

“Chance favors the prepared mind”¹: A strategy for Research, Technology and Innovation (RTI) for the region of Burgenland

Walter MAYRHOFER, Silvia HUBER, Georg PEHM
University of Applied Sciences Burgenland

Western industrial societies and the global economy are subject to constant changes, often caused by scientific findings, new technological developments and innovative products. In the 21st century creativity, ideas and interdisciplinary thinking will be the key for successful research and economic development. For the Burgenland region, it is of utmost importance to prepare for this development in order to stay “fit for the future”. The RTI-strategy Burgenland 2025 is intended to secure the development of the necessary regional competences and advancement of its economic and social position.

Due to its geographic location and historical context, the Burgenland is predominantly rural and hence possesses few research-intensive economic sectors and industrial companies. Until about 20 years ago, it also lacked tertiary educational institutions with an affinity to research and development and non-university/extramural research institutes.

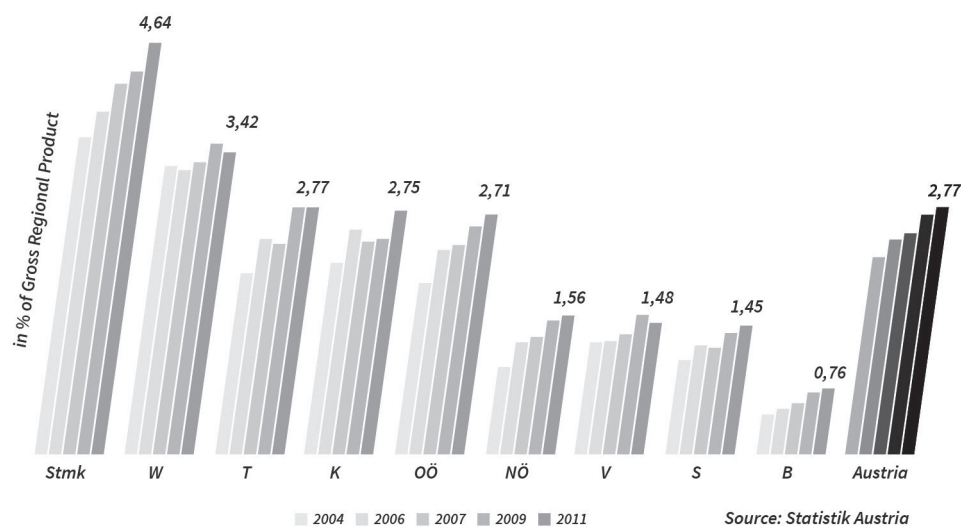
Since the Austrian accession to the European Union (EU), the Burgenland has shown remarkable advancements in infrastructure, education and economics. This dynamic development is to be continued within the next 10 years in the key areas of research, technology and innovation. Hence, in the autumn of 2013, the government of the Burgenland decided to initiate a strategic plan for the advancement of RTI. The mandate to prepare a RTI-strategy was given to the University of Applied Sciences Burgenland and the Wirtschaftsservice Burgenland Aktiengesellschaft (WiBAG).

Nowadays, research, technological development and innovation are almost always done in teams. The development of a comprehensive RTI-strategy also needs the “wisdom of a team”. A strategy process that included broad levels of stakeholders and experts was thus initiated to involve as many fellow thinkers and idea-generators as possible in this critically-important project.² Finally, the development of this strategy involved more than 40 experts who contributed a vast amount of personal commitment totaling about 4,000 hours.

1 Initial situation of the Burgenland

Since the Austrian accession to the EU, the Burgenland has shown exceptional economic development.³ Favored by the fall of the Iron Curtain and the joining of the EU by the neighboring countries, the Burgenland regularly shows above-average economic growth rates.⁴ This has been accompanied by a substantial increase in employment⁵ and average

incomes⁶. However, in comparison to the other Austrian regions in the area of research and development (R&D), the Burgenland has substantial room for improvement. The image below depicts the development of expenses for R&D divided by the Gross Regional Product (research quota) in comparison to other Austrian regions between 2004 and 2011.⁷ Looking closely at the underlying data, it can be derived that in comparison to the economic performance and population in the Burgenland, the expenditures for R&D in the private and public sectors are substantially below average.



