Digitalisation Report

BETTER TOGETHER

Together for a digitally successful Austria

Together for a
digitally successful
Austria

Achieving more together

"There are still a lot of things to do in the digital transformation Potential for lasting, sustainable growth."

Ladies and gentlemen,
dear digitalisation community!!

Digitalisation is seen as an opportunity for the business location and as a guarantee of prosperity. Especially when coping with the corona pandemic, it has been shown that we have come through the crisis better thanks to homeschooling and home office, intelligent test methods and the digital Green Pass.

However, these successes should not hide the fact that we have to proceed strategically and systematically in the digital transformation. Our digitalisation policy must serve all citizens and it must take everyone with us on the journey into the digital age.

Austria is on the right track. By expanding our digital networks, we are bringing broadband to the most remote regions. And we're working on a new strategy for expanding digital skills - from young to old.

Austria is still among the best in e-government. And with the digitalisation fund, a financing instrument was created that effectively supports and promotes the modernisation and digitalisation of the administration.

In this second Austrian digitalisation report, we present concrete implementation projects. One thing is particularly important to me: Clever, cross-departmental cooperation based on a common strategic foundation - our Digital Action Plan (DAA). This is how we combine strength and resources and achieve more for the people and companies in our country. And that's exactly what we need to do now, so that the digital boom really reaches everyone.

Thank you for being part of this transformation too! I hope you enjoy the Digitalisation Report.

Florian Tursky, MSc. MBA
State Secretary
for digitalisation and telecommunications

Use digital- isation for the future

"Climate protection and digitalisation must be thought of together. In this way, solutions for a more resilient, greener future can be created."

Not only the Corona crisis has challenged us recently: The war in the middle of Europe made us feel our dependence on fossil fuels. It is all the more important to resolutely advance the energy transition and transform the economy in order to be able to act more resiliently and independently in the future.

In order for this to succeed, climate protection and digitalisation must be thought of together and applied together.

There are strong digitalisation components in the entire energy sector, starting with microchips, which are used to increase efficiency, through to innovative solutions for wind power, photovoltaics or applications in the field of storage technologies.

It is essential to set the course now to make Austria's economy and society more resilient to the crises of the future. The right investments now make Austria more independent, secure our position as an attractive business location and create the green, sustainable jobs of tomorrow.

Both in business and in administration, we have to use the chances and possibilities that digitalization opens up for the future - for a conversion of the energy system, the mobility system, towards a circular economy.

In the broad area of responsibility of the Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation & Technology (BMK), digitalisation as a cross-sectional matter opens up the possibility of testing and using digital technologies in a wide variety of application fields - from the use of earth observation data for climate protection to smart cities that enable us to live in a more climate-friendly city. This interaction of climate protection, digitalisation and innovation strengthens our industry, our entrepreneurs, our jobs and thus the future of the location.

I am convinced that. in order to make Austria climate-neutral by 2040, to advance the energy transition and at the same time to provide decisive impetus for our economy, it is essential to think of climate protection and digitalisation together.

Leonore Gewessler, BA
Federal Minister for Climate Protection, Environment, Energy, Mobility, Innovation and Technology

Content

The second digitalisation report covers the 2021 reporting period. For this reason, the department names valid in 2021 are given.

Experience the digitalisation report barrier-free

The new Austrian Digitalisation Report also breaks new ground in terms of accessibility and interactive reception. Here you can find out how to get even more out of the digitalisation report with your mobile phone.

Discover videos of the Secretary of State and the provinces

Many are talking about Augmented Reality (AR), the Digitalisation Report brings it up. The expansion of its offer with three-dimensional, interactive elements in real time brings additional information and a new level of accessibility. The augmented reality experience takes place directly in the mobile browser (Safari/Chrome) of your smartphone and does not require an app installation.

Experience the new digitalisation report with videos and augmented reality

That's how it's done

→ Open your smartphone's camera app or a QR scanner app - and scan one of the QR codes in the digitalisation report.

→ Allow the browser to access the camera.

→ View the image next to the QR code through the camera now open in the browser to experience augmented reality.

The digitalisation report offers AR applications in the following places:

→ ## Province videos

Travel with us through Austria and look at cover versions of the nine provinces.

← ## Experience digitalisation

Hear the Secretary of State speaking to you personally.

3D map ↑

On the flap with the map of Austria (pages 60 62) it is possible to turn the map of Austria, to get closer to places and to get more information about lighthouse projects.

→ ## Have it read to you

Particularly attractive: Have the texts of the entire report read out to you without your own app - simply scanning the QR code is all you need!

Digital Tip

The digital rankings DESI,
E-Government-Benchmark and
E-Government-Monitor show: with its
digital performance and especially
with digital services, Austria is
clearly ahead in Europe. The ongoing
comparison not only provides welcome
feedback, but also helps us to further
develop our digital performance.

Austria in the Digital Economy and Society Index

The Digital Economy and Society Index (DESI) of the European Commission is the central measuring instrument for the degree and progress of digitalisation in the EU member states. Important topics are "human capital" with regard to digital skills, the topic "infrastructure", the area "use of digital technologies by entrepreneurs" and the field of action "digital administration services". In the DESI index for 2021, Austria has risen to the top 10.

Important results at a glance:

→ 66 % of Austrians have basic software skills such as word processing or creating presentations.

→ 50 % is 5G coverage in Austria and is thus well above the European average of 14 %. That means third place for this indicator and a pioneering role for Austria in this area.

→ 37 % of domestic entrepreneurs use the potential in the field of artificial intelligence (AI). Austria is well above the EU average of 25 %.

→ In the field of digital public services, Austria plays a pioneering role in a European comparison. Austria is convincing in the areas of user-centricity and availability of digital administration services and achieves above-average values for all measurement indicators.

→ When it comes to expanding m-government and electronic delivery, Austria is one of the front runners in an EU comparison.

Austria in international rankings

PLACE **1**	RANK **6**	PLACE **10**
D A CH eGov Monitor	eGov Benchmark	DESI ranking

DESI 2021 – Relative result by measurement dimensions
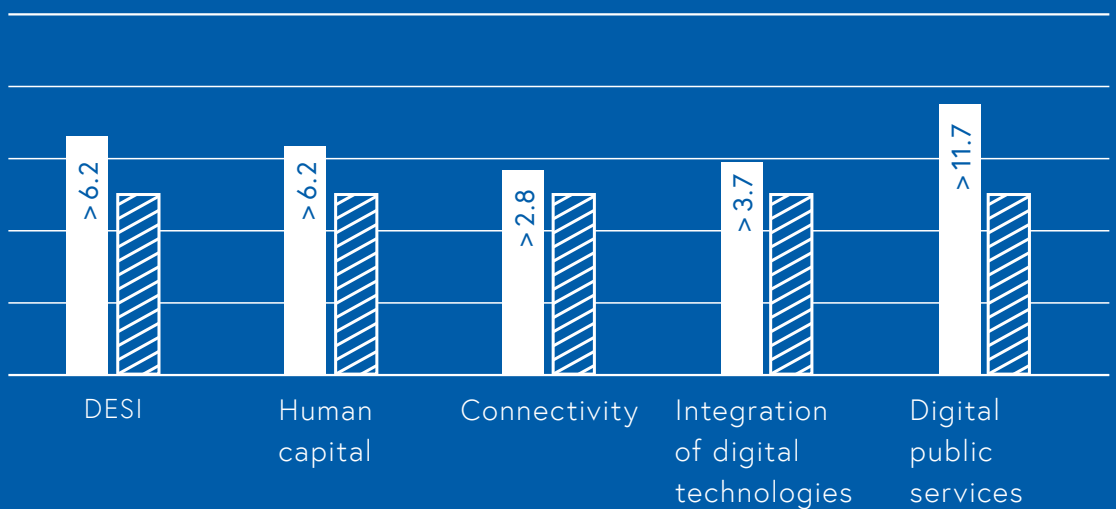
	DESI	Human capital	Connectivity	Integration of digital technologies	Digital public services
	>6.2	>6.2	>2.8	>3.7	>11.7
AUSTRIA	56,9	53,3	53	41,3	79,8
EU	50,7	47,1	50,2	37,6	68,1

Austria's results in the eGov Benchmark 2021

USER CENTRICITY			
TOTAL POINTS	88.1	96	
Online Availability	87.2	96	
Mobile usability	88.4	99	
User support/ assistance	90.7	95	

TRANSPARENCE			
TOTAL POINTS	64.2	78	
Provision of services	59.9	76	
Personal data	68.3	87	
Service Design	61.6	69	

TECHNOLOGICAL KEY ELEMENTS			
TOTAL POINTS	61.4	86	
electronic identification	59.1	80	
electronic documents	71.8	90	
sources of information	61.4	75	
digital mail/electronic delivery	73.3	100	

CROSS BORDER MOBILITY			
TOTAL POINTS	54.8	76	
online Availability	61.1	78	
user support/assistance	67.8	83	
electronic identification	21.8	66	
electronic documents	48.1	61	

↓

EU27+ AVERAGE
(%,2019 2020)

in the field of DIGITAL MAIL

100 %

Austria in the E-Government Benchmark

The European Commission's "e-government benchmark" has been examining digital administrative services (e-government) annually since 2001 - currently in the 27 EU member states, Iceland, Montenegro, Norway, Serbia, Switzerland and Turkey as well as in the United Kingdom, in Albania and North Macedonia.

For the E-Government Benchmark 2021, the life situations of starting a company as well as career, family and studies were examined. This shows:

→ In an e-government comparison, Austria is among the best in Europe and ranks 6th out of 36 countries surveyed.

→ Austria has improved significantly in the areas of "cross-border eDocuments", "mobile friendliness" and "cross-border eID".

→ The location was able to achieve 99 percent in the area of "mobile friendliness" and even 100 percent in the area of digital mail.

→ When it comes to electronic delivery, Austria is one of the front runners in an EU comparison.

Austria in the E-Government Monitor 2021

Since 2011, the E-Government Monitor has been examining the current e-government situation in Germany every year. Austria and Switzerland have been used as comparison countries since 2012. The current study again confirms top values for Austria and a clear lead in terms of awareness and use of e-government offers compared to our neighbours.
The D-A-CH country comparison shows:

→ 76 % of Austrians already use administrative services such as oesterreich.gv.at online.

→ 83 % already know or use oesterreich. gv.at. That means 1st place in a country comparison.

→ 80 % of citizens search online for information, responsibilities and opening hours.

1st place in the country comparison:

83 %

83 % already knows or uses oesterreich.gv.at.

Correct taxation of digitalisation

With the "Chief Digital Officer Task Force", Austria ensures that the Austrian federal administration coordinates and proactively designs the digital transformation.

The digitalisation of the federal administration is much more than just a technological question. In addition to ICT measures, numerous organisational, legal and technical measures are also required, which must be implemented by the departments concerned. Digital projects that affect the different life situations of citizens must be coordinated across all levels of the federal administration.

Use synergies, avoid redundancies

In order to properly and comprehensively control digital transformation in this sense, the federal government decided in June 2018 to create a "Chief Digital Officer Task Force". Its goal is to pursue a coordinated and proactive approach to the topic of digitalisation. At the same time, synergy effects should be used and redundancies avoided by always taking organizational, logistical, legal and technical measures that are coordinated with one another.

Tasks of the "CDO Task Force" at a glance

→ cross-departmental coordination of digitalisation measures

→ Creation of the medium-term roadmap of the digitalisation measures

→ Creation and communication of the federal digitalisation strategy

→ Cross-departmental coordination of applicable IT guidelines regarding procedures for digitalisation projects

→ Monitoring of the digitalisation measures of the government program

→ Management of current developments in the field of digitalisation

→ Creation of an annual digitalisation report

→ Organisation of the digitalisation summit at ministerial level

All departments represented

All departments delegate their Chief Digital Officers to this CDO task force. The task force is headed by the federal CDO. The CDOs coordinate the digitalisation projects in their respective departments, report on them to the CDO task force and support joint projects. They also coordinate their subject areas with relevant regional authorities or the economy. This ensures that the digital transformation of the federal administration becomes a joint success story for all those involved, users and stakeholders.

BETTER
TO
GETHER

Plan and implement together

With the Digital Action Plan Austria, Austria has a special tool for planning and strategically shaping the digital transformation. Cross-departmental cooperation also resulted in well-founded new action plans on important topics in the reporting period.

The Digital Action Plan Austria (DAA) coordinated by the Federal Ministry for Digitalisation and Business Location (BMDW) is a strategy document "in progress". Together with the responsible departments and experts, new subject areas are constantly being worked on so that digitalisation in Austria can be coordinated and successfully promoted. On the basis of jointly developed guidelines and principles (see Austrian Digitalisation Report no. 1), topic-specific action plans specify important implementation projects and measures to achieve goals.

1 Do more with data

The targeted use of data is the basis for the innovative strength of entrepreneurs as well as the research and further development of new technologies. Therefore, this chapter presents measures to achieve a high level of targeted data use and comprehensive data competence for Austria as an attractive data location. An example for: In order to create an institutional structure for data use, sector-specific data spaces are being developed. Data hubs then make data available in these.

2 More resilience through digitalisation

The COVID-19 crisis makes it clear that digitalisation helps to better manage the current situation. The aim of this chapter is to identify effective measures to strengthen the crisis resilience of the Austrian economy and Austria as a business location. An exemplary measure is the development of an economic picture of the situation by the BMDW. This instrument provides real-time information on the current situation in Austria as a business location as a basis for decision-making for the Austrian federal government.

3 Force further development

In order to make Austria fit for a successful digital transformation, this chapter is dedicated to government and company measures for digital transformation. Important fields of action are training measures across all phases of life, targeted data availability, tax incentives to promote innovation and the crisis-proof expansion of the infrastructure. With the Digital Innovation Hubs, the BMDW promotes the exchange between business and science for the development of digital solutions and products in Austria. In order to make it easier for entrepreneurs to relocate, for example, the Business Service Portal USP.gv.at will be expanded to include electronic founding and relocation according to the once-only principle.

4 New opportunities through environmental technologies

Digitalisation is a key success factor in the area of the environmental economy, which is intended to contribute to the achievement of climate targets on the one hand, and at the same time to improve the competitiveness of Austria as a business location. In order to increase the added value in Austria through innovative environmental technologies, measures in the field of education were developed, such as further training and support in the field of "green jobs and green skills". In addition, regulatory real laboratories are being created in which Austrian entrepreneurs can try out environmental technologies using new digital technologies (legally) secure.

5 Theses for the future

Universities are also facing new challenges due to the influence of digitalisation on forms of communication and working methods in research and university teaching. In addition, as public institutions in the European education, research and higher education area, universities bear a high level of responsibility for the provision and networking of public infrastructures. Based on analysis of the "future of the 'digital' universities", theses were developed, on the basis of which a common idea of what "digital transformation" means at public universities will be developed in a dialogue forum between the Federal Ministry of Education, Science and Research and universities can. An important topic is the effects of the use of digital media on future teaching and examination formats.

Strong database for joint digitalisation

700 thousand

Activations of the "Digitales Amt" app until 30 January 2022

The Digitalisation Dashboard is the first port of call for anyone who needs the latest data on digitalisation and e-government in Austria. Together we can make more out of data.

