**Ri2integrate:** Embeddedness of high quality research infrastructures in the Danube Region

Interreg
EUROPEAN UNION
Danube Transnational Programme
RI2integrate

# Summary of Research Infrastructures' integration tools

Programme co-funded by European Union funds (ERDF, IPA, ENI).

A projekt a Duna Transznacionális Programból,
az Európai Regionális Fejlesztési Alap támogatásával,
az Európai Unió és a Magyar Állam társfinanszírozásával valósul meg.

# Basic information about the project

| | |
|---|---|
| Project code: | DTP1-1-184-1.1 |
| Start date: | 01-01-2017 |
| End date: | 30-06-2019 |

**Budget in Euro**

| | |
|---|---|
| Overall: | 1.899.430 € |
| ERDF Contribution: | 1.474.669,35 € |
| IPA Contribution: | 139.846,12 € |
| Call number: | Call 1 |
| Priority: | Innovative and socially responsible Danube region |
| Specific objective: | Improve framework conditions for innovation |

# Partnership

| ROLE | OFFICIAL NAME IN ENGLISH | COUNTRY |
|---|---|---|
| LEAD PARTNER | ELI-HU Nonprofit Ltd. | HUNGARY |
| ERDF PP1 | Central Transdanubian Regional Innovation agency Nonprofit Ltd. | HUNGARY |
| ERDF PP2 | Horia Hulubei National Institute of R&D for Physics and Nuclear Energy | ROMANIA |
| ERDF PP3 | Institute of Physics, Czech Academy of Sciences | CZECH REPUBLIC |
| ERDF PP4 | FH Joanneum Gesellschaft M.B.H. | AUSTRIA |
| ERDF PP5 | Institution for development of competence, innovation and specialization of Zadar County | CROATIA |
| ERDF PP6 | University of Maribor | SLOVENIA |
| ERDF PP7 | Magurele High Tech Cluster | ROMANIA |
| ERDF PP8 | Central Bohemia Innovation Centre | CZECH REPUBLIC |
| IPA PP1 | Development Agency of Serbia | SERBIA |
| ASP1 | Ministry of Finance | HUNGARY |
| ASP2 | Ilfov County Council | ROMANIA |
| ASP3 | Central Bohemia Region | CZECH REPUBLIC |
| ASP4 | Steirische Wirtschaftsförderungsgesellschaft mbH | AUSTRIA |
| ASP5 | Zadar County | CROATIA |
| ASP6 | Technical University of Kosice | SLOVAKIA |
| ASP7 | Municipality of Ruse | SLOVAKIA |

# The Ri2integrate project

Short description of the project: The main objective of RI2integrate project is to exploit the economic development potential and the better integration of the operation of the EU's excellent R&D Infrastructure (RI) investment projects through devising and implementing innovative tools for policy learning on macro-regional embeddedness in the Danube Region.

The main result is the improved transfer of scientific results into the economy in the Danube Region, in line with the different needs of the participating countries by the improvement of cross-linkages among the R&D, SMEs, community and government.

As the main outputs, 3 tools will be developed and tested for boosting macro-regional embeddedness of RIs (1 public procurement of innovation utilization guideline; 1 guideline for aiding the RI related business ecosystem; 1 roadmap for community dissemination). To ensure policy durability, 7 National and 1 Joint Action Plans will be developed and a transnational RI2integrate Committee will be funded covering all Danube countries.

The main novelty of RI2integrate is two-fold. Its methodology foresees the combination of the Smart Specialization approach (from the expert side) and the Quadruple Helix model (from the stakeholder perspective). Additionally, as a policy driven novelty, the project creates synergies between different EU and territorial funding instruments.

# Objectives

The main objective of RI2Integrate project is to exploit the economic development potential and the better integration of the operation of the EU's excellent R&D Infrastructure investment projects through devising and implementing innovative tools for policy learning on macro-regional embeddedness in the Danube Region.

