WBCInno CBT: Development of Science and Technology Parks and Business Incubators in Serbia through strengthening of their capacities and cooperation with universities

9-10 September 2014, Belgrade, Serbia

– *Establishment of Creative and Entrepreneurial Framework with Schools and Universities* –

Ines Marinkovic

Agenda

- Introduction
- Communication, Cooperation, Coordination - Current state and challenges
- Establishment of creative and entrepreneurial framework with schools and universities
- Goals and support actions

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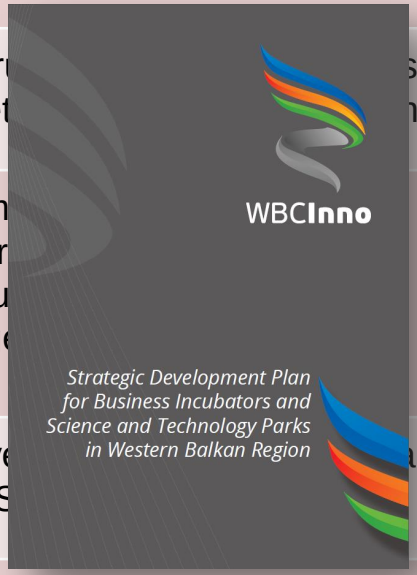
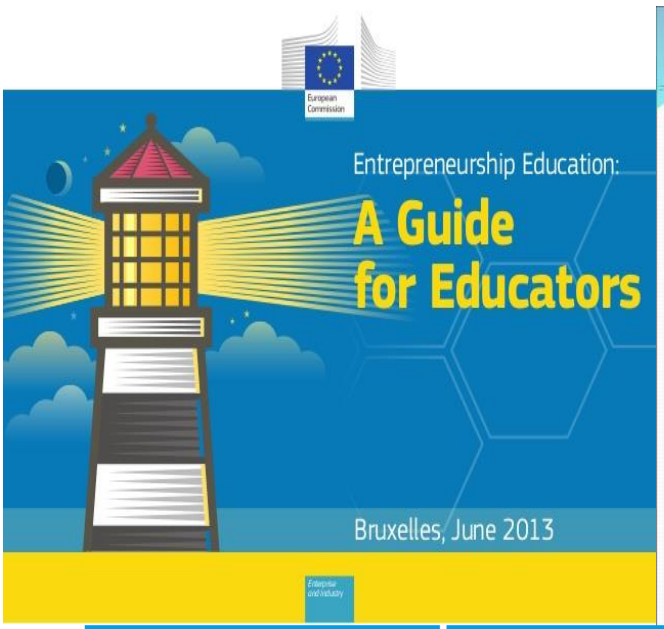
Suggested Measures

BIs / STPs	
M1	Improvement of organizational and financial framework of BIs/STPs
M2	Infrastr…suited to meet…needs
M3	Implem… softwar… commu… manage…
M4	Improve… of BIs/S…ants
M5	Application of new incubation models – virtual business incubators



Universities	
M6	Establishment of creative and entrepreneurial framework with schools and universities
M7	Creation of mechanisms and structures for high-tech innovation in cooperation with universities and research centers
M8	Organization of competitions and awards for best business plans, best student's/researcher's ideas
M9	Improving visibility, promotion and internationalization of BIs/STPs for their sustainable development
M10	Networking among BIs and with STPs and universities on local, regional and EU level

Introduction



Undergraduate skills, knowledge required in entrepreneurship education

- Creativity and Innovation
- Communication Skills
- Opportunity Identification
- Developing a Business Plan
- Assessing the risks/benefit of self employment
- Selling an idea and Finding Customers

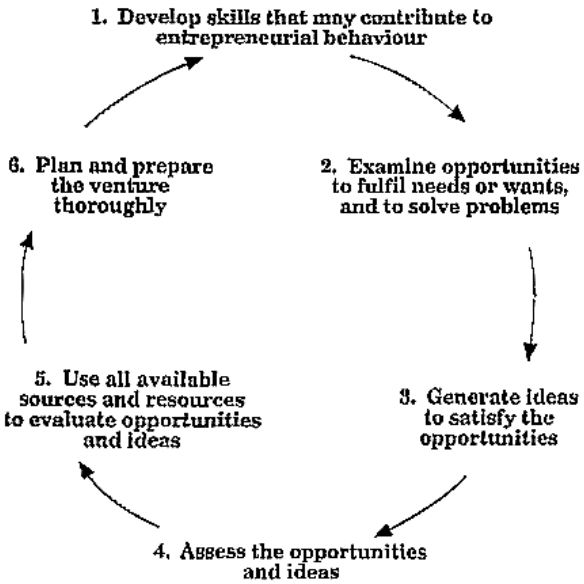
Bringing Innovation, Creativity and Entrepreneurship Education to Humanities Students

