is a voluntary activity.
Intended effect and its occurrence over time	The aim of the measure is to improve the framework conditions for start-ups in Austria. The focus is on content-related work in close dialogue with the entrepreneurial innovation ecosystem, stakeholders and political decision-makers. The Start-up Council's involvement in the funding system and its role as an advisory body to the Federal Ministry of Labour and Economic Affairs provides a voice for the start-up community's current requirements.

4.11.12. Measure 12 - Platform and consulting - EIC Accelerator

New measure	☐ Yes ☒ No
Brief description of the measure The EIC Fund provides equity capital for pioneering, innovative companies.	Content of the measure: Support and preparatory measures for Austrian start-ups as part of the EIC Accelerator: • EIC Accelerator Platform A regular exchange meeting to improve the networking of stakeholders in Austria • Consultancy activities for the preparation of suitable candidates
Intended effect and its occurrence over time	Successful participation of Austrian start-ups in the EIC Accelerator

4.11.13. Measure 13 - Flexible corporation

New measure	☒ Yes ☐ No
Brief description of the measure The introduction of the flexible corporation was initiated with the ministerial draft of the Company Law Amendment Act 2023.	Content of the measure: The ministerial draft of the Company Law Amendment Act 2023 introduced (among other things) the introduction of a new legal form - the Flexible Capital Company (FlexKapG). The intention is to combine aspects of the Austrian limited liability company and the Austrian stock corporation. Some of the most important achievements for founders of this initiative include • Easier formal requirements, for example for share transfers • Enabling flexible capital measures that were previously only possible with a stock corporation, such as conditional and authorised capital increases • Significantly simplified possibility of adopting circular resolutions • Creation of company value shares for employee share ownership programmes, which are to be seen in combination with planned tax relief for employee share ownership programmes Connection with the objective: The measure creates a new form of capital company that is intended to represent a competitive option for innovative start-ups

	in international comparison. The new legal form should be particularly attractive for international venture capital investors. There are also plans to make it more attractive for start-ups to recruit specialists by reducing the formal requirements for the transfer of company shares, as well as tax benefits in connection with the sale of such shares via the ministerial draft of the Start-up Promotion Act. Schedule: As far as the status of the pre-parliamentary procedure is concerned, the ministerial draft of the Company Law Amendment Act 2023 was submitted to the National Council on 30.5.2023. The review period then began until 7.7.2023. The comments received on the draft were submitted to the Federal Ministry of Justice on 10.7.2023. The flexible corporation is expected to be available as a new legal form from 2024.
Allocated or planned budget and, where appropriate, other resources, including human resources	The Federal Ministry of Justice is responsible for this measure.
Intended effect and its occurrence over time	The creation of a new form of capital company should build on international examples and offer an internationally competitive option, particularly for innovative start-ups and founders in the early stages.

4.11.14. Measure 14 - aws Start-up Invest

New measure	☒ Yes ☐ No
Brief description of the measure aws Start-up Invest provides additional venture capital for innovative start-ups in the form of co- investments with experienced investors.	Content of the measure: With aws Start-up Invest, aws provides additional risk capital for innovative start-ups in the form of co-investments with experienced investors (e.g. business angels, family offices, angel consortia). Connection with the objective: The current market environment is challenging for start-ups: There is a high level of uncertainty and rising interest rates make financing a hurdle. Venture capital investments have been declining since the second half of 2022 due to the crisis.

	The aim of the measure is to provide technology-intensive start-ups with additional funding support. With the help of aws Start-up Invest, a new equity instrument is thus being offered. Schedule: The programme does not have a defined schedule. Q3–Q4 2023: Organising a call for investors, accompanied by information and awareness events to address the target group (especially female investors). Q4 2023 and Q1 2024: Selection of investors and conclusion of trust agreements. Investments in companies possible from Q1 2024. Duration and monitoring of the programme by aws until approx. the end of 2034.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (assigned): 10 m euro
Intended effect and its occurrence over time	Based on experience from other similar programmes, investments in 40-60 start-ups with a total mobilised volume of venture capital of around EUR 100 million are expected.

4.11.15. Measure 15 - Start-up Navigator

New measure	☐ Yes ☒ No
Brief description of the measure The Start-up Navigator offers nationwide and state-specific information on all relevant contact points for the most important start-up topics.	Content of the measure: The Start-up Navigator offers nationwide and state-specific information on all relevant contact points for the most important start-up topics, such as founding, financing, community, competitions and internationalisation. Connection with the objective: The Start-up Navigator provides start-ups with clear information on topics relevant to them. The main focus here is on information about the start-up and initial phase, financing and funding, the community and competitions. This measure presents the above information in a targeted manner on an online platform. Schedule: Measure designed for an indefinite period.
Allocated or planned budget and, where appropriate, other	The costs of this measure are borne by the digitisation section of the Federal Ministry of Finance.

resources, including human resources	
Intended effect and its occurrence over time	This measure presents the many information, financing, funding and competition offers in Austria in a targeted manner on an online platform.

4.11.16. Measure 16 - NCC support for SMEs: "CYBER SECURITY SCHECK 2023"

New measure	☒ Yes ☐ No
Brief description of the measure	The NCC funding programme "CYBER SECURITY SCHECK" supports Austrian SMEs within the scope of the NIS2 Directive in increasing the security of their network and information security systems against security incidents and integrating the necessary technologies in their company. The programme covers costs for technologies and consulting services in connection with technical cyber security measures. The funding programme offers funding of up to EUR 10,000 per grant, with a maximum of one grant per SME. The funding rate is capped at 40%, the funding period is 12 months from the start of the project, an extension of the project term is not possible. The initiative is aimed at SMEs that fall within the scope of the NIS2 Directive and are established in Austria. Eligible expenses include technology costs as well as consulting services in the area of cyber security. The total budget for the programme amounts to a maximum of EUR 2 million and is provided in equal parts by the Austrian Future Fund (FZÖ) and the Digital Europe Programme (DEP) via the National Coordination Centre for Cybersecurity. The tender is scheduled to start in 2023 and will be open for at least three months. In addition, the final report must be submitted within one month of the end of the funding period. The programme supports initiatives that implement specific technical security measures in companies to strengthen the security and cyber resilience of their networks and information security systems. These security measures must be implemented with the help of cyber security technologies. The measures must be able to fulfil the requirements of the NIS2 Directive and must therefore be geared towards specific purposes.

	Only initiatives that can be completed within 12 months of the start of the project are eligible for funding. Funding is available for technologies (hardware and software) that are suitable for implementing technical cyber security measures and integrating them into the company's digital infrastructure. Eligible expenditure includes, in particular, new purchases and necessary technology upgrades. The type and purpose of the technologies or consultancy services and their contribution to the implementation of the NIS2 Directive in the company must be plausibly described in the application, otherwise they are not eligible for funding.
Allocated or planned budget and, where appropriate, other resources, including human resources	• National: 1 million euros - Fonds Zukunft Österreich (FZÖ) • EU: 1 million euros - Digital Europe Programme (DEP)
Intended effect and its occurrence over time	Up to 200 SMEs will receive funding of up to €10,000 to improve the security of their networks and information systems against security incidents and to integrate the necessary technologies into their organisation in accordance with the NIS2 Directive.

4.11.17. Measure 17 -Start-up ecosystem package of measures

New measure	☒ Yes ☐ No
Brief description of the measure The following goals and measures are being pursued to further boost the start-up landscape in Austria in the long term: • **Startup Landscape Austria:** Greater transparency for investors thanks to interactive dashboard • **"inno up":** Promotion of innovative business ideas • **Born Global Academy:** Opening up new markets	Content of the measure: **Startup Landscape Austria** Startup Landscape Austria is the first Austria-wide database on the domestic start-up ecosystem. Interested parties can use simple search and filter functions to obtain information on start-ups, investors, incubators, accelerators and more. • Joint project with the BMAW and other stakeholders such as AIT, AustrianStartups, invest.austria, FFG, aws, ABA and more • Presentation of the prototype in December 2022 • Further information: https://austria.dealroom.co/ **"inno up"** • is therefore a key technology enabler for established companies and start-ups alike. • The WK is supporting Austrian companies with various measures to help them take off after coronavirus and with the

through international programme • **Digitalisation of the foundation processes:** The USP platform is designed to guide you through all the steps required to set up a new company	digital transformation. In the area of start-ups and innovative digital solutions for established companies, the "inno up" measure is a lighthouse project. SMEs methodically solve specific innovation projects with suitable start-ups - the focus is on strategic cooperation between the different company profiles in order to create more innovation together, on the one hand established companies and on the other hand high-tech start-ups. • Further information: – https://www.wko.at/service/inno-up.html – https://www.inno-up.at/ – https://www.startupinnovation.net/ **Born Global Academy** • Born Global Academy is the programme for Austrian scale-ups on their way into new markets. The aim of the event series is to introduce Austrian start-ups to the expansion of their business models into international markets and to provide them with advice from scaling experts on specific market entry and growth steps. • Further information: http://www.bornglobalacademy.com/
Allocated or planned budget and, where appropriate, other resources, including human resources	• 20,000 euros annual budget • External partner (AIT) for additional data collection **inno up** • 140,000 euros annual budget • One internal and one external project management team, one additional internal support employee • 1.5 FTE **Born Global Academy** • 100,000 euros per year • 1.5 FTE
Intended effect and its occurrence over time	• Interactive dashboard enables target group-orientated search; In 2023, an enhanced matchmaking function with international investors went online • Largest interactive start-up database in Austria with over 3,000 start-ups now online • Database is now used as a database in numerous reports: Austrian Startup Monitor, EY Startup Barometer, 100 Startups to Watch in Austria, HealthTech Map **inno up**

	• Every year, challenges are defined and advertised throughout Austria together with partner companies (SMEs); Start-ups with suitable solutions are sought in an intensive scouting process. Since 2021, 15 challenges have been implemented, with a focus on the environmental sector (GreenTech), healthcare (Life Sciences) and the education segment (EdTech), among others. • Over 3,000 potentially suitable start-ups were analysed and evaluated worldwide, with the best ones each completing a challenge. **Born Global Academy** • The important new flagship event primarily equips Austrian scale-ups with the right tools for selecting target markets and creating a market entry strategy. It also represents an interface between local Austrian incubation initiatives and international Go programmes such as Go Silicon Valley and Gin Programme. As a result, the service structures and content of the WKO and AUSSENWIRTSCHAFT AUSTRIA will be better networked and enable seamless services along all growth and development phases of Austrian scale-ups. • New flagship event for foreign trade in close cooperation with internal and external stakeholders. We guide the "born global champions" of tomorrow step by step towards scaling their business models. In concrete terms, this means focusing on target market selection, go-to-market strategy and product-market fit in the respective target market within the programme. • Born Global Champions uses a multi-phase funnel strategy to identify Austrian start-ups that are *ready to scale* and provides them with important content and tools for their expansion during the second core event "International Bootcamp Day".

4.12. KPI 13 - Digital Services for Citizens

General overview of the measures by digital objective

Target: 100 per cent online provision of essential public services and, where appropriate, the possibility for citizens and businesses in the Union to interact online with public administrations.