The innovative dashboard presents figures, facts and trends from key areas of digital transformation for citizens, entrepreneurs and the state. In the future, the dashboard will support the work of the CDO task force as a modern monitoring and control tool. This means that the digitalisation measures are coordinated between the various departments for the further development and establishment of new digital services on a unique database.

Do more with data

With the new digital dashboard, we combine the existing large amount of data with specific implementation projects and services for private individuals and entrepreneurs. Search function, tags and bookmarks make it easy to use the dashboard as a tool for your own development. The Digitalisation dashboard is the platform we use to make more out of data.

More at https://www.digitalaustria.gv.at/ digitalisierungsbericht/Datendashboard

Digital Austria

Facts and figures at digitalaustria.gv.at

450 thousand

Registered entrepreneurs in the Business Service Portal USP in 2021. Growth of 24 % compared to the previous year. The Business Service Portal (USP) saves entrepreneurs time and money.

What citizens in Austria use digital services for:

Top 10 most used life situations on oe.gv.at

Birth	
Motor vehicle	
Driving Licence	
Residence	
Passport	
Pension	
Heirs	
Care	
Marriage	
Single parenting	
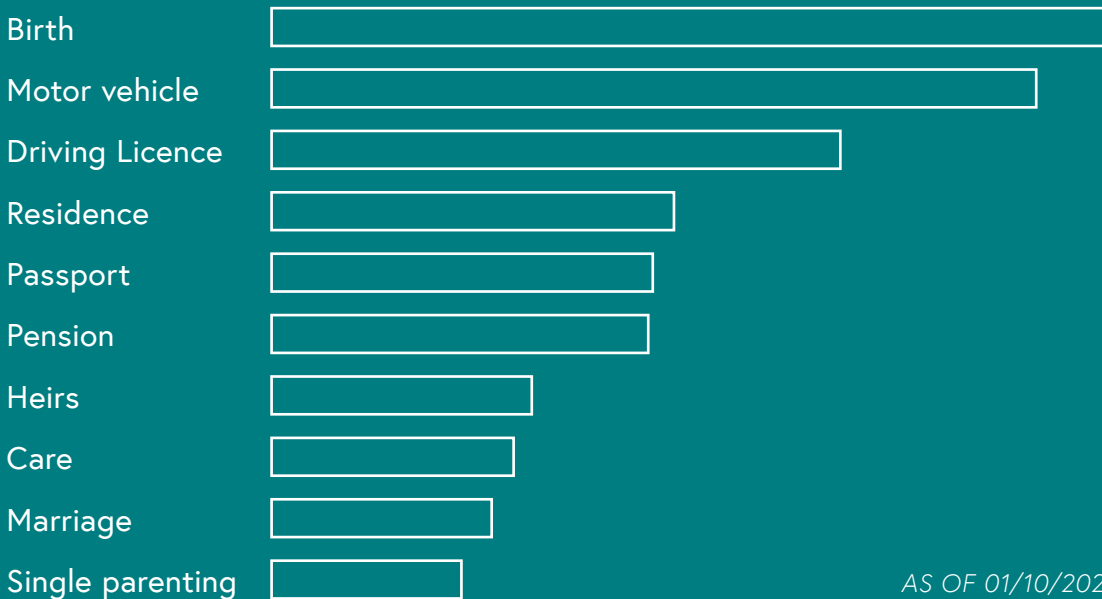
AS OF 01/10/2021

That brings the digitalisation fund

2021 and 2022:

€ 160 million

for the digital transformation

The digital transformation of the federal administration is being successfully promoted with the digitalisation fund: Around EUR 160 million are available for the past and current year.

With its services in the e-government area and in digital services for citizens and entrepreneurs, Austria is among the top, as the e-government monitor shows (see also pages 12-15). With the digitalisation fund, the location has an effective and transparent instrument to further develop and accelerate the digital transformation of administration and public services in a targeted manner. The digitalisation fund enables relevant investments for even more and better digital services for citizens and business. This saves time, money and reduces bureaucracy for everyone involved, according to Dietmar Schuster, Secretary General of the Ministry of Finance.

Task Force Digitalisation selects projects

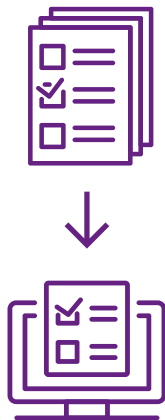A total of EUR 160 million is available for last year and this year. On the one hand, the funds from the digitalisation fund are used to promote start-up financing for digital projects with a cross-departmental effect, on the other hand, projects for the IT consolidation of the federal government are supported. The funded projects are selected by the Task Force Digitalisation, which is made up of representatives from BMDW, BKA, Federal Ministry of Finance and BMKÖS. A total of 140 projects were submitted last year, of which 68 projects were funded with around EUR 76 million (see box). The digitalisation fund is refinanced from the EU recovery and resilience plan.

Effect in many areas

The great impact of the funded projects for the location and citizens is reflected in a variety of light-house projects:

→ E-delivery and "My mailbox" for a contactless and secure communication channel for RSa/RSb letters and window envelope shipments bring significant potential savings in postage, printing and enveloping.

→ The once-only principle with the information obligation database (IVDB) and the register and system network (RSV) enables time and cost savings for entrepreneurs.

→ The further development of oe.gv.at, which currently has almost 10 million monthly page views, brings additional services and a platform for digital ID cards.

→ The business service portal USP brings digital power of attorney management and the use of AI for the automated processing of funding applications for simplification and cost savings.

→ The integration of the crisis management service abroad in the "Digital Office" app enables push notifications in the event of dangers abroad.

→ The online counseling for girls and women provides low-threshold family and women's counseling services via a platform with video conference and chat functions.

→ The Kolibri project establishes an airspace management system for drone traffic, which prevents dangers to civil aviation, the police, defense or rescue services.

→ The electronic student ID card guarantees the largely automated integration of the student ID card into the ID Austria and the automatic application.

"The digitalisation fund is a transparent and effective instrument that enables us to provide services in many areas of society that are even closer to the citizen and more efficient."

Facts and figures on the Digitalisation Fund 2021

140
projects submitted

68
projects selected (in four tranches)

approx. 76 million
approved

Shared digital success story

The fact that digital transformation in connection with strategically sound collaboration brings convincing results is not only evident in the digital economy, but also in the public sector. Austria has not only maintained its position in international rankings in the field of digital services, but has also been able to expand it. In the D-A-CH comparison we even hold the 1st place. Thanks to the good interdepartmental cooperation and the joint development of strategic foundations for the transformation based on the Digital Action Plan Austria, "digital Austria" was able to develop strongly again in the reporting period of this Austrian Digitalisation Report. The digitalisation fund is an important instrument for promoting cross-departmental cooperation and the rapid implementation of important digitalisation projects, from which 68 projects were funded with around EUR 76 million last year.

"Austria has not only maintained its position in international rankings in the field of digital services, but has also been able to expand it."

Federal CDO SC^in Mag.^a Maria Ulmer

On the following pages, the digitalisation report presents exemplary projects of the departments that were implemented with funds from the fund or that were started last year. The overview shows both the diversity and the quality of the content of the well-coordinated measures taken. In order to also be able to appreciate the activities of the Austrian provinces for the digital transformation of the administration, the present report also presents strategic premises and selected lighthouse projects from all countries for the first time. Here, too, there is an impressive variety of projects and approaches that make administrative action more efficient and, with a view to the citizens, also more effective. Once again it is evident that the successful digital transformation in Austria is due to many actors who, thanks to innovative approaches and clever coordination, can achieve a lot in their area of responsibility. In this sense, Austria will be able to continue its digital success story together.

"The successful digital transformation in Austria is due to many actors."

Interim Federal CDO Deputy AL DI Dr. Franz Haider
Federal Ministry for Climate Protection, Environment, Energy, Mobility, Innovation and Technology
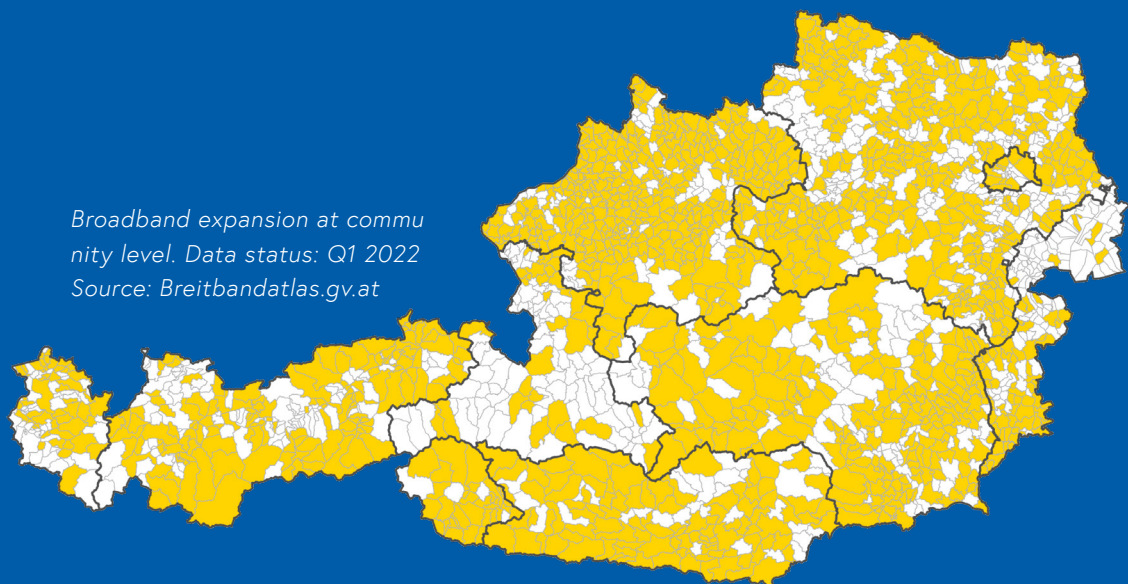
Best communication infrastructure for growth and future

An efficient communication infrastructure is one of the most important foundations for successful digitalisation. The aim of the Federal Government is therefore the nationwide supply of fixed and mobile gigabit connections by 2030. With targeted funding instruments, the broadband initiatives also contribute to equal digital opportunities between town and country.

As part of the Broadband Austria 2020 initiative, the federal government has been providing funding for the expansion of the broadband infrastructure since mid 2015. The broadband initiative has triggered an unprecedented dynamic in the Austrian telecommunications sector: As part of the calls for tenders carried out until the end of 2021, 661 recipients of funding in 1,828 projects received funding commitments totaling EUR 1.1 billion. According to calculations by external evaluators, total investments of 2.3 times the amount of the funding will be initialized, which corresponds to a total investment volume of around EUR 2.5 billion. In total, over 1.1 million citizens benefit from the Broadband Austria 2020 initiative. The subsidised broadband expansion is thus taking place in 1,342 of the approximately 2,100 Austrian municipalities.

The steering effect of the initiative "Broadband Austria 2020" means that the expansion with subsidies actually takes place where it is not economically viable due to low population density. Another important success of the Broadband Austria 2020 initiative is that venture capitalists have also been active in the domestic telecommunications market since 2018 with the help of broadband funding.

Broadband expansion at community level. Data status: Q1 2022 Source: Breitbandatlas.gv.at

€ 1.4 billion

*Investments in Austria
in the digital future by 2026*

SC Mag. Andreas Reichhardt
sees the course set towards
a digital nation:

"The last few years have shown once again that a functioning digital infrastructure is the foundation of a modern society. The nationwide broadband expansion by 2030 with fixed and mobile gigabit-capable connections is therefore a core element of all efforts in the telecommunications section. By 2026, an additional EUR 1.4 billion will be invested in our digital future, something that has never happened in Austria before. The further 5G expansion will create new opportunities for the economy and Austria as a business location. With targeted funding measures such as the GigaApp funding and associated initiatives such as the Gigabit Academy, accompanying measures were made possible to cover 5G in its full spectrum. By providing the required frequency bands, we have set the course for further developing Austria into one of the leading digital nations."

New instruments in the Broadband Austria 2030 initiative

Based on the Broadband Strategy 2030, the Federal Ministry of Finance (Federal Ministry of Finance) has developed various funding instruments. They are intended to improve the nationwide availability of gigabit-capable access networks and the establishment of new symmetrical gigabit connections. The focus is on public institutions an entrepreneurs. In the spring of 2022, the first round of tenders for the Broadband Austria 2030 initiative started with a volume of EUR 660 million. This was the largest broadband funding package ever implemented in Austria. Target groups are provinces, municipalities, public institutions, telecom operators and SMEs. The degree of availability with gigabit-capable landline connections is already 57 percent in Austria. 5G mobile communications are already available for 84 percent of households (as of: Q4/2021).

BETTER TOGETHER

This is how Austria designed digital trans-formation

**Selected projects
of the departments**

Federal Chancellery
of the Republic of Austria

Safe, efficient and crisis-proof

The Federal Chancellery (BKA) uses funds from the Digitalisation Fund in a targeted manner to promote IT consolidation and to ensure that IT services are crisis-proof.

CDO Erich Albrechtowitz

"A crisis-proof digital infrastructure is becoming increasingly important. The digitalisation fund opens up new possibilities for this."

IT consolidation in the BKA

As part of the IT consolidation in 2021, the Federal Chancellery has set itself the goal of relocating the data center infrastructure of the Federal Chancellery to the BRZ. Among other things, this is intended to contribute to merging the server and storage systems in BRZ GmbH as a central service provider and to reducing the number of data centre rooms in the federal administration.

In the first phase of the project, the concept (target system, procedure) was developed. Concrete implementation took place in the second phase. The technical prerequisites for this were created (network connection, provision of server and storage capacities in the BRZ) and the transition of the servers to the BRZ GmbH started as a result. By the end of 2021, around 60 % of the servers were already in production at BRZ GmbH. Completion was scheduled for the end of March 2022. A change management was started at a later date in order to optimally adapt the organisation and processes to the situation as a client.

ZAS +
Digital Arche

Shared infrastructure in the central back-up system of the Federal Government

The use of "shared infrastructure" (provision of infrastructure as a service and platform as a service) in a crisis-proof data center for all departments and institutions of the federal, state and local governments is the aim of another project funded by the Federal Chancellery from the Digitalisation Fund. The central fallback system of the federal government (ZAS) in St. Johann, which is already an important and crisis-proof data center location for numerous national and international institutions, is being further expanded for this purpose. So far, the focus has been on providing serviced data center space for operating high-availability systems, which, however, resulted in limited synergies and heterogeneous system landscapes. In 2021, the BKA, in cooperation with the BRZ, used the funds from the digitalisation fund to prepare the basis for the development and provision of a shared infrastructure for use by users from the federal, state and local governments.

bundeskanzleramt.gv.at

Digital Ark Austria – data for eternity

With the Digital Ark Austria, Austria's entire digital memory is to be preserved "for eternity". The memorial institutions and the administration are given the opportunity to store their data in a crisis-proof place and to preserve it in the long term. The "digital ark" can be described as a combination of an extremely secure, self-sufficient and resilient location with a reliable and secure operator who uses modern and sustainable technology for this purpose. This is supplemented by the use of efficient data management processes and principles, with which particularly important and sensitive data can be stored and processed in a sovereign, retrievable and extremely secure manner and for a very long time. The Digital Ark is already in operation and is located in the "Central Backup System of the Federal Government" in St. Johann im Pongau. The "Digital Ark" quality seal is currently being developed. Operators and users of the Digital Ark will be able to purchase this in the future and thus express their interest in measures to preserve their data.

