

8 April 2014

## Recommendation on Austria's internationalization in research, technology and innovation

### Background

Research, technology and innovation are closely interwoven on an international level. All research countries compete globally in this network for the best locations for research and development, as well as the best researchers. Austria's positioning in a global RTI network is therefore an essential component for the successful development of Austria as a research and business location. The political and economic relevance of international relations increases and effects increased funding and expansion in this area. A study carried out on behalf of the Council compares<sup>1</sup> RTI internationalization strategies and structures for this in knowledge management in Germany, Switzerland, the UK and France. These research nations increasingly focus on a conscious RTI internationalization policy. Germany and Switzerland are intensively networked in the RTI area overseas (DWIH<sup>2</sup> and swissnex<sup>3</sup>). There are also attachés and technology councils at the local embassies, which report across-departments to different committees, whereby a shared knowledge and information management of science and foreign policy has developed.

The UK and France utilise their knowledge attachés in embassies in possible target regions differently to other countries. In the UK, the attachés' reporting is connected with a systematic analysis of the target countries. In France the Office of Science and Technology (OST)<sup>4</sup> produces regular reports on activities and scientific profiles of countries outside Europe (emerging countries in particular), which enables early identification of cooperation potential.

In both the countries mentioned and at EU level, there is agreement that, regardless of the specific targets of the stakeholders involved, strategic knowledge of the potential of future cooperation countries is absolutely

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<sup>1</sup> Sigl, L., Witjes, N. (January 2014): *Koordinations- und Kooperationsstrukturen für die Internationalisierung österreichischer Forschung, Wissenschaft und Technologie (EU-Drittstaaten), durchgeführt am OIIP*; <http://www.rat-fte.at/publikationen/articles/Publikationen.html>.

<sup>2</sup> German science and innovation companies.

<sup>3</sup> <http://www.swissnex.org/>.

<sup>4</sup> <http://www.france-science.org/Locations,375.html>.

necessary. There are, however, only very few systematic indicators for identifying future areas for science and technology. This always involves a combination of top-down and bottom-up priority setting: top-down in terms of a selection based on wide-ranging political criteria, and bottom-up in terms of personal knowledge and networks of priorities set by the research community.

With the "Becoming an Innovation Leader" RTI strategy, the Austrian Government outlined a dynamic path for research, technology and innovation in 2011. The measures described in it are intended to enable a well-developed knowledge and research system to rank Austria's scientific and technological performance in the group of leading innovation countries.

Controlling Austria's international positioning, not only in the European area, but also beyond Europe's borders, is a key factor for a successful policy for research, technology and innovation. Austria can refer here to a high foreign capital spending percentage. Companies with overseas holdings consequently contribute approx. one third to the entire R&D spending in Austria. The top country of origin positions are occupied by Germany, Switzerland, the USA, Canada and the Netherlands<sup>5</sup>. Just like internationalization initiatives at different levels in recent years, the measures implemented for research and development in Austria have contributed to making knowledge and research internationally visible in Austria. There is, however, a lack of communication structures to bundle the knowledge available in ministries, agencies and research institutions. Setting up a permanent work group<sup>6</sup> of the Task Force RTI for coordinating and implementing an Austrian foreign science and technology policy consisting of specialist departments underscores the importance of this task. The "Beyond Europe"<sup>7</sup> publication provides a direction-setting result from the work process of the 7a Work Group here.

On the basis of analyses, studies and discussions, five targets of the Austrian RTI internationalization policy and instruments, measures and recommendations are formulated herein. The different targets pursue thematic, organizational and geographical priorities for RTI internationalization here. The measures and tools for science, economy and diplomacy will boost each other reciprocally in this respect and promote international networking. The international dialogue and a mutual relationship with the partner countries require at all times that Austria's

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<sup>5</sup> See Research and Technology Report 2013, p. 42 ff.