**Project specific objectives**

- Enterprise support on their relation to research infrastructures
- Supporting government involvement through public procurement for innovation
- Supporting community embeddedness of research infrastructures

# Research infrastructures' integration tools

Based on the previous results of the project with joint efforts the partnership developed tools that are the basis of the of the integration of research infrastructures. These tools aim the project specific objectives with providing sound theoretical framework and practical recommendations on the three fields of RI integration: government involvement through public procurement of innovation, related business ecosystems and community involvement. The developed tools support the partners in planning and implementing pilot actions, but they were prepared in a way that they could be utilized by other players as well. The following wools were developed by the partnership:

- PPI guide concerning RI utilization
- Roadmap for RI related business ecosystem
- Community awareness raising tool
- Visitor centre guidelines for youth

# PPI guide concerning RI utilization

**Responsible partner:**
Institute of Physics, Czech Academy of Sciences

Public procurement of innovation is a new concept in the Interreg Danube region. European directives for public procurement were implemented but the following methodological documentation is missing – the manual for procurers, raising awareness about the possibilities of PPI and some monitoring indicators for new national procurement laws and PPI implementation.

Totally 13,8 % of European GDP is distributed by the public procurements, so the public procurement is a very big potential market for all actors (private, public, R&D sector).

The public procurement instrument could strongly support the R&D sector, help citizens to get innovative goods or services and spread the innovative solution to the market. So, the final outcome of PPI should be the raising competitiveness regarding getting and spreading innovative products and services at the market and to the customers (citizens). Public services could be improved by these R&D activities so the public procurement of innovation (PPI) is the ideal tool to get these things better "...PPI aims to 'close the gap' between cutting-edge technology and processes and the public sector customers or users who can benefit from them."

**The main motivation for PPI implementation could be highlighted in these points:**

- Speed the public sector modernisation using the innovative solution
- Get better value for public money through cooperation – sharing costs for similar needs and solutions.
- Help to spread R&D innovative solution to the market, create growth and jobs in EU, to increase the competitiveness of EU
- Finally increasing the life quality in EU due to the better public services using innovative solutions.

## Specific public procurement procedures for innovative products/services

### Open tender procedure

- Preliminary market consultation (Article 40, Directive 2014/24/EU) – specification of the product, needs and possible solution at the market.
- The procurement subject has to be defined clearly and the bidders have to keep the instructions (main limitation to innovation product, so the subject has to be defined during consultations). The key is to strongly distinguish the information gained during consultation and not to benefit any supplier.
- The Framework Agreements are the specific procedure for long-term contracts (Article 33, Directive 2014/24/EU). Using framework agreement, public procurer could define the optimal conditions for partial tenders inside the Framework Agreement. The final product could be compiled and developed by the consortium of suppliers in the agreement.
- The advantage is that is widely used and non-discriminatory.

## Innovation partnership

- The need (service, product, goods) is NOT on the market, so this procedure could integer development and market (commercial) phase
- We could set minimum quality requirement only, negotiation with one or more successful bidders.
- Flexibility for Contracting Authority, which could decide how could the project continue and also phase the development of output.
- R&D&I project, uncertainty about final product – PCP + PPI implemented in one procedure – be careful in setting the estimated value of procurement (R&D costs incl.).
- There is possibility to share the intellectual property rights with suppliers to motivate the private companies as a supplier and the wider spreading of innovative product/technology.

## Competitive procedure with negotiation/Competitive dialogue procedure

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# Logical framework

The guide aims to provide support for partners in the RI2integrate project that implement PPI pilots. However, national legislation differs, due to this the tool cannot provide guidelines that are generally applicable in every country, rather it provides a logical framework (Figure 1.) that could be overviewed and modified according to the local needs. This makes the guide a relevant source of information for other players that are active or would like to be active in the field of public procurement for innovation.