Simply digital

With the support of the Digitalisation Fund, the Federal Ministry for Digitalisation and Business Location (BMDW) is implementing pioneering measures for modern digital administration.

**BMDW-CDO
Mag. Wolfgang Ebner**

Analysis and concept for successful IT consolidation

In the federal IT consolidation, the BMDW plays a central role with analyses and implementation concepts for standardised federal IT services. The focus is on the services video conference system, service desk, license management, standard workstation and secure basic services as well as data centre infrastructure services. The interdepartmental basic development, the negotiation of federal licenses or the creation of a shared services catalogue are also part of the services provided by the BMDW. The implementation projects based on this are started after approval by the steering committee for IT consolidation.

"Our modern administration services save people and entrepreneurs time and money. What can easily be done digitally is better for the location and the citizens."

ONCE-ONLY-PRINZIP

up to

€ 1.9 billion

savings potential

Information obligations are implemented easily, securely and in a time-saving manner

BUNDES-CDO
SCin Mag.a Maria Ulmer

"Austria's leading position in digital services in the D-A-CH area is based on a clear innovation strategy and consistent citizen proximity. We will continue to implement this path together."

Once-Only means less bureaucracy

The "once-only" principle stands for the one-off collection of data and the internal administration exchange of data that has already been collected. This means that information obligations can be implemented easily, securely and in a time-saving manner. The savings potential associated with this is estimated at EUR 1.6 to 1.9 billion (source: Accenture/ICG). The BMDW is promoting the creation of the necessary basic infrastructure with funds from the digitalisation fund. This consists of the information obligation database (IVDB) and the register and system network (RSV). The database is used to centrally collect information obligations of the departments, to identify optimisation potential and to ensure the legal basis for data exchange via RSV. The operative data exchange within the authorities is available for different use cases in the economy, which will have significantly less effort in the fulfillment of legal information obligations in the future.

„Implement "single digital gateway" correctly

In order to make digital public services and information accessible and usable across all member states via the EU portal "Your Europe", the EU has issued the Single Digital Gateway Ordinance (SDG-VO). In order for Austria to be able to offer international information and digital services, extensive adjustments, translations and new developments of

procedures, services and texts are necessary. All regional authorities and organisations such as social security are affected. The SDG work is coordinated by the BMDW. The range of services extends from work packages at European level to implementing legal acts in Austria and further developments of national portals.

Digital Identity

With the ID Austria, the further development of the tried-and-tested mobile-signature, citizens will be able to verify their identity to electronic applications, services or procedures in accordance with the provisions of the e-Government Act (E-GovG) and related legal matters (e.g Signature and Trust Services Ordinance). In the future, ID Austria will thus make it possible to identify oneself online, to use digital services and to conclude transactions online. The possibility of cross-border use, which is guaranteed by eIDAS (electronic Identification, Authentication and Trust Services) compatibility, is also important. This means that the services made possible by ID Austria can also be used in other EU member states.

Federal Ministry
for labour

Manage the labour market better

The Federal Ministry of Labour (BMA) is a pioneer in the implementation of the federal ICT strategy. Citizens and entrepreneurs benefit from rapid processing and bureaucracy-free support services.

The "All Jobs" platform offers significant further development in the online job search

**CDO
Mag. Andreas Moser**

"Our digital solutions make it easier for people to get back to work - from online training to job placement."

Further steps of IT consolidation

Numerous processes have already been implemented in the Federal Ministry of Health in cooperation with the BRZ in the interests of the ICT consolidation of the federal government, including the centralisation of the IT infrastructure, hardware and software asset management and the use of numerous standardised services. In order to further optimize the processes within the department, the introduction of "One Ticket" is planned as the next step. The aim is to create a digital one-stop-shop solution for all IT issues.

Digitalisation of the administration

With the guarantee of mobile working ability, all employees of the BMA can benefit from an innovative guideline for teleworking. The Avaya Workplace app has recently become available so that employees without a mobile phone can also work in their home office without restrictions, so that they can also use the functions of the landline phone on the computer. In addition, the establishment of a single sign-on system for all employees is currently being planned in order to facilitate access to many digital applications.

eServices and eAMS account

Above all, AMS customers can carry out administrative services digitally from home by using the eServices on the website or the personalised eAMS account. The eAMS account enables jobseekers to register online as unemployed, apply for subsidies or report sick or healthy. The eAMS account also gives entrepreneurs direct digital access to the services of the AMS. Improving the usability of the eAMS services should contribute to their increased use. The implementation of competence matching should play a central role in the future. With this tool, the automatic comparison of labour supply and demand should be possible on the basis of competence and qualification indicators. The provision of digital training offers through the use of blended learning and e-learning tools should also contribute to modernisation, competence orientation and quality improvement of the qualification offer. As part of a digitalisation offensive, a concept for improving online offers in the field of career information is also being developed.
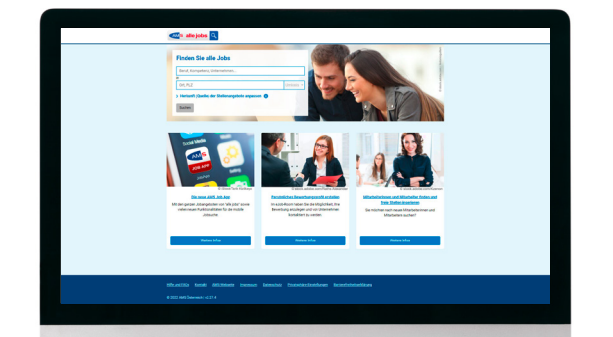
Job platform "All Jobs"

"All Jobs" also offers a significant further development in the online job search. In addition to the jobs registered with the AMS, you can also find jobs from other online job portals in "All Jobs". You can find all current vacancies throughout Austria with just one click. "All Jobs" can be used both on the AMS website and via the AMS Jobs App.

Platforms for the future

Thanks to the digitalisation fund, the Federal Ministry of Education, Science and Research (BMBWF) is digitally developing educational and administrative infrastructures.

Digital school as part of bildung.gv.at

The BMBWF is building the new platform bildung.gv.at as a further e-government platform and integrating it into oe.gv.at. This bundles important educational services for users. Examples of this are the retrieval of school reports or officially signed notifications from the school to the legal guardians (e.g. early warnings). The starting point is the integration of e-government basic technologies from the digitalisation fund project "bring edu.card into the E-ID" into the existing digital school portal (e.g. edu. IDAM as the master portal, bPK or register network system education), in the In the course of which the Digital School portal will also be integrated into the new platform bildung.gv.at. As a result, digital identities are provided for teachers, students and legal guardians, which allow permeable access across the various educational areas to educational applications, such as e.g. enable the electronic class register, learning platforms and content portals such as Eduthek and eduTube via single sign-on. Register queries from other authorities are possible, such as school attendance confirmations for family allowance, social security or free travel for schoolchildren.

Upgrading of basic digital education

From the 2022/23 school year, the compulsory subject digital basic education will be introduced at all AHS lower levels and middle schools. The compulsory subject is taught in the 5th to 8th grade implemented with a fixed hour in the timetable (a total of four hours per week over the course of secondary level I). Digital basic education is intended to provide assistance with orientation and responsible action in the 21st century in the context of digitalisation. In addition to media education, the curriculum of digital basic education also promotes computer science education and in this context also serves as preparation for computer science classes in the 9th grade at the AHS, which will be revised for a seamless connection to digital basic education.

**CDO SCin Mag.a Dr.in
Iris Rauskala**

"The digitalisation fund makes it possible to accelerate the digital transformation in education - for the benefit of everyone who offers and uses education."

Universities and digital transformation

Digital transformation as a cross-cutting issue at universities and colleges is being promoted in a variety of ways by the BMBWF. This is also clearly visible in the current performance agreements for the years 2022 to 2024, in which all 22 public universities put a focus on digital transformation, be it for example in their teaching and learning methods ("New Learning Worlds") or in Open Science and the further opening up of the research process. Starting from the 2023/24 academic year, the new Technical University for Digitalisation and Digital Transformation in Upper Austria will gradually start operations.

Service without borders

The Federal Ministry for European and International Affairs (BMEIA) supports Austrians abroad with innovative and secure digital services.

The foreign service app helps travelers and Austrians living abroad in need

**CDO
Doris Fida-Srajner**

"In critical situations, digital tools ensure rapid information and concrete support. This means we can do even more for our compatriots abroad."

Active information in crisis situations

The BMEIA's foreign service app is an important tool for providing citizens with help and support abroad efficiently and effectively (e.g. repatriations from abroad during the Corona crisis, current entry regulations). The foreign service app enables travelers in need to proactively contact Austrians abroad and to inform them in the event of a crisis. The BMEIA therefore links its foreign service app with the digital office from the funds of the digitalisation fund. After an App2App single sign-on (SSO), push notifications can be sent directly via the app in order to be able to query dangerous situations individually. The associated BMEIA database will also be technically optimised. This significantly strengthens the information and service character. This is essential for effective crisis management.

Connection to "AnNa"

The BMEIA has connected the representative authorities abroad to the central residence and settlement application (AnNA). This application can be used by all residence authorities. The representation authorities enter the data and documents. The original file is then sent digitally to the responsible domestic authorities.

Request documents with electronic identity

In Austria, citizens with a mobile phone signature can already obtain or apply for the documents they need (e.g. civil status documents, proof of citizenship) from the Central Civil Status Register and the Central Citizenship Register (operator: Federal Ministry of the Interior) online. These documents have an official signature and are intended for domestic use. This was previously not possible for Austrians abroad: in order to use documents from the Central Civil Status and Citizenship Register, the applicant abroad needs documents that have been signed by hand and, depending on the convention in the respective country, certified.

With a new document online tool (DOT) for the representative authorities, the procedure will be noticeably simplified in the future. With the intro-

duction of the electronic identity card (ID Austria), citizens residing abroad can also apply for such documents online. The legitimacy of the application is ensured by ID Austria. The documents are issued by the Austrian representative authority abroad and, if necessary, also provided with an apostille.

Federal Ministry
for Social Affairs, Health,
Care and Consumer Protection

Protect health with data

The Federal Ministry for Social Affairs, Health, Care and Consumer Protection (BMSGPK) provided the cornerstones of the fight against the pandemic with digitalsation measures.

**CDO
SCin Mag.a Dr.in
Brigitte Zarfl**

"Data can save lives and enable better health. Not only in the fight against pandemics do digital developments open up new scope for action."

Epidemiological reporting system

The Epidemiological Reporting System (EMS) acts as a "radar" of the pandemic development. As a basis for the work of the health authorities and also as a source for recovery certificates, the central data hub between districts, states and the federal government (including AGES) made decisive contributions to pandemic management. Cross-district and cross-country workflows ensure timely quarantine measures, consistent digital processes - from laboratories to the EU and WHO - ensure rapid data transmission. On this basis, dashboards could be created in real time. The EMS data formed the basis for forecasts on the development of the pandemic and has been essential for research since 2022 as part of the COVID 19 registry data.

Green pass

In May 2021, the Department of Health determined that proof of a "3G" (Tested, Vaccinated, Recovered) certificate is required to enter certain locations. This "3G" proof can also be provided digitally in the form of a QR code.
The EU member states had agreed to define a code recognised in all member states and to accept this as proof of the 3G rule when crossing borders from

1 July. Together with the other member countries, Austria contributed central elements for the creation of the certificate, which is used throughout the EU. The functionalities consist of the EPI Service, which creates all certificates generated in Austria (i.e. all test, recovery and vaccination certificates) and the Green Pass Wallet App for storing the certificates in compliance with data protection regulations. By 31 January 2022, around 107.4 million certificates were created in the BRZ EPI.

Action Austria tests

In addition to the pre-travel clearance entry form for cross-border traffic and a capacity survey tool for utilization and scaling of the intensive care beds, the services supported by the BMGSPK for combating the pandemic also include the platforms for the "Austria tests" campaign for pharmacies and operational testing. In addition, the platforms for the test roads in the provinces of Styria, Upper Austria, Carinthia and Burgenland were also provided. As the last building block, all doctors could also be connected to the test platforms easily, quickly and in accordance with e-government.

Digital to a better quality of life

The Federal Ministry for Social Affairs, Health, Care and Consumer Protection (BMSGPK) also uses and implements digital projects for healthy animals and food.
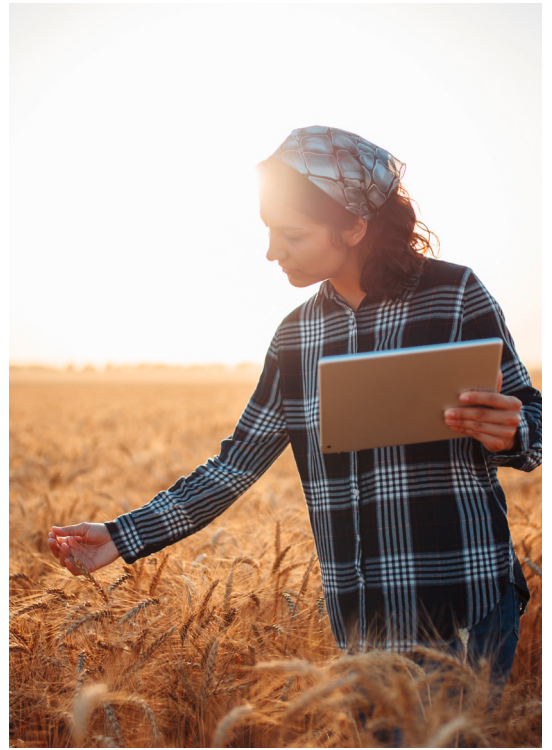
More animal health

In the coming years, the Green Deal, the Farm-2Fork strategy, EU animal health law, EU veterinary drug law and the reduction in the use of antibiotics will challenge agriculture. In order to deal with these issues efficiently, it is advisable to consolidate the extensive existing data relating to animal health. As part of the "Animal Health Data Service" (AHDS) project, the relevant data and findings for stakeholders are to be processed in a web application. The app is to be rolled out in connection with the redesign of the Austrian animal health service.

Digital animal purchase approval process

Conventional animal purchases by farmers must be approved by the authorities if there is a lack of organic animals on offer. There is currently no digital process for this. In the future, the purchase of young animals must also be approved and the lack of supply must be proven according to animal databases. The aim of the BMSGPK project "Animal purchase approval process for the organic control system" funded by the digitalisation fund is to create a fully digital process that supports farmers, authorities and control bodies in processing and administration.

