

PROGRAMMES FOR ENTREPRENEURSHIP POLICY DESIGN AND DELIVERY AND THE EXPERIENCE OF GERMANY: A LEARNING MODEL

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EXIST – Start-ups from science – Description of the approach: EXIST 1997 - 2010

History and programme philosophy

Throughout Germany a vast number of different laws, initiatives and programmes aiming at boosting entrepreneurship have been implemented at local, regional (State), and Federal level with varying impact. The EXIST programme is probably the most successful of its kind. This chapter briefly summarises the development of the scheme over the years.

This EXIST initiative is still ongoing and expected not to end before 2010. By then, sufficient momentum to maintain and further strengthen an entrepreneurial climate in knowledge-intensive communities (particularly at Universities) will definitely have been achieved. The programme was launched by the Federal Ministry of Education and Research (BMBF) and is today administered by the Federal Ministry of Economics and Technology (BMWi).

EXIST aims to motivate and enable regions to stimulate and support the creation of companies out of universities and research centres based on a regional network concept. Typically, national level supports local level, in order to ensure powerful regional partnerships. Thus, EXIST has succeeded in bringing together the triple helix dimensions of research/education, business and policy/administration by motivating different policy levels (national, regional and local) to co-ordinate effectively.

From the very beginning, the overall scheme and the regional initiatives were evaluated in-process and scientifically accompanied by the *Fraunhofer Institut für System und Innovationsforschung* (Fraunhofer ISI – Institute for system and innovation research).

Inception of the EXIST initiative (1st phase)

In 1997, the Federal Ministry of Education and Research launched a competitive call open to all University regions. Formally, minimum demands on a regional partnership were specified, saying that at least one partner from science, one from business and one from policy should co-operate. These minimum demands have by far been excelled in reality.

From out of more than 100 applications, 12 regions were invited to submit a concrete business plan specifying how they would achieve their targets. In particular, applicants were required to binding commitment letters from business, research and policy to contribute financially and in-kind to the success of a regional EXIST programme. Each of the 12 regions received approx. €100 000 to prepare the final application.

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Out of the twelve pre-selected regions, in 1998 five winning partnerships were selected. They received substantial co-financing from the federal authorities to feed their regional programmes. Between 1998 and 2001 (year of the EXIST Idea Competition), the federal budget for EXIST amounted to approx. € 21.5mn. Eligible costs for federal co-financing included labour costs (incl. overheads), equipment and external expertise (consultants, studies, etc...).

The five winning partnerships are:

- Bizeps (Wuppertal, Hagen: www.bizeps.de).
- Dresden Exists (Dresden: www.dresden-exists.de).
- GET UP (Illmenau, Schmalkalden, Jena: www.tu-illmenau.de/get-up).
- KEIM (region of Karlsruhe/Pforzheim: www.keimforum.de).
- PUSH! (region of Stuttgart: www.push-stuttgart.de).

EXIST-SEED

In 2000, the programme EXIST SEED was started. Students, young graduates and University staff could apply for financial grants covering the costs of one year of living and a lump sum for paying coaching for their start up process. Initially, this programme was limited to the five winning regions. Since 2005, the programme has been extended to all German Universities.

EXIST – Transfer (2nd phase)

In 2002, ten additional regional partnerships were selected by a jury (EXIST-Transfer) to join the programme. The new regions receive considerably less money than the five model regions (which still receive financing). The total budget for EXIST transfer amounts roughly to €10mn. The new selected regions receive coaching support from the five model regions. Over time, the circle was opened even wider, comprising some twenty EXIST partnerships today. Good practice documentation is shared amongst regions.

EXIST III (3rd phase)

With entrepreneurial culture and professional infrastructure in place, the third stage of EXIST shows a stronger project nature. Specific projects at both Universities and research institutes aimed at fostering entrepreneurship are selected for financial support.

Impact examples

The ultimate objective of the initiative has been to strengthen the entrepreneurial climate in Germany's knowledge-intensive communities, primarily at Universities and research institutes. This has been achieved to a large extent, although quantification is difficult.

