



AUSTRIAN RESEARCH AND TECHNOLOGY REPORT 2021 FACTSHEET

CURRENT TRENDS IN AUSTRIA

The Federal Government's Strategy for Research, Technology and Innovation 2030 (RTI Strategy 2030) and the first "Pact on Research, Technology and Innovation 2021–2023" (RTI Pact 2021–2023), based on the Research Financing Act (FoFinaG), were adopted by the Austrian Council of Ministers on 23 December 2020.

Targets and key fields of activity in the RTI Strategy 2030

Targets

Key fields of activity

Become an international innovation leader and strengthen Austria as an RTI location

- Expand research and technology infrastructure (RTIS) and facilitate access
- Increase participation in EU missions, EU partnerships and IPCEIs
- Promotion and strategic targeting of internationalisation

Focus on effectiveness and excellence

- Promote excellence in basic research
- Support applied research and its impact on the economy and society
- RTI for achievement of the climate targets

Focus on knowledge, talents and skills

- Develop and promote human resources
- Support researchers and students in developing an international outlook

Further developing the innovation system and leveraging all RTI-related potential will require the public sector to launch a wide range of initiatives and measures. These include:

- IP Strategy
- Strategy for the Future for Life Sciences and Austria as a Location for Pharmaceuticals
- Location Strategy 2040
- Foreign Trade Strategy
- Creative Industries Strategy for Austria
- Excellence Initiative
- Open Innovation Strategy for Austria
- Research, Technology and Innovation Strategy "Mobility 2040"
- National Mobility and Internationalisation Strategy for Higher Education 2020–2030
- Public Procurement Promoting Innovation
- "Circular Economy" RTI initiative
- Austria's ambition to help build up EU defence research
- Austrian security research programme KIRAS

The evaluation culture is firmly anchored in Austria's RTI policy. See www.fteval.at for insights.

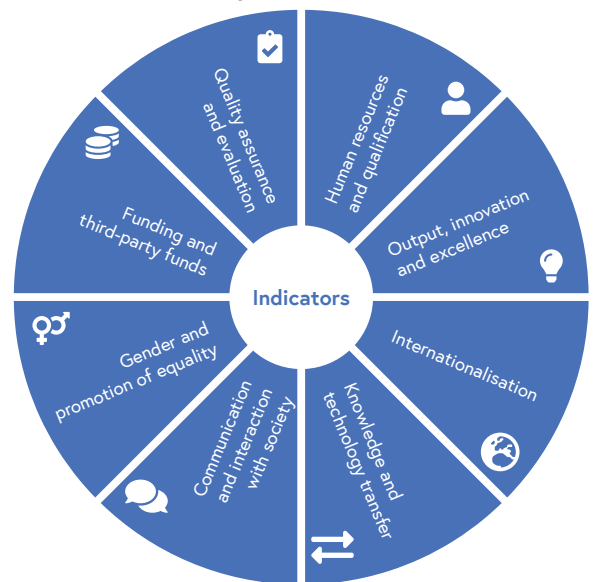
The RTI Pact 2021–2023 makes the definition of cross-departmental priorities for research and innovation policy a fundamental principle of Austria's RTI policy. The FoFinaG has created a specific **legal basis for research financing** that establishes a stable institutional governance framework. This framework encompasses the ten central research and research funding institutions:

Research institutions	2020: income in €1,000	2020: employees
Austrian Institute of Technology GmbH (AIT)	161,252	1,298
Institute of Science and Technology Austria (IST Austria)	94,652	861
Österreichische Akademie der Wissenschaften (OeAW)	194,723	1,867
Silicon Austria Labs GmbH (SAL)	21,680	188
Ludwig Boltzmann Gesellschaft (LBG)	30,660	545

Research funding institutions	2020: funding/present value in €1,000
Austria Wirtschaftsservice Gesellschaft mbH (aws)	128,000*
Christian Doppler Forschungsgesellschaft (CDG)	19,254
Austrian Science Fund (FWF)	255,479
OeAD-GmbH – Agency for Education and Internationalisation	50,548
Austrian Research Promotion Agency (FFG)	461,948