Animal purchase approval procedure for the organic control system will be digital in the future

One-stop-shop for food exports

All companies along the food chain are registered in the consumer health information system (VIS). Export-oriented companies have an approval in the VIS in accordance with the relevant EU regulation, but they also have to meet different requirements depending on the destination country and situation. This BMSGPK project aims to handle all food law activities required for an export to a third country in a one-stop-shop process using all the information already available. Additionally required documents (such as control results, application documents, plans, correspondence with the competent authority) should be transparent and comprehensible, as should the decision by the authority. The connection to the ELAK system of the respective federal provinces is intended to minimize duplication and susceptibility to errors.

With data against the virus

1.4 million
recovery certificates

88.2 million
Test Certificates

17.8 million
vaccination certificates

were created by the BRZ EPI.
STATUS AS OF 31/01/2022

The extensive use of data is one of the most important health policy actions in the fight against the corona pandemic. The Green Pass is a key international project for this.

The course of the corona pandemic so far has clearly shown that digitalisation opens up new possibilities for protecting health and human life through better use of data. Measures to combat the pandemic were and are only possible or significantly strengthened by digital solutions. The EMS epidemiological reporting system has also proven itself as a "radar" of the pandemic (page 40), which enabled prognostic decisions to be made. Digital tools and processes have also paid off in the corona tests. With its previous test offer, Austria has also taken on a pioneering role internationally. A key project for the digital, cross border fight against the pandemic was the development of the "Green Pass", which is based on a QR code recognised in all Member States.

Austria's route to the Green Pass

Health policy laid the foundations for the implementation of the Green Pass in Austria in May 2021: With the ordinance of 10 May 2021, the Federal Minister for Social Affairs, Health, Care and Consumer Protection stipulated that proof of a "3G" certificate (tested, vaccinated, recovered) is required to enter certain places. This proof should be provided with a vaccination certificate, a test confirmation or a certificate of recovery. If the proof can only be provided analogously, this means a considerable effort for a large number of people who have to be checked in a short time. On 26 May the National Council decided that the "3G" proof can also be provided digitally in the form of a QR code.

From Greenland
to the United Arab
Emirates to New Zealand:
Where the Green Pass
is in use.

Certificate register creates trust

In the meantime, an agreement had been reached at EU level to accept a code recognised in all member states from 1 July as proof of the 3G rule when crossing borders. There was no "EU solution" for the Green Pass that all member states could adopt. This meant that each country had to develop a technical solution to generate and validate one or more QR codes that would be accepted by all member states. The necessary trust in the respective certificates was secured with a central certificate register: each country had to provide a list of valid (trustworthy) issuer certificates ("trust list"). In practice, this agreement meant: If a QR code was created with a certificate that is not noted in the EU certificate register, the check - for example at a border check - showed an invalid certificate and therefore an invalid QR code.

Implementation in Austria

In Austria, the BRZ developed the epidemiological information system "BRZ EPI" as the basis for the Green Pass. The BRZ EPI has been operated on behalf of the health department since the beginning of 2021. It brings together data from the electronic vaccination card, the test lanes (from company tests, pharmacies and test lanes in all provinces), laboratories and the federal epidemiological reporting system (EMS). "With the implementation of the Green Pass and the BRZ EPI as a hub for various applications, the BRZ has set up a highly secure, data protection compliant and stable system, despite complex interfaces and under great time pressure. Regular penetration tests ("PEN tests") and processing in a state of the

art, scalable technical environment ensure operation around the Green Pass," summarises the BRZ magazine read it (2/21). A special feature of the solution is the 100 % compliance with EU specifications. The EU compatible implementation in Austria was made possible by the cooperation between BRZ and the center for secure high technology A SIT Plus. A SIT Plus advised the EU Commission on the creation of the reference architecture and was therefore an important contact for the BRZ. All codes generated from the BRZ EPI can therefore be checked by inspectors abroad who also follow the EU requirements.

Simple and secure

With the "Green Pass" as a digital solution, people have since been able to prove their "3G" status test certificate, vaccination certificate or recovery certificate - simply digitally on their smartphone with a QR code. The QR code can be checked in a few seconds using a web app. No personal data is transmitted in the process. The exam only takes place in the examiner's device. When implementing the Green Pass solution, all relevant data protection regulations are observed and only a minimal set of data is transmitted that is necessary for an examination. No data about the time, place or result of a QR code check is stored in the BRZ EPI. In this way, the Green Pass optimally combines the protection of health with the protection of personal data. The balance of the Green Pass (see graphics) shows that this innovative instrument has more than proven itself in the fight against the pandemic.

Efficient and close to the people

The Federal Ministry of Finance (Federal Ministry of Finance) supports efficiency, savings and transparency with innovative projects relevant to the entire administration.

CDO
Dr. Manuel Zahrer

"Digital solutions increase the service quality of the administration and tax justice for entrepreneurs and citizens."

FinanzOnline

The FinanzOnline app is a special service for private individuals. Tax-related expenses - such as income-related expenses or extraordinary burdens - can be recorded easily, electronically and effectively. You can choose from a variety of different detection categories. These are linked to a keyword search so that users can easily find the right category for their receipt entry. In the background, the entry categories are automatically assigned to the correct key figures for income-related expenses, extraordinary burdens and special expenses. This enables the employee tax assessment to be prepared quickly at the end of the year. In addition, there is a direct, secure connection to the tax administration. In addition, the majority of the required key figures can be determined directly in the app. Users can submit the L1-Light employee tax assessment electronically directly from FinanzOnline. Alternatively, there is also the option of transmitting the key figures determined in FinanzOnline to FinanzOnline in order to complete the employee assessment there.

One-Stop-Shop (OSS)

In July 2021, as part of the implementation of the e-commerce regulations, the existing EU-wide mini one-stop-shop (MOSS) was expanded into a one-stop-shop (OSS). The OSS is an electronic portal that entrepreneurs can use to declare and pay sales tax for certain sales in one place from 1 July 2021. There are three different one-stop-shop schemes within the EU: Other services to non-entrepreneurs, intra-community mail order sales and certain sales of a platform can be declared via the EU-OSS. Both EU entrepreneurs and third-country entrepreneurs can use the Import One-Stop-Shop (IOSS) to declare distant sales of imported goods. Only third-country entrepreneurs can register for the non-EU-OSS (eVAT) in order to declare their value added tax there for services to non-entrepreneurs.

Digital customer traffic via video contact

In recent years, the Federal Ministry of Finance has taken a number of steps to make it easier for citizens to contact the administration. Existing channels were expanded and new ones created. In digital customer traffic, however, the necessary tool was still missing to help citizens fill out forms or use FinanzOnline via video contact. The provision of this important new contact channel started in 2021. Operations will start in 2022.

FinanzOnline App: easy recording of tax-relevant expenses

Land value queries

In accordance with the regulation on determining the determination of the property value, this property value can be determined on the basis of the land value. Since 17 December 2015 there has been a possibility of querying this in FinanzOnline, whereby employees of the financial administration previously had to carry out further processing manually.

The new land value query was therefore put into operation in February 2021: In this new process, the land values, if available in digital form, are now determined directly from the property information system (IT process for the standard valuation) and immediately made available electronically to the party representative in FinanzOnline. This step allows for a much faster completion. Since in some cases the land value was only available on paper, an action to digitalise these values was also carried out.

Federal Ministry
of the Interior

Secure digital

The Federal Ministry of the Interior (BMI) is taking innovative ways to increase security in online training.

E-learning and blended learning

The e-Campus learning platform imparts practice-oriented knowledge to 39,000 employees of the Federal Ministry of the Interior in online training courses. The e-learning centre of the Federal Ministry of the Interior implements the online training technically in such a way that the learners can learn the required knowledge independently of time and place and can also check it independently. Examples of the offer are online training courses on nationwide elections for the people involved in the elections (electoral officers, election assessors), the basic training course "State and Law" for people doing community service or the online training course "Demenz.Aktivgemeinde" to sensitize municipal employees to safe handling with dementia. Other departments also want to use the services of the e-Campus for their own department employees.

CDO
Ing. Mag. Markus Popolari

> **"The projects made possible with the support of the Digitalisation Fund increase internal security and support our executive in their demanding activities."**

Online course for online training courses

Due to the COVID-19 crisis situation, many speakers expressed the wish for help in creating training measures that have to take place online. For this reason, the e-learning center of the Federal Ministry of the Interior 2020/2021 has designed an online course that supports full-time and part-time lecturers in designing training measures in virtual space. In two parts, the online course imparts, among other things, basic knowledge of media didactics and practice-focused impulses for (re)designing digital teaching scenarios. The course ends with a final presentation presented in a webinar.

Electronic documentation and process management

Especially in the area of the state police headquarters, the personnel files are created in paper form and archived in filing folders. Modern and flexible personnel management requires fast, location-independent and up-to-date access to an employee's data and documents as well as fully electronic processing of all personnel-related business cases via standardised workflows. With the introduction of the electronic documentation and process management - eDok/Pro, another important step towards the further development of the Federal Ministry of the Interior as an efficient and productive organisation is taken through the IT-supported optimisation of business processes.

Secure digital identity

On the basis of the E-Government Act, the joint further development of the existing citizen card concept into digital identity management "ID Austria" was continued by Federal Ministry of the Interior and BMDW in 2021 and a secure E-ID system architecture was developed. The system will be extensively tested in a pilot phase to ensure the best quality for the official launch.

With the ID Austria, citizens can prove their identity to digital applications and services. ID Austria is therefore the key to secure digital services. Ensuring data security and the protection of personal data have the highest priority.

The start of the legally planned pilot phase for an official, citizen-friendly registration process took place in January 2021. Citizens can obtain their ID Austria from selected registration authorities or have them issued automatically on a voluntary basis when applying for a new passport and identity card from participating pilot authorities. As of December 2021, more than 400 official registration offices (passport authorities, municipalities, state police departments and representative authorities) were taking part in this pilot operation.

The eIDAS Ordinance creates the legal framework for the mutual recognition of the various electronic identities within the EU member states.

Easier access to justice

The Federal Ministry of Justice (BMJ) expands the digital services of the courts and public prosecutor's offices for citizens and entrepreneurs and creates the basis for stronger networking in Austrian e-government.

CDO
Mag. Martin Hackl, BSc

"Citizen proximity and low-threshold access to justice are demanded by citizens - and promoted by digitalisation. Thanks to the digitalisation fund, we are continuing to expand our digital services."

Automated anonymisation and publication of court decisions

With the help of machine learning, court decisions are anonymised as part of this Europe-wide project, thus enabling publication in the Federal Legal Information System (RIS). This is based on the declared goal of making final decisions of relevance that go beyond the individual case consistently accessible to the public. The AI solution, which has been successively improved over the past two years, takes on the task of preparatory anonymisation of the decisions so that they only have to be subjected to a visual check before publication. Since the higher regional or regional courts do not have the personnel capacities required for manual anonymisation, this opens up a resource-saving way for consistent publication in the RIS - directly from the digitally managed court file - which ultimately contributes significantly to increasing transparency in case law target.
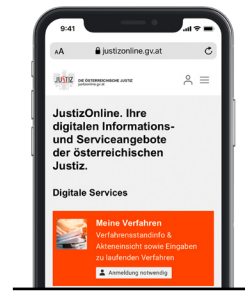
Develop company and land register

With a project funded by the digitalisation fund, the BMJ is creating the basis for even better networking of the company and land register with other e-government services such as the digital office. The aim of the project is the introduction of the area-specific personal identifier (bpk) for personal data in the company and land register as well as subsequent support in the collection and validation of address information and queries in the central population register. The area-specific personal identifiers should also be taken into account in e-delivery.

Expand JustizOnline for entrepreneurs

The goals of this BMJ project are to strength-

en the business service portal (USP) as a central access point for entrepreneurs and to provide entrepreneurs and legal entities with better access to procedures. For this purpose, a SingleSignOn is to be created between the USP and JustizOnline, the digital service platform set up by the courts and public prosecutors in 2020. In addition, authorization and representation access for entrepreneurs in the USP should be administered and used for the services of JustizOnline. In order for entrepreneurs to have direct access to "their" judicial proceedings - with information on the status of proceedings and access to files - a consistent and unambiguous recording of master data in the judicial proceedings must be ensured with the help of the business register.

Federal Ministry
for Climate Protection, Environment, Energy,
Mobility, Innovation and Technology

Moving
the future

With digitalisation projects from
the funds of the digitalisation fund,
the Federal Ministry for Climate
Protection, Environment, Energy,
Mobility, Innovation and Technology
(BMK) enables sustainable innovations
and citizen-oriented further
developments.

CDO
DI Dr. Franz Haider

"The broad and varied tasks of our department are effectively supported by digital solutions. This protects the climate and benefits the citizens."

Use drones safely

In order to enable economically attractive and necessary safety-relevant drone services in Austria, a corresponding airspace management system (Unmanned Traffic Management - UTM) is required. With the "Kolibri" project, Austro Control is developing a first expansion stage on behalf of the BMK. The project deals with the connections between unmanned and manned aviation, with the use of drones in emergency situations, with their use for security and criminal police tasks.

Payment of the climate bonus

In order to be able to process the payment of the climate bonus agreed by the federal government, a corresponding ICT solution is required. It is planned to use the data already available in the administration in order to avoid data being entered multiple times. The data required to calculate the climate bonus comes from different systems and must be compared accordingly. Sources of the data are:

→ Central register of residents in the Federal Ministry of the Interior for data on people and their registration history and data on community numbers and postcodes

→ Data on family allowances in the Federal Ministry of Finance and data on employee assessments for bank accounts

→ Data for parking permits/people with disabilities from the BMSGPK

→ Data on residence status from the Federal Ministry of the Interior

→ Regional classification of Statistics Austria for municipality identifiers and regional classification

→ Data from the pension insurance institutions for further account details

→ The merging of the individual data takes place in compliance with data protection using area-specific personal identifiers (bPK).

51

Digital culture

The Federal Ministry of Art, Culture, Public Service and Sport (BMKOES) uses the support from the Digitalisation Fund for projects that modernise culture and administration in the long term

CDO
Mag. Felix Hauer

"We live in a digital culture that needs active design. We implement digital tools that advance Austria as a cultural country."

Online for grants

In order to further make the funding process digital in the art and culture sector, the BMKOES is implementing the online submission project in the field of art funding.

The aim is a service-oriented, more cost-effective and rapid processing and billing of funding applications. The administrative effort should be reduced. Functions and database interfaces for online submission are being developed together with the nationwide funding management (FMM). The necessary adaptations of the FMM are part of the project.

Web application for impact-oriented impact assessment

With a new web application, the BMKOES makes it easier to deal with the requirements of the "effect-oriented impact assessment" (WFA) for all target groups and in all process steps. The application creates transparency in the WFA process and ensures central coordination and storage. After the successful completion of the first development phase, usability and efficiency are now to be further developed in a user-friendly manner.

Expand electronic education management

Due to the increasing need for training in the federal government and the increased mobility of the workforce (e.g. through home office), a significant expansion of the training and especially the e-learning offers by the federal administration academy is necessary. The existing e-learning platform of the federal government "Electronic Education Management" (E-BM) is to be expanded as part of this project - and subsequently used as a nationwide shared service in all departments.

