



Interreg



Danube Transnational Programme

DA-SPACE

Entrepreneurship Training

DA-SPACE

Output 5.1. Entrepreneurship Training

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This output is based on data and information collected by the authors from project partners:

- UDJG OI Lab (University “Dunărea de Jos” of Galați Open Innovation Lab)
- UNIPU OI Lab (Juraj Dobrila University of Pula, Croatia)
- VOICT OI Lab – Vojvodina ICT Cluster, Serbia
- TUS OIL (Technical University of Sofia, Bulgaria)
- TESTFELD Ulm, (City of Ulm, Germany)
- STU OI LAB (Slovak University of Technology in Bratislava, Slovakia)
- CTU OI Lab (Czech Technical University in Prague, Czech Republic)



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1 General description of the output

The Entrepreneurship Training is an Output of Work Package 5 „Entrepreneurship Training“ of the DTP project „DA-SPACE - Open Innovation to raise Entrepreneurship skills and Private Partnership in Danube Region“. It was developed and activated during two cycles of the Open Innovation Labs created in seven countries of the area covered by the EU Strategy for the Danube Region: Germany, Romania, Slovakia, Bulgaria, Czech Republic, Croatia and Serbia, contributing to the project specific objective “Raise entrepreneurial skills and reduce brain drain”.

Its goal was to promote entrepreneurial culture among young talents and, adopting innovative and creative teaching methods, to provide them the knowledge and concrete tools, so that they can successfully start their own business. Due to the common work of 12 partners and 8 associate strategic partners from the 7 countries, involved within the project, the innovative training programme not only succeed to contribute to the raising of the entrepreneurship skills in the Danube Region, but also to match international experienced people and teams (from public and private sectors) with talented young people while adopting innovative and creative teaching methods.

Using their new entrepreneurship skills, the participants put in practice gained knowledge, theory, techniques and methods through learning-by-doing approaches and multidisciplinary team working.

The consortium has developed a concept for the Entrepreneurship training, based on partners' experience in this field and building on the results of the analysis made during the preparatory activities of WP3.

The activities of the Open Innovation Labs and of the Entrepreneurship training have tested an Open Innovation approach that was constantly refined during the two cycles of the labs (“Edition one” and “Edition two”).

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Meanwhile, the transnational value of the entrepreneurship training was amplified by mean of staff exchange among the DA-SPACE partners.

2 Aims of entrepreneurship training

The Entrepreneurship training within DA-SPACE project was offered mainly to the young talents participating as solver of the challenges launched during the OI Labs activity, but also to young people not involved in the open innovation process.

As participants in the co-creation process specific to the Open Innovation approach, the young talents, acting as solvers, had the opportunity to meet and collaborate with companies and institutions, acting as seekers, and to find together new solutions for existing needs and problems. Solvers need to have a business culture and an entrepreneurial mindset, and also the ability to discover what business opportunities could be exploited after solving a challenge through a specific solution.

The aims of the entrepreneurship training programme developed within the DA-SPACE Open Innovation Labs was to educate the young talents, participants to the training, to gain an entrepreneurial attitude and skills.

Transferring knowledge, skills and competence acquired in training were directly applied in the realization of the open innovation projects within the OI Labs. In particular, the following skills and competences were considered as necessary to be educated through the entrepreneurship training:

- Ability to innovate and to generate new ideas (by means of idea generation and brainstorming techniques);
- Capability to deeply understand customer's problems in order to create solutions which can tackle them;
- Ability to identify business opportunities
- Understanding and analyzing the market and its requirements
- Generation of adequate business models for technical and non-technical solutions
- Lean management and agile methodologies

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- Project managements skills
- Presentation skills and the ability to communicate solutions in adequate and engaging manners
- Understanding and basic knowledge of tools and methods

The results of the entrepreneurship training in DA-SPACE had an immediate application within the open innovation process development in the OI Labs, being designed to be practice-oriented.

The DA-SPACE Entrepreneurship training is a mix of academic education and business practice. Traditional lectures and hand-on workshops were offered to stimulate participants to apply what they learn to the real world problems-to-be-solved. Meanwhile, SMEs and Business Support organizations involved in the OI Labs' activities as seekers had a consistent contribution to the entrepreneurship education. The majority of the representative of SMEs and universities have been actively involved as mentors during the training program, giving effective support to the teams of young talents involved in the development of solutions within the Open Innovation framework of the lab.