* present value including non-RTI-related funding: €4.09 billion

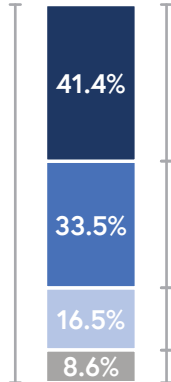
According to the Research Financing Act (FoFinaG) the monitoring of these central institutions forms an integral part of the Research and Technology Report. In addition to key figures and an outlook, an overall systemic picture of the institutions is drawn on the basis of eight indicators:



FINANCING OF R&D AND INNOVATION

**€12.14
BN**

SPENT ON
RESEARCH AND
EXPERIMENTAL
DEVELOPMENT



Austrian companies' contributions to R&D expenditure in 2020 amounted to **€5.03 bn**

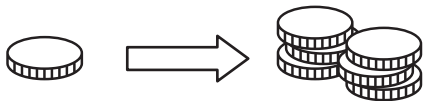
The federal government, regional governments and "others" contributed **€4.07 bn**

Abroad*
Research Premium

28%

OF AUSTRIA'S ECONOMIC GROWTH IS DRIVEN BY THE IMPACT OF THE INNOVATION SYSTEM

* mainly comprises R&D funded by foreign companies on behalf of their Austrian subsidiaries as well as return flows from the EU's Research and Innovation Framework Programmes



An increase in public sector expenditure for R&D by €1 can increase GDP by €6 in the long term

COMPANY LEVEL

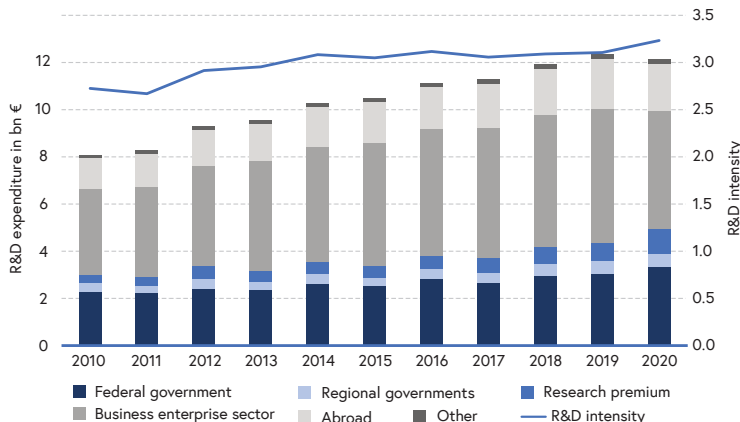
6.7 percentage points higher employment growth of Austrian companies funded by the FFG (7.1%) compared to the control group (0.4%)

8.3 positive difference in percentage points for turnover at FFG-funded Austrian companies (10.8%) compared to the control group (2.5%)

90.8 percent of FFG-funded companies survive

A VERSATILE, GOOD MIX OF FUNDING INCREASES THE SURVIVAL CHANCES OF COMPANIES IN AUSTRIA

Funding of R&D carried out in Austria and the development of R&D intensity, 2010–2020



3.23%

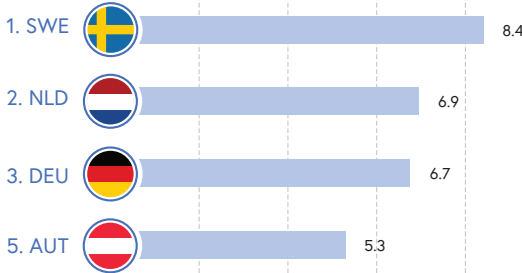
R&D INTENSITY IN AUSTRIA IN 2020 — A NEW HIGH, IN PART DUE TO A DECLINING GDP

Source: STATISTICS AUSTRIA, global estimate as at 25 April 2021

INTERNATIONAL RANKING

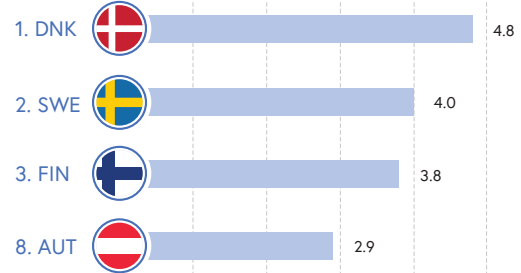
Austria is a Strong Innovator in the upper midfield