- National baseline value: 78 %

With the citizen service portal "oesterreich.gv.at" and the associated "Digitales Amt" app, Austria has had completely renewed central access points to information and online services relating to official channels since 2019. First procedures such as main residence registration, digital baby point (services relating to pregnancy and birth such as e.g. first issue of certificates, passport reminder service, certificate service and voting card application) were implemented on oesterreich.gv.at with a consistent user experience (user experience). e.g. first issue of certificates), passport reminder service, certificate service and voting card application, were implemented on oesterreich.gv.at with a consistent user experience and offered as an app and web solution.
With a single login via ID Austria, a number of existing electronic services of the administration can be used without an additional login (single sign-on).
Work is currently underway to expand the residence registration service to include additional use cases
(e.g. secondary residence registration), marriage registration and the integration of electronic delivery, as well as to improve usability and the technical architecture.

It is also planned to commission a study to identify those official channels that are suitable for digitalisation and offer the greatest benefits in order to obtain an appropriate sequence for the further expansion of services.

- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 – ***Expansion of services in accordance with current project committee decisions (marriage registration, additional residence registrations, integration of electronic delivery)***								
Measure 2 – ***Study on official channels suitable for digitalisation with the greatest possible benefit***								

Measure 3 (new) - ***Implementation according to study results from measure 2 and available resources***								
Measure 4 – ***Online application and admission to a degree programme and provision of a digital student ID card***								

- **Funding for all measures that can be allocated to the objective (overall, taking into account the regional dimension where possible)**
  - Public investments:
    - already assigned: Total project budget for Platform for Citizens 2023*:* 13,476,405.00 euros
    - planned: Total project budget for Platform for Citizens 2024: 7,726,405.00 euros; 2025: 5,226,405.00 euros; 2026: 5,226,405.00 euros; 2027: 5,226,405.00 euros
    - of which from national sources:
      - total investment comes from national sources
  - Challenge - identifying suitable services
    - The tried-and-tested approach of promoting the digitalisation of official channels and implementing them natively for the web on the central service platform "oesterreich.gv.at" and the "Digitales Amt" app is to be continued. Longer-term projects, such as services in the healthcare and pension sectors, are identified, evaluated and subsequently implemented as part of a study.
- **Estimated investment gap and possible measures to achieve the national targets**
  A study is to show the potential of digitalisable administrative procedures and, with a subsequent cost/benefit analysis, lead to an implementation plan. This is the only way to estimate the total costs of providing essential public services 100 per cent online.

Description of measures

4.12.1. Measure 1 - Expansion of services in accordance with current project committee decisions (marriage registration, additional residence registrations, integration of electronic delivery)

New measure	☐ Yes

	☒ No
Brief description of the measure The "Register main residence" function is to be expanded. All forms of registration and re-registration of main and secondary residences should be possible. The "My inbox" application for easier use of electronic delivery is to be integrated. Marriage registration is to be offered online.	Content of the measure: Implementation of the new services (expansion of residence registration, registration for marriage, integration of electronic delivery) for web on oesterreich.gv.at and in the "Digitales Amt" app. Connection with the objective: Further services are bringing the goal of 100 per cent online provision of essential public services closer. Provisional schedule: The analysis of the new functions was started in 2023. Implementation is scheduled for Q1/2024. Every holder of an ID Austria can then register or deregister his/her place of residence.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (please indicate whether funds are allocated or planned): The implementation of the measures is financed from the overall project budget for the platform for citizens. The total costs for the implementation of the functions mentioned can only be estimated after a detailed analysis.
Intended effect and its occurrence over time	Utilisation of the new services by citizens through accompanying communication measures after implementation and thus relief for users and the administration

4.12.2. Measure 2 – Study on official channels suitable for digitalisation with the greatest possible benefit

New measure	☒▪Yes ☐ No
Brief description of the measure Commissioning a study to a research institution to identify those official channels that are suitable for digitalisation and whose implementation offers the greatest benefits for citizens and the administration.	Connection with the objective: A survey and evaluation of potential implementation candidates is to be carried out for the 100 per cent online provision of essential public services. Provisional schedule: The study is due to be commissioned in 2023 and is expected to take six months to complete.

Allocated or planned budget and, where appropriate, other resources, including human resources	National (please indicate whether funds are allocated or planned): The implementation of the measures is financed from the overall project budget for the platform for citizens. The estimated costs are 100,000 euros.
Intended effect and its occurrence over time	Identification of services that are suitable for digitalisation, ranked according to benefits for citizens and the administration

4.12.3. Measure 3 - Implementation according to study results from measure 2 and available resources

New measure	☒▪Yes ☐ No
Brief description of the measure Implementation of further online services in the order of their benefit according to the results of the study from measure 2.	Content of the measure: Realisation of further online services Connection with the objective: Further services are bringing the goal of 100 per cent online provision of essential public services closer. Provisional schedule: Once the study from measure 2 is available, the implementation of the other online services will be realised in stages, depending on the availability of resources.
Allocated or planned budget and, where appropriate, other resources, including human resources	National (please indicate whether funds are allocated or planned): The implementation of the measures is financed from the overall project budget for the platform for citizens. The total cost of implementing the new online services can only be estimated after a detailed analysis.
Intended effect and its occurrence over time	Utilisation of the new services by citizens through accompanying communication measures after implementation and thus relief for users and the administration

4.12.4. Measure 4 - Online application and admission to a degree programme and provision of a digital student ID card

New measure	☒ Yes ☐ No
Brief description of the measure	Content of the measure: The aim of the online application/admission is to provide admission-relevant data, such as personal data, school-leaving

• "Online onboarding": Online application and admission to a degree programme at a post-secondary educational institution. • "Digital student ID card": Provision of a legally binding ID card via the federal government's ID card platform	certificate data, photograph, etc., using ID-Austria authentication - also from other EU member states using eIDAS authentication (if this data is provided) - via the Register and System Network (RSV) to retrieve quality-assured data from the registers connected to the RSV (Central Register, driving licence register, EduRec, etc.) without applicants having to upload or present their documents. In the course of this, a student register will also be implemented on the basis of the existing data network of universities and colleges , including a connection to the RSV. At the end of the admission process is the digital student ID card, which is made available on smartphones via the federal government's ID card platform, similar to a digital driving licence. <u>Connection with the objective:</u> Further services are bringing the goal of 100 per cent online provision of essential public services closer. <u>Provisional schedule:</u> The functionalities should be available for admissions/applications for the winter semester 2025. They can be used by anyone with the ID Austria or a European eID. These measures also correspond to the once-only principle and are already a further development of what the Single Digital Gateway Regulation currently provides for in the area of authorisation for studies.
Intended effect and its occurrence over time	Utilisation of the new services by citizens and thus relief for users and the administration

Apply for confirmation of registration online:

- National baseline value (last available historical data point): 70 %;
  EU baseline value (last available historical data point): 55 %
- Target 100% achieved; Every holder of an ID Austria can receive a confirmation of registration online; the information is available at oesterreich.gv.at, among others

Apply for a birth certificate/marriage certificate/partnership certificate online:

- National baseline value (last available historical data point): 66.7 %;
  EU baseline value (last available historical data point):
- Target 100% achieved; Any holder of an ID Austria who is registered in the Central Civil Status Register can obtain these documents online; the information is available at oesterreich.gv.at, among others

Apply online for an appointment for marriage/registered partnership at the registry office:

- National baseline value (last available historical data point): 70 %;
  EU baseline value (last available historical data point): 55 %
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Request to the municipalities to use an appointment scheduling tool								

- **Challenge 1**
  - The order to use a scheduling tool is not the responsibility of the Federal Ministry of the Interior (BMI), but is the responsibility of the respective authority's own organisation (approx. 1300 civil status authorities in total).

Apply online for an appointment for the issue of a passport/ID card:

- National baseline value (last available historical data point): 70 %;
  EU baseline value (last available historical data point): 90 %
- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Request to passport authorities to use an appointment scheduling tool								

- **Challenge 1**
  - The order to use a scheduling tool is not the responsibility of the Federal Ministry of the Interior, but of the respective authority's own organisation (approx. 150 passport authorities and 750 municipalities authorised to accept passport/ID card applications).

Initiation of proceedings for small claims:
Proceedings for small claims can already be initiated online (by way of electronic legal transactions [ERV] and via JustizOnline).

Description of measures

NATIONAL

Measure 1 - Custody/parental responsibility

New measure	☐ Yes ☒ No
Brief description of the measure	It is already possible to register custody/parental responsibility online (using eID).

Measure 2 - Online appointment for marriage/registered partnership at the registry office

New measure	☐ Yes ☒ No
Brief description of the measure	Invitation to public authority representatives to use appointment booking tools on various communication channels
Intended effect and its occurrence over time	90% of authorities have appointment scheduling tools in use by the end of 2028.

Measure 3 - Online appointment for passport application

New measure	☐ Yes ☒ No
Brief description of the measure	Invitation to public authority representatives to use appointment booking tools on various communication channels
Intended effect and its occurrence over time	90% of authorities have appointment scheduling tools in use by the end of 2027

Measure 4 - Birth certificate - Online certificate service has already been implemented

New measure	☐ Yes

	☒ No
Brief description of the measure	Request to the municipalities to use an appointment scheduling tool Partial extract of birth (Section 58 PStG) has been implemented as part of the document service on oesterreich.gv.at since 10.04.2023.

Measure 5 - Arrange/postpone hospital appointment

New measure	☐ Yes ☒ No
Brief description of the measure	Provision of the option to make appointments online In terms of definition, it is unclear whether the online appointment only counts as such if the appointment is confirmed online in one step, or whether it also counts if you enquire but are only sent an appointment a short time later; The former is offered by very few appointment portals in Austria. Of the 270 or so hospitals currently offering online appointments, around 5-13% do so, sometimes in combination with a teleconsultation.

Measure 6 - Teleconsultation with a hospital doctor

New measure	☐ Yes ☒ No
Brief description of the measure	Provision of the option of teleconsultation with a hospital doctor. In total, around 10 locations, i.e. around 3% of hospitals in Austria, currently offer this option.

Measure 7 - E-prescription from a hospital doctor

New measure	☐ Yes ☒ No
Brief description of the measure	Enable e-prescription from hospital online. In principle, it is already possible for hospitals and hospital departments (and the doctors working there) to issue e-prescriptions. Some hospitals and hospital departments are already doing this, while others are still working on implementation.

Measure 8 - Appeal against court decision

New measure	☐ Yes ☒ No
Brief description of the measure	There is no separate form available for lodging an appeal, in particular for **appeals against court decisions**, apart from the form for appealing against an order for payment. This is due to the usually complex content requirements of a notice of appeal. In addition to the grounds of appeal and the requests for appeal, this must include actual submissions and evidence and cannot be limited to standardised content using a form. Furthermore, a notice of appeal requires the signature of a lawyer anyway. In appeal proceedings, the parties must be represented by a lawyer. Lawyers are able to submit the notice of appeal **by means of electronic legal communication** and thus online.

