ROAD MAP FOR DIGITALISATION AND AI

Boosting growth and competitiveness digitally

Digitalisation – and especially artificial intelligence (AI) – plays a key role in our economic competitiveness and Austria's attraction as a business location.

For Austria to join the group of European leaders it needs sufficient IT specialists, nationwide high-performance broadband infrastructure, as well as investments in digital technologies and data use.

1. Where we stand

Austria is not a digital champion, with most of its digitalisation indicators securing only average ranking. Austria's competitiveness has even worsened in recent years.
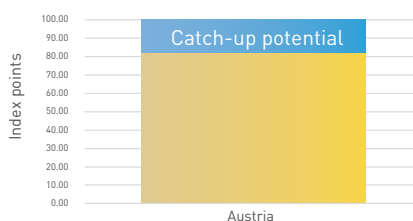
Austria came in 22nd place (out of 64) in the 2023 IMD World Digital Competitiveness Ranking. In 2021 we were ranked 16th

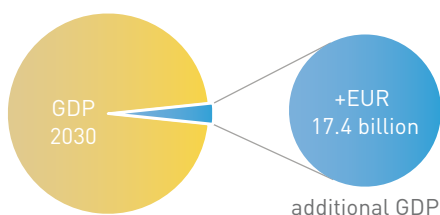**IMD WORLD DIGITAL COMPETITIVENESS RANKING 2018 TO 2023**
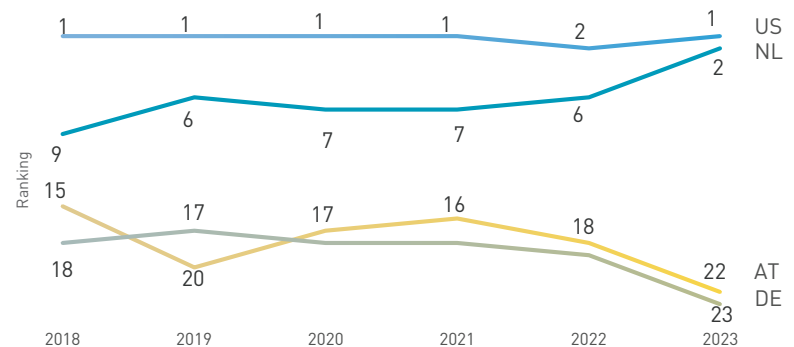
Ranking by country; Source: IMD

IMD DIGITAL COMPETITIVENESS INDEX

POTENTIAL GDP EFFECT IN AUSTRIA

Source: Eco Austria (2023), at 2022 prices

Economic potential offered by digitalisation

The economic and business potential offered by successful digitalisation is considerable:

- According to Eco Austria (2023), fully realising the catch-up potential in digital competitiveness could lead to additional GDP of up to EUR 17.4 billion per year.

- According to the Economica Institute (2024), using AI could generate 18% more growth over a ten-year period.

- The more a company digitalises, the higher its growth in revenue, employee numbers and productivity. Digital champions have up to 23% higher revenue growth (Accenture and IV, Digitalisation as a Success Factor, 2023).

Availability of IT specialists

Demand for skilled workers in the IT sector is huge. According to a study by the Institute of Industrial Sciences (IWI), in 2023 the Austrian economy was already short of 28,000 IT specialists, and by 2030 this shortfall could increase to up to 63,400 qualified IT specialists.

### Broadband infrastructure (gigabit-capable networks)

Austria has developed further in this area in recent years, but we are still below the EU average.