2 Objectives of the RTI-strategy Burgenland 2025

To ensure the future viability of the Burgenland region and its population, a substantial increase in RTI-related activities is necessary. The RTI-strategy Burgenland 2025 supports this objective due to the involvement and synergetic connection of all relevant public and private actors on the regional and federal levels, as well as the integration of selected international partners. To that effect, the subsidization activities of the region will increasingly be oriented towards criteria fostering RTI and existing areas of excellence or areas to be developed. Moreover, the activities to raise national and European research and structural funds will be enhanced. Finally, a focused positioning with respect to its areas of excellence as well as the creation of a positive climate for innovation in business, education and culture is at the core of the developed strategy. The RTI-strategy focuses on applied research; namely, research and development that have a strong connection to practical implementation and commercial application. However, this does not mean that curiosity-driven research or non-commercial research is unwanted or perceived less valuable. Fundamental research and applied research are not to

be seen as competitive but rather as complementary parts of a system that needs both areas in order to function effectively.

3 The journey is the reward: strategy process and result

The strategy that was presented to the regional government of Burgenland in July 2014 describes the planned development of research, technology and innovation in the Burgenland between 2015 and 2025.⁸ It actively addresses the recommendations of the Austrian Court of Audit with respect to the research strategies of the Austrian regions⁹ in 2012 and also connects the relevant areas for the Burgenland to the federal RTI-strategy¹⁰ from 2013. Moreover, it closely links its contents to the European Research Area and the topics covered by the Horizon 2020 Program of the European Union.¹¹

4 Vision of RTI-Burgenland 2025

One of the central objectives of the RTI-strategy is to make the region of Burgenland “fit for the future”. Starting with the analysis of the initial situation, the RTI vision was developed to serve as a basis for defining strategic focus areas and optimal framework conditions. For a prolonged time, the Burgenland has built up areas of excellence, i. e., sustainable energy production and supply. According to the principle “to strengthen the strengths, but leave room for the new and unexpected”, three focus areas for the Burgenland were defined:

- sustainable energy
- sustainable quality of life
- intelligent processes, technologies and products

The linking-up of the institutions of the Burgenland with institutions from other regions and abroad will lastingly strengthen the strategic RTI-position of the Burgenland. The regional institutions and companies will have improved access to information, personnel and research infrastructure, and be in increased demand as project and business partners. The promotion of knowledge work and the starting-up of technology-oriented and innovative service companies are especially important for increasing RTI. Further, applied research for the benefit of Small and Medium-Sized Enterprises (SMEs) and the support of the pre-incorporation phase of enterprises are critical success factors. The creation of new knowledge-based jobs in established companies; in incubators and co-working-spaces; and moreover innovative company start-ups, will enable the Burgenland to attract and retain top R&D personnel. However, it is equally important to qualify existing companies to perform RTI-projects.

By means of cooperation programs and networks for SMEs, the disadvantages of being small-sized can be overcome. The identification and development of role-model RTI companies, which can act as “pace makers” and “trail blazers” for certain sectors and geographic regions, is crucial. The educational institutions in the Burgenland are well-

prepared to support the transformation into a knowledge and information society. Yet, it is important to concentrate on the different educational chains across different institutions (trade schools, high schools, universities) in the RTI-focus areas.

Improved coordination and targeted facilitation will lead to increased R&D expenditures a growth of value-added production and high-quality jobs. The anchoring of the RTI-strategy and a positive political commitment to put R&D on a broad basis are success-factors for the future of the Burgenland and its people.

5 Strategic areas of action

The timely achievement of the set goals is tied to the consequent implementation of the subsequent strategic areas:

- development of an increased public-awareness for the importance of RTI
- advancement of available human resources
- improvement of research infrastructure
- services for pre-incorporation candidates, start-ups, SME and existing industry
- implementation of an RTI-coordination entity

For the particular areas, a vision, objectives, measures and responsibilities were defined.