Measure 9 - Registration of a used car

New measure	☐ Yes ☒ No
Brief description of the measure	An online procedure for the registration of vehicles is currently being developed for the BMK by the Association of Austrian Insurance Companies as part of the SDG Regulation . The project should be completed by 12.12.2023. The online form will be integrated under the following link as soon as it is available: Motor vehicle registration (oesterreich.gv.at). This includes authorisations by both natural and legal persons. Special vehicles, such as ambulances, diplomatic vehicles, etc., are excluded . For legal reasons, the licence plate (and the registration documents) are issued physically (Council Directive 1999/37/EC of 29 April 1999 amended by Directive2014/46/EU).

Measure 10 - Apply for a parking permit

New measure	☐ Yes ☒ No
Brief description of the measure	Based on the Austrian Road Traffic Regulations, local authorities can issue short-stay parking zone regulations; under certain

	conditions laid down in the law, residents or members of certain professional groups can apply for an exemption from the short-stay parking zone with regard to unlimited parking. In most cases, parking in short-term parking zones is also subject to a charge; parking charges are governed by state law. Exemptions from the short-term parking zone (and any obligation to pay charges) can therefore only relate to a specific short-term parking zone. Due to the fact that the competences in this area are very diverse, but at the same time there is no higher-level federal authority that would be authorised to issue instructions, a standardised online form or at least a manageable number of such forms is hardly conceivable. There are individual authorities at state level that already have their own online application form.

CROSS BORDER

Measure 1 - Arrange an online appointment for deregistration/registration/re-registration

New measure	☐ Yes ☒ No
Brief description of the measure	Invitation to public authority representatives to use appointment booking tools on various communication channels
Intended effect and its occurrence over time	90% of authorities have appointment scheduling tools in use by the end of 2027

Measure 2 - Personal income tax return

New measure	☐ Yes ☒ No
Brief description of the measure	Procedure available via eIDAS login on FinanzOnline. Multilingualism is expected to be made available from 12.12.2023 by means of an interim solution (explanatory PDFs - German-language fields will be explained in English). A project for the general implementation of multilingualism in FinanzOnline is currently being examined. The forms database offers form E 1 and various enclosures (E 1a, E 1b, E 1c ...) for the income tax return. Form L 1 and various enclosures (L 1d, L 1i, L 1k ...) are only available as a paper print version for the employee tax assessment.

Measure 3 - Application for state pension

New measure	☐ Yes ☒ No
Brief description of the measure	"Applying for retirement and early retirement benefits from mandatory schemes" is a procedure from the SDG Regulation and is possible online with approx. 26 different forms via "MeinSV". We are currently working on making these forms multilingual. Expected to be available until 12.12.2023. There is also the "Request for information on data relating to retirement benefits from mandatory schemes" procedure. There is already an online solution for this via the "My pension account" service. Multilingualism is also still being worked on here. Deadline: 12.12.2023. In the area of the Pension Insurance Institution (PVA), the application process for all pension applications is already fully digitalised (see htt-ps://www.pv.at/cdscontent/?contentid=10007.707757&portal=pvaportal). These applications can also be digitally signed using the Austrian mobile phone signature or ID Austria login option. It is not yet possible for EU member states to login or sign using eID (electronic identity). It should be noted that the Single Digital Gateway Regulation (Ordinance (EU) 2018/1724) also applies to the provision of online pension applications. Among other things, this obliges Member States to make online procedures covered by the Regulation equally available to all users throughout Europe in English as the official language of the Union. As part of the "Single Digital Gateway" project, it was agreed that the applications would also be made available on this platform (in English) and would therefore also be available to persons from the EU Member States and could be signed with the respective eIDs. The implementation of online pension applications is also welcomed by the Social Insurance Institution for the Self-Employed (SVS) and the Insurance Institution for Public Employees, Railways and Mining (BVAEB), whereby implementation by 2030 seems realistic for the SVS, for example.

Measure 4 - Submission of evidence/supporting documents

New measure	☐ Yes ☒ No

Brief description of the measure	The submission of evidence/supporting documents is already possible online (using eID).

Action 5 - Follow-up on the status of the case

New measure	☐ Yes ☒ No
Brief description of the measure	The submission of evidence/supporting documents is already possible online (using eID).
Allocated or planned budget and, where appropriate, other resources, including human resources	It is already possible to track the status of the case online (using eID). It is suggested that the following link be added with reference to the "My procedures" function: https://justizonline.gv.at.

Measure 6 - Entry of a new address in the Central Register of Residents

New measure	☐ Yes ☒ No
Brief description of the measure	The implementation of the SDG process will be fulfilled through two national processes: Online registration (new HWS or WS and deregistration of the old HWS); Online deregistration (online deregistration of an existing residence). The challenges: The necessary amendment to the Registration Act is still pending (in progress). Also expected to be available in English from 12.12.2023.

Measure 7 - Registration of a used car

New measure	☐ Yes ☒ No
Brief description of the measure	An online procedure for the registration of vehicles is to be created as part of the SDG Regulation. According to the SDG Regulation, this online procedure must be realised by the end of 2023. According to our information, the Austrian Insurance Association (VVO) is in dialogue with the Federal Ministry of Finance in this regard.

Measure 8 - Obtaining an exhaust emissions sticker

New measure	☐ Yes ☒ No
Brief description of the measure	Online form available in German and English: See exhaust emissions sticker for lorries (usp.gv.at). The Emission Class Labelling Ordinance specifies the labelling of multi-track motor vehicles of classes N and M according to Euro emission classes by means of an emission class labelling sticker. This makes it possible for state governors to set local and/or temporary access restrictions for vehicles of a certain emission class in environmental zones and have them monitored. Article 6 of the Single Digital Gateway Regulation (2018/1724 EU) sets out procedures that must be provided fully online; This includes, among other things, the application for emission stickers issued by a public body or organisation. Current status Since 2022, it has been possible to apply for an emissions class sticker via a website, and since the beginning of 2023 also in English. Links to the forms can be found below. Further steps and challenges A connection to the register system network for automated filling of parts of the application form is planned for the future. As the issuing of emission class stickers is not carried out by an authority, but by authorised bodies pursuant to Section 57a Austrian Motor Vehicles Act 1967 and the provincial inspection bodies pursuant to Austrian Motor Vehicles Act 1967, it is very unlikely that, apart from the application for the stickers, further steps (e.g. "receipt of the emission sticker or other proof of payment" according to the SDG-VO) can be processed exclusively online. Link Website of the Business Service Portal: https://www.usp.gv.at/umwelt-verkehr/verkehr/lkw-abgasplakette.html

Measure 9 - Checking information and planning a journey (with several means of public transport)

New measure	☐ Yes

	☒ No
Brief description of the measure	Already exists: https://anachb.vor.at/

Measure 10 - Purchase of public transport tickets (standard fare)

New measure	☐ Yes ☒ No
Brief description of the measure	Already exists: https://shop.oebbtickets.at/

4.13. KPI 14 - Digital Services Company

General overview of the measures by digital objective

Target: 100 per cent online provision of essential public services and, where appropriate, the possibility for citizens and businesses in the Union to interact online with public administrations.

The online provision of important public services for companies (company formation and for carrying out regular business activities) is also available via the portals USP and JustizOnline or via the ERV.

- National baseline value: Baseline value: 83 %

At present, most administrative procedures are still handled in paper or PDF form; The aim is to achieve the highest possible electronic processing of notifications by reusing information that is already known.

- Total time schedule:

	2023	2024	2025	2026	2027	2028	2029	2030
Measures that contribute to achieving the objective								
Measure 1 – ***Once Only***	secured	secured	secured	planned	planned	planned	planned	planned
Measure 2 – ***eDelivery***	secured	secured	secured					
Measure 3 – ***Business Service Portal – usp.gv.at***	secured	secured	secured	planned	planned	planned	planned	planned

- **Brief description:**
  - **Once Only:** Information obligations under federal law generate high costs for both companies and the administration, for example due to personnel expenses, increased infrastructure costs and costs for professional party representatives, etc. The aim of this project is to reduce the burden on companies and the administration by creating appropriate measures to implement the "once only" principle. As a result, companies should only report to the authorities information that is not yet available to them as part of the fulfilment of information obligations. For their part, the authorities should take measures within the framework of the law to exchange the information they already have across authorities. The infrastructure created by the Federal Ministry of Finance will be made available to the public authorities so that it can be used as a basis for administrative reform projects. This is therefore made possible without interfering with the various responsibilities. Furthermore, the infrastructure will also serve authorities to handle cross-border use cases within the meaning of Article 14 of Regulation (EU) 2018/1724 on the establishment of a single digital gateway to information, procedures, assistance and problem-solving services and amending Regulation (EU) No 1024/2012, OG L 295, 21 November 2018, p. 1, in accordance with the Single Digital Gateway Regulation (SDGR).
  - **eDelivery:** Electronic delivery (eDelivery) has already been implemented with the electronic mailbox "My inbox" as a central and secure mailbox for official messages. After the one-off registration, documents from authorities (e.g. criminal record extract, registration confirmation, etc.) are received securely via this free electronic mailbox. Companies are legally obliged to accept electronic

deliveries from the authorities. Citizens have the right to electronic communication with public authorities in accordance with Section 1a of -the EGovernment Act. That means: All federal authorities and authorities that implement federal laws (e.g. as part of the registration system) send electronic deliveries of federal authority documents to citizens and companies in "My inbox". "My inbox" can be accessed at "oesterreich.gv.at" and in the "Digitales Amt" app. Companies can use "My inbox" in the Business Service Portal (usp.gv.at).

- **Business Service Portal – usp.gv.at:** The Business Service Portal (USP) is the Austrian administration's central information and service platform for companies to complete their official tasks efficiently and safely at a single centralised location. With just a single registration on the USP, you can access a wide range of options for dealing with the authorities online securely and without long waiting times. In addition, the USP provides entrepreneurs with legally secure information from the federal ministries on all areas of business life - at any time and from a trustworthy source. The services and information are available to businesspeople around the clock and, of course, also via mobile devices.

- The USP consists of four core areas
  1. **Information area**: Freely accessible information at usp.gv.at without registration; over 3,000 pages of information on all aspects of everyday business life for entrepreneurs
  2. **Service area "My USP"**: Companies can access over 100 government services at mein.usp.gv.at, which are connected to the USP via single sign-on. In other words, the user logs in to the USP for his/her company and can use, for example, FinanzOnline, social security services and many other applications without having to log in again. A one-time registration at the USP is required.
  3. **USP own developments**: USP's own services that offer public authority channels for companies digitally (preferably end-to- end), e.g. electronic company formation, searching for public tenders or granting and exercising powers of attorney. The basis for this includes the Federal Procurement Act 2018, the Core Data Ordinance, the E- Invoicing Ordinance, the Social Security Supplementary Act, the Simplified Limited Liability Company Formation Ordinance and the Beneficial Ownership Register Act.
  4. **Identity Providing**: The USP currently has over 570,000 registered participants, who are identified in a strictly controlled manner during the registration process at the USP. In addition, the person's authorisation to represent the company in question is also carefully checked. The USP now makes these verified identities

(persons and companies) and the necessary representation relationships available to over 100 official applications, thereby simplifying administration and increasing data quality and security for a large number of digital official channels for companies in Austria.

By modernising the platform by 2025, the existing range of information and services is to be expanded and improved to meet the current requirements of authorities and companies. This will create the conditions for providing a modern basis for the further digitalisation of interfaces between companies and authorities.