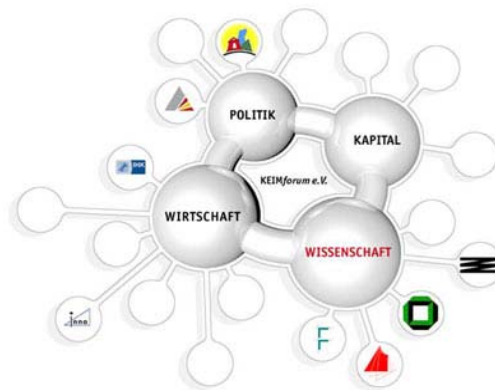
Main outcomes of the initiative comprise:

- Setting entrepreneurship in the spotlight of all relevant communities, be it media, policy, business, education or research. This is mirrored by the fact that two of the five model regions have been honoured as the best thematic networks for the promotion of start-ups and

growth of innovative businesses in Europe (KEIM and PUSH!). Evaluations indicate that in the five model regions alone some 550 companies have been created thanks to the EXIST initiative.

- Sustainable structures have been set up that will develop beyond the formal end of the EXIST scheme (probably in 2010). For example, the KEIM project has been institutionalised in form of an association (KEIM e.V.) and has later been expanded to KEIMFORUM e.V., in which eight key members from research (University of Karlsruhe, Research Centre Karlsruhe, University of Applied Sciences Karlsruhe and Pforzheim), from business (the private firm Inno Germany AG and the Chamber of Trade and Industry) and from policy (City of Karlsruhe, Technology Region of Karlsruhe form the core of a wide network) participate.

Figure 3. KEIM: an example of a successful regional partnership for entrepreneurship



Source : <http://www.keimforum.de/pages/partner.php>.

Rationale for the policy intervention

The overall rationale for initiating the EXIST scheme was the insight at federal political level (BMBF) that the underlying reasons for the often stated “paradox” that Germany (like many other European countries) produces lots of first class research results but fails to exploit their commercial potential needed to be addressed. It was rightfully believed that a major barrier to valorisation was the lack of an adequate entrepreneurial culture at Germany’s Universities and research institutes. This was obvious for staff and students.

Although this is a key matter of national concern, the power of the Federal Government is limited, as Universities are primarily financed at national level. This was probably a key reason for stimulating partnerships at a national and local level by means of financings and a top award.

At federal level the broad outlines of policy objectives were defined as follows:

- Sustainably creating a culture of entrepreneurship in education, research and administration in Germany’s Universities.
- Systematically exploiting the commercial potentials of academic research.

- Fostering the huge potential of business ideas and entrepreneurs at universities and research institutes.
- Increasing the number of knowledge based start-ups and thus securing and newly creating new sustainable jobs.

Why the approach is relevant to Croatia

The approach is designed to master one of the key challenges Europe faces, today: lack of professional valorisation of research potentials and results. This major shortcoming is due to a lack of entrepreneurial climate and due to weaknesses in the innovation support infrastructure. These weaknesses are not typically German, but have been identified in varying intensity in nearly all European regions within the framework of the RITTS/RIS projects. The most important ones are listed in the following:

- Lack of need orientation of the infrastructure: this holds true both in terms of what is offered and how it is offered.
- Lack of inter-connectivity in terms of strategy and service/competence delivery, i.e. there is fragmentation instead of a holistic system approach.
- Lack of transparency from both a provider's competence and a user's point of view.
- Lack of critical mass (both in terms of competence and financial resources). This point has been systematically addressed in many countries recently by merging small administrative units to larger regions. It is too early to judge whether these measures (e.g. in the U.K. and in Sweden) will be successful.
- Lack of sustainability.

Croatia appears to be a high potential candidate for implementing an EXIST type initiative. It holds high competence in respect to some technologies, but at the same time it lacks the entrepreneurial skills and culture for exploiting these technologies. Furthermore there are pushing champions who are dedicated to success and the necessity to act united is obvious. Of course, it appears meaningful to select fewer winning regions (preferably two or maximum three) which means that total budget would be substantially lower compared to Germany.

Success determinants

The following list of success determinants is based upon personal experiences from active participation, numerous discussions with practitioners from the innovation support infrastructure and with entrepreneurs. Also, it takes into account the findings of a scientific in-process evaluation. It has to be kept in mind, though, that due to the complexity of determining causal mechanisms in the process of fostering start ups, the list remains incomplete and mirrors the subjective views of the author:

- *Relevance:* The scheme addresses a key bottleneck in ensuring successfully striving for wealth/economic growth, environmental sustainability and social cohesion: it promotes an entrepreneurial culture in communities of high technical competence and thus powerfully contributes to the valorisation of research potentials and research results.