Patent intensity (triadic patents) by country of origin, standardised by number of R&D employees, 2018



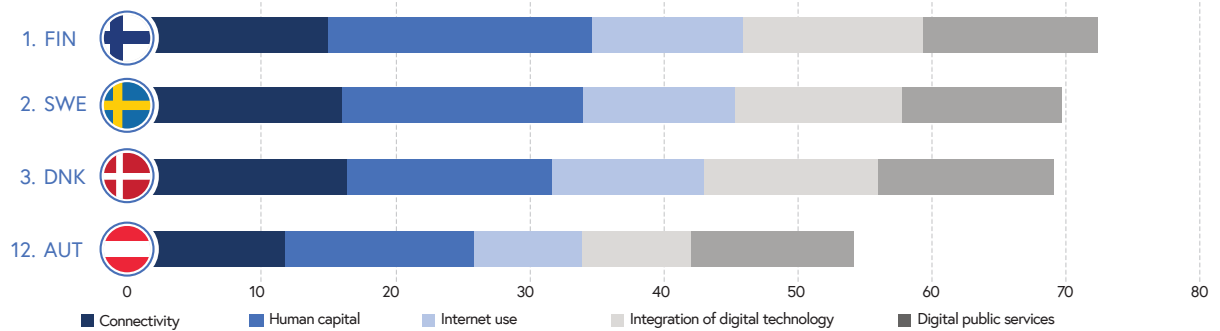
Source: OECD (2020a)

Number of scientific (citable) articles in all disciplines, standardised by country population, 2019



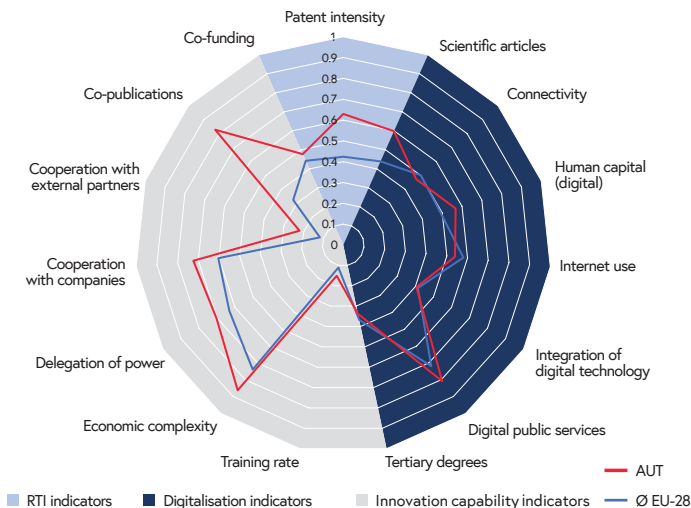
Source: Scimago Journal & Country Rank (2020)

Digital Economy and Society Index (DESI) 2020



Source: European Commission (2020)

Austria's innovation capability compared to the EU average



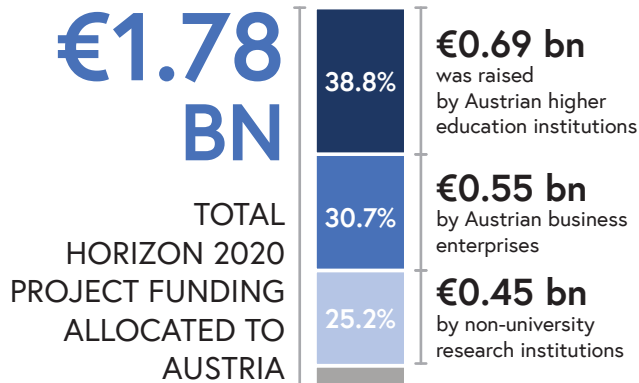
Source: iit graphic

Innovation indicator	Digital Economy and Society Index 2020
Ranked 9 of 35	Ranked 12 of 27
European Innovation Scoreboard 2020	Global Innovation Index 2020
Ranked 8 of 27	Ranked 19 of 131