Description of measures

4.13.1. Measure 1 - Once Only

New measure	☐ Yes ☒ No
Brief description of the measure This will significantly reduce the burden on companies in fulfilling their information obligations. The systematic reduction (master data and annexes) and the implementation of a register link for the reuse of data will significantly reduce the burden on companies when submitting notifications. Companies have to devote a smaller proportion of their time resources to fulfilling information obligations.	Content of the measure: **Part 1: Creation of an information obligation database** **Part 2: Creation of a register and system network** Target part 1: Reduction of duplicate and multiple reports with a focus on the authorities Description Part 1: Based on the automation-supported information obligation database, the data stored by the authorities is analysed at metadata level (i.e. no personal data is analysed, but only general, abstract information on information obligations, their recipients, the technical transmission and the details of the content to be reported) and potential relief is identified and subsequently implemented at the level of individual use cases. Just as companies are affected by double and multiple reporting, authorities also incur additional costs as a result of the collection of double and multiple reports. The aim is to reduce the burden on authorities by making reporting processes more efficient, reducing duplicate processing, improving data quality and reducing the number of processing errors. Target part 2: make data already held by the authority usable for the fulfilment of information obligations Description Part 2:

	In order to ensure standardised and efficient national and cross-border data exchange between the authorities, the register and system network as a core component of the once-only platform is being expanded as a standardised communication infrastructure for the exchange of information between authorities. The authorities should be able to obtain and distribute data via these in accordance with the law. This communication infrastructure will primarily be used for the systematic reduction and implementation of the impulse projects. The long-term aim is to achieve nationwide, efficient and standardised data exchange via the register and system network. In addition, the register and system network must fulfil the technical requirements of the European Commission in order to meet the requirements of the SDG Regulation as a national node of the Once-Only-Technical-System. Provisional schedule: The programme is currently planned to run until December 2025.
Allocated or planned budget and, where appropriate, other resources, including human resources	Nationally, EUR 17.8 million has been earmarked between 2023 and 2025.
Intended effect and its occurrence over time	Companies will be relieved of their information obligations by a calculated 144 million euros

4.13.2. Measure 2 – eDelivery

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: Advantages of electronic delivery: • Secure delivery of letters from authorities • Guaranteed SPAM-free • Secure and confidential • Open 7 days - 24 hours • No notification slips on paper • Reachable worldwide
Allocated or planned budget and, where appropriate, other resources, including human resources	• Projects 2023 with EUR 2.5 million per year, rising linearly to around EUR 3.0 million per year until 2027 • Operations 2023 with EUR 2.6 million, rising linearly to around EUR 4.0 million by 2027

Intended effect and its occurrence over time	Reduce the cost of paper deliveries by 97% with eDeliveries

4.13.3. Measure 3 - Business Service Portal - USP

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: **Modernisation of the Business Service Portal** By modernising the range of digital services and information, further official channels at the USP can be digitalised and made more efficient. The replacement of obsolete technological components guarantees that the stable operation of the USP can be maintained and that the legal requirements (national and EU-wide) can be met. The use of new technologies also reduces the effort involved in implementing projects, while at the same time increasing security when using the service for authorities and companies. Access to and use of the Business Service Portal is simplified and improved for companies. This allows services to be implemented and made available in a more user-friendly and efficient manner. **New and further development of digital government channels for companies** Existing official channels that companies can process online at the USP, such as electronic incorporation or the electronic granting of a power of attorney to company representatives, will be expanded and supplemented with additional functions. Other relevant government processes, such as the automated review of companies' eligibility for funding, are being further developed in order to expand the range of digitalised government channels for companies and thus also reduce costs (travel costs, multiple contacts, enquiries) on both the government side and the company side. The provision of USP data and developments to other public service providers opens up further potential for the digitalisation of government channels for companies across all levels of administration. **Internationalisation of the Business Service Portal** National and European laws and regulations are implemented. This extends access to the Business Service Portal to companies in EU Member States. The multilingualism of the information and

	services on offer enables and facilitates the use of these companies. The exchange of company data between the USP and the corresponding data sources of selected EU Member States for the identification and authentication of companies from EU Member States at the USP is made possible. Information is provided in two languages (German and English) wherever possible.
Allocated or planned budget and, where appropriate, other resources, including human resources	• For the years 2023-2025, a total of around EUR 10 million is currently planned for the realisation of projects. • Around EUR 3.4 million is currently budgeted for the operation of the USP in 2023 and will continue to be budgeted until 2025 with an annual increase of 5% per year.
Intended effect and its occurrence over time	Based on an analysis of the years 2012-2020, it can be assumed that the USP will generate a direct benefit of around EUR 100 million per year and an additional indirect economic benefit of around EUR 300 million per year.

4.13.4. Measure 4 - Registration of an employee before the first day of work

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: "Registration of an employer (natural person) with mandatory pension and insurance schemes" and "Registration of employees with mandatory pension and insurance schemes" are procedures of the SDG Regulation Annex II. Online solutions via Electronic Data Exchange with the Austrian Social Security Providers (ELDA) are already available here. Multilingualism is expected to be implemented by 12.12.2023.

4.13.5. Measure 5 - Corporate income tax return

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: Procedure available via eIDAS login on FinanzOnline. Multilingualism is expected to be made available from 12.12.2023 by means of an interim solution (explanatory PDFs - German-language fields will be explained in English). A project for the

	general implementation of multilingualism in FinanzOnline is currently being examined. The forms database offers form K 1 for the corporation tax return.

4.13.6. Measure 6 - Reporting of social security contributions

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: The contribution bases are reported monthly to the social insurance organisation. ELDA is also available to employers for this purpose (see https://www.elda.at/cdscontent/?contentid=10007.839318&portal=eldaportal). It should be expressly pointed out that this ongoing reporting has been standardised for years. Most recently, the process was adapted due to the legal mandate to switch to the monthly basic contribution report. There are also alternative interfaces for reporting the contribution bases.

4.13.7. Measure 7 - Submission of financial reports to the Commercial Register Court

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: Submission of financial reports to the Commercial Register Court: Annual financial statements can already be submitted completely electronically (using eID). It is suggested that the following link be added: https://justizonline.gv.at/jop/web/formulare.

4.13.8. Measure 8 - Preliminary VAT return

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: The form database provides form U 30 for the advance VAT return.

4.13.9. Measure 9 - Notification of the termination of an employment relationship to the competent authority

New measure	☐ Yes ☒ No
Brief description of the measure	Content of the measure: Notification of the termination of an employment relationship to the competent authority, SD procedure: "Notification to the social security systems upon termination of the contract with an employee, except for procedures for collective termination of employee contracts". Online procedure available via ELDA. Multilingualism expected to be implemented by 12.12.2023. The "notification of termination of an employment relationship to the competent authority" is understood as deregistration from compulsory insurance upon termination of the underlying employment relationship. The complete digitalisation of these reporting processes, which employers have to perform, has already taken place in the ELDA product (https://www.elda.at/cdscontent/?contentid=10007.839318&portal=eldaportal). Alternatively, employers also have the option of submitting social security declarations directly from their payroll software via interfaces. Please refer to the organisational description "Data exchange with employers" (DM-ORG) for additional information on the topics under points 1, 3 and 4. It describes all reporting procedures for employers, but also for other organisations such as the AMS (see https://www.elda.at/cdscontent/load?contentid=10008.770716&version=1663656640). The Austrian Health Insurance Fund (ÖGK), for example, also provides more detailed information on this under the following link: https://www.gesundheitskasse.at/cdscontent/?contentid=10007.853020&portal=oegkdgportal.

4.14. KPI 15 - Electronic patient file

General overview of the measures by digital objective

Target: 100% of EU citizens have access to their electronic patient records.

- National baseline value: 88 % (Source: DESI 2023)

Around 97.5% of the Austrian population (all persons registered and insured in Austria) already have access to their electronic health record ("ELGA") - either digitally or analogue via the ELGA ombudsman .
At present, only those planned measures can be described in the following overall timetable that have been defined by the ELGA system partners mentioned in Section 1 in the ELGA annual work programme (hereinafter: JAP) for the following year, i.e. currently for 2024. However, as the JAP 2024 is still the subject of ongoing negotiations on financial equalisation between the ELGA system partners, the following statements are subject to any changes to the current draft of the JAP 2024, and it is not yet possible to provide any information on the funding earmarked for the respective measure.

- Total time schedule:

	2023	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
Measures that contribute to achieving the objective								
Measure 1 - ***Data on medical devices and implants*** *(e.g. device ID, implantation/explantation date) in ELGA*	nA	nA	nA	nA	nA	nA	nA	nA
Measure 2 - ***Medical image data*** *(available to citizens in digital formats, e.g. .png, .jpeg or .pdf) in ELGA*								
Measure 3 - ***Access to e-vaccination pass (based on the ELGA infrastructure) by citizens via a mobile app***								
Measure 4 - ***ELGA connection of remaining GDA (at least 60 % in each case)***								

Description of measures

4.14.1. Measure 1 - Data on medical devices and implants

Brief description of the measure	Data on medical devices and implants (e.g. device ID, implantation/explantation date) in ELGA

4.14.2. Measure 2 - Medical image data

Brief description of the measure	Radiological findings (e.g. X-ray findings or MRI findings) are already made available in ELGA and can be accessed by citizens via the ELGA access portal. In addition, it is now technically possible to retrieve the associated image data via ELGA. Initially, this will only affect the radiological sites participating in the pilot project, before citizens will also be able to access it in a second phase. The gradual, Austria-wide roll-out of medical image data will begin in 2024. The prerequisite for this is that citizens have not objected to participation in ELGA in general or in part to the ELGA "e-report" function; It is not necessary to login for this new service.

4.14.3. Measure 3 - Access to e-vaccination pass (based on the ELGA infrastructure) by citizens via a mobile app

Brief description of the measure	Access to e-vaccination pass (based on the ELGA infrastructure) by citizens via a mobile app

4.14.4. Measure 4 - ELGA connection of remaining GDAs

Brief description of the measure	A number of healthcare providers (specifically surveyed in the study commissioned by the EC) that process relevant health data of citizens: • Private general practitioners and community care centres • Private institutes and outpatient clinics • Public rehabilitation centres • Private rehabilitation centres • Public geriatric nursing homes • Private geriatric nursing homes • Public mental health facilities and • Private mental health facilities • are not yet (as specified in the study commissioned by the EC) connected to the ELGA to at least 60 % each.

	Nevertheless, the above-mentioned organisations are already obliged to store ELGA health data in the ELGA if they act as an ELGA health service provider in accordance with Section 2 item 10 GTelG 2012 (e.g. as a doctor, hospital or care facility) and are included in the health service provider index. The JAP 2024 provides for the ELGA connection of the following additional healthcare providers (which were not specifically surveyed in the study commissioned by the EC): • Rescue services • 1450 (telephone health counselling) • Primary care units and mobile care services • Mobile care services

4.15. KPI 16 - eID - 100 % achieved

General overview of the measures by digital objective

Target: 100% of EU citizens have access to a secure digital proof of identity (eID) that is recognised throughout the Union and gives them full control over identity transactions and personal data transmitted.