ROISIN MC GLONE
IT Sligo

	1ST YEAR	2ND YEAR	OPTIONAL GAP YEAR	3RD YEAR
SKILLS	■ **ORIENTATION SEMINAR:** Solidarity, the meaning of effort and values, meeting ■ **« THE BUSINESS COMEDY CLUB » PROJECT:** Semester providing the keys and the desire to learn more ■ **V.I.P.:** « Character building » Creativity workshops/simulations/ situational exercises, videos	■ **PROFESSIONAL INTEGRATION** Assets and Skills ■ **PERSONAL AND VOCATIONAL ORIENTATION:** Career Days ■ **BUSINESS ATTITUDE:** Business Ethics, intensive workshops		■ **REINFORCE PARTICIPATION IN PROFESSIONAL NETWORKS** ■ **MANAGE ONES WEB IMAGE** ■ **ANTICIPATE:** Professional Integration or Further Studies
KNOW-HOW	■ **CREATION SIMULATION OF AN fBS SHOPPING AREA:** Sales outlets and websites ■ **INITIATIVES/COMMITMENT:** Student association project management ■ **BUSINESS ATTITUDE:** Presence on Company stands at trade fair Nomadic school/Work placement	■ **CONFERENCE/TRADE FAIR PROJECT:** Learn how to develop and organise a B2B event (creation of communication tools and materials, logistics, participation.....) ■ **OPERATIONAL INTERNSHIP/ REVIEW - 2 MONTHS:** Type of company according to chosen specialisation ■ **SALES TRAINING/ RETAIL SAFARI**		■ **BECOME A PROFESSIONAL: THE QUALIFIED INTERNSHIP - 4 TO 6 MONTHS** ■ **SPECIALISE THANKS TO A CHOICE OF MODULES:** - **B 2 B Team:** from Negotiation to Sales Management - **Trade & Retail:** the World of Distribution - **E-Commerce & E-Business:** 2.0 Development - **E-Tourism and Sustainable Tourism:** The new modes of tourism.
KNOWLEDGE	■ **Business Environment,** Business Economics, Business Law, Distribution... ■ **B2C Negotiation,** Marketing Fundamentals and Operational Marketing, Communication/Advertising, Sales Behaviour, Social Networks ■ **Project Management,** Budgets, Sales Management, Collaborative Tools	■ **Business Law,** Sustainable Development, Trade Regulations ■ **B2B Negotiation,** Relationship Marketing, Cross Channel, Managerial Behaviour, Prospecting/Customer Loyalty Merchandising ■ **Sales Performance,** Costs, Profitability, Solvency, Investment, Financial Solutions		■ **International Economic Environment** Export Approach, Labour Law ■ **Sales Management,** Calls for Tender, Purchasing, Direct Marketing ■ **Brand Marketing,** Network Coordination, Category Management ■ **Buzz Marketing,** Corporate Blogs, Web Analyst, Community Management

Possibility of taking year 2 and 3 via cooperative education

The Entrepreneurial Cycle*



* Step 1-5 do not necessarily have to be completed in order, but steps 1-5 **must** be completed prior to attempting step 6 - Developing the Venture Plan

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- Interactive part

Coordination…

- BIs, STPs, educational institutions on all levels (schools and universities) in WBC as part of overall national innovation systems
- In recent years, WBC countries have significantly progressed in developing the strategic and policy framework enabling the establishment of favourable environment for the improvement of their innovation systems
- Different sector strategies and legislation recognize the importance of the links between all the actors in the system, and underlining the significance of the opening of the universities towards the environment.

