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STEM FOR BUSINESS

**PPP IN ITALY, GERMANY AND AUSTRIA:
KEY SUCCESS FACTORS ANALYSIS**

2018



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Introduction:

Objective of this report is to present most suitable solutions in guiding youth to STEM (science, technology, engineering, mathematics) or in stimulating young researchers to work market oriented. Best practices from Austria, Germany and Italy are analyzed and described. Project partners of EEII executed a desk research to identify relevant programs. Those successful programs are knowledge base for future European Early Innovators Program.

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The present document represents a summary of the most important factors that make PPPs initiatives for STEM successful in Italy, Germany and Austria.

Jugend Forscht (Germany) and Jugend Innovativ (Austria) are similar initiatives in administrative and network structure as well as in contest deployment. Full description is provided in separate documents. Basic concept of these contests consists in **pitching the ideas** in front of a specialized jury, supported by an **exhibition stand** opened for the public. Also awards are given by highly positioned government officials.

When it comes to success factors, those main features that make contests like Jugend Forscht and Jugend Innovativ bring great results at national level can be summarized as it follows:

- Time proving and access to media awareness:

In 1987, at a time when project teaching and interdisciplinary work was still a foreign concept in many schools, the innovation agency, as the predecessor of today's Austria Wirtschaftsservice, together with the Pedagogical Institute of Vienna, started a school trial on practical teaching. The aim was to reduce the fear of contact with new technologies and project work in schools. Eight Viennese AHS participated in the interdisciplinary classes. In the following year, the pilot attempt went into series production with great success. 60 projects (at that time mostly from AHS!) were submitted from all over Austria.

In 1965, a media editor of the well-known Stern magazine from Germany created awareness related to education by hardly promoting the motto "We need the scientists of tomorrow". This is the year when the foundation supporting Jugend Forscht was established also. More than that all the media ties available were used to seed the the focus of German society, in general, on science, progress, etc.

- Business people, companies aware of the role of education and their willingness to invest in it;
- Recruitment of teachers for volunteering and their certification as project managers (Jugend Forscht) or involvement of specialized bodies like the Department for Business area Entrepreneurship | Property Rights | Seedfinancing | Creative Industry and Entrepreneurship of Austria Wirtschaftsservice (state-owned company).
- President and Board of Trustees build from people really involved in the process of education (Jugend Forscht);
- Openness of state-related institutions to adopt one of the existing initiatives and transform it into state-initiative;
- Access to already existing and organized research networks and general interest/awareness in growing and promoting young generation (I would call it trust and support in the next generation);
- Trainings for teachers;
- Network of multipliers in case of Jugend Forscht (ambassadors; competition directors);
- Direct connection to the local ministries/administration bodies and their involvement in making this initiative work;
- Guidance for patents;
- Database with projects and prizes that were won during time;
- Volunteering talent promoters;
- Benefits for schools: equipment received by younger for contest project become property of the schools;
- Free advertising materials provided;
- Packages of advantages for companies to get involved;
- Teachers (project managers) searching for internships; project visits, other benefits for students.

A summary of the benefits that can be offered to sponsors (companies) can be summarized as it follows:

- Spread the seed of a golden rule: anyone who engages in youth research invests in the promotion of young talent secures their own future on long term;
- Strengthening the corporate culture of regional companies through generally shared commitment to active promotion of young STEM talents;
- Businesses can leverage the support of such initiatives in their corporate social responsibility strategy;
- Engagement in supporting such initiatives clearly increases the public perception of a company;

For example, Jugend Forscht receive annually 1 Mio EUR donations in the form of sponsorships, prizes or equipments. All this go to young people or to schools. Companies are very interested and involved to make such donations because they understand the importance and are willing to receive qualified trainees. More than that, companies when they have CSR campaigns organize contests in the framework of Jugend Forscht since the image in the press is unmistakable and unique.

- As part of the competition's press and public relations activities, the partners of these contests are able to communicate their own core messages very effectively;
- Support to HR strategy on long-term:

Sponsoring such contests has a positive influence on recruiting qualified junior staff. Companies can present themselves as an attractive employer, especially in their region. This is the main reason why almost all sponsoring companies employ former winners. On the one hand, apprentices have the opportunity to participate in youth research as part of their vocational training. On the other hand, a number of companies have their own competition organized by already experienced trainees.

- All partners have better business synergies and define new connections by a deeper purpose: being members of the large youth research network, as organizers of a competition, for example, they have the opportunity to establish a variety of contacts with regional players in politics, business, education and science.

There are 3 **key success factors** that make this initiatives like Jugend Forscht and Jugend Innovativ bring the results that are shown in their officials statistics:

- a. Efficient and well known media- catalyst;
- b. Linking Corporate Social Responsibility (CSR) department, HR department and Product Innovation department from companies to education – related networks;
- c. Willingness of the state specialized ministries to hardly promote more one initiative constantly and to transform it into state-action.

Jugend Grundet (Germany) and PNI Cube (Italy) are also similar initiatives in which the basic concept consists in business online simulation with emphasis on **business plan building**. Full description of these initiatives is provided in separate documents.

Main features that make these initiatives successful are to be seen as recommendations for implementing similar programs in Danube Region. These are

- association constituted with the purpose to connect the already existing research structure at the level of universities;
- volunteering-based activity;
- association connecting main/the most popular existing initiatives in the field of research and supporting their continuity by creating synergies through contests emerged from regional level;
- barter-based activity by involving different successful companies in selling their mentorship services;

- government support in such successful initiatives in connecting different levels of contest;
- involving different players, year by year, in offering prizes and mentorship services;
- supporting results and creating platform for opportunities resulting from different contest level within regions;
- Intrinsic recruitment program for companies;
- Contest consortium built from important players in the development of the society, involved in promoting initiatives from grassroots to the governmental level.

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