This target has already been 100 % achieved. As soon as the revision of the eIDAS Regulation, which is currently being negotiated, is finalised and a European Digital Identity Wallet is planned, work on the timely implementation will begin intensively. Austria is already working intensively with the expert groups in the "Toolbox Process" and is actively involved in the large-scale pilot "POTENTIAL".

5. Section: Main strategies, measures and actions that contribute to achieving the general objectives

5.1. Digital Austria Act

The Digital Austria Act combines 117 measures and 36 digitalisation principles to reshape digitalisation in Austria. The priorities of the Digital Austria Act are cross-departmental and affect all members of the Federal Government and all areas of people's lives. Applicable data protection principles and barrier-free accessibility are taken into account.

5.2. Digital action plan

In order to achieve the goals set out in the government programme and make substantial progress in individual policy areas using digitalisation as a lever, the "Digital Action Plan" has been in place since 2019 to coordinate cross-departmental digitalisation measures in a targeted manner. The basis is formed by the common vision of the "digital responsible society" as well as guidelines and principles that serve as orientation for all topic-specific action plans on the way to the vision and form the framework for defining targeted measures in the individual topic-specific action plans together with the respective specialist departments. Due to its responsibility for the cross-cutting issue of digitalisation, the Federal Ministry of Finance coordinates all of this work, while the respective specialist departments define the topic-specific content and are subsequently also responsible for implementing the measures developed in each case. Other important building blocks in the project team are scientific partners to research the relevant technical background and the broad involvement of relevant stakeholders and experts.

Among others, the following topic-specific action plans have been developed or are currently being developed according to this approach:

- **Crisis resistance**
  Against the backdrop of the coronavirus pandemic, the strategy was supplemented by the chapter "Crisis resilience", which deals with how digitalisation can help to strengthen Austria's resilience and thus increase the attractiveness of the location for

current and future entrepreneurial players. To this end, measures have been developed in a total of seven fields of action, such as the promotion of one-stop e-government and m-government, the establishment of the "Alliance for Digital Skills and Professions" to develop and expand digital skills, and the digitalisation campaign in the healthcare sector, which is currently being further developed in a separate action plan.

- **Data**

  An important cross-cutting topic of the Digital Action Plan is the handling and better utilisation of data. This requires new answers to the tension between data sovereignty, data protection and data utilisation. This chapter of the Digital Action Plan defines measures in this regard, such as the general expansion of data expertise through education and training, the specific promotion and support of Austria's SMEs in this area in order to strengthen Austria as a business location, or ensuring security of supply through better data exchange and corresponding data provision (e.g. for simulations in innovation spaces).

- **Digital economic transformation**

  Two dimensions of transformation are crucial in order to make the best possible use of the opportunities offered by digitalisation for growth, work and prosperity:

  - On the one hand, it is about continuing to consistently support our companies in their digital transformation. Especially in Austria's SME-dominated economic landscape, digitalisation is not a sure-fire success, but requires impetus and services.
  - On the other hand, the state is also called upon to shape the digital transformation alongside the economy. This ranges from administrative services to new digital infrastructures that are necessary for a successful data economy.

  In order to support Austrian companies in the digital transformation in a targeted and needs- orientated manner, measures are to be taken in relation to innovation in business and working models, digital communication between companies and the administration and between companies/internal companies, infrastructure and a vibrant start-up culture.

  Austria's attractiveness as a digital and innovation location is to be ensured by creating ideal framework conditions for start-ups, linking science and research, training excellent specialists and expanding international contacts. It also requires an efficient national industrial and technology base whose companies and organisations are closely networked with one another.

- **The future of digital universities**

Universities have a particularly important role to play in the process of digital transformation and in shaping digitalisation towards a "digital responsible society", as these institutions apply digitalisation and reflect on it scientifically.
The action plan aims to further develop the "digital" universities. It is also intended to reflect the interim status of the current debate on the digital transformation of universities. This facilitates a structured approach and focussing on objectives and measures.
The central areas of the "Digital Future of Universities" action plan are Strategy, research, teaching and organisation. The guiding document for implementation is the strategic framework "Universities and Digital Transformation 2030" (see section 5.8).

- **Tourism**
  This action plan includes an Austrian data room for tourism. The aim is to improve value creation through data utilisation.
  The second field of action is the "Digital Competence in Tourism Initiative", which aims to improve digital skills in the industry.
  Digital official channels, digital guest information, promotion of infrastructure and projects is the third pillar of the Digital Action Plan for Tourism. In this context, the aim is to optimise digital administrative services and infrastructures.
- **Future competences for a learning administration**
  This chapter has not yet been published (it is still being revised by the responsible department).
- **The future of digital cultural institutions**
  Development of a strategy paper that presents a vision of how the cultural sector can be further developed through digitalisation: Support for the sustainable digital transformation of Austria's cultural heritage institutions, expansion of resources for continuous digital transformation and innovation, development of a new sector of digital cultural mediation with international scientific, touristic and economic relevance.
- **Digital sovereignty**
  Includes an analysis of the security and technology policy framework in the digital context, provides a framework for an assessment model for digital dependencies ("Digital Sovereignty Compass") and includes recommendations for action to reduce digital dependencies and improve the use of digital options for action.
- **2023: eHealth**
- **2023: Smart Farming**
  Building on a vision strategy for digitalisation in agriculture developed in 2022, proposals for concrete implementation measures in various fields of action, such as

funding, administration, education and training, were defined in this chapter with broad expert and stakeholder involvement, with the aim of advancing digitalisation in agriculture.

- **2023: Digital memory**
  The eHealth, Smart Farming and Digital Memory chapters are currently being worked on and should be finalised by the end of 2023.

5.3. E-Government Strategy 2023

Many years of intensive cooperation between the federal government, federal states, cities and municipalities are pursuing the goal of establishing a standardised, networked and coordinated approach to
eGovernment. Currently, over 80 representatives from the federal government, federal states, cities and municipalities have developed this joint eGovernment strategy as an orientation and development for the Austrian administration. This document summarises the results of this strategy process and thus represents the joint eGovernment Strategy 2023.

5.4. Digital competence campaign

With the Digital Competence Campaign, Austria pooled all forces for more digital competences and for the first time established a holistic stakeholder initiative supported by four departments (BMF, BMKOES, BMAW, BMBWF). The "Digital Skills Austria" strategy was developed in a nationwide dialogue process with more than
500 experts and stakeholders from 80 institutions. Around
350 measures and initiatives were identified, clustered and bundled. On this basis, the "Digital Skills Austria" strategy sets eight strategic priorities in a skills package with specific measures for the further development of digital skills.

5.5. 5G strategy

The aim of the 5G strategy is to accelerate the introduction of
5G mobile communications technology in Austria through optimised framework conditions.

5.6. Austrian Strategy for Cyber Security (ÖSCS)

Digitalisation and cyber security are closely intertwined, with both opportunities and risks lying close together. Addressing this, the Austrian Strategy for Cyber Security (ÖSCS) from

2021 forms the strategic framework for both increasing Austria's digital resilience and ensuring cyber security in the digital world as a whole. It thus supports the creation of the basic prerequisites for secure and value-adding digitalisation. The main lines of development defined in the strategy are the decentralised allocation of resources, sustainable capability development and the choice of a cooperative, national and international approach. Proven structures such as the Operational Coordination Structure (OpKoord), the Inner Circle of the Operational Coordination Structure (IKDOK), the Cyber Security Steering Group (CSS) and the Cyber Security Platform (CSP) will be strengthened and further developed by the strategy in order to create a secure environment on the one hand and to be able to act effectively and efficiently in the event of crisis developments in cyberspace on the other. The cybersecurity dimension must always be included in the assessment of digitalisation measures.

5.7. Open Source Software

One strategic guideline in Austria is to support the use of open source software, as this can make a significant contribution to securing the digital sovereignty of Austria and the Union in an open manner (Art. 3 para. 1 lit. c).

Due to its characteristics, open source software offers the opportunity to carry out further technological developments in the EU with fewer dependencies and to strengthen the **competitiveness of the European economy** . The openness and free availability of the source code can also improve **IT security, interoperability, collaboration in the research sector and the resilience of value chains** .

In the **"Digital Austria Act"** adopted by the federal government, open source software is a building block for the smart government of the future.

The importance of open source software was also discussed in the parliamentary committee "Research, Innovation and Digitalisation" and resulted in the **resolution "Strengthening digital sovereignty through more flexible and increased use of open source products" of the National Council on 7 July 2023**.

In order to utilise synergies at European level, cooperation with Germany has been intensified. On 14 June, the **Joint Declaration of Intent "Strengthening Digital Sovereignty and Joint Development of the Sovereign Workplace" was signed between Austria and Germany**.

At the federal administration level, the "Chief Digital Officer Taskforce" set up the "Open Source Software" working group to coordinate activities in this area.

5.8. National AI strategy

The Federal Government published its strategy for artificial intelligence (AI) on 14 September 2021. This establishes the **framework conditions for the prosperous and responsible use of AI in all areas of life**. AI should be used in Austria on the basis of fundamental European values, with respect for privacy and the principle of equality for the greatest possible benefit of all. AI should contribute to Austria's positioning as a centre of research and innovation and as a competitive technology and industrial location. To this end, AI is also to be used on a broad basis by Austria's small and medium-sized enterprises and in administration.

In order to achieve the strategic goals of the AI strategy, **13 fields of action** were defined for trustworthy AI and an AI ecosystem. The
64 (horizontal) measures listed therein help Austria to create optimal and agile framework conditions for a human-centred use of AI that is geared towards the common good and to help shape the future of AI and its use in Austria. In addition, a further 27 measures were proposed in **13 specific fields of application**.

5.9. Education - a central pillar of the digital transformation

The digital transformation is having a profound impact on the education system; It has not only changed the way content is delivered, but has also created new opportunities for personalised learning, new forms of collaboration and conditions for access to global resources.

A central guideline for Austria's activities is the 8-point plan for digitalisation in education; It addresses measures for three key areas of action:

1. Pedagogy as well as the teaching and learning content. The aim is to reflect a comprehensive basic understanding of how to deal with new content in the curricula and to take digitalisation into account methodically and didactically in all subjects in the sense of modern teaching.
2. Infrastructure, flanked by modern IT management and up-to-date school administration. The aim is to create the conditions for digital instruments and tools to be used in schools across the board. School administration is to be simplified by modern applications.

3. Training, further education and training of teachers. Digitalisation, new ways of conveying content and ways of acquiring it are systematically anchored in the training and further education of educators.

When driving digitalisation forward, there are also challenges to overcome that are not always of a technical nature, including
development and implementation of new teaching and learning methods that meet the requirements of the 21st century. This also includes the so-called "21st Century Skills", i.e. skills such as critical thinking or creativity. All of this has a direct impact on the methodological design of teaching and learning processes and therefore affects the inherent competence and responsibility of teachers. In addition, the digital transformation is also influencing the way teachers understand their profession. The shortage of skilled workers in the education sector is also being exacerbated by the additional requirements of digitalisation.