Regional approach…

- Moreover, there are significant efforts on the level of the region to develop joint strategic framework aimed, among other measures, at the increase of the region`s innovative capacities and competitiveness, such as
  - South East Europe 2020 strategy (*http://www.rcc.int/pubs/0/20/south-east-europe-2020-strategy*) in particular **Pillar 'Smart Growth'**
  - Western Balkan Regional R&D Strategy for Innovation (http://www.worldbank.org/en/events/2013/10/24/balkans-innovation-event)

- Within the activities of the governments from the region, there are structured joint efforts to implement concrete activities for the strengthening links within the innovation systems of the countries such as
  - WBC-INCO.NET project, *http://wbc-inco.net/ (2008-2014)*
  - *Steering Platform on Research for the Western Balkan Countries (Next: September 24, 2014 in* Trieste (Italy) – Focus i.a. on:
    - State of play on Research Infrastructures in Western Balkan Region;
    - State of play on 'South East European 2020 Strategy' – Pillar 'Smart Growth' (RCC);
    - State of play on Implementation of Regional R&D Strategy for Innovation: launch of WISE (Croatia)

wbc-inco.net
Co-ordination of Research Policies with the Western Balkan Countries

Challenges (I) – Cooperation & Communication

- **Structured cooperation**
  - Despite the fact that both, the BIs and (existing and developing) STPs on one hand and educational institutions on all levels (schools and universities) in WBC on the other are part of the overall national innovation systems, structured cooperation between those important elements of the system still seems to be challenging.
- **Education system does not encourage entrepreneurship and creativity at a satisfactory level**
  - No matter how recognized the importance of establishing the framework for cooperation between the academic and educational community and the support structures such as BIs and STPs, primarily of raising entrepreneurial culture among pupils and students, the education system does not encourage entrepreneurship and creativity at a satisfactory level.
  - Often no direct and structural link between the schools and those structures in WBC
  - Relations between universities and support structures to certain extent better
- **Communication between educational stakeholders and business**
  - Educational stakeholders and business are operating in a different environment, often without adequate communication even on basic level

Challenges (II) – Cooperation & Communication

- **Involvement of the business and business support structures in the education process**
  - One of the big challenges that may even be crucial for further development of the innovation system in the countries
  - One of the often underlined issues insufficiently tackled by education institutions in WBC is incorporation of teaching entrepreneurship as part of the curricula on the level of secondary schools and even at the university level, apart from the economics faculties/departments.
  - Another aspect is the existing gap between the teaching and practical work at vocational schools and universities.
  - There is a general remark to the systems of vocational and HE about the learning outcomes of the programmes, i.e. skills and competences that students acquire upon competition of school/studies.
  - Business support structures should play a significant role in the process of enabling more applicable learning processes in the WBC education systems.

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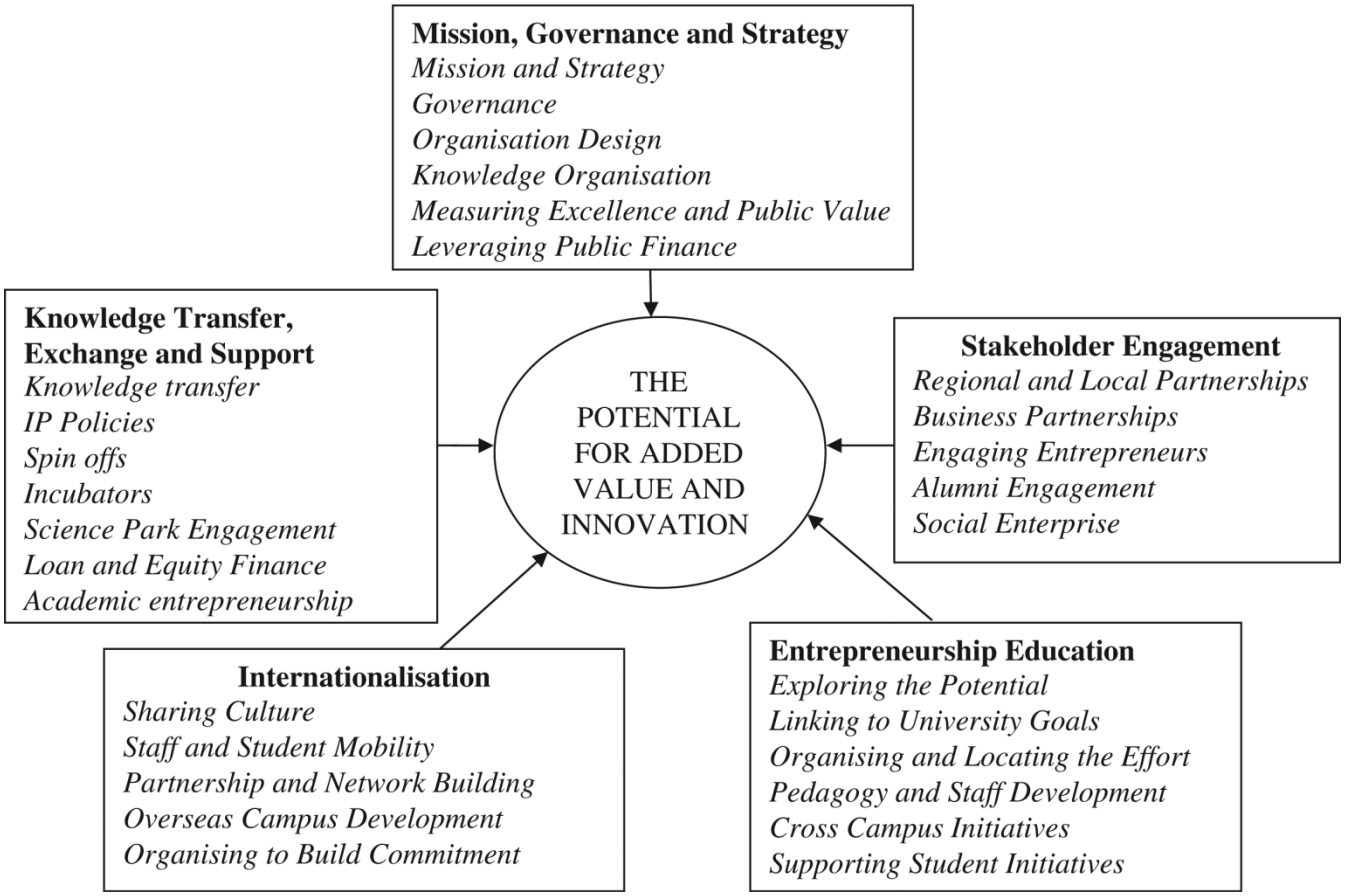
Universities…



