



STRONGER TOGETHER

Whole-of-government Approach to Research,
Technology & Innovation (RTI) in Austria

Across all policy areas we can think of - from emerging technologies to digitalisation, from climate change to migration - we believe the solutions to these challenges lie in new knowledge.

We can hardly imagine a desirable future without education, science, research, technological development and innovation providing vital contributions.

What holds true for the role of science, technology and innovation (STI) for society is also true for the role of society for STI: Our policy field can only thrive in an eco-system where the political, structural and financial framework is supportive.

On the following pages, you may get a flavour of how the Austrian government pays tribute to a “whole-of-government“ approach when it comes to providing new insights into sectoral policies of all kinds. STI is truly at the heart of society. The examples of knowledge-intensive policies in Austria presented here should serve as evidence of good practice, and as a promise to further strengthen the ties across ministries.

Austria is a country at the intersection of many global and, in particular, European developments. In the field of STI, the European Research Area proves to be crucial, both in terms of funding from the Framework Programme and of creating a single market for knowledge in Europe. Thanks to our European partners, Austria is well connected and well prepared for what we may find beyond today's horizon.

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**FEDERAL MINISTRY
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AND CONSUMER
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RESEARCH ON LABOUR, HEALTH AND CONSUMER PROTECTION ISSUES AND SOCIAL AFFAIRS

The ten General Directorates (GD) currently commission research projects on topics such as invalidity pensions, long term care, people with disabilities, inequality, gender issues, ageing, labour market policy, veterinary issues, biodiversity in rural areas and prevention of multi-resistant microorganisms. The 3rd EU Health Programme can be regarded as an interesting research initiative, which offers the member states the possibility of taking part in Joint Actions (JA). The Ministry and the GÖG participated and currently participate in 10 JAs. Two agencies of the Ministry, the AGES (www.ages.at which is responsible among others for food safety, veterinary issues, GMOs, medicine and agricultural topics) and the GÖG (www.goeg.at, Gesundheit Österreich GmbH, mainly responsible for health topics) offer an important research contribution. The agencies take part in Horizon 2020 research projects and JAs of the EU.

QUANTUM RESEARCH AND TECHNOLOGY IN AUSTRIA

Quantum technologies are considered key technologies for the 21st century and offer ever growing potential for use in the economy and society. As a research and business location Austria is determined to promote such interdisciplinary research further, realise its benefits and be part of European initiatives.

**R&D IN AUSTRIA
IS READY FOR THE
21ST CENTURY**

The Austrian Federal Government has specifically identified quantum research as a priority issue in the government's programme. For years this area has been supported by the ministry responsible for science and research, not least because Austrian researchers with their outstanding know-how are among the leaders in European quantum research.

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COORDINATION OF RESEARCH, TECHNOLOGY AND INNOVATION

In 2011 the Austrian Federal Government adopted the Strategy Plan for Research, Technology and Innovation as the central reference framework for defining domestic RTI policy. The aim of the strategy was – and is still – to bring Austria into the group of European innovation leaders. The RTI strategy is implemented at multiple levels. A Task Force was created

**THE STRATEGY PLAN FOR
RESEARCH, TECHNOLOGY
AND INNOVATION IS
COORDINATED BY THE
RTI TASK FORCE**

to define and coordinate the implementation of the strategy at a senior administrative level, under the leadership of the Federal Chancellery in collaboration with representatives of the relevant federal ministries.

Intensive and regular contact and exchange of information in key focus areas help to increase cooperation between the RTI ministries and to shape the relevant governance structure more efficiently.

RESEARCH ON FAMILIES AND YOUTH

The Austrian Federal Chancellery's Families and Youth Division's research aims to deliver evidence-based results in order to optimise policy decisions as well as to evaluate past policy measures. A substantial part of the ministry's family research activities is being implemented as part of the working programme of the Austrian Institute for Family Research (ÖIF). In addition, a "Family Report" is published every 10 years. Preparations for the next one have already started.

The division's research in the field of youth policy serves as the basis for the development of a diverse and open youth policy. The "Report on the Situation of Youth in Austria" is being published once during each legislative period.