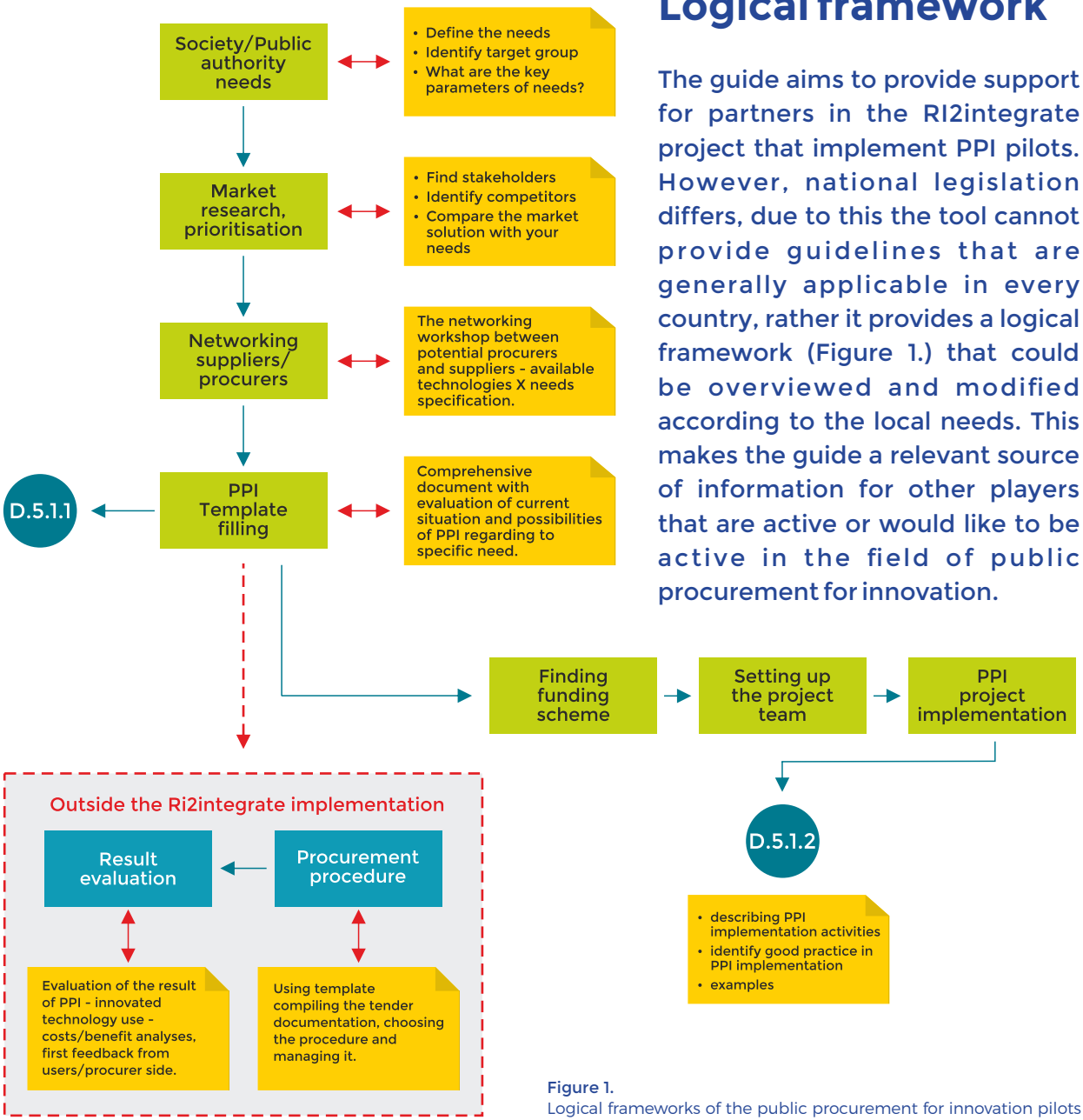



**Figure 1.**
Logical frameworks of the public procurement for innovation pilots

# Roadmap for RI related business ecosystem

**Responsible partner:**

Horia Hulubei National Institute of R&D for Physics and Nuclear Energy (Romania)

The roadmap aims to provide the guide for setting up and operating a state-of-the-art Science and Technology Park in the Danube Region. This model can be easily replicated to serve the purpose of creating a chain of STP ` s in close proximity of the Region. While the core action of creating a STP are considered to be standard procedure, each individual STP will have to rely on specific assets available in their own development region. Science and Technology Parks (STPs) are developments of real estate (tangible) and human resource (intangible) assets in which land and buildings are used to house public and private R&D facilities, high-tech and science-based companies, support services, intellectual property and venture capital financing. Planning and implementing a Science and Technology Park is a long and complicated process in which several stakeholders take part.