The higher education institutions involved and the business support organizations of the DA-SPACE consortium have actively contributed in designing the general framework of the Entrepreneurship training. The global setting of the training was provided within a strategic deliverable of the project, „D5.1.1 Concept of entrepreneurship training“, but each partner providing the training programme has adapted the general framework to the local requirement.

The strong transnational approach of entrepreneurship training within DA-SPACE was consolidated by the staff exchange among the DA-SPACE partners. During the visits of experts and trainers knowledge exchange among partners' teams have been valorised and filled the competencies gap on topics where local project team partners had less experience.

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3 Target groups

The main target group of the DA-SPACE Entrepreneurship training was the young talents, registered as solvers and actively involved in the open innovation process within the Open Innovation Labs. The young talents have had different education background and levels and, in the majority of the cases they have possessed basic or no previous experience in the entrepreneurship field. The training was therefore designed to be a basic introduction in all relevant and modern topics, which are usually dealt with in the entrepreneurship education.

Next to the young talents, also employee of the seekers (SMEs, University or PA) could attend and benefit from the Entrepreneurship Training Program, having the opportunity to learn the basic knowledge of entrepreneurship via the Training program and the learning-by-doing process put in place by the mentoring scheme (included in the implementation of the lab, WP4).

Also, to increase the number of those who benefit from the Entrepreneurship training program, other interested categories such as: students, graduates and employees of the partner universities, as well as employees of other project partners.

4 Structure of the Entrepreneurship trainings

The design of the Entrepreneurship Training Program has started with the identification, by each OI Lab manager (via surveys, bi-lateral meeting, open discussion) of the needs of the target groups, in the field of entrepreneurship education and practice, in each region covered by DA-SPACE project. The priority has been given to the needs of the young talents, also trying to provide a clear added value to the seekers.

The delivery elements of each regional Entrepreneurship training, in terms of timing and content, have been defined in each OI Lab according to local needs, framework and available expertise/experts, following a common structure defined by units/modules of Training (unit type: compulsory or optional; duration; period; training format; name of the trainer: internal/external).

The following units have been proposed for delivery:

- 1) Team Building

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- 2) Project Management;
- 3) Scrum Methodology;
- 4) Idea Generation (Design Thinking; Customer Interviews);
- 5) Lean Startup (**compulsory**) (Hypothesis; Experiment and MVP; Value Proposition Design);
- 6) Market analysis;
- 7) Business Model (**compulsory**);
- 8) Marketing (**compulsory**);
- 9) Open Innovation and Innovation management;
- 10) Intellectual Property Rights Management;
- 11) Prototyping;
- 12) Presentation Skills (**compulsory**).

The majority of the OI Labs had delivered a minimum of 6 training units (including the four compulsory units, during 5 months training cycles, Edition 1 and Edition 2 (min. 40 training hours/cycle). Their distribution has been made according to the needs and timing of each local OI Lab. Some possible formats suggested in the concept have been adapted by each local OI Lab manager.

The training materials were not similar in all the OI Labs, each trainer having the option to deliver the subjects using different resources or methods. Each lab manager coordinated the sharing with participants the training material used in each module using a platform / tool of each choices (e.g. google drive, dropbox, email etc.).

At the end of the first Entrepreneurship training cycle within the DA-SPACE OI Labs, an evaluation has been carried out in each local lab by the lab manager. With the results of the evaluation, fine-tuning and improvement of the Entrepreneurship training was integrated in the Edition 2 of the training cycle. The evaluation of the Edition 2 of the training has been included in the Assessment of the Edition 2 of the OI Labs and of the entrepreneurship training (WP6).

The Entrepreneurship Training process is presented in Figure 1.