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AUSTRIA REMAINS A STRONG INNOVATOR COUNTRY. THIS KEY ROLE AMONG “STRONG INNOVATORS” WITHIN THE EUROPEAN INNOVATION SCOREBOARD WAS ACHIEVED THANKS TO THE HIGH LEVEL OF INVESTMENT IN R&D AND THE STRONG HUMAN CAPITAL RESOURCES ALREADY AVAILABLE IN THE AUSTRIAN ECONOMY.¹

IN AUSTRIA, AROUND EURO 12.3 BILLION ARE EXPECTED TO BE SPENT ON RESEARCH AND DEVELOPMENT (R&D) IN 2018. THE RESEARCH QUOTA WILL RISE TO 3.1%.²



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ENHANCING DIGITAL SKILLS AND INNOVATION IN EDUCATION

Digitalisation and Industry 4.0 (the fourth industrial revolution) are changing the world of work to an unexpected extent. Bearing in mind the objectives of the Austrian Research, Technology and Innovation Strategy 2020 (FTI 2020), the whole issue of vocational education and training (the so-called Austrian “VET 4.0” programme) takes on a special importance. Cooperation projects between different vocational schools, industry and third level institutions have been established to enhance the professional skills of the young students in design thinking, cross-section teamwork and information technology.

Teaching digital skills should start at an early age: The initiative “School 4.0” imparts elementary skills for pupils and teachers. Further leading projects in STEM (science, technology, engineering and mathematics) education such as the STEM quality seal and 3D printing prepare pupils for the new challenges.

INVESTMENTS IN DIGITALISATION, RESEARCH AND INNOVATION

Research, innovation and digitalisation are the decisive factors for Austria’s economic future. The mission of the Federal Ministry for Digital and Economic Affairs is to promote Austria as a prominent technological business location, actively supporting opportunities for digitalisation both in industry and society while encouraging entrepreneurship.

It is of crucial importance to drive research, development and innovation in order to create the optimal framework for Austrian businesses to thrive. Moreover, digitalisation and its wide-ranging economic and societal implications must be anticipated, a process in which the ministry plays an active role.

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DIPLOMACY IN SUPPORT OF RESEARCH, SCIENCE, TECHNOLOGY & INNOVATION

The Offices of Science and Technology (OSTA) in Washington and Beijing provide services for stakeholders in science, technology and innovation. Financed by four different ministries, they transform the classical notion of science diplomacy into a dynamic professional instrument for internationalising Austria's research and technology development. OSTA become information hubs and strategic interfaces of Austria's science, technology and innovation initiatives in the US and Canada as well as in China, Hong Kong and Mongolia.

With Open Austria, the official Austrian presence in San Francisco since 2016, Austria is sending a strong signal to the world's most innovative and future-minded region. Open Austria's mission is to connect Austrian entrepreneurs, start-ups, scientists and creative minds to the best in Silicon Valley.

THE RESEARCH TAX CREDIT

Science and research are not only important for individual development, but also lay the foundation for innovation and evolution at a global level. With this in mind, the Austrian research tax credit was introduced in 2002, so as to create the best possible conditions to ensure a positive, innovative future for Austria.

On the basis of an assessment by the Austrian Research Promotion Agency FFG, companies may apply for the tax credit, which is available for commissioned research as well as internal research and experimental development (R&D). It covers 14% of total research expenses in an economic year and is available to all companies whose R&D activities comply with the statutory requirements. Approximately 3,000 companies now take advantage of the research tax credit.

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RED-WHITE-RED CARD FOR RESEARCHERS

Austria has established a transparent system that entitles researchers from third countries to temporary settlement and employment with a specific employer. Under the so-called “Red-White-Red Card” researchers count as particularly highly qualified individuals. They need to prove that they have adequate employment that corresponds with the researcher’s qualifications, and that they are paid adequately. The authority decides about the application within eight weeks. The “Red-White-Red Card” is issued for two years as a rule.

8 WEEKS
FOR THE
**RED-WHITE-RED
CARD**

NATIONAL AND EU DEFENCE RESEARCH FOR COMPREHEN- SIVE SECURITY NEEDS

The global security environment has evolved in an increasingly volatile and unpredictable way. Conflict and instability in our neighbouring areas require coordinated joint action, including modern military capabilities. Investing in future-oriented defence research programmes today is crucial to developing capabilities that will be needed tomorrow.

The Austrian Ministry of Defence addresses these challenges by launching a national defence research programme with the focus on Cyber, Chemical Biological Radiological Nuclear (CBRN) and Autonomous Systems, and thus contributing to the various EU defence initiatives. Accordingly, a High-Level Conference focussing on the “European Defence Fund” on 2 October 2018 in Vienna will provide further insight, convening stakeholders ranging from the political and military areas as well as from industry and academia.