68%   79%
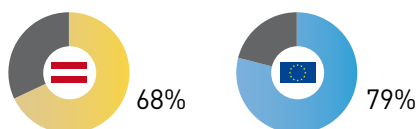
Coverage with gigabit-capable networks

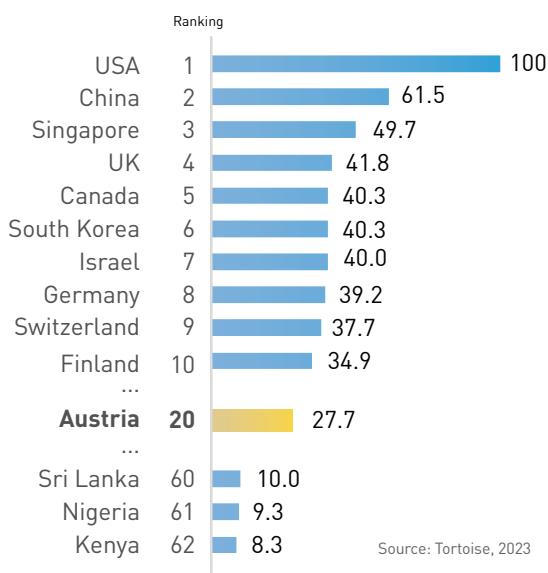### Use of digital technologies in companies

- When it comes to the use of cloud computing, Austria falls below the EU average (38.9%), at 35.6% of companies.
- In Austria, only 47% of companies currently use advanced technologies such as AI, data analytics or cloud computing. Some countries, such as Finland and Denmark, have already reached the EU target.

47%   Ø 55%   Target for 2030: 75%
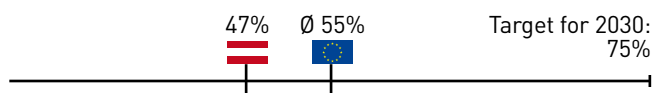
Artificial intelligence

In the field of AI, **Europe lags behind in a global comparison**. The Global AI Index ranks the USA in 1st place, followed by China and Singapore. Austria comes in 20th place (Tortoise, 2023). In terms of **AI use** in companies, Austria (10.8%) ranks 9th, slightly above the EU average (8.0%), but behind the Scandinavian countries (Digital Decade Report 2024).

RANKINGS AND POINTS OF COUNTRIES IN THE GLOBAL AI INDEX

| Country	Ranking	Points
USA	1	100
China	2	61.5
Singapore	3	49.7
UK	4	41.8
Canada	5	40.3
South Korea	6	40.3
Israel	7	40.0
Germany	8	39.2
Switzerland	9	37.7
Finland	10	34.9
...		
Austria	**20**	27.7
...		
Sri Lanka	60	10.0
Nigeria	61	9.3
Kenya	62	8.3

Source: Tortoise, 2023

2. Where we are heading

As part of the **Digital Decade**, the EU has defined digitalisation targets **for 2030** and called on member states to draw up a road map to develop national targets.

Austria's road map proposes 60 measures with a budgetary volume of EUR 3.4 billion (equivalent to about 0.7% of GDP) (Austria Digital Decade Report 2024). By comparison: a budget of EUR 168 billion, or 1.2% of GDP, is planned for the EU as a whole (Digital Decade Report 2024). Applied to Austria, this means it is necessary to **increase the budget by EUR 2.4 billion**.

The current status evaluations (late 2023) show Austria's specific need to act in the coming years:
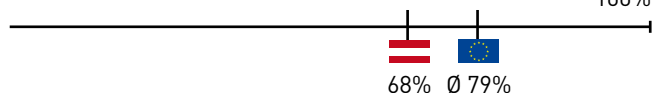
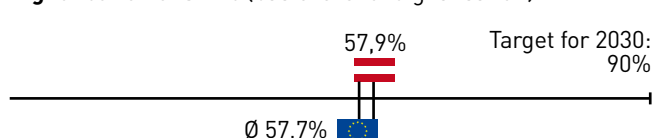**Digitalisation of administration** (all important public services accessible online):

Target for 2030: 100%

Ø 79%   81%
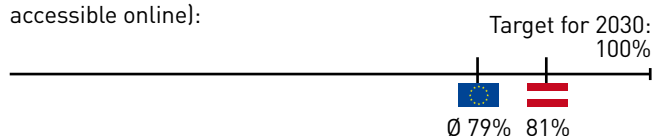
Basic competencies of the population:

Ø 56%   65%   Target for 2030: 80%
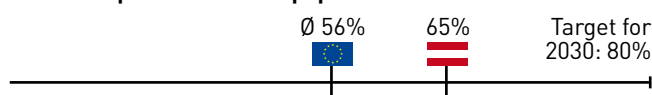
Infrastructure (gigabit-capable networks):

Target for 2030: 100%

68%   Ø 79%

Digitalisation of SMEs (basic level of digitalisation):

57,9%   Target for 2030: 90%

Ø 57,7%

Use of data analytics:

Target for 2030: 75%

24%   Ø 33%
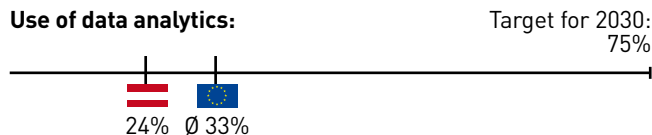
To advance digitalisation in Austria the country needs **expanded connectivity**, a clear **strategy and budgets** to support companies (especially SMEs), paired with initiatives to promote **data analytics and the cloud**. Furthermore, AI and digitalisation topics need to be better anchored at government level, with a clear **structure** and appropriate **budgeting**.

3. What we need

3.1 Expand digital skills in Austria

The growing gap between the supply and demand for employees with digital skills is hugely damaging to companies' competitiveness. It is therefore important that key digitalisation skills are taught across all levels of the education system and training offered for companies.

Increase level of digital skills in companies
- Expansion of the "Digital Skills" campaign to promote the relevant digital skills within companies
- Set measurable goals and an action plan for implementation by 2030
- Continue the qualification offensive launched by the Federal Ministry of Labour and Economy (BMAW)

Implement measures to combat lack of IT specialists
- Expanded and low-threshold offerings for online learning to acquire digital and technical skills
- Increase funding for coding initiatives offered during holidays

Enhance STEM subjects
- Reform IT education, create more university places to study IT-related subjects and strengthen STEM teaching in schools

WKO services
▶ WIFI: https://www.wifi.at/start
▶ wîse up: https://wise-up.at/
▶ Coding4Kids: https://www.coding4kids.at/
▶ WU Master's in Digital Economy: https://www.wu.ac.at/en/programs/masters-programs/digital-economy/overview

3.2 Bringing digitalisation to the masses

Digitalisation significantly enhances growth over the long term. The potential offered by the digital transformation, particularly for SMEs, must be consistently increased.

Best practice: Bavaria's Digital Bonus
The Digital Bonus is an important aspect of Bavaria's digital initiative; it promotes investment in digitalisation in small companies (fewer than 50 employees) and receives EUR 60 million in funding annually. The programme is a model for success: since 2016, more than 23,000 applications have been funded with a total volume of EUR 300 million.

Ensure sustainable financing for SMEs for digitalisation initiatives
- After the successful relaunch of KMU.DIGITAL (Austrian Digitalisation Initiative for SMEs), ongoing evaluation, adaptation to needs of companies and higher funding volume

Provide long-term financing for Digital Innovation Hubs (DIHs) and European Digital Innovation Hubs (eDIHs)
- Provide national follow-on funding for existing DIHs to ensure continuity
- Extend national co-financing of eDIHs

Innovation-friendly regulation
- Intensify removal of regulatory hurdles
- More information and advice for companies (e.g. AI service point as orientation aid)
- Establish regulatory sandboxes and corresponding data spaces

WKO services
▶ KMU.DIGITAL: www.kmudigital.at/
▶ Digital Innovation Hubs: https://www.ffg.at/dih

3.3 Make better use of data and digital technologies

The availability and use of data are a decisive competitive factor in the digitalised economy. Austria lags behind when it comes to data use and data-driven business models.