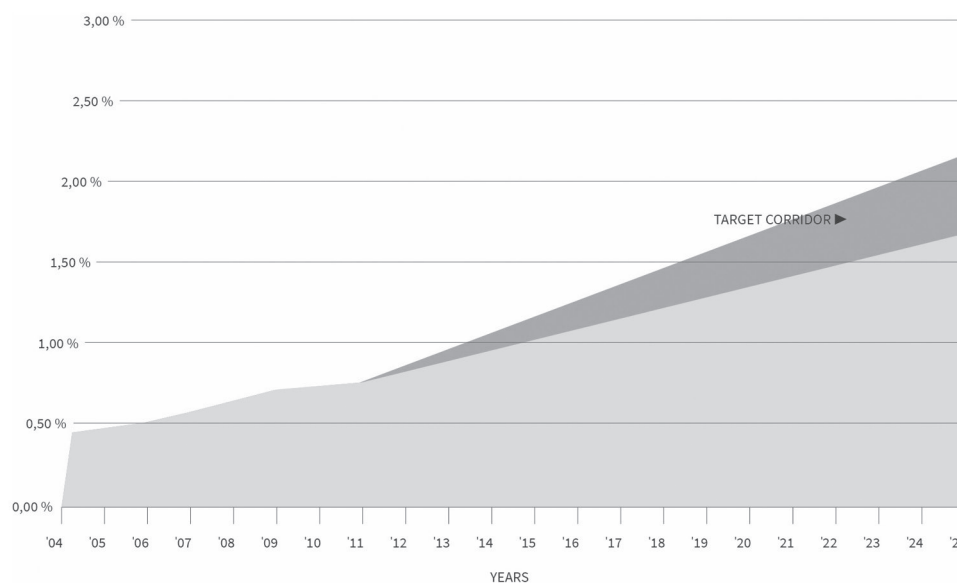
6 Optimal framework conditions for RTI

The RTI-strategy Burgenland 2025 is not an isolated strategy; it is interconnected to all relevant regional concepts and plans, especially those for infrastructure and regional development. To harness synergies, it is necessary to establish crosslinks and consider the budgetary requirements. The following extended areas are especially important for the success of the RTI-initiative of the Burgenland:

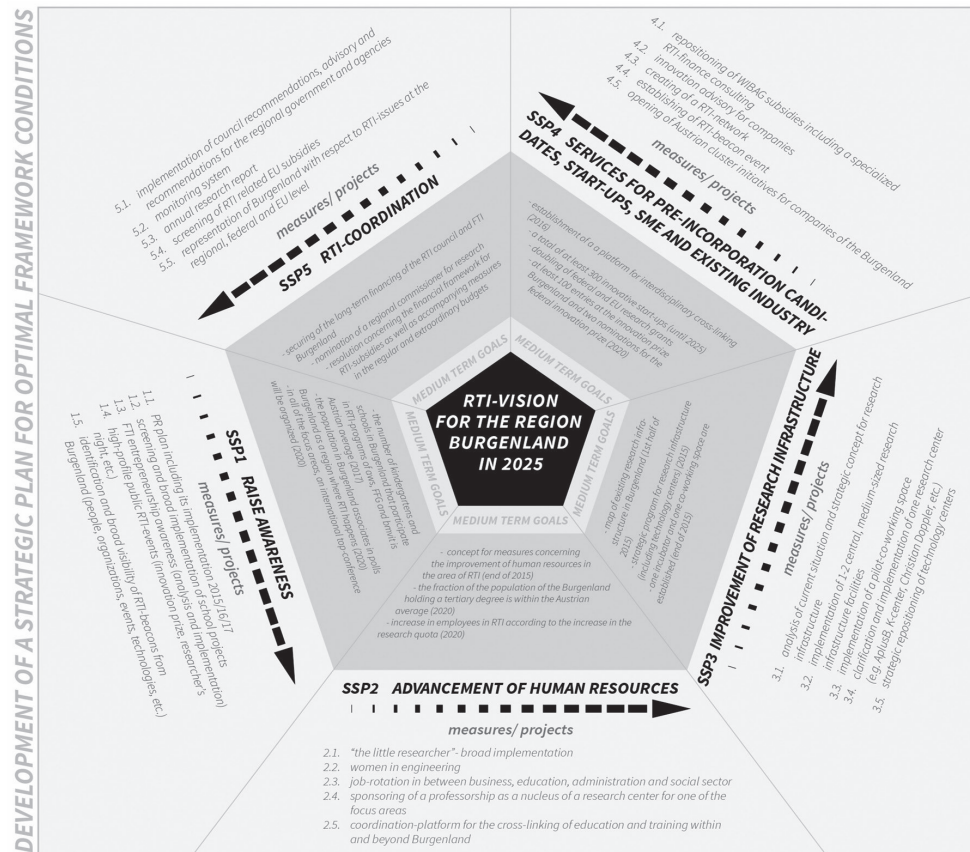
- communication technology
- connection to high-ranking traffic infrastructure
- office and laboratory infrastructure
- funds for start-ups and innovation
- service-oriented administration
- attractive living environment
- establishment of a “start-up, innovation and research community”
- RTI as a self-reinforcing process
- establishment of specialized FTI-services
- support by means of public procurement programs
- support of applied research and fundamental research
- economic implementation of innovations

