

Strategies and approaches to enhance the international dimension of HE and research

Experiences from Austria

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Baseline- Strengths & weaknesses of the R&I system

In 2018 the OECD did an overall assessment of the R&I strategy and funding landscape in Austria and has observed the following **strengths**:

- **Investment in R&D increased** remarkably to 3.19% in 2018. 2nd highest increase in R&D intensity of all OECD countries, exceeded only by Korea.
- The rapid expansion of R&D in **scientific outputs** was matched by a **similar increase in human resources for STI**. The of universities also grew rapidly.
- Austrian science, for example in the field of **quantum communication** and information, has world renown. Vienna is a major **biotech** hub in Europe, as is Linz in **mechatronics** and Graz in **automotive and production technologies**. Austria is also home to a number of firms which are world leaders in certain technological fields and niche markets. Austria performs well in Europe in the field of **Smart Grids**, leading some major EU projects in public transport in Europe.
- Furthermore, significant policy expertise and support exists for STI. **Government funding of business R&D** in Austria is significantly above the OECD average

Baseline- Strengths & weaknesses of the R&I system

More attention to the evidence-based achievement of specified impact, i.e. on the efficiency and effectiveness of its investment in STI – **what we have to work on:**

- **Increase the efficiency of investment** in R&D and better transform high levels of R&D investment into productivity growth, high-impact innovations and global market access;
- Better steer the entire innovation system towards excellence and **especially building an internationally excellent research system**
- Broadening and upgrading the **industrial R&D base** and accelerating Industry 4.0 uptake including the strengthening of the available venture capital base
- **Building a world class human resource base**- Ensure a sufficient supply of human resources for innovation in a context of disruptive technological change and evolving skills demand.
- Increasing the **contribution of science to innovation**
- **Adapting the policy mix** and strengthening policy governance e.g. via

New developments in the national the R&I system

- Austrias **new Strategy on Research and Innovation** called “RTI Strategy 2030” was adopted in December 2020 and will be valid until 2030.
- The related **RTI Pact 2021–2023** lists a number of measures and involved institutions
- The **Research Funding Legislation** has been updated with the aim of giving our main actors (mainly our agencies) a better planning perspective
- **Update of the federal statistic law** with view to opening data for research, which was quite complex with view to data protection guidelines etc.

The process towards the new RTI strategy

- **Continuous Task Force across ministries** on Director General level
- **Five subgroups have been created**, namely on research infrastructures, human resources, **internationalisation**, EU missions and partnerships, applied research and impact on business and society.
- Very **streamlined process for all the groups**: mandates, obligatory participation of the Finance Ministry and the Federal Chancellery, strict structure and length of the texts to be produced; contracted support team for organizational issues, obligatory stakeholder process, drafting team for coordinating all inputs.
- Subgroup for international cooperation had **members from six ministries**. Texts produced by the group have partly been included in the strategy but extensive cuts have been made – the whole Austrian RTI strategy is only 17 pages long

International elements in the new RTI strategy

- **Objective 1: 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 internationalization (research focus)
- **Objective 2: Focus on effectiveness and excellence.**
Mainly geared towards national efforts
- **Objective 3: Focus on knowledge, talents and skills**
Support researchers and students in developing an international outlook
(higher education focus)

Research focus

International elements in the new RTI Strategy

Promotion and strategic targeting of internationalisation

- Selection of international priority countries and expansion of targeted bilateral and multilateral research cooperations;
- Increased visibility for Austria as a location for research and innovation, and appropriate positioning of the country's image;
- Pursue expansion and settlement in Austria of internationally active technology companies, supported by appropriate instruments

International elements in the RTI Pact 2021-2023

1.1.3 Promotion and strategic targeting of internationalisation

Teaching and research targeted at internationality are key factors of academic excellence and essential for successful positioning of higher education institutions, research institutions and research companies in our global knowledge-based society. Higher education institutions in particular are already educating future leaders with a global perspective, European consciousness and an awareness of sustainable development. By this, they are making a significant contribution to the societal and economic position of a small but competitive country. Internationalisation of the RTI system can be improved and made more efficient by taking the following steps:

- Increase international visibility and networking, coordinating strategic international collaborative measures will be further improved, as will Austrian representation abroad in the RTI sector;*
- Formation of national, transnational and international collaborations, alliances and implementation of partnerships focused on specific issues (e.g. a climate protection cluster);*
- Selection of international priority countries and expansion of targeted bilateral and multilateral research cooperations;*
- Increased visibility for Austria as a location for research and innovation, and appropriate positioning of the country's image;*
- Expansion and establishment of internationally active technology companies and start-ups, supported by appropriate instruments*