In order to meet this challenge, the close-meshed further and continuing education provided by teacher training colleges and the Virtual University of Teacher Education ensures that teachers are constantly kept up to date. This means not only integrating the latest technical tools and platforms, but also didactic methods that have proven themselves in the digital space. The combination of face-to-face and online courses, known as blended learning, can offer learners the flexibility to study from the comfort of their own home while at the same time benefiting from the advantages of direct exchange in face-to-face events. Recently, so-called MOOCs, online courses that can be offered on a highly scaled basis regardless of the number of participants, have also become popular.

Digitalisation is opening up many new opportunities in STEM professions, but traditional gender roles and stereotypes can contribute to girls and young women staying away from these fields. STEM subjects are often still seen as "male". To strengthen STEM subjects across the entire education chain, the MI(N)Tmachen action plan was launched with the aim of promoting STEM skills and increasing the number of STEM specialists.

5.10. Federal Government's RTI Strategy 2030 for research, technology and innovation with reference to digitalisation

The RTI Strategy 2030 is based on a clear commitment to efficiency and increasing output -in the system. The work on the RTI Strategy 2030 is largely based on the detailed analysis "OECD Reviews of Innovation Policy: Austria 2018". The European Commission's Smart Specialisation concept was also used as a frame of reference for the development of the

RTI Strategy 2030. In addition, cross-cutting topics (Sustainable Development Goals, digitalisation, strengthening gender equality in RTI, responsible science, open science and open innovation) as well as initial anchor points of the Excellence Initiative, the location strategy and the technology campaign formed the basis for the development of the strategy.

Goals (selection):

Catching up with the international leaders and strengthening Austria as an RTI location

- Ranking improvement in international indices:
  - European Innovation Scoreboard (EIS): from top 8 to top 5
  - Digital Economy & Society Index (DESI): from top 13 to top 5
  - Global Innovation Index (GII): from top 19 to top 10
- Recruit 5 to 10 new RTI-intensive leading companies and expand existing ones
- Increase the number of companies constantly conducting R&D by 20
- Stronger positioning of Austria in the European value chains through participation in at least three further "Important Projects of Common European Interest" (IPCEIs - currently participation in two)
- Exploiting the opportunities of digitalisation for society, the economy, climate protection and administration in Austria and driving forward the digital transformation with determination
- Focus on knowledge, talents and skills:
  - Increase the proportion of graduates in mathematics, information technology, natural sciences and technology (STEM) by 20%; 5% increase in the proportion of women graduates in technical subjects
  - 2 Austrian universities among the top 100 (currently one university among the top 200 according to the Times Higher Education World University Ranking)
  - Increase the proportion of academic and research staff recruited from abroad, especially at universities, to 45 per cent
  - 100% more Austrian STEM students who complete a degree or semester abroad via funding programmes

Central fields of action (selection):

Catching up with the international leaders and strengthening Austria as an RTI location

- Increase participation in EU missions, EU partnerships and IPCEIs
  - Targeted activation of stakeholders and promotion and support of Austrian participation in EU missions and partnerships

- Clear definition of national areas of strength and future topics (e.g. digitalisation, "Tech for Green", production, energy, health and mobility) and reinforcement of these at European level
- Establishment of evidence-based monitoring and a flexible mechanism for readjusting the content of participations
- Consolidation of Austria's position in strategically important value chains through participation in IPCEIs

Focus on effectiveness and excellence:

- Supporting applied research and its impact on the economy and society
  - Establishment of a technology campaign that includes research, innovation and digitalisation projects as well as company start-ups and relocations in order to strengthen the RTI foundation of innovative companies and expand Austria as a production location (focus on crisis resilience, system-relevant production and technological competence leadership, digital transformation of the economy; Austria as a digitalisation and "Tech for Green" champion; Position life science centre)
  - Increasing long-term planning and funding security for applied research and optimising the framework conditions (simplification of the funding system, advice for small and medium-sized enterprises [SMEs] and involvement of key players, creation of larger programme lines, strengthening of risk financing, promotion of innovation-promoting public procurement)
  - Strengthening open and technology-neutral corporate research; Cooperation between science and industry as well as knowledge and technology transfer (including further development of utilisation management)
  - Improving the innovative capacity and output of small and medium-sized enterprises
  - Raising awareness of the value of research and innovation in the public interest
  - Strengthen R&D of (key) technologies in the field of digitalisation, in particular to contribute to the development of new digital products and services and to support the digital transformation of the economy
- RTI to achieve the climate targets
  - Strengthening open and technology-neutral research in the areas of influencing factors, effects and mitigation of the climate crisis as well as in the areas of climate change adaptation and resource efficiency (e.g. by stimulating private funding and participation in EU programmes)

- Development of key technologies to improve climate protection, promotion of cross-sector cooperation and implementation of holistic solutions (e.g. construction and energy sector, mobility, etc.) while maintaining technological neutrality
- Development of model regions and large-scale experimental spaces
- Expansion of relevant data collection and use of digitalisation and networking of stakeholders

Focus on knowledge, talents and skills (selection):

- Develop and promote human resources
  - Consideration of creativity, critical spirit of research and environmental awareness at all levels of education
  - Strengthening education and training - especially in the STEM sector
  - Ensuring permeability between educational institutions and between educational institutions and companies
  - Strengthening gender equality and diversity in R&D and making research careers more attractive and promoting them, especially for women
- Supporting international perspectives of researchers and students
  - Active participation in international mobility programmes (especially ERASMUS)
  - "Internationalisation at Home" at all levels of the education system
  - Participation in European research programmes (Horizon Europe) and increased participation of universities in international study programmes (Joint Study Programmes, European Universities, Fulbright)
  - Increase the visibility of the research centre and create attractive framework conditions to attract international talent

5.11. University Plan (HoP), University Development Plan (GUEP) and University of Applied Sciences Development and Financing Plan

The Higher Education Plan[9] (HoP) of the Federal Ministry of Education, Science and Research (BMBWF) addresses all four higher education sectors and thus the 76 (as of January 2023) higher education institutions in Austria as a centre of science and higher education. It is therefore to be understood as an "umbrella strategy" that guides the strategic documents and plans of the respective higher education sectors (above all the

[9] High school plan (bmbwf.gv.at)

Austrian University Development Plan, FH development and funding plans, PH development plan, performance agreements, target and performance plans).

The particular challenge of university teaching lies in enabling students to reflect on, scrutinise and proactively shape the digital transformation process on the basis of content and skills. On the one hand, this requires the transfer of the necessary breadth of specialised knowledge and its simultaneous connection with the current state of research (state-of-the-art knowledge). On the other hand, this requires enabling students to develop an understanding of how they can deal with digital technologies in a critical, creative and creative way, change them, develop them further independently and actively shape innovation processes themselves.

Universities already offer a wide range of programmes to expand their students' digital skills, such as extension curricula or specific compulsory courses.

The teaching of digital skills and digital literacy has long been a focus of university and college governance. This is reflected in the Austrian University Development Plan 2025-2030[10] (GUEP), for example in the implementation goal "Promotion of future skills" (acquisition of basic digital techniques and computational thinking - i.e. digital skills and data literacy - in all studies).

The strategic framework "Universities and Digital Transformation 2030" is embedded in the GUEP as an accompanying document. This was developed - based on the Digital Action Plan Austria (DAA), chapter Digital Universities (see chapter 5.1) - together with the universities. Digitalisation is seen as a cross-cutting issue that permeates all areas. On the one hand, it is interdisciplinary research and teaching content; on the other hand, it itself acts as a transformation process for the institution, its students, researchers and employees. Cooperation is a prerequisite for actively shaping the digital transformation.

The University of Applied Sciences Development and Funding Plan 2023/24-2025/26[11] is the federal government's strategic planning document for the qualitative and quantitative development of the Austrian university of applied sciences sector. For the current planning period, a further expansion of federally funded study places in the STEM field is planned with a focus on the cross-cutting topic of digital and ecological transformation. With its practice-oriented range of courses, the UAS sector makes a significant

[10] Austrian University Development Plan (GUEP) (bmbwf.gv.at)

[11] FH development plan (bmbwf.gv.at)

contribution to supplying the labour market with urgently needed academically qualified specialists. In the previous planning period 2018/19 to 2022/23, 1,450 places were already created in the STEM/digitalisation field, 773 of which were in computer science alone.

In the current planning period, a further expansion of a total of
1,050 places for beginners is planned in three expansion stages. In the first expansion stage, 350 new places for first-year students in the STEM focus area with a focus on digitalisation and sustainability have already been allocated from the 2023/24 academic year, including 238 additional places for first-year students in computer science bachelor's degree programmes in Vienna, Lower Austria and Tyrol. Further expansion steps are planned for the next two academic years 2024/25 and 2025/26, so that a total of 2,625 additional UAS study places will be available by 2027.

This will continue the demand-oriented expansion of the UAS sector, systematically increase training capacities, particularly in STEM, digitalisation and sustainability, and increase the number of graduates in those fields of education where there is a high shortage of qualified workers. Due to the specific strengths of the university of applied sciences sector, it makes sense to further expand this training segment in particular. The high graduation rate within the standard period of study ensures that the required number of graduates enter the labour market within a certain period of time. The high practical orientation and close cooperation with employers as well as the regional anchoring of the universities of applied sciences guarantee the immediate employability of graduates on the labour market, also in the regional catchment areas of the university locations. The special strengths of universities of applied sciences in the field of part-time study programmes also enable them to respond to the specific needs of increasingly diverse groups of prospective students, in particular the creation of offers for further and higher qualifications in the field of digitalisation. The regular and structured form of updating the curricula and competence profiles in the UAS sector also ensures that current requirements and competence profiles, which are constantly evolving as a result of digitalisation, are incorporated into the curricula of all
UAS degree programmes.

6. Section: Cooperation at EU level

6.1. Multi-country projects

Overview 1(a) - multi-country projects in accordance with the list of areas of activity for multi- country projects for which the Member State has made or intends to make commitments, as set out in the Annex to the Decision

CYBERSECURITY SKILLS ACADEMY	In April 2023, the European Commission published a communication in which it presented potential measures to close the cybersecurity skills gap in the EU and called on the Member States to submit concrete ideas for implementing the defined objectives and measures via a European Digital Infrastructure Consortium (EDIC) in accordance with Article 10 and Annex lit. k of Decision (EU) 2022/2481. This EDIC aims to help increase the number of available ICT specialists in the field of cybersecurity, including women, in the EU. Austria (Federal Chancellery) has joined a pre-notification to express interest in joining an EDIC with this objective. The expression of interest has been submitted to the European Commission and is currently being reviewed. In the event of a positive assessment, an Austrian contribution could include, in particular, contributions in kind such as training facilities and services from other existing initiatives in the field of cyber security skills. In addition, national co-financing in connection with successful funding by the DEP (see 2023/2024 work programme) could be incorporated into a consortium for a European digital infrastructure (EDIC) or similar implementation mode. Expected effect: Contribution to support the objectives of the COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL "Closing the cybersecurity talent gap to boost the EU's competitiveness, growth and resilience ('The Cybersecurity Skills Academy')" (COM[2023] 207 final) EL, CY, IT, SI (Member States that have submitted an expression of interest)
ESNA (EU Startup Nations Alliance)	• Its members are the national start-up agencies; For Austria, this is the Austrian Research Promotion Agency (FFG). Ministries are involved as part of the "Extended Team".