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AUSTRIAN ERA ROADMAP

EXAMPLES OF IMPLEMENTATION

PRIORITY	ACTIVITIES	DESCRIPTION
ERA-Priority 1: More Effective National Research Systems	Innovation-promoting public procurement (IÖB)	Implementation of the guiding concept for innovation promoting public procurement
ERA-Priority 2a: Jointly Addressing Grand Challenges	Alignment of strategies	Alignment of Austrian strategies, measures and programmes with the jointly elaborated strategies at European level
ERA-Priority 2b: Make Optimal Use of Public Investments in Research Infrastructures	National infrastructure database	Access to the BMBWF Database for Research Infrastructures extended for industry
ERA-Priority 3: Open Labour Market for Researchers	Promotion of career models	Implementation of career models at non-university research institutions; Implementation of the new statutory basis for enabling a “tenure track”; Increase in the number of career positions at universities
ERA-Priority 4: Gender Equality and Gender Mainstreaming in Research	Awareness-raising and sensitisation (in the area of RTI)	Promotion and award for special achievements and measures in the area of gender equality and diversity
ERA-Priority 5: Circulation of Knowledge	Open Access	Creation of a national Open Access strategy with specific measures for the implementation of Open Access
ERA-Priority 6: International Cooperation	Cooperation and Networking	Successful participation in joint programmes, calls and projects

Source: Austrian ERA Roadmap Progress Report 2017, <https://era.gv.at/object/document/3358>



PFEIL 20 - PRACTICAL SOLUTIONS FOR A SUSTAINABLE FUTURE

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In 2018 the former Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) became the Federal Ministry for Sustainability and Tourism (BMNT). In addition to its former tasks, BMNT is now also responsible for energy, tourism and regional policy. The Research & Development Programme of BMNT, PFEIL 20, addresses a wide range of important topics in the fields of sustainable agriculture, climate change, environment, forestry and water management.

There is a special emphasis on strategic coordination and cooperation, in particular in the European Research Area. PFEIL 20 is implemented by Federal Offices and Institutes belonging to the Ministry and by research projects contracted out to third parties like universities, public research institutes or agencies owned by the government.

HOW SPORT CONTRIBUTES TO EUROPEAN WELFARE

Imagine you printed all available European data on the economics of sport in Excel standard format - the hardcopy would cover twice the Wimbledon Centre Court. On behalf of the Federal Ministry for the Civil Service and Sport, SportsEconAustria (SpEA) hosts this huge database to facilitate evidence-based sports policy formulation and drives European wide efforts to develop harmonised sport satellite accounts. Recent research on behalf of the European Commission shows that sport accounts for 2.12% of total GDP and 2.72% of employment within the EU-28. But the contribution of sport to welfare goes far beyond. Additional to the regional aspects of sport, three major dimensions are in the focus of the Austrian EU Presidency, namely sport as a driver of innovation, the health-enhancing effects of physical activity and the social value of volunteer work.

4.12%
— SHARE OF —
SPORT IN AUSTRIAN GDP



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"HORIZON 2020": WITH A SUCCESS RATE OF 16.9%, AUSTRIA IS AMONG THE TOP 3 SUCCESSFUL PARTICIPATING COUNTRIES



All states: 14.7% EU-28: 14.6%

Since 2014, over euro 870 million in subsidies have gone to Austria



Aim until 2020:

Gaining euro 1.5 billion
from "Horizon 2020"

EU Performance Monitoring

The EU Performance Monitoring is designed to collect, analyse and communicate data about the participation of Austrian organisations in Horizon 2020. EU Performance Monitoring for RTI is carried out on behalf of the federal government, represented by BMBWF, BMVIT, BMNT and BMDW.

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**FEDERAL
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USE OF NEW TECHNOLOGIES

The increasing percentage of foreigners has changed everyday life in Austrian prisons and confronted prison staff as well as prison administration with new challenges. One of the biggest challenges is the lack of sufficient German language skills. The project "Telemedizin" facilitates professional translation in almost every language within about 2 minutes thanks to professional interpreters approved for the medical sector. The use of new technology avoids misinterpretation, ensures the protection of highly sensitive medical data and implements the right to access to international healthcare facilities according to EU Council directives.

RESEARCH AND INNOVATION FOR TOMORROW'S CHALLENGES AND SOLUTIONS

By funding research and development in the technology domains production, mobility, energy, ICT, security and space, we tackle societal challenges and foster Austria's competitiveness. Among the highlights of our initiatives are: Silicon Austria is about to create a dedicated new research institution in the field of Electronic Based Systems. City of Tomorrow aims at a transition to an energy-efficient and climate-friendly way of living and working. KIRAS, as the first national security research programme in the EU, meets many requirements of the mission-oriented approach. The Austrian Space Programme supports key enabling technologies, vital for mobile phones, car navigation, satellite TV, cash withdrawals and emergency services. Mobility of the Future focuses on technological, social and organisational innovation in traffic and transportation.

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BMVIT – Federal Ministry for Transport, Innovation and Technology

BMDW – Federal Ministry for Digital and Economic Affairs

BMNT – Federal Ministry of Sustainability and Tourism

BMASGK – Federal Ministry of Labour, Social Affairs, Health and Consumer Protection

WKO – Austrian Economic Chambers

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