Key areas of university entrepreneurial potential. In: Allan Gibb: Exploring the synergistic potential in entrepreneurial university development: towards the building of a strategic framework. Annals of Innovation & Entrepreneurship 2012, 3: 16742 - DOI: 10.3402/aie.v3i0.16742. http://journals.co-action.net/index.php/aie/article/view/16742/html

Schools…

ENTREPRENEURSHIP EDUCATION IN SECONDARY SCHOOLS

Education systems, teaching methods and best practice – a survey of Austria, Finland, France, Germany, Italy, Spain, Sweden

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by

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Austria as example…

There is no specific national strategy for entrepreneurship education in general education. However, the **Austrian Strategy on Lifelong Learning**, adopted in July **2011** by the Austrian Federal government sets out entrepreneurship education as a cross-curricular competence among the eight key competences (cf. recommendation of the Council and the Commission 2006). Entrepreneurship education is specially tackled in Action lines 8 and 2 of the Strategy.

http://www.bmukk.gv.at/ministerium/vp/20110705b.xml (only DE)

http://www.bmukk.gv.at/medienpool/20916/lllarbeitspapier_ebook_gross.pdf (only DE)

A lot of concrete initiatives for entrepreneurship education have been running and are being spread.

Entrepreneur's Skills Certificate (EU best practice) can be delivered beside the core curriculum in school settings as from ISCED 2.

http://portal.wko.at/wk/startseite_dst.wk?dstid=7189 (only DE)

Jugend Innovativ **(Innovative Youth)** (EU best practice) is a competition supporting project work in 5 topical areas: business, design, engineering, science and climate protection. The target group is mainly upper secondary students in regular classes.

www.jugendinnovativ.at (only DE)

Austria as example…

Euro Finance Driving Licence: This certificate can also be delivered in school for free, following an agreement with the Ministry.

https://at.finanzfuehrerschein.eu/show/willkommen/ueberblick/index.html (only DE)

https://www.finanzportal.at/show/willkommen.html (only DE)

Entrepreneurship Education for School-based Innovation: The Impulse Centre from the Ministry aims at fostering entrepreneurship education and school innovation through teacher support, information exchange, development of supporting teaching aids, contacts to regional businesses, etc.

http://www.eesi-impulszentrum.at/ (only DE)

The **Initiative for Teaching Entrepreneurship** (IFTE) also offers workshops, didactic material and networking. It is Member of the European Network for Teaching Entrepreneurship.