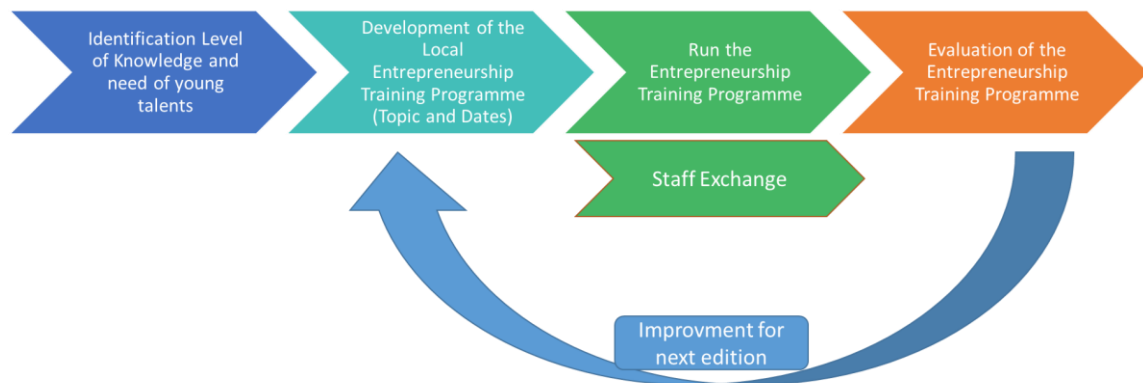


Fig. 1. Entrepreneurship Training Process

4.1. Additional training modules and regional adaptation

The model for the Entrepreneurship training presented in the Concept of entrepreneurship training is a general framework that guided the implementation of the training in each single OI Lab. The entrepreneurship training has been adapted to local requirements, since every regional OI Lab focused on a slightly different field and involved different players, taking into consideration all constraints and needs of each single OI Lab.

Nevertheless, the modules Lean Startup, Business Model, Marketing and Presentation Skills were compulsory to cover the minimum level of Entrepreneurship Content in the Training.

At the beginning of each OI Lab cycle, the DA-SPACE partners running the training program provided a more detailed content (program and schedule) of each regional Entrepreneurship training, presenting additional modules and events or a different teaching methodology of the one proposed in the general framework. Nonetheless, each local entrepreneurship training has complied with the basic principles and established requirements, stated in the Concept of entrepreneurship training.

4.2. Learning outcomes

Within the general framework proposed for the Entrepreneurship training, the DA-SPACE consortium has highlighted specific learning outcomes that should be achieved in each regional training program.

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In addition, each regional OI Lab has identified special learning outcomes that relate to the expert theory and practices of their course.

KNOWLEDGE AND UNDERSTANDING

- Acquiring basic knowledge of entrepreneurial, marketing and financial strategies necessary to start a company.
- Acquiring basic knowledge of creative and innovation processes.
- Basic understanding of technology trends in various contexts.

COGNITIVE SKILLS

- Ability to apply entrepreneurial and design thinking in innovation and business development processes.
- Ability to connect the use of ICT and creativity in the solving of (societal) problems.

PRACTICAL AND PROFESSIONAL SKILLS

- Capacity to perform the role of entrepreneur in a business development process critically and inventively.
- Ability to identify and evaluate opportunities and risks and adapt to occurring needs and challenges.
- Ability to perform on a professional level within an interdisciplinary team.

KEY AND TRANSFERABLE SKILLS

- Demonstration of a specific creative signature in his/her ideas and plans.
- Acquiring problem-solving skills and the capacity to turn ideas into action.
- Capability to convincingly communicate concepts in a verbal and visual way to different audiences.

Also, for each unit/module of regional entrepreneurship training, specific aims and special learning outcomes were considered, so that learning and training experiences as close as possible to be offered.



4.3. Formats of the units of the Entrepreneurship training

Within the entrepreneurship training, partners freely used different format to achieve the learning goals described above. To make the program even more engaging, unconventional and effective, non-standard lectures, such as Company site visit, Company simulation or Gamification have been considered. The suggested formats were chosen so that the attendees could participate actively in the learning process and can practice new skills or test new knowledge before leaving a learning session.

A selection of formats has been proposed within this general framework:

- Hands on workshop
- Hackathon
- Field visits
- Entrepreneur Café
- Company simulation
- Role Play
- Gamification
- Working Breakfast or lunch

5 Transnational value and Staff exchange

The two main aims of the Entrepreneurship training were to strengthen the entrepreneurial attitude and skills of young talents involved in the OI Lab and to offer an opportunity of knowledge exchange among all involved partner institutions. One of the main added value of the entrepreneurship training is the transnational exchange and impact it aims to achieve. All OI Labs and both Editions of the Entrepreneurship training acted locally but, due to the staff exchange among the DA- SPACE Partners, they have gathered input from experts of other Danube regions.