## Success factors in the establishment of Science Parks

Setting the foundations of a Science and Technology Park, let alone a chain of Science Parks designed to closely work together within a defined region of Europe is a critical step towards the success of this endeavour. Each individual STP within this chain has to be excellent in its resources, its research capabilities, the number of researchers and companies it will attract, and the types of entrepreneurial activity that will be developed in it. Carefully planned locations, strategically placed among various economic centers in the Danube-Region, can turn each individual STP into a large technological hub in which knowledge intensive activities will be nurtured and transformed into innovative market ideas. The expectations for Interreg Danube Transnational Programme are high and its anticipated impact on the regional, national and European research, technology and innovative entrepreneurship environment is considered to be of large scale.

# Step-by-step guide for the establishment of Science Parks

In order to develop the conducive environment, to create the operational, legal, administrative and financial entities and instruments and define the infrastructure components and their financing, the roadmap recommends the following actions as a general guideline for any STP in the Danube Region

| PROPOSED ACTIONS | |
|---|---|
| **ACTION 1** | Setting the impact and targets of the STP, and development phases (according to Business Plan) |
| **ACTION 2** | Clarifying the STPs ownership and governance |
| **ACTION 3** | Establishing the business and financial model of the STP Management Company |
| **ACTION 4** | Detailing the activities of the STP Management Company |
| **ACTION 5** | Developing a Marketing and Communications Campaign towards National Institutions, International Market and Universities |
| **ACTION 6** | Building the value proposition for the potential Research Institutes |
| **ACTION 7** | Developing a world / regional / national level competitive package for attracting tenants of all categories to the STP |
| **ACTION 8** | Tailoring the projects with financial resources |
| **ACTION 9** | Preparation Actions + Studies + Time Scheduling of the STP phases |

**Table 1.** Action planning steps of Science and Technology Park establishment

# Community awareness raising tool

**Responsible partner:**
Central Transdanubian Regional Innovation Agency

The tool introduces the principles of public awareness raising and aims to increase the understanding of the awareness raising process. The guideline pays particular attention to the main objective of RI2 project which is the better integration of research and development infrastructures (RI) to the Danube Region and the improvement of scientific knowledge transfer to local economies. In this handbook special emphasize will be put on the presentation and possible application of awareness raising concepts, methods and tools in relation to the research and development infrastructures. The handbook has been developed primarily as a resource for decision-makers, administrators, the academic staff, lecturers, teachers and community leaders dealing with issues of public awareness raising. The approaches and strategies presented in this guideline aims to stimulate the application and further development of awareness raising methods in RI institutions.

# Awareness raising

Awareness raising has three basic features. First, it is a process, which means that it has to be planned (Figure 2.), goals, targets and activities should be defined and set, and it has to have a timeframe within which it operates. Second, awareness raising aims to inform the public – regardless whether about the activity of a civil organization or about a topic. Third, awareness raising is always an educating activity which requires different methods and actions depending on the target group. Thus, awareness raising is a complex issue where clarification of fundamental details is needed.