	• The tasks of ESNA are (among others): • Creating excellent conditions for the acceleration of European entrepreneurship as a whole (especially start-ups and accelerators) • Support and monitoring of members in the implementation of the Start-up Declaration • Supporting members in harmonising their national legislation with regard to the start-up declaration • Monitoring and analysing national data on the start-up ecosystem via a digital platform • Promoting concrete measures to attract skilled labour to the EU • Non-partisan bridge between members and other participants in the start-up ecosystem in the development of new best practice examples • These measures contribute to the realisation of the doubling of unicorns in the EU (Art. 4 para. 1 no. 3 lit. c Decision [EU] 2022/2481). • The multi-country project is currently funded by the EU and Portugal. • The aim of the Startup Nations Standard (SNS) Declaration is to create a centre for the support of best practices in the member states and a data platform for the exchange of information. In this way, the member states are to develop into "EU Startup Nations". ESNA is this centre and the SNS scoreboard is one of the implementation and review mechanisms. • The measures described above are intended to improve the conditions for start-ups in general and make them more favourable in order to achieve the goal of doubling the number of unicorns in the EU. • Other member states involved are: Bulgaria, Romania, Czech Republic, Cyprus, Estonia, France, Germany, Greece, Lithuania, Luxembourg, Poland, Portugal, Slovenia and Spain.
With reference to Common European Data Infrastructures and Services referred to in point (a) of the Annex to the Decision: **MyHealth@EU**	• Within the framework of MyHealth@EU as a cross-border infrastructure for the primary use of electronic health data, various cross-border services can be used both by Austrian citizens for treatment abroad and by EU citizens for treatment in Austria (at doctors' surgeries or pharmacies). This serves the realisation of the digital goal "100% of EU citizens have access to their electronic patient records" in accordance with Art. 4 para. 1 no. 4 lit. b of the decision.

	• As a first step, Austria has made a contractual commitment via the EU funding programme EU4Health to implement electronic prescriptions (i.e. electronic health data constituting a prescription for a medicinal product within the meaning of Art. 3(k) of Directive 2011/24/EU) and electronic dispensing (i.e. information on the dispensing of a medicinal product to an individual by a pharmacy on the basis of an electronic prescription) as the first cross-border services from 2025. Project costs of EUR 3.26 million have been budgeted for this initial establishment of MyHealth@EU until the end of 2024 , of which EUR 1.8 million will be co-financed by EU funds . • In addition, from 2026, citizens will also be able to use laboratory results (i.e. electronic health data representing the results of examinations carried out in particular in vitro diagnostically, including in the fields of clinical biochemistry, haematology, transfusion medicine, microbiology, immunology, etc., including reports supporting the evaluation of the results, if applicable) across borders. The relevant funding agreement with the European Commission is to be signed by the end of 2023. • This is to be followed by further offers for cross-border healthcare services, such as discharge letters from hospitals, medical images and image findings as well as the patient summary. • Over the past decade, the eHealth Network has established itself as the implementation mechanism of MyHealth@EU in accordance with Art. 14 of Directive 2011/24/EU. When the EU regulation on the European health data space, which is currently being negotiated, comes into force, the eHealth Network will be abolished and replaced by a new governance structure. • With the implementation of these services, Austrian citizens will be able to access their ELGA applications in other EU or EEA Member States (which also applies mutatis mutandis to citizens of other EU or EEA Member States in Austria). EEA Member States in Austria) in order to ensure the continuity of healthcare treatments and patient safety across borders with the help of ELGA applications, which not least serves to achieve the general objective set out in Art. 3 para. 1 lit. a of the policy programme ("*[...] accessible to all throughout the Union*"). When the EU regulation on the European health data space, which is currently being negotiated, comes into force, the implementation of MyHealth@EU will become mandatory for all EU and EEA member states.

	• A large number of EU and EEA member states are already connected to MyHealth@EU; This cross-border infrastructure is currently being expanded to include additional participating countries as well as further cross-border services. An overview of the EU and EEA Member States participating in MyHealth@EU can be found on the EU Commission's website at https://health.ec.europa.eu/ehealth-digital-health-and-care/electronic-cross-border-health-services_de.
IPCEI Microelectronics & IPCEI Microelectronics and Communication Sciences	• **IPCEI Microelectronics:** A total of 32 direct partners (including 30 companies and two research institutions) from four European Union member states are involved in the overall European IPCEI Microelectronics project. In addition to France, Italy, Germany and now Austria, the UK is also involved. In addition to private investments totalling more than 6.1 billion euros, the five participating countries are authorised to distribute subsidies amounting to almost 1.9 billion euros. The overall project aims to promote research and the development of innovative technologies and components that can be used in numerous fields, such as electromobility or consumer appliances. The focus here is particularly on the five technology fields of energy-efficient chips, power semiconductors, intelligent sensors, advanced optical devices and composite materials. • **IPCEI Microelectronics and Communication Sciences:** EC approves the second major project in the field of microelectronics with a total investment of around 22 billion euros - 100 company projects from 20 European countries involved, six Austrian companies are participating in the microelectronics initiative. 125 million euros will be provided from the Austrian EU recovery plan. The microelectronics initiative aims to significantly increase the energy-efficient production of chips in Europe, thereby driving forward the digital and "green" transformation and strengthening Europe's resilience and sovereignty. Among other things, the IPCEI places the promotion of highly innovative projects in research and development as well as the first commercial use before the mass production phase at the centre of the initiative.

7. Section: Feedback from stakeholders

Stakeholders were widely involved from the start of the development process to the finalisation of the roadmap. In Austria, these are invited to comment on legislation during the parliamentary process, so the distribution group can also be regarded as representative for the national roadmaps. The comments received were made available to the federal ministries involved and taken into account as far as possible in the process of formulating this roadmap.

The following is an overview of the feedback received from stakeholders:

Umbrella organisation of the Austrian social insurance funds

Social insurance has been driving forward the expansion of its digital service offering from the outset. General reference should be made to the service portal of the Austrian social insurance institutions "MeineSV". Current data on the following topics, for example, can be accessed online via "MeineSV": Insurance periods and data, doctor's visits and treatments, prescription fees paid, benefits utilised, personal pension account. Applications and notifications can also be made online: Apply for self-insurance, report health after sick leave, change address, submit invoices from elective doctors. Further information can be found at MeineSV - Ihr persönliches Versicherungsservice (sozialversicherung.at) and "MeineSV"

In addition, the digital service of the Social Insurance Institution for the Self-Employed (SVS) "svsGO" should be mentioned. SVS customers can use it to view personal data, submit applications, make enquiries, keep an eye on contribution advances and balances, adjust social insurance contributions to current income, conclude instalment agreements, transparently check medical services and cost shares, download confirmations, view pension and contribution accounts, submit invoices for reimbursement and obtain approvals for prescriptions. Since 2022, messages and documents can also be transmitted directly, efficiently and securely. E-prescriptions can now also be called up. The range of services is constantly being expanded and adapted to the needs of customers. Further information can be found at svs.at/go.

The corresponding offer of the Austrian Health Insurance Fund (ÖGK) can be found at Serviceportal - Meine ÖGK (meineoegk.at). The Insurance Institution for Public Employees, Railways and Mining (BVAEB) has set up a corresponding service under MyBVAEB - Use BVAEB services online and at any time.

The following should also be noted in this context:

- The mobile phone signature / ID Austria is the key to the digital services of social insurance. The opportunity for the social insurance institutions and the umbrella organisation to act as a registration office and as such actively support their insured persons and customers was gladly taken up. It is therefore regrettable that this option will no longer exist in the future - with the final replacement of the mobile phone signature by ID Austria.
- There are currently attractive and numerous potential applications for digital services in the area of social insurance. The social insurance institutions and the umbrella organisation will therefore continue to enable their insured persons and customers to access their digital services directly by issuing the mobile phone signature / ID Austria. As part of the public administration, they would thus continue to actively contribute to the highest possible penetration of the mobile phone signature / ID Austria.

Austrian Economic Chamber

From the point of view of the Innovation & Digitalisation department, the measures submitted by the Austrian Economic Chamber are very well represented in terms of content, and we consider the roadmap to be a good first step towards a sustainable digital ecosystem. We are happy to continue supporting the implementation of the relevant measures and initiatives.

Start-up advice

The Start-up Council is a committee of experts from the start-up ecosystem with the aim of improving the framework conditions for start-ups and innovative growth companies in Austria. It advises the Federal Ministry of Labour and Economic Affairs on start-up matters and acts as a mouthpiece for the start-up community. The focus is on content-related work in close dialogue with the entrepreneurial innovation ecosystem, stakeholders and political decision-makers.

Universities and colleges

Universities and colleges are actively shaping the digitalisation process. The focus is always on people and their needs as well as the resulting requirements for the digitalisation process. Universities offer space for a critical and reflective examination of digital transformation processes. They also create and promote scope for new, innovative and unconventional research. By contributing to the development of their students and graduates into digitally responsible citizens and multipliers, universities make a significant contribution to a digitally responsible society.

Education will still be a public good in 2030. "Science and its teaching are free", just as artistic creation, the communication of art and its teaching are free. This, as well as the fundamental and personal rights of people as a whole, provides the framework for digitalisation.

The opportunities opened up by digitalisation include possibilities for the low-threshold transfer of knowledge and skills, which are actively used by universities to reach the public. This also enables universities to respond better to people's individual requirements and needs and to become effective in society in terms of lifelong learning.

Digitalisation is not an end in itself. Austrian universities contribute to the value foundation of the Digital Action Plan Austria through their research and teaching activities.

Austrian Board of Midwives

The Austrian Board of Midwives (ÖHG) is a public corporation and, as a chamber of midwives, represents their interests in all professional, social and economic matters. One of its tasks is to maintain a register of midwives in which all midwives authorised to practise the profession are listed. The midwives listed in the register of midwives have already been included in the Health Service Provider Index, or GDAI for short.

The midwifery profession comprises the counselling, care and nursing of pregnant women, women in labour and women who have recently given birth, the provision of assistance during childbirth and participation in maternity and infant care (Section 2 HebG). Midwives work in both intramural and extramural settings. Both midwives with health insurance contracts and elective midwives work in private practice. They work autonomously and on their own responsibility as long as no irregularities occur with the

mother or child. Midwives are the only non-medical healthcare profession authorised to administer certain medications and vaccinations without a doctor's order (Section 5 HebG). This is particularly important for midwives in private practice, for example to be able to administer painkillers during home births or necessary immunisations during the postnatal period. After discharge and in the event of premature discharge from hospital following the birth, as well as in the case of a planned outpatient birth, postnatal care is provided by registered midwives. There are three reasons why they need both active and passive access to ELGA:

- *Midwife discharge letter*: Hospitals with public access rights are obliged to prepare a discharge letter (Section 24 (2) Austrian Hospitals and Health Resorts Act = Section C: Public hospitals). As a rule, women are also given a medical discharge letter when they are discharged after the birth. However, midwives are often not aware of certain obstetric information that they would need for the care of mother and child. The ÖHG is therefore in favour of implementing a midwife discharge letter in ELGA similar to the nursing discharge letter.
- *Referral to the hospital and other GDAs*: Communication with other GDAs, in particular with gynaecologists and paediatricians, should be possible and findings should be exchanged. In the event of a referral back to the hospital by the midwife, it should also be possible for the midwife to transfer data and findings to the ELGA file.
- *Vaccinations in the puerperium*: Vaccination against pertussis, MMR or varicella vaccination and rhesus prophylaxis can be carried out in the postpartum period. Midwives can also be considered for the administration of the vaccinations to be carried out as soon as possible after the birth (see vaccination plan 2023/2024). It should therefore be possible for midwives in private practice to access and enter the vaccination carried out in the electronic vaccination record using a mobile app (similar to the e- Impfdoc).