7 A long journey starts with a first step

A dynamic development of the region and its citizens into a knowledge and information society secures future wealth and quality of living. With its objectives for the RTI-strategy, the Burgenland conforms to the EU-action plan, published in 2013, of the FTI-task force¹² of the Austrian federal government. The increase in RTI-activities in the Burgenland will be reflected in the expenses for research and development, and hence, in its research quota. To illustrate the necessary R&D-spending needed to reach a certain research quota, scenarios for the development of the research quota were compiled. It is noted, that the basis of those scenarios is a simple linear model that does not take possible dynamic effects into account. The model defines a target-corridor for the development of the research quota for the Burgenland. The relatively wide corridor results from the dependency of the general economic situation.



The realization of the proposed measures secures existing and creates new knowledge-based jobs. To achieve this, incentives for increased RTI in existing companies as well as the creation of start-ups should be provided. A council for RTI will be established to secure the implementation and further refinement of the RTI-Strategy Burgenland 2025. This council will be formed by experts from research. The management of participating research organizations will be supported by an agency that was incorporated in the autumn of 2014 and was dubbed FTI-Burgenland GmbH. The preparation of the RTI-strategy Burgenland 2025 was the first phase of a project supported by the EU. Subsequently, a plan for the execution of first measures was formulated.



At the core of this plan is the RTI-vision for Burgenland in 2025 based on five strategic areas:

- development of an increased public-awareness for the importance of RTI
- advancement of available human resources
- improvement of research infrastructure
- services for pre-incorporation candidates, start-ups, SME and existing industries
- implementation of an RTI-coordination entity

Based on these strategic areas and their medium-term objectives, five projects were defined. The projects will be implemented within a three-year period and be regularly evaluated. Further, the RTI-strategy Burgenland 2025 will also be regularly revised to adjust to changing conditions.

8 Summary and outlook

The presented RTI-strategy for the Burgenland is a thoroughly thought-out strategic plan based on the involvement of a broad spectrum of stakeholders and experts. In combination with an ambitious and successful policy for education, as well as smart investments into RTI-infrastructure and a focused promotion of economic development, the region will be able to improve its competitiveness.¹³ Yet, the RTI-strategy will have effects beyond its economic dimension. It will foster and strengthen the self-confidence and future perspective of a whole region that for decades was adversely affected by its political position between East and West and its geographic location at “no man’s land” along the Iron Curtain. These “soft-effects” are probably as important as the actual measures of the strategy proposes.

Today, the Burgenland has moved from a position on the fringes of Western Europe into the center of Europe and its self-image is that of a region on-par with its neighbors. The RTI-strategy is another milestone evolved from a structurally underdeveloped peripheral area to a modern, self-assured and connected region of knowledge.

References

- 1 Louis Pasteur
- 2 For the entire process comp.: Fachhochschule Burgenland (Hg.), *fti strategie burgenland. forschung, innovation, technologie*. Eisenstadt 2014
- 3 Georg Pehm/Monika Stiglitz, Fördern und fordern. Burgenland zwischen Aufstiegsstrategien und Stabilitätspflichten. In: Georg Pehm/Peter Plaikner (Hg.), *Burgenländisches Jahrbuch für Politik* 2011/2012. Eisenstadt 2012, S. 214–222
- 4 Between 2001 and 2013 a comparison of Burgenland’s Gross Regional Product with the other Austrian regions shows an average annual increase of 3.2%. This puts the Burgenland clearly above the Austrian average of 2.8% and together with Upper Austria and the Steiermark in second place with respect to economic growth. Siehe: Statistik Austria, Volkswirtschaftliche Gesamtrechnungen, eigene Berechnungen., source: http://www.statistik.at/web_de/statistiken/volkswirtschaftliche_gesamtrechnungen/index.html (10.02.2014)
- 5 Between 1996 and 2013 employment in the Burgenland increased for about 21.200 jobs. In 1996 the average number of employees was about 76.000 and increased until 2013 to about 97.200, source: Statistik Burgenland, Amt der Burgenländischen Landesregierung (hg.), *Jahrbuch 2013*. Eisenstadt, 2014, S. 127
- 6 The arithmetic means of the annual salary of the employed population in 2012 in the Burgenland was EUR 30.866 and hence above the Austrian average and behind Vienna and Lower Austria on third place amongst the nine Austrian regions. Source: Statistik Burgenland (2013), S. 134.
- 7 Data for the year 2013 was not available at the time of the publishing of this article
- 8 source: Fachhochschule Burgenland (2014)
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