Electronic delivery in the ESS

On the basis of a feasibility analysis, the BMKOES is pushing the digitalisation of personnel administration. A specific measure is electronic delivery with proof of delivery in matters relating to employment and staff representation law via the Employer Self-Service (ESS) or Service Portal Bund.

For this purpose, the procedural, technical and organistional framework conditions are created in this project and delivery methods are made more flexible. The guarantee of data sovereignty and data security in the federal service as well as medium to long-term cost savings potential (through the reduction of paper, printing and postage costs) are also goals of this project.

Digitalisation for the entire country

In its diverse tasks, the Federal Ministry of Agriculture, Forestry, Regions and Water Management (BMLRT) relies on digital tools and innovations that relieve citizens and entrepreneurs.

45 million

This would relieve almost 70,000 commercial and private accommodation providers, and 45 million guests per year could register online quickly, easily and without waiting.

Digital guest sheet

Every domestic and foreign guest who spends the night in a local accommodation facility must register in accordance with the Registration Act. In many companies, this is still done in paper form, but in the future these reports could be simplified and accelerated by introducing a digital guest sheet. This would relieve almost 70,000 commercial and private accommodation providers, and 45 million guests per year could register online quickly, easily and without waiting. Tourism statistics could also benefit from this system and provide more meaningful data more quickly. A feasibility study financed by the BML for a digital reporting system, financed by the Digitalisation Fund, is examining the basis for the introduction of a digital guest sheet. The study will be an important decision-making basis for the implementation of this complex project, with the involvement of all important stakeholders at federal, state and municipal level.

Best connections for growth and future

An efficient communication infrastructure is one of the most important foundations for successful digitalisation. The aim of the Federal Government is therefore the nationwide supply of fixed and mobile gigabit connections by 2030. The "Broadband Austria 2030 Initiative" also contributes to equal digital opportunities between town and country with targeted funding instruments. Based on the Broadband Strategy 2030, the Federal Ministry of Agriculture, Forestry, Regions and Water Management (BMLRT) has developed appropriate funding instruments. This is intended to promote the nationwide availability of gigabit-capable access networks and the establishment of new, so-called symmetrical gigabit connections, especially for public institutions and entrepreneurs. The first tenders for this started in spring 2022. The initiative is aimed at states, municipalities, public institutions, telecom operators and SMEs. All citizens benefit from the investments made.

The progress and successes of the "Initiative Broadband Austria 2030" can be measured by the number of Austrian households with gigabit-capable fixed network connections and with 5G. The degree of availability with gigabit-capable fixed network connections in Austria is 47 percent and 5G mobile phone availability is 77 percent of households (as of: Q2/2021). In the "Digital Economy and Society Index" (DESI), the initiative is part of the "Connectivity" area.

CDO SC Mag. DI DDr.
Reinhard Mang

"Digitalisation is an important lever for the development of rural regions. Thanks to digitalisation funds, we can do more for the country and the economy."

Digitalisation for agriculture and business

Digitalisation is also opening up new paths into the future for agriculture. Modern technologies promote resource-saving production, the optimal use of operating resources and more animal welfare - and at the same time reduce the workload. With the "Innovation Farm" project, the latest developments are quickly put into practice. Digital technologies, trends and developments in arable farming, grassland and indoor farming are being tested and implemented at locations in Wieselburg, Raumberg-Gumpenstein and Mold, as well as in a further 20 pilot and demonstration farms. Among other things, the use of the free RTK correction service APOS has been accompanied by numerous video contributions since February 2021 and numerous projects are running for site-specific fertilisation, feeding management, wildlife rescue with sensors, animal health or the control of tractor functions. The knowledge generated is quickly put into practice via the integrated training and further education institutions. The "Innovation Farm" is part of the "Digitalisation in Agriculture" cluster, which is supported by the federal government, the provinces and the European Union as part of the rural development program LE 14-20.

innovationfarm.at

Federal Ministry
of Defense

Build on security

The Federal Ministry of Defense (BMLV) takes measures for digital transformation in the core military area and also implements a wide variety of digital projects that are also of great importance for the civilian area.

**CDO GenMjr
Ing. Mag. Hermann Kaponig**

"With digital applications, we not only improve Austria's security, but also specific processes and procedures for safe climate protection."

"Digital twin" for building automation

In cooperation with the building technology and building automation industry, the BMLV is breaking new ground in implementing the Green Deal in building operation: A "digital twin of building automation" was developed, which is to be made available to the entire industry free of charge as part of the BMDW's standardised building services specifications. In 2021, a GA library (GA function list, automation schemes, automation description) of the most important units and systems was created as a basis for using economies of scale. This will create significant benefits for the national building automation industry.

IFC round trip with plan graphics

With the support of the digitalisation fund, the BMLV, together with the President of the ÖIAV, Building Smart Austria, the Karlsruhe Institute of Technology, the Vienna University of Technology and well-known software providers, have further developed Industry Foundation Classes (IFC) for the interoperable exchange of digital building models (BIM). This makes it possible for those involved to exchange and adapt BIM models between different software solutions and to automatically derive the necessary plan graphics.

Smart Waste - less waste

By using the Internet of Things, the energy-efficient radio network Long Range Wide Area Network (LoRaWAN) and taking into account the lifecycle from the purchase of food to the disposal of waste, the BMLV project "Smart Waste" is intended to achieve considerable economic savings together with the economy and the EU targets for reducing food waste by 50 % by 2023 are implemented. In cooperation with the waste disposal industry, the project is also being evaluated as a control instrument for other waste fractions.

Digitalisation of community catering

With the use of the data exchange model of ÖNORM A 2063-1 and -2, the processes of procuring food and processing it with large kitchen appliances can be standardised, unified and automated. The BMLV is pursuing this concern with the "Digitalized community catering" project. Quality improvements mean that cook&chill dishes can be used longer in the finalising kitchens, which offers considerable economic advantages. The standardisation can also support the staff on site and counteract the shortage of employees.

IT trends in the reality check

An analysis by Gartner's IT specialists shows that Austria is already aware of important technology trends in the e-government sector implemented successfully.

Since 1995, Gartner's "Hype Cycles" have provided assessments of the maturity and progress of innovations. On behalf of the BMDW, Gartner developed the "Hype Cycle for Digital Government Technology" in 2021. Current e-government trends were analysed in order to provide an overview of the status quo and the further development of (new) technologies. The focus of the analysis is on citizen-oriented and user-centric administration services. The research results and evaluations of the trends by Gartner are used by the BMDW for the further development of digital strategies.

EXPECTATIONS

PLATEAU WILL BE REACHED
○ < 2 YEARS
● 2-5 YEARS
● 5-10 YEARS

DGTP – Government Platforms
Citizen Engagement Hub
Data Exchange
Smart Workspaces
Human Centered AI
Natural Language Processing
Digital Twins of Government
Document-Centric Identity Proofing in Government
Event Stream Processing
Chatbots
Health Pass

INNOVATION TRIGGER

PEAK OF INFLATED EXPECTIAONS

TROUGH OF DISILLUSIONMENT

SLOPE OF ENLIGHTENMENT

PLATEAU OF PRODUCTIVITY

TIME

TREND "Digital Twins of Government": Digital official channels

"Digital Twins of Government" are digital solutions for administrative systems that focus on automated processes. In this way, services or official channels can be used, among other things. can also be carried out from home with the Digital Office, the corporate service portal, oesterreich.gv.at, FinanzOnline orJustizOnline.

INNOVATION TRIGGER

PLATEAU WILL BE REACHED ● 5-10 YEARS

TREND "Government Platforms": e-government platforms as a sign of digital transformation

The interaction between citizens or entrepreneurs and the administration is becoming easier, faster and better through digital offers. Portals such as the Digital Office, USP, FinanzOnline and Co. continue to drive digitalisation and user-oriented administration services.

PEAK OF INFLATED EXPECTIAONS

PLATEAU WILL BE REACHED ○ 2-5 YEARS

Trends are already being lived

Gartner research shows: The identified technological trends are already being implemented in practice.
The most important trends and concrete implementation measures at a glance:

59

TREND Health Pass: Digital Health Records

With the "Health Pass" health information is made available digitally and can thus be called up quickly. The electronic health record (ELGA), for example, enables electronic networking of patient health data. As part of the COVID-19 pandemic, the Green Pass was developed in order to be able to take efficient opening steps with the help of controls.

INNOVATION TRIGGER

PLATEAU WILL BE REACHED ○ < 2 YEARS

TREND "Human Centred AI": Human-centric Artificial Intelligence

The Austrian federal government has developed an AI strategy entitled "Artificial Intelligence Mission Austria 2030 (AIM AT 2030)" to identify the opportunities and risks of AI applications. The focus is on safety and the benefits for people. As part of a pilot project in the business service portal (USP), entrepreneurs are offered suitable funding with the help of AI.

INNOVATION TRIGGER

PLATEAU WILL BE REACHED ○ 2-5 YEARS

TREND "Citizen Engagement Hub": Proactive and reactive (citizen) communication

Communication with citizens is improved and more accessible with the help of digital solutions. For example, the "Sag's Wien" app can be used to report concerns, danger spots or disruptions easily and directly to the Vienna city administration via smartphone.

PEAK OF INFLATED EXPECTIAONS   PLATEAU WILL BE REACHED   ◯ 2-5 YEARS

TREND "Smart Workspaces": Federal digital administration

"Smart workspaces" use the possibilities of digitalisation and offer new, digital ways for work and cooperation, planning and information exchange. The electronic file in the federal government (ELAK) has been in operation since 2004 as the central e-government system of the Austrian federal administration for workflow and document management in federal ministries, supreme bodies, courts of justice, outsourced legal entities and subordinate federal agencies.

PEAK OF INFLATED EXPECTIAONS   PLATEAU WILL BE REACHED   ● 5-10 YEARS

TREND "Data Exchange": Intelligent data access and exchange

In compliance with data protection regulations, required data that has already been transmitted to an administrative organisation is used across authorities.

- **Once-Only:** By implementing this principle, company-related data only has to be reported once to the administration.
- **SDG (Single Digital Gateway):** Digital public services and information should be made accessible and usable across all EU member states.
- **GAIA-X:** With the GAIA-X initiative, a common European data space is being promoted.

PEAK OF INFLATED EXPECTIAONS   PLATEAU WILL BE REACHED   ● 5-10 YEARS

TREND "Document Centric Identity Proofing": Secure identity verification thanks to automated data analysis

With "Document Centric Identity Proofing" (DCIP), a person's identity can be checked digitally, using an ID card and comparison via photo or video. This creates security and saves official channels. Thanks to DCIP, it was possible to guarantee certainty in the assignment of test results, for example as part of the "COVID living room and throat tests".

SLOPE OF ENLIGHTENMENT   PLATEAU WILL BE REACHED   ◯ 2-5 YEARS

TREND "Natural Language Processing": Quick responses from chatbots

With the "processing of natural language", computers are enabled with the help of artificial intelligence to understand human language. "Natural Language Processing" in the form of "chatbots" is currently in use on some public administration websites: MONA on the Business Service Portal website, JUSTITIA on JustizOnline and FRED on FinanzOnline. These digital assistants offer citizens quick help with standard inquiries and at the same time actively relieve the helpdesk employees.

| TROUGH OF DISILLUSIONMENT | PLATEAU WILL BE REACHED | ● 5-10 YEARS |

TREND "Event Stream Processing": Fast reactions thanks to automated data analysis

With "Event Stream Processing" incoming data is analyzed as soon as it reaches the server. Fast processing enables actions to be taken, such as sending out warnings. Thanks to the "Event Stream Processing", e.g. in the case of COVID contact tracing, those affected can be informed quickly.
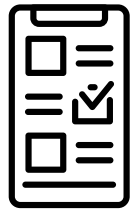
| SLOPE OF ENLIGHTENMENT | PLATEAU WILL BE REACHED | ◯ 2-5 YEARS |

Successful further development

The demands on government action have increased during the pandemic: From now on, both entrepreneurs and citizens expect simple and time-saving online administration services. According to the analysis by Gartner, user-oriented trends, which are already largely practiced in domestic e-government, gained importance as a result of the pandemic. These include the internationally awarded portals oesterreich.gv.at, USP and the Digital Office (trends "Digital Twins of Government" and "Government Platforms"), especially in the area of citizen-oriented e-government services, but also, for example, the consistent implementation of the Once Only principles (trends "Health Pass", "Data Exchange" and "Smart Workspaces"). With ID Austria and other user-oriented services, other key technologies and trends are also in the pilot and implementation phase.

Digital lighthouse projects of the provinces

VORARLBERG

Forward together

Based on a holistic network strategy, Vorarlberg implements future oriented projects for education and administration.

- Test and vaccination platform
- vConnect - intranet and collaboration platform

TYROL

Digital Offensive

Tirol has a strong starting base not only for digital infra structures, but also for e gov ernment and digital services - and implements innovative digital projects.

- Service platform Tyrol SEPL
- Tyrolean school network TSN
- State of Tyrol App

SALZBURG

Digital Festival

Social affairs, education, tourism, economy, environmental protec tion: The state of Salzburg is implementing digital lighthouse projects in many areas.

- Digitalisation of social information system
- Holistic IT services for state schools
- Digital state tax office
- Digital processing of official procedures

State Office Director
Philipp Abbrederis

State Office Director
Herbert Forster

State Office Director
Sebastian Huber
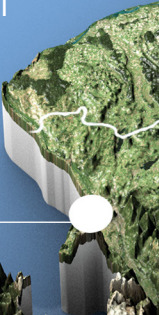
UPPER AUSTRIA

New paths through digital transformation

Upper Austria relies on in novative strength and coop eration for digital solutions for more citizen proximity and relief.

- Digital transformation of environmental impact assessment and plant law procedures

CARINTHIA

Digital Services and Initiatives

Carinthia has achieved a lot with its range of digital services relat ed to official channels. The digital transformation of the administra tion is strategically controlled.

- E Government
- 5G Playground
- Industry 4.0 initiative
- Digitalisation Offensive
- Ideen4Kärnten
- Digital infrastructure Görtschitztal

LOWER AUSTRIA

# Digital transforma-tion for country & People use

Lower Austria is pushing the digital transformation on the basis of its own digitalisation strategy, which is based on the diverse economic, struc tural and geographical conditions of the country.