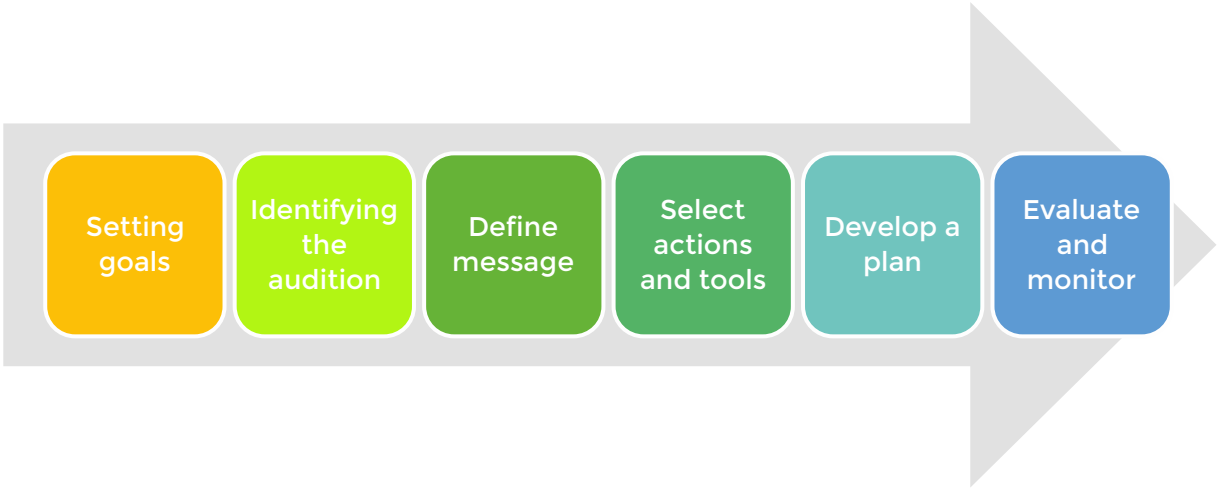



**Figure 2.**
Planning an awareness raising campaign

# Approaches of awareness raising

The more commonly used approaches can be grouped into five categories, with each describing its primary approach or emphasis:

- **Personal communication:** Personal communication helps the audience or the target group to feel more connected with the message of the campaign and help them to understand the significance of the message in relation to their life or work.

- **Mass communication:** Mass media effects directly and indirectly the society, thus our message might reach people that did not engage with our campaign directly. It is also important to mention that mass media has the potential to set new cultural norms, which is usually the main target of awareness raising campaigns, namely to change social behaviours and practices.

- **Education:** Raising awareness about an issue or topic does not necessarily lead to long lasting changes in behaviours and beliefs. To achieve long-term benefits it is necessary to consider how to provide our target group with the right skills and incentives to change their behaviour and attitude towards the issue which we promote.

- **Public Relations (PR):** Public Relations deals broadly with activities designed to establish and maintain the reputation or credibility of the awareness-raising campaign. PR is described as "the planned and sustained effort to establish and maintain goodwill and mutual understanding between an organisation [awareness raising campaign] and its publics.

- **Advocacy:** Advocacy and lobbying efforts are often overlooked when planning awareness-raising campaigns but can be crucial to ensure the ongoing support from governments and civil organisations.

# Success factors in awareness raising:

1. **Planning and monitoring:** A successful awareness raising campaign is planned in details, has clear goals and defines the gap between the current and desires situation. Evaluation and monitoring is continuous.

2. **Goal setting:** Objectives and targets are clear and set in advance. Keep in mind the SMART objectives – specific, measurable, achievable, realistic and timebound.

3. **Target audience:** Target groups and their needs have to be identified.

4. **Message:** It should be developed in a way that it captures audience attention, suggests acceptable solutions to solve the problem and motivates the target group.

5. **Stakeholder engagement:** Partners and networks are identified, and relevant stakeholders are engaged to the campaign – researchers, policy-makers, trainers, media representatives, volunteers and others.

6. **Staff motivation:** Feeling attached to and motivated to do the campaign. Staff have loyalty to the message.

7. **Communication channels:** Tools and channels are identified to communicate properly the message.

8. **Resource management:** Material, human and financial resources are identified to support the campaign. It is essential to have plans how to collect additional funding.

# Visitor center guidelines for youths

**Responsible partner:**
Central Transdanubian Regional Innovation Agency

When the famous psychologist Mihály Csíkszentmihályi (1997) defined creativity, he claimed that creativity should mean something that is important enough for the people to become part of the culture. Research infrastructures are considered creative places and if we adapt this principle to the field of this project we can state that making a change in the local culture by RIs can be reached by exploiting their results, innovations and other possibilities (e.g. in the field of education and awareness raising). For this, the integration of the research centres into their surrounding area is needed and this can be reached with building strong connections between RIs and their surrounding area (e.g. public sector, universities and other educational institutions, society, etc.). One way of this integration is presenting the RIs and bringing closer their activities to the broaden public. Key elements of this process are the visitor centres of these institutions where the members of the society have the possibility to understand better what is being done in a research infrastructure.