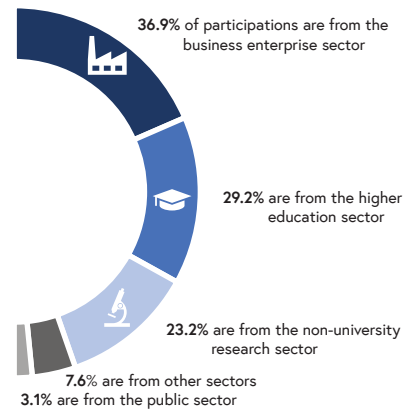
EMPIRICAL ANALYSES SHOW A POSITIVE CORRELATION BETWEEN RESEARCH AND DEVELOPMENT PERFORMANCE AND CRISIS RESILIENCE

AUSTRIA IN HORIZON 2020

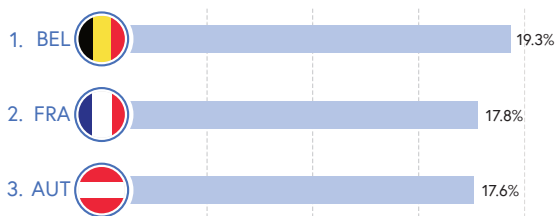
Funding amounts awarded as part of Horizon 2020



Proportion of Austrian participations in Horizon 2020 by sector



Success rate of Horizon 2020 participations by country



Source: FFG

17.6%

SUCCESS RATE FOR THE 2014–2020 PROGRAMME PERIOD, PUTTING AUSTRIA THIRD BEHIND BELGIUM AND FRANCE

HORIZON 2020: AUSTRIAN PARTICIPATION IN CLIMATE-RELATED RESEARCH



* Climate protection is one of the main objectives of the research projects



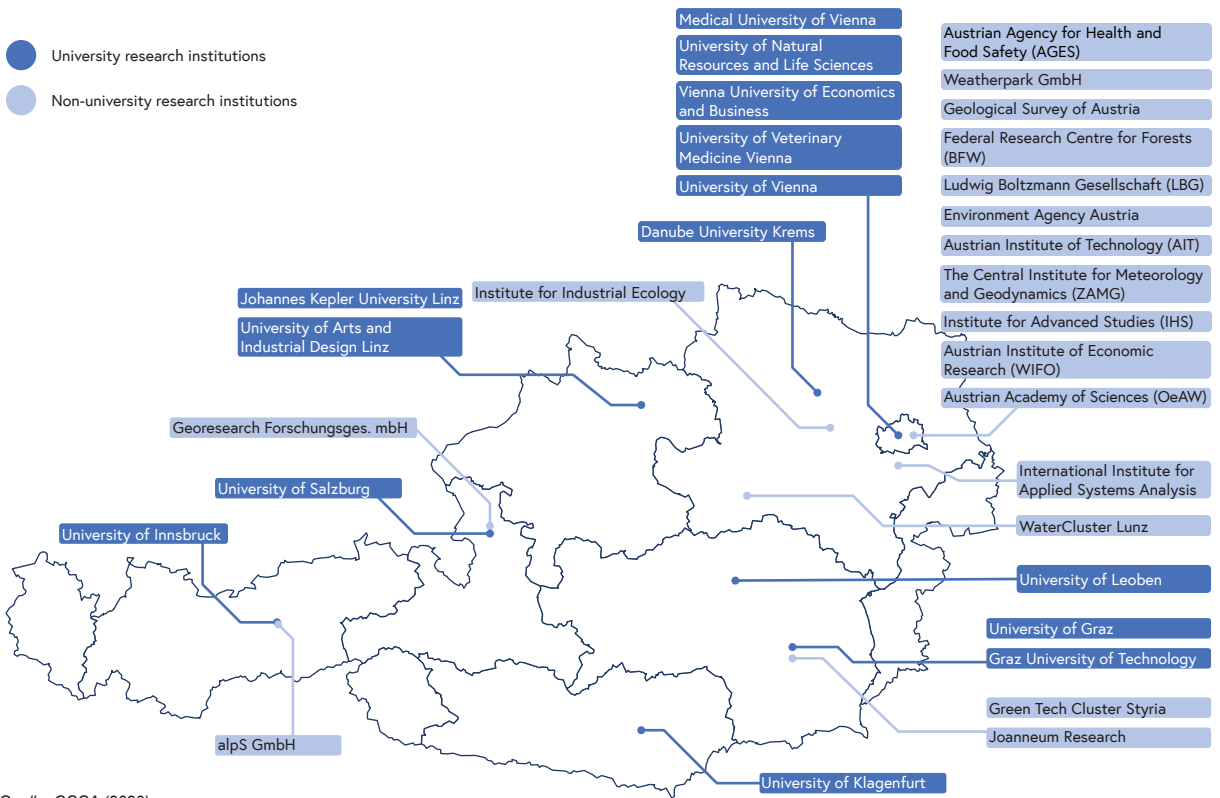
* Climate protection is the primary objective of the research projects