Higher Education focus

International elements in the new RTI strategy

Support researchers and students in developing an international outlook

- Encourage active participation in international mobility programmes (particularly ERASMUS);
- Develop “internationalisation at home” in all levels of the education system;
- Participate in European research programmes (Horizon Europe) and increase participation by higher education institutions in international study programmes (Joint Study Programmes, European Universities, Fulbright);
- Improve the visibility of Austria as a research location and create attractive conditions that will appeal to international talents

International elements in the RTI Pact 2021-2023

1.3.2 Support researchers and students in developing an international outlook

Networking and exchange with international partners have been a reality in Austrian higher education institutions for several decades already. Collaboration within the framework of the Bologna Process, for instance, or participation in the European Union's Erasmus programmes is seen as valuable enrichment. The key to making Austria increasingly visible on the global stage in future as a centre of higher education, is increased internationalisation. The same is true for the young people leaving the education system and entering the employment market. Foreign language skills, study visits abroad, and a global mindset are important criteria for a successful start to working life.

- *Development of an internationalisation strategy inside higher education institutions, with a clear commitment to internationalisation embodied in an explicit framework.*
- *Integration of international and intercultural aspects into curricula and the teaching and learning environment, reflecting a comprehensive definition of the internationalisation of study and teaching.*
- *Collaboration with partner institutions in other countries in the form of shared study programmes, or "joint programmes".*
- *International cooperation for the creation of "European Universities" through the Erasmus+ programme.*
- *Expansion of institutionalised network structures with countries outside the EU (e.g. RINA— Research and Innovation Network Austria and ASCINA— Austrian Scientists and Scholars in North America). T*
- *Improve the visibility of Austria as a research location and create attractive conditions that appeal international talents.*

Summary

- In your processes how you have formulated your international strategies?

In a dedicated subgroup with six relevant ministries and stakeholder engagement as part of the overall RTI strategy formulation, no sub-strategy this time

- Ownership of the strategy – ministry, funding bodies, HEIs, RTOS?

Strategy is a strategy of the government but does tackle all other stakeholders as well through the RTI Pact and the performance agreements (Universities, Academy of Sciences, IST Austria)

- “Location” of the strategy in the overall map of policies of your country

Government level with implication to all lower levels

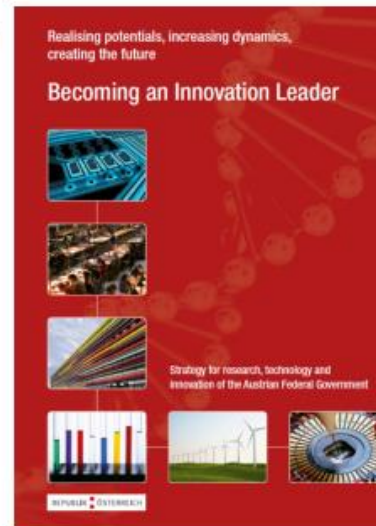
- 1) Steering and funding of the strategy – 2) indicators, monitoring?

1) Through the RTI Pact, Research Funding legislation

2) Task Force, RTI Pact, Evaluation after 5 years – rather vague

For inspiration – how we did it last time

- Overall National
RTI Strategy



- Sub-strategy
„Beyond Europe“

In the strategy valid from 2011 to 2020 a number of international issues were already anchored. But in addition the four ministries responsible for research, technology and innovation have developed a separate „Beyond Europe“ strategy that has focused on defining international cooperation activities and focus countries/regions through a 1 ½ year process involving key stakeholders.

For inspiration – how we did it last time

- **3 categories of prioritisation for countries / regions** established
Priority 1: CHN, RUS, USA, IND
Priority 2: KOR, BRA, ZAF, ISR, TUR, CAN, SGP, MYS, AUS, JAP
Priority 3: Africa, Latin America, United Arab Emirates, South-East Asia
Special target region south east Europe mainly in the context of EU activities
- **Main goals defined in the strategy are:**
 - Excellence goal, Market goal, goal to optimize resources, grand challenges goal, science diplomacy goal
- **Other areas covered** are: set-up of strategic intelligence in the field, selection of priority countries/regions along 3 categories of prioritisation, financial, human and organizational resources needed

Beyond Europe Strategy from 2013 (in german)

[FTI_AG7a_Brosch_re_Ansicht.pdf\(era.gv.at\)](#)

Available documents:

For EN documents related to the RTI strategy and Pact please see
<https://www.bundestkanzleramt.gv.at/en/topics/rti-strategy.html>

Updated Research Funding Legislation (in german) from July 2020
https://www.ris.bka.gv.at/Dokumente/BgblAuth/BGBLA_2020_I_75/BGBLA_2020_I_75.html

National Mobility and Internationalisation for Higher Education strategy
[Article | OeAD, Austria's Agency for Education and Internationalisation](#) (german)

Thank you for you attention!

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