- House of Digitalisation
- Inspection app water supervision
- Drone use in Lower Austria road service

State Office Director
Erich Watzl

State Office Director
Dieter Platzer

State Office Director
Werner Trock
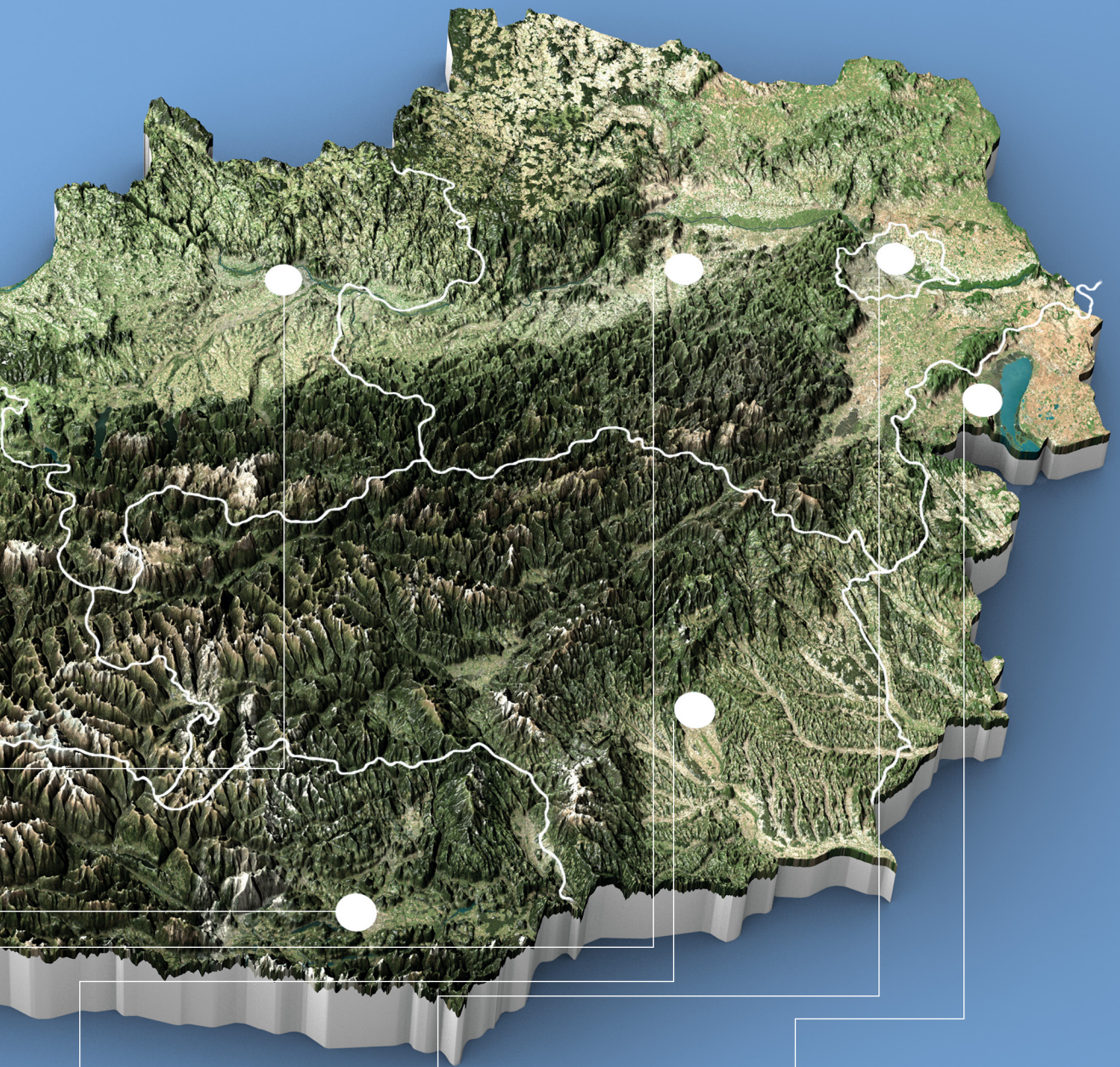
STYRIA

Expansion of infrastructure & applications

Styria is pushing broadband expansion and successfully used digital solutions in the fight against Corona in the reporting period.

- Connect cooperation project
- Platform for corona protection vaccinations
- Digitalisation of procedures in accordance with the Epidemics Act

State Office Director
Brigitte Scherz Schaar

VIENNA

Digital quality of life

The City of Vienna uses the new digital possibilities to make everyday life easier for the population.

- Schule Digital
- mein.wien
- BRISE Vienna

Municipal Director
Erich Hechtner

BURGENLAND

More effectiveness and efficiency

Numerous digitalisation projects are being implemented in the state administration and in the Burgenland state holding company, which will result in more effectiveness and efficiency.

- Burgenland provincial administration: Optimal processes up to municipalities
- Provincial holding / Energy Burgenland: Digital and climate neutral

State Office Director
Ronald Reiter

BETTER TOGETHER

IT country cooperation as key for eGovernment standard

As part of the Digital Austria platform, the IT experts of the provinces meet regularly in the form of the "IT state working group".
As a result, numerous trend-setting cooperation projects could be implemented.

The IT managers and those responsible for e-government from the provinces meet around six times a year as part of the IT federal state working group. The chairmanship lies alternately with Tyrol and Vienna. Through the participation of the Association of Austrian Local Authorities, the views of those authorities who are closest to citizens are also included in the expert discussions. In addition, the committee meets once a year at an ICT expert conference. Selected state representatives also take part in federal working groups - the information about this is in turn bundled in the state working group. The focus of this institutionalized cooperation is the exchange on current topics and challenges as well as the evaluation of cooperation.

Building blocks of the cooperation

The cooperation model for creating shared IT solutions has been standardised over the years. It includes the following building blocks:

→ During technical implementation, compliance with the e-government standards that have been in force since 2004 or the 2018 amendment must always be ensured. These standards ensure that e-government services from Lake Neusiedl to Lake Constance are designed to be uniform, barrier-free and secure for every citizen and that this recognition effect results in the highest possible level of acceptance.

The standards also affect the processors of the applications and the standardisation of official processes. In doing so, they nevertheless take into account the organisational sovereignty of the regional authorities concerned. These e-government standards are therefore both the backbone for modern administration and a stable foundation for all new and innovative digitalisation projects based on them.

→ A proven committee structure is used for cooperations: on the one hand in the form of a specialist committee made up of experts on the respective topic from the federal and state governments, on the other hand in the form of a management committee in which the IT managers and representatives of the federal government advise on the strategic and budgetary level.

→ In principle, the population key is decisive for the financing of cooperation projects and the resulting operation of the applications, whereby the cost sharing depends on the number of cooperating administrative units - this constellation is subject-/project-specific.

Selected projects at a glance

Based on these framework conditions, the co-operation project portfolio now includes 33 topics - some of them in bilateral cooperation between individual states, others as broad-based cooperation between the states and federal departments.

Cooperation projects of all provinces with the federal government are:

→ PORTAL FEDERATION - Standards for accessing inter-agency web applications and managing the associated rights

→ GISA – the business information system Austria

→ BASEMAP - the uniform administrative map for Austria

→ DATA.GV.AT - the Austria-wide open data plat-form

→ AnNa – the processing platform of procedures based on the Settlement and Residence Act

Selected states cooperate with the federal government in the following projects:

→ VSTV – the system for handling administrative penal proceedings

→ CLOUDSTORAGE – the system for connecting cloud storage

→ LIFERAY – the Viennese collaboration platform - also serves as a reference server for the federal-state cooperation

Project cooperation of all countries takes place for:

→ GEOLAND.AT – the cooperation of the GIS experts of the provinces

→ GIP.GV.AT – the cooperation for the uniform street graph

→ SERVICES DIRECTIVE – Portal for points of single contact based on the EU Services Directive

→ FGS – the vehicle authorisation system

Other cooperation projects of individual countries are:

→ GEMFIN – the community finance system

→ GDPR – Directory of data processing activities

→ ELEFANT – contact tracing of reportable diseases

Cooperation ensures effectiveness and efficiency

De facto standards have already been created as a result of some of the cooperation projects listed as examples. For example, the open data platform data.gv.at, which was launched in 2012, developed into a publication platform for public tenders in 2018, which was also anchored in the BVerG. With the Public Sector Information Directive of the EU, the portal is to be used for the publication of high-quality data sets and in future also for the implementation of the Freedom of Information Act - an example of effectiveness and efficiency in the field of public ICT, which only became possible through broad-based cooperation.

The experiences of the corona pandemic in particular show that this cooperation and, in particular, established coordination mechanisms are indispensable in order to be able to develop IT solutions together on a cross-border basis in addition to a uniform technical basis. The issues for the IT departments of the provinces are as diverse as the challenges facing public administration. In view of the dynamics of digitalisation, which is increasingly leading to new requirements for operational and strategic excellence - i.e. an economical and secure basic operation with simultaneous flexibility and openness to new technological possibilities - cooperation will continue to be the key to stable further development in the future of e-government in Austria.

BURGEN
LAND

More effectiveness and efficiency

**Landesamtsdirektor
Mag. Ronald Reiter, MA**

Numerous digitalisation projects are being implemented in the state administration and in the Burgenland state holding company, which will result in more effectiveness and efficiency.

Burgenland has started a series of projects in the field of digitalisation on the basis of the future plan Burgenland 2020-2025. Numerous measures are implemented both in the state administration and in Burgenland in order to optimise processes and to support them as best as possible with modern ICT technologies. The following two lighthouse projects show what is being implemented.

Burgenland provincial administration: Optimal processes up to municipalities

Projects and working groups to optimise the processes of the state administration were already started in 2020. The focus was on two aspects: To consider the official business holistically - and to identify the optimal process support through information and communication technologies. The TARGET process modeling and the introduction of a new ELAK (working title B.EL@K) and a tax system are currently underway. The aim is to optimise processes in all areas of administration. These measures are accompanied by active technology management and IT governance. Processes are considered across all authorities, right down to the Burgenland municipalities. The best possible ICT technology is identified in order to be able to achieve the best possible economies of scale in the long term by consolidating the ICT landscape. The First Burgenland Data Centre (EBRZ) acts as a "hub" for technology provision, networking and as a data hub for its owners as well as for state-related companies and municipalities.

Provincial holding / Energy Burgenland: Digital and climate neutral

With Energie Burgenland Green Technology GmbH (EBGT), a company was founded in 2021 as a subsidiary of Energie Burgenland AG to promote the expansion and supply of broadband internet and telecommunications services in Burgenland. With innovative and sustainable digital solutions and ensuring the necessary broadband infrastructure, the EBGT makes a significant contribution to the vision of making Burgenland the world's first climate-neutral region.

At the end of 2021, a "digitalisation master plan" was drawn up based on the strategy of Energie Burgenland. It includes, among the others,

→ the development of innovative, digital products and services for private customers, entrepreneurs and municipalities

→ the digital platform "www.weiterdenker.at" for exchange on the topic of climate neutrality and sustainability

→ the control of selected, innovative digitalisation projects of Energie Burgenland

→ the coordination of further broadband expansion in order to provide every household in Burgenland with "high-speed broadband" by 2030.

The first measures have already been started. They deal e.g. with the development of products for the use of sensors and IoT services.

CARINTHIA

Digital Services and Initiatives

Carinthia has achieved a lot with its range of digital services related to official channels. The digital transformation of the administration is strategically controlled.

State Office Director
Mag. Dr. Dieter Platzer, MAS

Carinthia bases its digital transformation projects on the fields of action of the digital action plan (economy; digital state; education, Research & Innovation; health; security and infrastructure). Numerous lighthouse projects are implemented on this basis.

E-Government

The digitalisation of the Carinthian administration is understood as a cultural, organisational transformation process. By anchoring these tasks in the form of a Chief Digital Officer and setting up an internal digitalisation task force, appropriate framework conditions are created to ensure a continuous, coordinated implementation process and a high degree of acceptance in the administration. Carinthia has already achieved a lot in terms of digital services (digital official channels, applications for funding, service for submissions from entrepreneurs, etc.). More than 400 benefits, forms and services are currently offered on the Internet and more than 80,000 applications are submitted digitally each year.

5G Playground

The 5G Playground (Lakeside Park Klagenfurt) is the most modern 5G test laboratory for research and development of 5G applications, products, processes and applications in Austria. It was created as an initiative of the Carinthian company settlement and participation association together with A1.

Industry 4.0 initiative

In order to better bundle the strategic activities in the area of Industry 4.0, the Carinthian Business Settlement and Participation Association (BABEG) launched the Industry 4.0 initiative.

The goals are networking of key players, raising awareness in business and initiating cooperation between science and business.

"Digitalisation Offensive"

In 2021, the Carinthian Economic Development Fund (KWF) funded micro and small entrepreneurs that have used the opportunities of digitalisation to master the challenges of the COVID-19 crisis and to be better equipped for a digitalised future overall.

Ideen4Kärnten

Ideen4Kärnten is an open innovation platform in Carinthia that invites citizens as well as the regional economy to get involved creatively in designing their own living space.

Establishment of a fibre-optic based digital infrastructure in the greater region of Görtschitztal

The BIK Broadband Initiative Kärnten GmbH (BIK) as a 100 % subsidiary of the state of Carinthia relies on a supply-oriented fiber-optic broadband expansion in Carinthia. As a Carinthian pilot, an FTTH infrastructure project with an investment volume of around EUR 40 million is being implemented in the greater Görtschitztal region, consisting of nine rural municipalities, which will enable around 13,000 usage units to be connected to fiber-optic Internet.

LOWER AUSTRIA

Use digital change for country and people

Lower Austria is pushing the digital transformation on the basis of its own digitalisation strategy, which is based on the diverse economic, structural and geographical conditions of the country.

State Office Director
Dr. Werner Trock

Basic goals of the Lower Austrian digitalisation strategy (www.noe-digital.at) are to secure and expand jobs, strengthen rural regions and improve the quality of life of the population. In order to achieve these digitalisation goals, it is important to make the population, entrepreneurs and the public sector fit for the future and to expand the necessary infrastructure across the board so that digital innovations and solutions can be used and promoted. The departments of the Lower Austrian state administration deal with new technology trends as part of trend management with university support in order to identify the resulting opportunities for the state administration at an early stage. Current lighthouse projects (see also www.noe.gv.at/noe/Digitalisierung/digi-report.html) document the implementation as an example.

House of Digitalisation

Lower Austria is implementing a whole bundle of measures to accelerate the digital transformation of the domestic economy and to support entrepreneurs on their way. The real "House of Digitalisation" is the last piece of the puzzle in this process. An architectural highlight is being created on the Tulln campus on a total area of 4,200 m². The building will have a showroom and event area, an area for the Wiener Neustadt University of Applied Sciences, a restaurant area, incubator areas and much more. In addition to the Wiener Neustadt University of Applied Sciences, the "House of Digitalisation" will primarily be rented to service institutions that can support and advise SMEs in their transformation towards digitalisation.

Inspection app water supervision

It is legally required to inspect all stretches of water and all facilities approved under water law on site and to document the survey results in a comprehensible manner. Based on the noegismobile/geoinformation micro apps, a mobile control program for systematic water inspection was developed by the State Office Information Technology. The aim is, among other things, to document the times of inspection, to identify defects and to initiate measures to remedy the defects. In the future, the data collected as part of the water body inspections will be continuously synchronized with the data from the Lower Austria Water Information System (WIS). Cartographic background data required for the inspections are provided in the app from the NÖGIS basic database.

Drone use in Lower Austria road service

Drones represent an extremely efficient alternative for carrying out various activities in road construction and maintenance. Before drones are used in road service areas, they are first tested in pilot projects. Use cases such as bridge inspection, construction progress documentation and drone-based billing of construction projects are currently in the evaluation phase. If it turns out after the test phase that the application offers advantages over conventional implementation, such as increased security, increased efficiency or cost savings, it is implemented in regular operation. The advantages of using drones have already been used in the areas of terrain surveying, evaluation and documentation of damage after storm events and the inspection of rock slopes.