<sup>6</sup> Representatives of the BMeiA with the inclusion of representatives of the most important Austrian RTI stakeholders work together in the "internationalization and RTI foreign policy" 7a Work Group of the Task Force RTI, headed up by representatives of BMVIT and BMWF. The group of RTI stakeholders includes representatives of the following institutions: ABA, AIT, AWO/WKO, AWS, FFG, FHK, FWF, OeAD, Forschung Austria, RFTE, UNIKO.

<sup>7</sup> Beyond Europe – Austria's internationalization in research and innovation across and beyond Europe – Recommendations of the AG7a to the Austrian Government's RTI Task Force (July 2013; [https://www.zsi.at/object/news/2786/attach/FTI\\_AG7a\\_Brosch\\_\\_re\\_Druck.pdf](https://www.zsi.at/object/news/2786/attach/FTI_AG7a_Brosch__re_Druck.pdf)).

attractiveness as a research, technology and "cooperation country" will continue to be enhanced. Presenting Austria as a destination country for young talent, outstanding scientists and international companies is an essential element of a successful internationalization strategy for Austria.

## **Recommendations**

### **Competence network set-up**

A responsible and future-oriented internationalization policy strengthens Austria as an important stakeholder in research, technology and innovation. The political mandate for this is specified in both the Austrian Government's RTI strategy 2011 "Becoming an Innovation Leader", and in the current work programme of the Austrian Government 2013-2018, "Successful. Austria." A functioning communication requires cross-department coordination of overseas activities and the provision of information for stakeholders, in order to enable the coordination and planning of individual activities and a joint presence of Austrian RTI stakeholders. The Council supports the activities of the 7a Work Group and actively contributes to communication and cooperation processes.

### **The Council recommends**

#### ***the set-up of coordination and communication structures***

- organization of RTI internationalization as an RTI cross-section topic and strengthening of the inter-ministerial coordination between the federal ministries involved, and further intensification of the coordination with BMeiA in particular. It is recommended the measures postulated in the report of AG7a ("Beyond Europe"), a governance structure for coordination, implementation and monitoring of the Austrian foreign science and technology policy be installed for the long term.

#### ***the knowledge management in terms of a coordinated information policy and a structured information exchange be intensified***

- the setting up of a regular "internationalization round table" be institutionalised with the RTI stakeholders.
- an "internationalization office" be set up – based on the European and International Programme (EIP) already existing in the FFG this agency could perform this function, which will act as a hub for knowledge management in the area of internationalization and for the coordination of international activities as commissioned and controlled by AG 7a.
- the presence in important partner countries (see prioritisation of countries by AG7a) be increased by setting up further OSTAs and dispatching RTI attachés.
- an HR pool be formed to cover the required HR requirements for this and to generate the highest possible flexibility, to follow current

developments and to temporarily fill field posts at short notice with "flying experts".

***to proactively generate knowledge on potential target countries***

- to provide a sufficient budget and generate a central data pool, to put the inter-ministerial control group in a position
- to commission structured (country) analyses to develop evidence-based internationalization activities
- to make control-relevant data available for RTI internationalization
- to guarantee monitoring and analysis of global RTI trends and national RTI internationalization activities, which can form a structured basis for decision makers.

***to intensify the promotion of research with international partners (outside of the EU)***

internationalization is promoted in Austria at European level with a variety of instruments and programmes. Uni, bi and multi-lateral instruments in research funding support international research and technology cooperation. Together with international mobility programmes, they therefore also represent an essential element of an efficient internationalization strategy.

The existing funding options for cooperation across and beyond Europe are, however, limited. They will therefore be intensified, as close networking is extremely important for Austria to promote scientific cooperation, enable knowledge transfer and to participate in international initiatives, research infrastructures and programmes.

This would require

- the conclusion of more bilateral cooperation agreements (agreements on scientific-technical/technological cooperation) with countries outside the European area (third countries) and promotion of the performance of joint calls in the science and technology area
- increased support of internationally oriented funding programmes and participation in international institutions to continue to enable target-oriented first-class research from Austria in the international research arena
- the expansion of existing programme formats for countries outside of Europe.