- *Philosophy*: The scheme takes a holistic approach and demands for heterogeneous regional partnerships of critical mass. In particular, it provides a successful cooperation model bringing together partners from research organisations, administration and business, all aiming at the same goal.
- *Courage*: The scheme is based upon the insight that “in order to make regions competitive you need to let them compete”. Just five winning proposals were picked out of originally more than one hundred applications. This has resulted in a number of positive effects: (1) prestige for the winning regions and dedication of the five winning regions to really try their very best; (2) motivation of non-winning regions to try on their own to show that they are as good as the winners and demands from non-winning regions to offer them a second chance (this reaction is only possible if the prize is judged important by the relevant community).
- *Learning attitude*: An in-process evaluation and close interaction between the five model regions allowed for the establishment of a joint body of knowledge. This knowledge was transferred to regions invited into the circle at a later stage (EXIST Transfer).
- *Critical mass*: The money and reputation provided to the selected regions was highly substantial. It motivated and enabled the partnerships to professionally engage in their ventures.
- *Sustainability*: The scheme has already lasted for 10 years and is still going on. Spin off activities financed by the regions themselves or third parties have been explicitly encouraged. Sustainability supports reputation and transparency.
- *Embeddedness with relevant context*: No individual scheme, regardless its holistic nature, can dramatically develop an entrepreneurial climate in a hostile environment. In order to succeed, attention must be paid to relevant framework conditions. One important context variable is the incentive mechanism. For example, in February 2002, Germany changed IPR ownership of University professors from being held by the individual (professor’s privilege) to being held by the employer (i.e. the University). This change in law has motivated Universities to invest in the process of commercialisation. Income generated through exploiting the rights is shared with the individual. As a good practice example, the University of Karlsruhe, the Helmholtz Research Centre of GeoSciences, two top researchers and the private valorisation form engage AG have jointly set up the CEDIM AG (This is the first of its kind and was only possible due to a recent change of law in the German State Baden-Württemberg).
- *Transparency*: All decisions, particularly the selection process, need to be fully transparent to the community. In particular, it has to be clear what the selection criteria are (in the example of EXIST exclusively quality criteria, no regional policy dimension) and who makes the decision (in the case of EXIST top representatives from business and research without any connection to one of the applicant networks).

Obstacles to implementation and approach to face them

There were surprisingly few obstacles of real importance. Some few key issues are listed below:

- Unwillingness of regional players to co-operate:

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- A successful approach of mastering the challenge is an attractive financial “carrot” from Federal level linked to the obligation of joining key regional forces. Applications submitted by one organisation only are not even looked at. This helps to enforce contacts.
- It has proven that just getting started helps players to overcome their prejudices about each other and that working together is the basis for trust. Long-term financial support has proven successful to allow such trust to grow at an adequate pace.
- Lack of budget:
 - In order to get a critical mass of finance it takes courage to focus on a nation’s most important issues and to focus implementation on the most promising strands, i.e. entrepreneurial culture is of a nation’s key importance and it can best be fostered by supporting the learning process of the best regions, which at a later stage transfer their experiences to other regions.

Consideration for successful adoption in Croatia

Successful implementation of an EXIST-type scheme in Croatia will depend on a number of key factors (besides the success determinants as discussed in the previous chapter). The most important ones are probably:

- Existence of champions (individuals and institutions) who are prepared to serve as promoters of such an exercise and who are prepared to fight routine comments like: “It’s a good idea, but too early”; “This is too new to really work”; “I know the players, they compete and do not co-operate”.
- Adequate financial resources to provide an incentive to the regions which will motivate regional players to join forces despite ongoing rivalries.
- Adequate budget for programme management and in-process evaluation.
- Willingness of the triple-helix partners to cooperate with the aim of creating an entrepreneurial culture.

One could think of making use of the EXIST experiences by integrating professionals with EXIST track record as process consultants/co-evaluators and invite EXIST experienced policy makers from Federal and national level into an Advisory panel. In any case, it might be a good start to conduct a study trip to key EXIST players on Federal and regional level.

Contact details and website for further information

All the information in this document has been extracted from the European Trendchart on Innovation in Europe and its Innovation Policy Knowledge Base:

Web-site: http://trendchart.cordis.lu/tc_datasheet.cfm?id=7672

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Further information on the EXIST initiative can be obtained from the official programme website:

Web-site: <http://www.exist.de/>

For a good practice case on regional implementation see e.g.:

Web-site: <http://www.keimforum.de/>