The Austrian Committee of Midwives is therefore in favour of connecting midwives to ELGA by means of clearly defined access rights for the reasons mentioned above.

The Austrian Bar Association

The Austrian Bar Association (ÖRAK) would first like to emphasise the pioneering role that the Austrian judiciary plays in digitisation efforts throughout Europe. This is due in particular to the intensive efforts of the Federal Ministry of Justice, the Federal Computing Centre and all stakeholders who have been supporting and promoting the digital path for years. We must continue along this path. Electronic legal transactions are a best-practice example of digital communication with the ordinary courts and can be extended to all

administrative authorities. The electronic file is currently in the final implementation phase and will lead to the complete digitalisation of court proceedings.

However, the ÖRAK is also convinced that the liberal professions in general and independent lawyers in particular can make a significant contribution to realising the goals of the Digital Decade. The following use cases are mentioned as examples:

- In land register and company register proceedings, those documents that are entered into the lawyer's or notary's document archive by the respective professionals and transmitted to the courts via electronic legal transactions are accepted by the courts as originals. This system could be extended to other use cases and the existing document archives could be used for evidence purposes or for submitting evidence to courts. Electronic document archives offer numerous advantages over paper archives, such as redundant storage, time stamps, irrefutable proof of the signatory's identity by using the eID, etc.
- Business life is increasingly taking place online. Lawyers have the expertise to provide professional advice on company formations and reorganisations or day-to-day contract negotiations, while the use of the eID can provide irrevocable proof of the signatory's identity. It is already possible to sign a contract online with a trusted lawyer using the signature tool developed by the ÖRAK, as well as to set up a company using the eID.
- Together with several project partners, the ÖRAK has developed the communication platform "context", which enables a confidential dialogue between lawyers and their clients in an uncomplicated manner. In contrast to correspondence by email, context fulfils the high requirements of the GDPR and professional law with regard to data security. In this way, context combines the advantages of electronic communication (speed) with the guaranteed confidentiality known from analogue communication (secrecy of correspondence). context is not limited to communication with and from lawyers, but can and should be used wherever confidentiality and data protection must be observed.

Austrian Medical Association

The Federal Curia of Employed Physicians and the Federal Curia of Registered Physicians have submitted a joint statement on the target paths defined in the document and refer

in this regard to the present working paper EHDS of the ÖG Telemed[12]: ÖG Telemed working paper.

Ad Target path Electronic health record:

- Mandatory implementation of the existing ELGA implementation guidelines as well as eHealth applications in patient and hospital information systems and continuous financing of the same
- Expansion and obligation to maintain a complete electronic health record (ELGA) to avoid duplication and additional bureaucracy
- Mandatory semantic interoperability of the health record with regard to the establishment of the patient summary
- Abolition of the situational opt-outs, particularly with regard to the implementation of a qualitative patient summary

Ad Artificial intelligence target path:

- Creation of a mandatory AI regulation for the handling of sensitive data in the healthcare sector, including clarification of liability regulations for the use of AI programmes

Ad target path Digital Services Citizens:

- Expansion of the mobile e-card infrastructure with regard to low-threshold access and use (e-card on mobile phones)
- Expansion and extension of 1450 as a tool for patient guidance; Mandatory connection to ELGA. Transparent design of organisational structures and binding involvement of the medical profession

Ad Digitalisation projects in the healthcare sector:

- Relieve the burden of medical documentation by expanding digital, semantically interoperable documentation tools (doctors should be able to concentrate on core competences); Programmes must be designed to be user-friendly and intuitive and adapted to medical procedures)
- End-to-end financing for the implementation of new healthcare services (apps, functionalities, ASW, HIS)
- Promotion of digitalisation projects in the healthcare sector (AI, cloud computing, big data) by the public sector

[12] 20230507-positionspapier-ehds-v1.0-1.pdf (oegtelemed.at)

- Involvement of the medical profession (= users) in all digitalisation projects in the healthcare system - as in the best practice example of the e-vaccination passport/vaccination register

Ad Multi-country projects - MyHealth@EU:

- Creation of an Austrian Health Data Space, an Austrian Data Access Body and a corresponding authority (e.g. GÖG, Statistics Austria)
- Patient Summary - Clear definition of responsibilities and consideration of the additional administrative and economic workload
- The introduction of e-prescriptions must not mean additional work and costs for the medical profession.

Austrian Chamber of Notaries

Against the background that the Austrian notary's office has a pioneering position at European level in the area of digitalisation of the notary's office, general objectives and examples of possible contributions by the member states were defined and prepared in tabular form.

	General objectives	Examples of possible contributions from Member States
Digital citizenship	Promote a people-centred, fundamental rights-based, inclusive, transparent and open digital environment in which the principles, rights and values of the Union are upheld and strengthened through secure and interoperable digital technology and services accessible to all across the Union.	Expansion of a digitalised Austrian notary's office, which, as a digital pioneer in Europe, can offer all services, such as the creation of public deeds and the certification of signatures, completely digitally and with the usual high standard of legal certainty. By guaranteeing nationwide coverage throughout Austria, the notary's office is an important partner for the state, for example by taking on tasks as an issuing centre for eIDs and e-wallets in the sense of a regional citizen service.
Digital citizenship	Ensure that (...) public services (...) are also accessible to all, in particular to disadvantaged groups, including persons with disabilities, and in rural and remote areas, in a trusted and secure online environment, providing inclusive, efficient, interoperable and personalised services and tools with high standards of security and data protection.	Digitalisation of non-contentious proceedings, in particular in probate proceedings, and electronic linking of notaries as court commissioners with the electronic systems of the judiciary, also in implementation of the EU Regulation on the digitisation of cross-border court proceedings. Access to digital assets by the court commissioner should also play a role here. Furthermore, Austrian notaries as court commissioners are to implement the electronic procedures under this EU regulation for the notary's office as a result of a transfer of competence for the cross-border taking of evidence in probate proceedings (Regulation [EU] 2020/1783) and notification as "courts".
Promotion of companies	Promote a digital regulatory environment in the Union to enable businesses, especially SMEs, to compete fairly in global value chains.	Digital procedure for company formation, including the fully digital creation of the articles of association in the form of a notarial deed by notaries, as a one-stop shop or central legal contact point for companies, using all

		existing digital tools (e.g. USP, FinanzOnline, etc.) by Austrian notaries.

Federal Chamber of Civil Engineers

The Federal Chamber of Civil Engineers emphasises the role that civil engineers in the relevant field, especially those specialising in information technology, can play in supporting the implementation of measures from the roadmap for ministries, authorities and other stakeholders.

She also mentions the digitalisation of the construction industry via digital building submission as an important measure for achieving the goals of the Digital Decade. The province of Carinthia can serve as an example of efficient implementation: This enables civil engineers to submit digital applications to the authorities in their "electronic file" (ELAK) through a direct connection to the zt:Archiv der Ziviltechniker:innen, via which the necessary data is transmitted in the appropriate format directly to the "electronic file" (ELAK) of the respective authority for land and forest division procedures.

The zt:Archiv enables the secure processing of data and the secure exchange of documents with courts and authorities[13]. We offer fast and cost-effective electronic document archiving with original legal quality. The authenticity and immutability of the data is ensured by a qualified electronic signature, among other things. The Chamber of Civil Engineers would like to open up this offer to all authorities and thus give a boost to the digital processing of construction procedures.

Furthermore, the Federal Chamber of Civil Engineers emphasises that a permanent guarantee of non-discriminatory and general access to electronic planning software and the establishment of open and manufacturer-independent, standardised interfaces would create fair competition among the planning professions and at the same time promote SMEs.

The civil engineers also see the future in a digital professional licence.

[13] www.zt-archiv.at

The following measures are therefore proposed:

	General objectives	**Examples of possible contributions from Member States**
Digital civil engineering offices	Promote a people-centred, fundamental rights-based, inclusive, transparent and open digital environment in which the principles, rights and values of the Union are upheld and strengthened through secure and interoperable digital technology and services accessible to all across the Union.	Expansion of digitalised Austrian civil engineering offices, which, as digital pioneers in Europe, can offer all services, such as the preparation of public deeds or the preparation of expert opinions, completely digitally and with the usual high standard of legal certainty. The zt:Archiv is intended to integrate a single point of truth for public documents from civil engineers into the state's eGov architecture in order to simplify data exchange and relieve the burden on citizens and the administration.
Digital civil engineer professional licence		The civil engineer licence is to be one of the first to be converted into a digital professional card.

8. Section: Overall effect and conclusion

The world is changing - faster than ever before. The digital transformation is progressing globally, unstoppably and at an unprecedented speed. In 2020, the Austrian federal government committed itself to the government programme "Out of responsibility for Austria. Government programme 2020-2024". A lot has happened since then. The Covid-19 pandemic was a noticeable driver of innovation, research and development - particularly in the area of digitalisation. The general population was urged to switch to digital solutions due to contact restrictions - from homeschooling and working from home, including video conferencing, to the "Green Pass" app. The applications, opportunities and technologies offered by digitalisation have developed rapidly. By consistently taking the Sustainable Development Goals (SDG) into account in all plans and projects, the aim is to ensure that no one is left behind and that everyone benefits from digitalisation - regardless of age, gender, disability, origin, place of residence, social or economic situation. The opportunities offered by digitalisation should be used to strengthen ecological, economic, social and equality-oriented sustainability, while at the same time minimising adverse effects or newly emerging risks.

Austria is shaping the digital transformation and the necessary framework conditions on the basis of comprehensive strategic principles that were developed in participatory expert and stakeholder processes. Section 5 provides a comprehensive overview of the most important strategies, which relate to both cross-cutting digitalisation issues and specific areas.

Particular attention is paid to the Digital Austria Act (see section 1) with 36 digitalisation principles and 117 specific measures. The federal government thus defines the goals and principles of digitalisation in Austria. The priorities of the Digital Austria Act are cross-departmental and affect all members of the Federal Government and all areas of people's lives. The Digital Austria Act stands for more prosperity, security and new opportunities through innovation in Austria.

Imprint

Media owner, publisher and editor:
Federal Ministry of Finance, Johannesgasse 5, 1010 Vienna
Overall implementation: Section V - Division V/A/2 Legislation and Master Data Register Authority, E Government Strategy and EU and International Affairs
Vienna, 2023. Status: 27.11.2023

Federal Ministry of Finance
Johannesgasse 5, 1010 Vienna
+43 1 514 33-0
bmf.gv.at