UPPER
AUSTRIA

New paths through digital transformation

Upper Austria relies on innovative strength and cooperation for digital solutions for more citizen proximity and relief.

**State Office Director
Dr. Eric Watzl**

Upper Austria sees the digital transformation as a decisive success factor for modern administration and the constant further development of the organisation towards more citizen centring and internal relief in standardised work processes. In addition to the ongoing implementation of projects in the areas of business, culture and youth, the state also strives for organizational conditions that increase the speed of innovation in particular. For this reason, Upper Austria will establish a staff unit for digital transformation and innovation from 2022. Here new things should be tried out in an agile way and prototyped and implemented in cooperation with the specialist departments and the IT department. Against the background of joint projects and a bidirectional exchange, strengthening the innovation network with universities and colleges, non-university research institutions and entrepreneurs is an important building block for effective innovation screening and subsequently for a higher implementation speed. "In order for this ambitious further development to be successful, we place a great deal of focus on internal and external communication. We can turn the digital transformation in general and in public administration in particular into a success story of sustainable and resilient democracies through a common (target) image, the commitment of our employees and close cooperation with federal institutions and stakeholders," explains State Office Director Erich Watzl.

Lighthouse project for digital processes

An important lighthouse project is the digital transformation of environmental impact assessment and plant law procedures. Since 2018, the UVP-G 2000 has been the first Federal Law to prescribe primarily electronic submission. A project was therefore set up to develop a continuous electronic process flow in which all internal and external stakeholders are involved. The concrete implementation of the project started in December 2021, which fully takes into account both state and federal requirements for digitalisation. The central element is a platform (EPA-OÖ) that offers all the necessary functions for filing and handling the procedure. EPA-OÖ is a secure digital space in which application and project documents from federal and state legal material are stored in a structured form (e.g. data, documents, plans), processed in the process and made available for project edition or file inspection will. The platform integrates all stakeholders of a process digitally and in compliance with the law and offers functionalities for a consistent, media-break-free and comprehensible processing. EPA-OÖ generates a structured, digital procedural result (notification), which in turn can be the basis for further applications. The combination of proven in-house developments and new technologies brings significant advantages for the integrated cooperation between authorities and entrepreneurs and should make the country more attractive as a business location.

Digital municipalities as pioneers

Austria's municipalities successfully combine citizen proximity with digital transformation. Their innovative strength is particularly important when it comes to smart, digital and citizen-oriented solutions.

The following also applies to Austria's municipalities: There is a time before and a time after the Corona crisis. "We are seeing a clear boost in digitalisation because during the crisis more people than before had to work from home and more was processed digitally than before," reports Alfred Riedl, President of the Association of Municipalities. However, the digital network has reached its limits in many places. The rapid expansion of a nationwide fiber optic network is now finally at the top of the political agenda, to the delight of the Association of Municipalities.

Role models and pioneers

The municipalities themselves are always pioneers when it comes to smart and digital solutions. From the digital access system for waste collection centers or the digital construction file to intelligent street lamps, the Austrian municipalities are showing how digitalisation options can be implemented. They have an important role model and pioneering function on these topics by implementing new ideas together with local residents so that they remain attractive and livable municipalities. Riedl: „It is obvious that: in order for digitalisation to succeed, we have to take people with us. If you want to shape the future, you need the municipalities."

Economic and social innovation space

The Austrian Association of Municipalities therefore wants to focus on the numerous innovative solutions of the municipalities and thus also show that the municipalities are the ideal breeding ground for innovative projects and courageous steps forward. Rural areas in particular, as areas of economic and social innovation, are an important pillar for the sustainable further development of the regions. New ideas and innovations have always been tried out at the municipal level - on a small scale. In the municipalities outside the urban centers, the digitalisation push is also giving rise to new creative approaches, such as village office solutions, which in turn can bring new life to the village centre. In the "laboratory situation" in the village, a lot of new things can always be tried out in a small space and made tangible and understandable for the citizens. "This local innovative strength, combined with the creative ideas of people in the city or in the countryside, creates new solutions that will make all of our lives better tomorrow," summarises Riedl.

Digital service innovation

For example, the municipality of Kremsmünster in Upper Austria, headed by Reinhard Haider, has been a pioneer in e-government for many years. Among other things, the municipality stands out with its innovative digital language assistant, the digital official board and the digital consultation hours. Kremsmünster is the first Austrian municipality to test a new citizen service, in which questions are answered verbally by Alexa in connection with the Echo input system, regardless of opening times. It is planned that Alexa will be available around the clock for information at the town hall entrance. The municipality is also using digitalisation to stream the municipal council meetings live on the Internet for those who are interested, and then post the video on the web for viewing. A low-budget production with three camera positions (speaker, forum, presentation) produces a high-quality result.

The first "Smart Villages" are located in Styria, namely Feldkirchen and Riegersburg. In a "smart" community, the activities of the population, business and administration interlock with the help of modern information and communication technology in such a way that the loss of resources such as energy and raw materials, but also of money and health of the residents is as small as possible . For example, the garbage truck indicates mis-throws, sensors in the road surface warn of black ice and clearing vehicles themselves track where in the city area they have already been cleared and where an action is still needed.

Digital construction act

Siegendorf in Burgenland and Gampern in Upper Austria rely on the digital construction act. Building applications and building files are recorded digitally. This allows Gampern to search digitally over 2,500 documents on construction projects in the entire municipal area from the last 70 years.

Smart street lights

In practice, you can already marvel at the "Smart Street" in some places. The concept of "thinking" street lamps is being piloted in the municipalities of Ebreichsdorf and Melk in the Baden district. Each lantern offers various functions: Display of defects, optimisation of lighting dimming times, notification of free parking spaces, video surveillance with police connection and much more.

"These and other examples show how important pioneering work at the municipal level is," sums up the President of the Association of Austrian Local Authorities, Alfred Riedl. The Association of Austrian Local Authorities therefore repeatedly brings best practice examples to the fore – for example in the KOMMUNAL magazine, on the platform kommunal-net.at or by supporting the IMPULS Award.

**Mag. Alfred Riedl,
President of the Austrian
Association of Towns**

Close to the people and innovative

Especially in times of crisis, it becomes clear how important the municipalities are in people's everyday lives. The 2,093 mayors were and are particularly challenged as crisis managers on site in their municipalities. Municipal representatives also take on important tasks for other political levels in direct communication. In the digital transformation of Austria, the municipalities play an important role as citizen-oriented innovation spaces. They show in concrete terms what digitalisation, understood correctly, makes better and more efficient for all of us.

**Austrian Association
of Cities**

Digital proof of income from the provincial capital of Graz

For the Austrian Association of Cities, networking with the federal and state governments in the area of digitalisation plays a crucial role: After all, the federal government offers numerous shared services that not only enable digital public administration, but also make it more efficient and cost-effective. Austria's towns and municipalities have in some cases also provided impetus. The digital proof of income of the provincial capital Graz is such a lighthouse project:

**Österreichischer
Städtebund**

Automated digital proof of income for funding applications from the city of Graz

Many public bodies in Austria offer subsidies and transfer payments that are income-related. Only people up to a defined income limit are entitled to such benefits. In practice, such services pose a challenge in the handling of e-government processes. The submission of proof of income is often extensive and is not always suitable for a document upload. As a result, citizens avoid the online official channels and have to go back to the office and also have to use the service points of the tax offices.

The provincial capital Graz has started a pilot project for this problem in cooperation with the Federal Ministry of Finance, BMDW and BRZ. The income data is transmitted by the funding agency via the standard interface of the register & system network to the IT specialist application of the city of Graz. In this case, the transparency database acts as the data source or data provider. The income-dependent contributions for kindergartens were selected as the first use case in Graz. The basic principle is scalable throughout Austria for all income-related benefits, such as council housing,

social assistance, child care allowance. The benefit to citizens is that funding can be submitted 24/7 entirely online. The organisational benefit lies in the fact that personnel-intensive front office consultations can be replaced. And the service points of the tax offices are also relieved. Because there are no customer contacts because of the printout of annual wage slips or income statements, which were previously presented to funding agencies.

Once-only principle as a role model

The use of the register and system network (RSV) is also scalable in terms of content. This means that not only the digital proof of income, but also countless other proofs such as residence permits, confirmation of registration, proof of citizenship, certificate of criminal record can be optimized by accessing the authority/office to the new RSV standard interface of the federal government. Wherever the federal government has standardized information, the RSV service offers a new and comprehensive role model for the use of registers that are available nationwide. True to the motto: data should run and not citizens!

Secretary General Dr. Thomas Weninger: "Digitalisation opens up enormous possibilities for the future of our cities. Technology should serve people and not the other way around."

Smart cities – what else!

Cities and municipalities represent the most direct interface between the state and its citizens and entrepreneurs. So it is by no means surprising that the widest range of official, but also private-sector services is available at this level - the ideal breeding ground for a digital transformation! "Smart Cities" are on everyone's lips, ranging from digital administrative processes to electronic citizen participation to intelligent water metres.

As a municipal interest group, the Austrian Association of Cities not only supports its members in the diverse strategic issues of digitalisation, but also actively and centrally provides them with digital services.

A question of ethics - digital compliance in local government

The fact that compliance is an extremely important voluntary commitment for local government is also shown by the many years of intensive debate on the subject. The success story began with an e-learning course on the municipal code of conduct, with which the Austrian municipalities have taken on a pioneering role and which, thanks to the high quality of its preparation, was even used as a template for the federal online code of conduct. The digital learning platform "Städtebund Academy" now has around 15,000 registered course participants from the member cities and offers a wide range of teaching content.

Dr. Michael Ludwig,
President of the Austrian Association of Towns
and Mayor of Vienna

"Digitalisation has become an integral part of our lives, regardless of whether we use our mobile phones, answer e-mails and messenger messages or book an entry to the bathroom or a museum online; digital development is progressing.

However, it is important to me that the focus is on the benefits for people and that everyone is offered the same opportunities and the same access to the services. This is especially important in the cities, so that all citizens can use the local offers.

It is also important to provide sufficient funds for research and development and subsequently for the implementation of new digital projects. Because digitalisation should also be sustainable!"

SALZBURG

Digital Festival

Social affairs, education, tourism, economy, environmental protection: Salzburg is implementing digital lighthouse projects in many areas.

State Office Director
DDr. Sebastian Huber, MBA

Digital state tax office

Salzburg has designed and implemented a holistic digital processing of the tourist tax. It includes the digital tax return via the business service portal (also possible via tax consultants as a representative) and a consistently digital processing of the process with the integration of central registers, "electronic legal transactions" and the control of payment flows.

Digitalisation of social information system

In Salzburg, all processing in the social area (youth welfare, assistance for the disabled, social support, social services, psychosocial service, social assistance) is implemented digitally. Correspondence and application are all handled digitally. This also includes "electronic legal transactions". In addition to citizens, external social institutions are also digitally integrated.

Holistic IT services for state schools

State IT is currently converting all decentrally self-administered state vocational schools and agricultural technical schools to standardized, centralised IT operations. A uniform, digital service platform is provided for all schools. In addition, all IT components are consolidated. The school administration area, the teachers and the students have a modern, flexibly usable IT environment at their disposal, which includes cloud services or notebook equipment with home office access.

Digital processing of official procedures

A cross-departmental concept for a standardised, digital processing of different procedures (according to the Austrian General Administrative Procedures Act) was developed for the areas of water, nature and environmental protection, agriculture and forestry, regional planning and transport. The "DIVAS" project aims to increase the service orientation towards citizens and other customer groups and make internal processes more efficient. For this purpose, an overall IT infrastructure is verified and set up. Essential digital building blocks are:

→ Portals for citizens, business (USP) and municipalities.

→ Intelligent archive system

→ Development platform for rapid digital implementation of processes (workflow component) with standardised integration into central registers and applications

Expansion of infrastructure and applications

Styria is pushing broadband expansion and successfully used digital solutions in the fight against Corona in the reporting period.

**State Office Director
Mag. Brigitte Scherz-Schaar**

Digitalisation now affects almost all areas of life and, as a cross-cutting issue, naturally also demands public administration. "However, digitalisation must not be an end in itself, but must bring benefits for the population and the location of Styria, in short for the state of Styria. In addition to the appropriate framework conditions and funding, this also requires a state administration that meets the requirements," says State Office Director Brigitte Scherz-Schar. One of the indispensable framework conditions is the broadband expansion in Styria, which is also supported by the state-owned Styrian broadband and digitalisation infrastructure company (SBIDI). Funding, such as an SME digitalisation offensive, prioritisation in the R&D area and qualification measures by a digitalisation foundation are intended to provide additional support in a targeted manner.

Focus on fighting pandemic

In 2021, the projects within the framework of the state administration were shaped by the challenges of the pandemic. The switch to home office in the first lockdown went smoothly. Within a few days, more than 3,000 employees with secure remote access were able to access the state data network to carry out their tasks. The majority of the development resources went into the provision of digital services for isolation procedures in accordance with the Epidemic Act (ELEFANT) and into the development of a tool for corona protection vaccinations (HIPPO).

Connect cooperation project – broadband expansion market community of Übelbach

The project is exemplary for many projects initiated on the basis of the Styrian broadband master plan. Here, as part of a cooperation between the market town of Übelbach, the Styrian broadband and digitalisation infrastructure company (SBIDI) and Energie Steiermark, 12 small and medium-sized companies as well as the local elementary school and kindergarten can be supplied with fibre optics in the center of Übelbach.

Corona Vaccination Platform (HIPPO)

An online platform was set up through which Styrians can register for a vaccination and were ranked according to the federal guidelines for vaccination. Appointments were also made via the platform. In addition, the available vaccine was distributed regionally to vaccination routes and resident doctors via the platform. By the end of 2021, over 800,000 vaccination registrations were processed via the platform and 830 resident doctors were included.

Digitalisation of the procedures according to the Epidemic Act (ELEFANT)

With this application, the decision-based separation of suspected cases, cases of infection and contact persons as well as the cancellation was continuously digitalised (from the call to 1450 to the delivery of the decision) and connected to the electronic file (ELAK). Around 450,000 notifications were issued via ELEFANT/ELAK by the end of 2021.

TYROL

Digital Offensive

Tirol has a strong starting base not only for digital infrastructures, but also for e-government and digital services - and implements innovative digital projects.

**State Office Director
Dr. Herbert Forster**

In 2018, Tyrol launched the "Tyrolean Digitalisation Offensive". The state offers various funding instruments to support the digital transformation in the Tyrolean economy. As part of the digitalisation funding, 168 projects with a funding amount of EUR 9.2 million were approved in 2021. With the broadband master plan, the state of Tyrol has taken on an active role in the expansion of broadband infrastructures. Tyrol has a good starting point for a digital transformation of the administration. A study by EcoAustria, for example, shows that Tyrol is the federal state with the most efficient input/output ratio in administrative processes. The BUILD:tirol program was launched to promote the continuous digitalisation of the administration. Eleven projects under this title are currently being implemented and others are being planned. The state's current flagship projects in the areas of e-government and digital services document the ongoing development.