CLIMATE RESEARCH IN AUSTRIA

As part of the Agenda 2030, climate-related research is funded through various programmes from several federal government agencies. In addition to the central research promotion agencies – the FWF and the FFG – the Climate and Energy Fund (KLIEN) also plays a key role. KLIEN focuses its funding on the topics of energy, mobility and heating transition and on climate change and adaptation, operating on a purely thematic basis. In the process, it works with various different funding channels (e.g. FFG, Kommunalkredit Public Consulting (KPC) and the Environment Agency Austria).

SINCE IT WAS FOUNDED IN 2007,
KLIEN SUPPORTED
144,000 PROJECTS
WITH TOTAL FUNDING IN EXCESS OF
€1.5 BN

Locations of (non-)university research institutions in Austria and their research priorities of relevance to the climate and environment



Quelle: CCCA (2020)

The central programme for research into the effects of climate change is the **Austrian Climate Research Programme (ACRP)**, launched in 2008 by the Climate and Energy Fund (KLIEN) in collaboration with the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). The ACRP focuses primarily on researching the national characteristics, impacts and adaptation requirements of climate change. In the 12 calls for proposals issued so far, 249 projects have received funding of €61.4 million in total.

Founded in 2011, the **Climate Change Centre Austria (CCCA)** functions as contact point for research, policymakers, the media and the public on all matters to do with climate research in Austria. A recent survey by the CCCA in higher education and non-university research institutions in Austria showed that many of these institutions declare research priorities of relevance to the climate and environment.

COVID-19 RESEARCH

114 PROJECTS
 IN 25 FOCUS AREAS RECEIVED
 FUNDING TOTALLING
€80.5 MN
 FROM THE FIVE LARGEST
 FUNDING PROVIDERS

The COVID-19 pandemic has posed an unprecedented challenge for policy makers in research and technology all over the world. Huge amounts of work have been done on a global level to develop effective vaccines and medications, in order to curb the spread of the pandemic as quickly as possible.

The volume of funding and number of projects funded as part of Horizon 2020 relate to those projects that were carried out either under Austrian leadership or with Austrian involvement.

In addition to epidemiology and biomedicine, social science disciplines have also played a major role in formulating appropriate measures to combat the virus and mitigate its effects. The COVID-19 pandemic has consequently resulted in an unparalleled mobilisation of researchers, across many countries and many disciplines.

Austrian research is playing a prominent role in the international response to COVID-19. As in other affected countries, substantial public funds have been provided for research into the SARS-CoV2-virus and its effects on our health, social and economic wellbeing. By April 2020 the majority of this financial support had already been allocated to understanding, containing and combating the virus. Processes for awarding and distributing funds were also adapted and accelerated with appropriate flexibility.