http://www.ifte.at/

Junior Enterprise Austria, which is part of the network Junior Achievement, offers specific programmes for entrepreneurship education, including the creation of real companies as a school project for one (school) year.

www.junior.cc

M6

M6 - USPOSTAVLJANJE KREATIVNOG PREDUZENIČKOG OKVIRA ZA ŠKOLE I UNIVERZITETE	
❖ pružanje strukturnog institucionalnog okvira za poboljšanje saradnje univerziteta i škola ❖ Razvijen set aktivnosti na podizanju svesti ❖ Uključivanje BI/NTP u obrazovne i istraživačke procese	• Obezbeđen okvir za strukturnu saradnju • Definisane zajedničke aktivnosti i njihovo sprovođenje • Studenti su bolje informisani o mogućnostima njihovog profesionalnog razvoja • Učešće BI/NTP u povećanju ukupnog kvaliteta obrazovanja • Učešće kompanija i organizacija za podršku u kreiranju i prilagođavanju ponude u skladu sa potrebama tržišta

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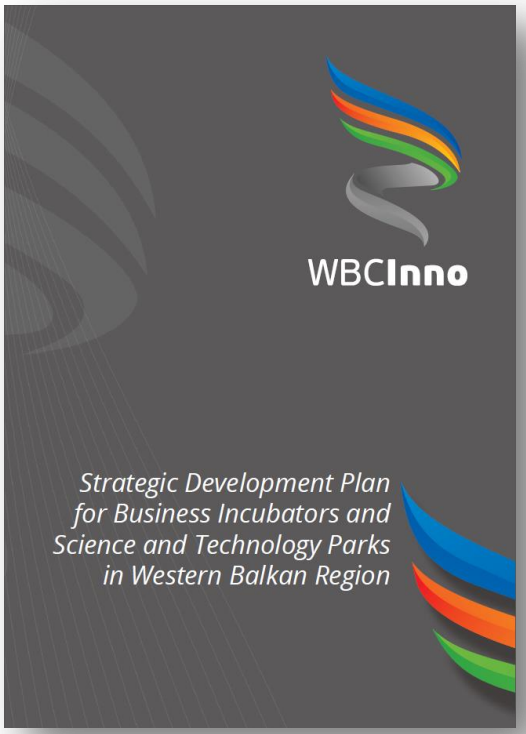
Specific objectives – M6

1. To provide structural institutional framework for enhancing cooperation with the universities and schools on institutional level
2. To develop set of awareness raising activities from both types of institutions
3. To involve BIs/STPs in the education and research process
4. To realize additional activities that would involve all stakeholders and lead to the improvement of the cooperation – joint applications, capacity building, etc.



1. Providing structural institutional framework for enhancing cooperation with the universities and schools on institutional level

From the side of Bis/STPs	From the side of educational institutions
Existing Bis/STPs outside universities should re-consider its managing and advisory structures by involving representatives of the educational institutions	**HE institutions** should, first and foremost, work on their internal legislation and strategic documentation that would improve or establish business support structures defining the ownership structure, types of activities, type of partnerships, inter-sectoral mobility and incentives, practical placements of students in the overall studies. Based on this possible contracts can be introduced
	Vocational/secondary general education institutions should, in accordance with the existing governing rules, develop model contracts for cooperation with Bis/STPs defining joint actions, for example the organisation of entrepreneurial training and events

1. Providing structural institutional framework for enhancing cooperation with the universities and schools on institutional level

Expected impact and benefits	Efficiency indicators
Provision of the framework for structured cooperation of the groups of actors will facilitate the process of initiating/continuing cooperation and, at the same time, initiate other processes that will follow – awareness raising, definition of concrete joint activities and their implementation.	• The number of revised governing structures of BIs/STPs • The number of new pieces of legislation • The number of new cooperation contracts

2. Developing set of awareness raising activities from both types of institutions

Users of the BI/STP activities	Students and/or teachers/researchers
Promotion of the importance and benefits of the cooperation with universities and secondary schools - Universities: breaking the prejudice about the universities being „ivory towers“ thus being not interested into solving the problems the companies (SMEs) face - Secondary schools: raising awareness of the importance of being entrepreneurial and creative, thus encouraging the students to involve in BI/STP activities.	HE institutions shall define and implement the activities that will raise awareness among its target groups (students and/or teachers/ researchers) about innovativeness and entrepreneurship in general, and then, as a next step, about the benefits of the collaboration with the BI/STPs.