Tyrolean school network TSN

The Tyrolean school network TSN provides applications and basic services such as a central SingleSignOn portal including synchronisation with school PCs or cloud services. The services are used by administrative and teaching staff as well as students, support education, reduce administrative effort and increase data security for 100,000 people. There will be, for example, an e-mail system and hundreds of internet and intranet offers are operated, as well as various e-learning and pedagogical communication systems or a central digital media rental service.

Service platform Tyrol SEPL

With the Service Platform Tyrol SEPL, citizens and entrepreneurs get access to digital services of the administration. There will be, for example, pre-filled applications are offered, data for the tourist tax is recorded or existing approval notices are queried. SEPL will be successively supplemented by further services, including those from municipalities. In addition, links to relevant federal, state and local portals and services are created.

State of Tyrol App

In 2019, the state of Tyrol added the Land Tirol App to its range of services. This means that information on dealing with authorities, press releases or news can be found, current videos and traffic webcams can be viewed and forms can be sent directly from the app. Push notifications for district-by-district information about extraordinary events, e.g. roadblocks, avalanche or flood hazards.

Forward together

Based on a holistic network strategy, Vorarlberg implements future-oriented projects for education and administration.

**State Office Director
Mag. Philipp Abbrederis**

The variety of digital applications and their networking, such as the Internet of Things (IOT), autonomous mobility or Industry 4.0, make completely new demands on the capacity, quality and security of electronic communication networks. Based on these requirements, Vorarlberg is developing an "overall network strategy" in a broad and cooperative process. In addition to the fibre optic infrastructure, convergent technologies such as cellular or sensor networks are also taken into account. Based on the initial situation, the network strategy is developed on the basis of several models in order to advance the expansion of the infrastructure not only quickly and efficiently, but also synergistically and sustainably.

In order to be able to fully exploit the rapidly advancing digitalisation in schools and to promote the use of digital forms of learning and teaching, a priority was created to provide a modern basic IT infrastructure. These include, among other things, a fiber optic broadband connection at the respective school location as well as a high-performance WLAN supply. Based on these measures, the state has put together a digitalisation package for elementary and secondary schools in addition to the ICT offensive for secondary schools.

Test and vaccination platform

In the course of the challenges of the pandemic, it was necessary to offer citizens a digital service for the processing of COVID tests and vaccinations quickly and in a service-oriented manner and to ensure that the data volumes were processed by the authorities. Within the state, an existing health platform was further developed into the test and vaccination platform "All Vorarlberg tests" and "All Vorarlberg vaccinates" and transferred to a COVID citizens' portal. It is possible for citizens to plan and manage tests and vaccinations digitally. Data for the green pass is reported and certificates issued via interfaces. The applications were awarded the "First Vorarlberg Digital Prize".

vConnect - intranet and collaboration platform

In the course of redesigning the state intranet, new ways of communication and collaboration are being explored and opportunities for targeted and cross-regional cooperation are being used. In December 2021, the state of Vorarlberg and the Vorarlberg municipal association started the "vConnect" pilot phase.

In addition to the usual functions of the intranet, vConnect offers advantages such as central knowledge management, knowledge sharing through networking and interaction (social intranet) and collaboration in digital workspaces. With "vConnect", the regional authorities in Vorarlberg are moving closer together and are operating another central system after the electronic file (V-DOK).

VIENNA

Digital quality of life

The City of Vienna uses the new digital possibilities to make everyday life easier for the population.

**Magistrate Director
Dr. Eric Hechtner**

An important goal in Vienna is to digitalise the procedures of citizens with the Viennese administration in such a way that official channels can be carried out online. The Virtual Office of the City of Vienna currently has around 580 administrative help pages that explain, facilitate and sometimes save official channels. Around 340 online services, such as booking appointments, ordering certificates, e-payments or options for online applications, are available to people. The City of Vienna's website at wien.gv.at is one of the most extensive in Austria. In addition to content that is constantly being edited, it offers numerous official information, databases, archives and protocols. The next step in digitalisation is personalisation. It should be even easier for citizens to submit an application because online forms will then already be filled out with their personal data. The City of Vienna's digitalisation policy priorities are also expressed in current lighthouse projects.

School digital

Digital know-how is necessary to prepare children and young people for future professional and private challenges. The City of Vienna is investing EUR 63 million in the future of Viennese schools with the "Digital Schools" program. Area-wide WiFi will be provided at more than 190 schools by 2023 in order to lay the foundation for digital education and for the optimised use of mobile devices and digital tools in the classroom. At selected schools, this extensive WLAN is actively used and evaluated with the mobile devices and digital tools provided.

mein.wien

"mein.wien" will be the digital hub to offer the Viennese maximum comfort and speed in their dealings with the authorities. In addition, the city informs people about news and events in their district, so that "mein.wien" is also an up-to-date companion for their living environment. The participatively developed portal offers information and applications that are tailored to citizens and business people. Offers are individualised and presented in a location-based Grätzlmap. The fully integrated Wienbot answers questions interactively and official channels can be completed in playfully structured forms. This creates highly personalised services and information that are made available independent of channel, time and place.

BRISE Vienna

The research and development project "BRISE-Vienna" sets new standards in smart administration and was awarded the Austrian Administration Prize for this. The unique combination of artificial intelligence, augmented reality and BIM/3D building modeling will make building permit procedures faster, more efficient and more sustainable in the future. With "BRISE-Vienna", the City of Vienna shows an exemplary understanding of the full impact of digital technologies on urban development and city operations. "BRISE-Vienna" also offers a blueprint for cities that want to benefit from the potential of digital technologies.

Expert survey

What makes digital successful? Which national, European and international cooperations strengthen Austria with successful digitalisation? International experts provide answers.

Francisco García Morán, Special Adviser to the European Commission, former Director General for Informatics (DI GIT) and Chief IT Adviser to the European Commission

"The pandemic has high lighted the importance of digital technologies for the continued functioning of the private and public sec tors.

At EU level, Austria has always been at the forefront of efforts to develop a robust digi tal public services strategy and has made an important contribution to EU initiatives on important digital issues such as eID and cy bersecurity.

In addition, a few years ago Austria started laying the foundations for efficient and ef fective digital public services, such as, eID (including mobile ID), a consolidated system for storing official electronic documents as well as the establishment of portals for easier access to digital public services for citizens and entrepreneurs, also across EU borders. As a result of these efforts, Austria consistently ranks at the top of e-government benchmarks and has an excellent DESI score for digital public services."

Paul Timmers, research fellow at the University of Oxford and former Director General of the European Commission

"International cooperation means leadership, learn ing from one another and working together to pro tect our own values and interests. The legitimacy of the authorities faces major challenges as a result of the digital age. Austria has taken a leading role over the years and inspired other countries in Europe and worldwide in the fields of eID, e-services and smart cities. When it comes to smooth digital services, Austria can also learn from others, such as Estonia and Belgium, or from the thriving digital innovation hubs of Paris, Berlin and Amsterdam. Now, to close the loop, Austria can – and should – lead again with a program of ambitious integrated digital public ser vices to protect people and the planet, high quality of life, jobs and prosperity for all, and respect for the to combine cultural heritage and self-determination with openness to the digital future."

Ministerial Director Andreas Koenen
Head of Cyber and Information Security Department,
Federal Ministry of the Interior and Homeland in Germany

"Cooperation is perhaps even more important in cyber security than in many other areas of digitalisation. We in Germany have always valued Austria as a competent and reliable partner. This applies to coordination in EU legal acts as well as to specific technical issues. Austria, for example, has acquired an international reputation in IT security certification for years with competence and commitment. We in Germany also benefit from this. Another example is secure cloud computing, also and especially in public administration, where we are in good contact. We continue to rely on close cooperation with our partners in Austria."

Christian Keuschnigg
Professor of Economics at the University of St. Gallen,
Head of the Economic Policy Centre (WPZ)

"Digitalisation knows no borders: Home office, online banking, digital business appointments, digital tax returns... Digitalisation saves time and unnecessary paths, facilitates contacts and creates new opportunities in health, education and leisure. It lowers costs, brings entrepreneurs closer to customers and increases competitiveness. How would we have survived the COVID crisis without digitalisation? With education, digital infrastructure and protection against misuse, the state helps to seize the opportunities of digitalisation. In the EU, Austria is in the upper midfield. The digitalisation strategy should take us to the top, where the opportunities are far greater."

George Metakides, President of the Digital Enlightenment Forum and Visiting Professor at the University of Southampton

"The ongoing pandemic has accelerated the further development and delivery of a wealth of digital services by public authorities across Europe. Projects for such services, which were still in the planning phase, were pushed forward to help citizens cope with life in the pandemic more safely and effortlessly. However, the welcome speed of development of such digital services by public authorities also meant that there was often little time for detailed surveys of comparable services offered by other public authorities in Europe, which would have allowed a collaborative approach to their development. Austria is very actively involved in these important ongoing discussions and will continue to take a leading role in identifying best practices, hidden gaps and new opportunities, setting the stage for broad European cooperation to develop secure, trustworthy and people-centred digital services for all citizens."

Lars P. Feld
Professor of Economic Policy at the University of Freiburg

"The public sector is es sential for the provision of infrastructure and thus provides important prelim inary services for consum ers and entrepreneurs. In the digital age, data is one element of this infrastructure. It's not just about broadband, 5G, hardware or software. The state sets the framework for better use of data, taking data protection into account. This is only possible in cooperative ways. In their over-emphasis on data protection, Austria and Germany are the two countries in the EU that are furthest behind when it comes to digitizing the public sphere. This must change if both countries do not want to fall behind."

Achim Wambach, President of ZEW - Leibniz Centre for European Economic Research Mannheim

"The Corona crisis has led to a significant boost in digitalisation. Politicians should take the positive experiences gained with them into the post-crisis period and see them as an incentive for fur ther digitalisation. Austria is already a good deal further than Germany, as international comparative studies show, but further steps are necessary. The handling of data from the public sector is central to exploiting the productivity potential of digitalisation: These should be made available for further use as far as possible while maintaining data pro tection. This requires cooperation between the offices, but also the willingness to give third parties access to the data."

Frankie Ng
CEO SGS (Societe Generale de Surveillance SA)

"Delivering reliable digital public services is critical and requires a concert ed effort from the public sector and industry, as viable solutions need to be grounded in regulations and associated standards. The Austrian government has been at the forefront of the digital transfor mation of its services and given the signifi cant increase in demand for reliable mobile e-government services since the start of the pandemic, it has proven wise to put "mobile first" on the Austrian EU agenda - to set the presidency. As an independent third party, SGS is authorized to assess compliance with relevant regulations and standards and ulti mately to certify the trustworthiness of these solutions. We are proud to be a trusted part ner in supporting this effort."

Sabine Köszegi, Professor of Labour Science and Organisation Institute of Management Science, TU Vienna, Initiative Digitalisation Equal Opportunities

"Women are severely underrepresented in the development of digital technologies. According to the OECD, only every 14th technology patent is filed by a woman.

At Austria's universities, the proportion of female computer science graduates is languishing at around 15 percent. Girls are advised not to study anything technical. But if girls develop lower skills in important digital cultural techniques, their opportunities to shape and participate in everyday life, work and society are also reduced.

This is not only a systematic disadvantage for women, but a problem for the whole country! We can only realize their potential if we succeed in implementing digitalisation in an equitable manner. That's why we need the Digitalisation Initiative!'

Drive comprehensive digitalisation

The COVID-19 pandemic has caused severe economic damage, with tremendous negative impacts on people's health, jobs and well-being around the world. Digital technologies have helped mitigate the economic impact of the pandemic, keep businesses running and avoid a deeper slump.

Much of the world went online and in some countries has increased internet traffic by as much as 60 %. More than 1.3 billion citizens in OECD countries alone have worked and learned from home (OECD, 2021a). A wide range of innovative solutions built on digital technologies have been deployed to address the health emergency, such as the use of the mobile app for contact tracing.

All of these activities have shown the enormous potential of digital transformation. In order to further promote this digital transformation and to distribute its benefits fairly, new political measures must be taken.

Austria is proactive in the field of digitalisation

The government has set itself ambitious goals to make Austria a leading digital business location. Digitalisation is also a central element in Austria's recovery and resilience plan: More than half of EU funding is dedicated to the digital transformation. These funds support various projects in Austria, including the expansion of broadband networks, the digitalisation of education, digital investment in public administration and the digitalisation and ecologi-

cal transformation of entrepreneurs. These are steps in the right direction, as Austria is currently lagging behind frontrunners such as Denmark or Finland in terms of digitalisation (OECD, 2021b).

Austria has already made progress in many areas of e-government applications and digital public services for citizens. More than 80 % of internet users in Austria already use e-government services. Individuals and entrepreneurs have a right to electronic communication with the authorities and easy access to official documents via an electronic mailbox. The e-government platform for citizens integrates central, regional and local public services and offers detailed information about Austrian authorities.

In addition, the COVID-19 pandemic has provided an additional boost towards digitalisation. The government has been stimulating and supporting institutional innovation during the pandemic, including collective bargaining agreements to facilitate working from home.

> **"The government has set itself ambitious goals to make Austria a leading digital business location."**
>
> **Laurence Boone**
> **Chief Economist at the OECD**

Do not increase inequalities through digital transformation

Experiences from other OECD countries show that there are large differences between entrepreneurs and between different social classes when it comes to digitalisation (OECD, 2021a). This digital divide in OECD countries exists between rural and urban areas, between small and large firms, and between high and low income households. This is mainly due to the fact that certain households and entrepreneurs cannot access and use digital technologies. Consequently, governments must ensure that digital transformation fosters growth while helping to close income and productivity gaps.

In this context, the recently published Economic Survey of Austria, while confirming Austria's active role in accelerating digitalisation, also calls for further measures to ensure that the benefits of digitalisation are more widely distributed.

One way is to ensure universal connectivity to prevent unequal access to communications infrastructure from reinforcing inequalities. High speed broadband coverage in Austria is lower than most other European countries and varies greatly between rural and urban areas. Austria's topography together with the comparatively low population density poses a challenge for broader broadband coverage. In this respect, it is welcome that the government has committed to providing all Austrian households with access to gigabit connections by 2030, including through public private partnerships in geographical areas where there are no strong economic incentives. The new Economic Survey of Austria also points out

that high capacity mobile technologies can provide an alternative to fibre optic infrastructures in sparsely populated rural and mountainous regions.

In addition to better access to high speed broadband, structural policies to improve digital literacy can accelerate the uptake of digital technologies across society. Both high and low educated Austrians participate less in lifelong learning than people in the frontrunner countries. It is therefore to be welcomed that a number of initiatives to develop digital literacy are a priority for the government. Good examples of such programs are the "Digital Skills Checks", "Innovation Camps" and "Digital Pro Bootcamps". The Austria's Economic Survey also recommends promoting lifelong learning along the lines of France, which sets up individual learning accounts with income replacement when people take time off work for further training.

IMPRINT