Establish funding for data use and AI
- Expand existing funding and focus on data use and AI
- Encourage companies in Austria to take advantage of the data economy and AI

Expand competencies of DIHs
- Expand offerings from DIHs to include training in data and AI (following the AI Austria model)
- Advise companies on support measures for implementing AI projects

Draw up a national data strategy
- Define specific measures and priorities and fund accordingly
- Launch open data campaign with expanded offerings
- Establish data sharing based on state certification while upholding companies' digital sovereignty
- Use GAIA-X Hub Austria as a platform for secure data exchange

WKO services
▶ AI Austria: https://www.wko.at/digitalisierung/ki-oesterreich

3.4 Use digitalisation to transform the economy

For Austria to remain an attractive business location, measures to sustainably transform the economy are needed in order to actively manage climate protection and CO_2 targets. Digitalisation is a key lever for this: in Austria, a WKO study indicates that technology-driven energy efficiency measures can save up to EUR 7 billion annually.

Strengthen twin transformation skills
- Establish subsidised formats for training ("skills cheques")
- Create incubator networks and ecosystems to stimulate the emergence of green tech start-ups

Use the potential of digital technologies and data
- Use digital technologies such as AI or digital twins to optimize processes, reduce resource consumption and help protect the climate
- Establish thematic data spaces, such as energy or mobility transition, to provide companies with access to data and the potential to innovate

The state as enabler and pioneer
- Develop incentives such as tax breaks and state-run lighthouse projects
- Integrate sustainability criteria into public tenders
- Create public-private partnerships to help with the costs of introducing new and greener technologies, e.g. with start-up financing

WKO services
▶ Sustainability consulting: https://www.wko.at/nachhaltigkeit/nachhaltigkeit-unternehmen
▶ WKO climate portal: https://wk.esg-portal.at/

3.5 Promote the use of artificial intelligence (AI)

AI is the key technology in the coming decades. It will fundamentally transform business, markets and industries, and already has a huge impact on digital business models. We must use these opportunities.

Establish AI ecosystems
- DImplement the businesses, economy and research ecosystem as set out in the Digital Austria Act
- Support companies by providing best case examples
- Enhance the linking of existing initiatives and use resources more effectively
- Raise the international visibility of successes and sustainable financing for initiatives

Establish service-oriented AI authority
- Rapidly clarify future AI authority and secure necessary budgetary resources to fulfil its tasks

Set up AI showrooms allowing AI applications to be experienced in real life
- Develop "AI showrooms" where citizens and entrepreneurs can experience AI, from its fundamentals and areas of application to best use cases in every sector

WKO services
▶ AI Guidelines for SMEs: https://www.wko.at/digitalisierung/kuenstliche-intelligenz

Best practice: AI studios in Germany
The AI Studios initiative is run by the Fraunhofer IAO and the University of Stuttgart, and receives around EUR 4.1 million in funding from the German Federal Ministry of Labour and Social Affairs (BMAS). Its aim is to inform employees about AI and help them actively introduce it into the workplace. Real-life working situations using AI are simulated in the form of interactive demos and workshops. There are both stationary studios as well as mobile units which travel directly to companies. A total of 250 events will reach around 2,300 companies in all branches of industry.

3.6 Improve governance in the field of digitalisation and AI

Responsibility for the various aspects of digitalisation and AI is currently shared between several ministries and state secretaries. Effective and forward-looking governance requires clear areas of responsibility and appropriately funded budgets for specific initiatives.

(Political) prioritising and budgeting for digitalisation and AI
- The AI and digitalisation topics important to the economy should be better structured and given greater budgetary resources at government level
- Continuously coordinate and monitor the jointly defined goals (Digital Decade road map)

Establish stakeholder forum for digitalisation
- Set up a Digital Council to coordinate stakeholders and strategies (data, AI, blockchain etc.)

The state as enabler and pioneer
- Enhance state-provided services to create "Smart Government" using AI technologies
- Make digitalisation more visible by publicly communicating success stories
- Leverage public procurement to promote innovation