2. Developing set of awareness raising activities from both types of institutions

Expected impact and benefits	Efficiency indicators
The main impact is making first practical steps towards realization of cooperation in more concrete terms. All of the groups involved (both – institutions and their end users and/or beneficiaries) are more aware of the possibilities for cooperation, and benefits of it. Students as target group, especially ones from the secondary education, are more aware of the prospects for their future professional development.	• The number and types of organized motivational events • Developed promotional material

3. Involving BIs/STPs in the education and research process

BIs/STPs should be consulted and involved in **development and approval of the curricula on the university level**, focusing again on entrepreneurship and innovativeness. It can be on the level of formal education, i.e. study programmes and/or modules, and also at the level of lifelong learning activities within universities. In case of secondary education, since there is not much autonomy in the development of syllabi on the level of individual institutions, **BIs/STPs can be invited to completely develop specific training activities** that may be offered as part of the elective courses for the students.

Next, the **representatives of business support structures may be invited as guest lecturers** at both, secondary and higher education institutions, providing specialized, practically oriented lectures.

Another significant aspect of successful education process, and one of the identified bottlenecks of WBC education systems, is practical work during the course of study at both – secondary and higher education levels. **BIs/STPs are a perfect medium for enabling practical placements to the secondary and higher education students in the companies, as part of their formal education**.

3. Involving BIs/STPs in the education and research process

Another bottleneck, when it comes to business-academia cooperation in the Western Balkans, is certainly **inter-sectoral mobility of researchers**. Cooperation between the industry and universities in this respect can most certainly be enhanced with the participation of BIs/STPs. When we speak about young researchers (PhD candidates, post-docs), this type of mobility is to be part of their formal education, usually based on research projects with the industry, often for the purpose of the PhD thesis development.

One segment of the HE process where there is particularly room for cooperation is certainly **the LLL offer of the universities**. Here, the BIs/STPs representatives, as well as their tenants, can be involved in the process starting with initiating specific training, then in the development of the course itself, and finally in the implementation of the courses. BIs/STPs can be used as an effective communication channel from the university to the companies in order to define the needs for specific type of training, and assist in recruiting the attendees of the courses. From the companies` part, BIs/STPs can communicate or facilitate communication with universities regarding initiatives for LLL courses.

3. Involving BIs/STPs in the education and research process

Expected impact and benefits	Efficiency indicators
Involvement of BIs/STPs in the education process at the institution leads to the increase of the overall quality of education offer, modernization of the institution, its openness to the society and contribution to the overall economic development of the country. On an individual level, development of future young professionals in the countries starts already during their formal education. Prospects of employment are presented to them already at this early stage, increasing their chances at the labor market once formal education is completed. Also, companies and support structures are in the position of being consulted in tailoring the offer in order to meet the actual needs, then to improve the capacities of its employees, and also have access to a pool of future young experts and professionals in their respective fields.	• The number of courses (formal and LLL) introduced/revised • The number of lectures involving BIs/STPs • The number of placements in companies • The number of companies involved • The number of PhDs with the industry

4. Additional activities that would involve all stakeholders and lead to the improvement of the cooperation

Brokerage events…	Science days…
Universities and support organizations can also jointly organize `brokerage events`, where representatives of the two beneficiaries` groups can meet, learn about each other activities, present the opportunities for cooperation. This can all lead to initiation of joint **project proposals** that can be submitted to different donors. They can **jointly organize workshops and events** on different issues – transfer of technologies, opportunities for joint projects, preparation of joint proposals, etc.	For development of creativity of young people, even at the level of elementary schools, it can be very useful to organize events such as “science day”, especially in the STPs. There, young researchers and scientists would present their scientific results to the visitors in an interesting way tailored to the age of the pupils, in order to get the science closer to them and show its application in the everyday life.

+ many other activities such as: organisation of fairs and competitions, participation in joint projects etc.

4. Additional activities that would involve all stakeholders and lead to the improvement of the cooperation

Expected impact and benefits	Efficiency indicators
These activities would lead to the increased cooperation and networking among actors. Young people can have a whole new view of science as something interesting and motivation to get involved in the scientific ventures.	• The number of brokerage events and “science days” • The number of training events, lectures and workshops • The number of project proposals • The number of participants in various events

Thank you for your attention!

Questions?