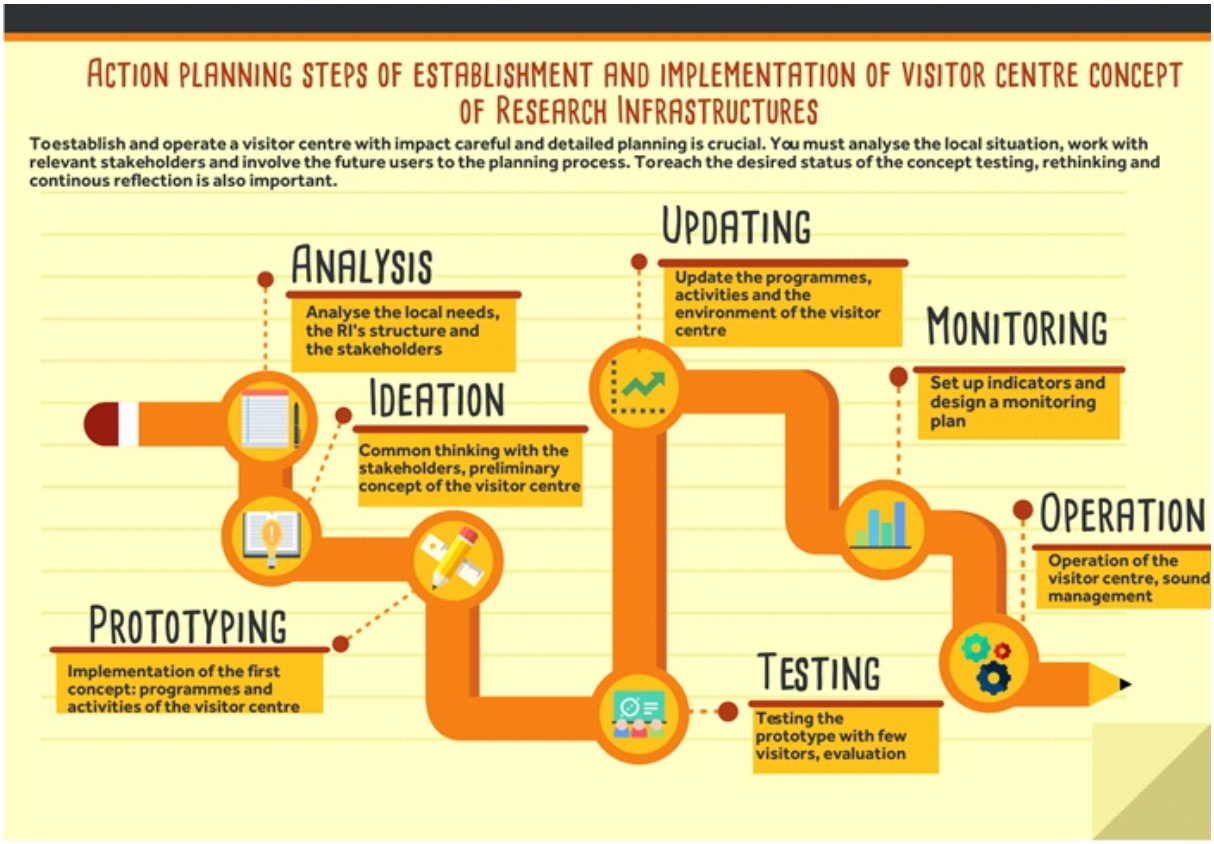
This document aims to provide guidelines for research institutions in the field of establishing visitor centres. These visitor centres are physical places and exhibitions supplemented with different types of programs, activities and presentations where the research institutions present their activities for the wider audience. However, their role is much broader than just presenting the activities and infrastructures of the respective research institution. They can be active on the field of education, awareness raising about R&D&I, bringing closer the science to the everyday people and due to these help the better integration of RIs on local and regional level.

# Educational possibilities in relation with the visitor centres of research infrastructures

Modern visitor centres are not just places where Research Infrastructures present their activities to wider public, but rather places that offer educational possibilities and several other interactive activities that try to bring science closer to the wider public. These visitor centres are places where out of school educational activities could take place with using non-formal education methods such as gamification. Due to this the centres could cooperate effectively with schools and supplement the formal education programmes.

Because of the educational activities, students must be the main target group of such a visitor centre. Among them difference must be made based on there interest and on their educational level. Students from the upper grades of primary school or from secondary schools could engage in more scientific activities such as study groups or science camps while in the case of students without science interest the focus must be more on presenting the everyday use of research and science. University students could be involved even more closely through volunteer programmes and internships. Train-the-trainer workshops organized for teachers are also important to share with them new methods on the fields of science education that they could use in their everyday work.

# Action planning steps of RIs' visitor centres



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You can find more information about
the RI2iintegrate project and the Research Integration tools on our website:
http://www.interreg-danube.eu/approved-projects/ri2integrate