Each entrepreneurship training in DA-SPACE project had a transnational component in the Staff exchange of the trainers and experts involved in each region. The staff exchange allowed the transfer of knowledge and expertise among universities and other institutions and offered the opportunity to learn new practices and methods already adopted in other region. It was an opportunity of updated professional learning for the staff involved and, in the same time, an enrichment for each local training program by receiving

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an expert from a partner country. That way, each OI Lab manager succeed to provide a high quality training, because all expertise has been provided within his local entrepreneurship training, even if particular practices or skills are not available on a regional level. Furthermore, professors of the universities involved have had the opportunity to growth their network in foreign universities and institution and to contribute to the enhancing internationalisation, as tool for increasing the quality of academic education.

In the “Competence Matrix”, different expertises already available within the DA-SPACE network has been maped. Within this matrix, the trainers of each partner presented the own expertise and the availability to join partner’s training programs, during the preparation phases of each training edition. The “Competence Matrix” gave the basis for further bilateral arrangements among the involved partners. Each DA-SPACE partners was requested to offer at least two experts for the exchange.

Each OI Lab manager was entitled to involve international or local external experts, if the expertise needed for the Entrepreneurship training could not be covered by the consortiums,

6 Implementation of the Entrepreneurship training program

The Entrepreneurship training of the project DA-SPACE was conducted based on the Concept developed by the consortium (Deliverable D 5.1.1 of DA-SPACE project).

The entrepreneurship training offered within the DA-SPACE OI Labs has achived to develop an entrepreneurial attitude and to get entrepreneurship knowledge and skills to the young talents being active participants of the 7 OI Labs.

Edition 1 of the Entrepreneurship training

Edition 1. (A) Structure of the training program

In all OILab the planning of Entrepreneurship training was adjusted, considering the availability of trainers and trainees and the connection between the training modules and the working plan of teams involved in the first cycle of the Labs.

The required structure of the Entrepreneurship training (by the document

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Concept of entrepreneurship training (deliverable D5.1.1. of DA-SPACE project)) was implemented. The OI Labs have run the four **compulsory** and selected **optional** modules. Some modules were **adapted** (*Prototyping, Presentations on achievements made, Business pitch*) and some new modules were **added** (*Introduction to specific challenges and academic work, Risk analysis, Model Series*), to better fit to the needs of the trainees and their co-creation projects.

In the D 5.2.1 Report on the 1st Edition of the Entrepreneurship training, the partners running training communicated comments on Edition 1 and proposals for planning of the second cycle of entrepreneurship training. Depending on the challenges for the second cycle, special topics could be adapted to the training.

Edition 1 (B): Trainees :

At the DA-SPACE consortium level, 395 participants attended in at least one module of training during the first cycle in all seven laboratories, as follows: Solvers of challenges: 220; Other students of universities: 133; Employee of universities: 25; Employee of the seekers who launched the challenges: 8, Employee of other project partners: 9.

Edition 1 (C): Formats

Several training formats (or combinations) were implemented:

- Hands on workshop/lectures/seminars, delivering lectures supported by PowerPoint slides, with the odd question thrown in (all OI Labs),
- Company Simulation (UDJG OI Lab),
- Gamification (UDJG OI Lab, UNIPU OI Lab)
- Role play (UDJG OI Lab, UNIPU OI Lab, Testfeld Ulm)
- Field visits (UDJG OI Lab)
- Working lunch / entrepreneurial cafe (UDJG OI Lab, UNIPU OI Lab, Testfeld Ulm).

Edition 1 (D): Staff exchange



Each DA-SPACE partners was requested to offer at least two experts contribution for the exchange. The agreed staff exchange effectively took place when a suitable match has been found between a sending institution and a receiving one, on the basis of the needs identified in the local entrepreneurship training. Each sending institution covered the travel costs of the staff involved in the exchange.

To promote transnational exchange on entrepreneurship topics during the Edition 1, staff exchange process have been set up during the 1st cycle and then the cooperation between some partners has been established.

Edition 2 of the Entrepreneurship training

For the Edition 2, it was necessary to prepare a new plan for the Entrepreneurship training, considering the lessons learned and the feedback given by the trainees, during and at the end of the first Edition. The new plans have been prepared after collecting feedback information about the subject of the challenges to be solved in the second cycle of OI Labs, information about solvers' entrepreneurial education needs and after consultations with trainees and trainers.

Using the trainee feedback from the first Edition all partners took efforts to increase the extent of learning by doing in teams, under the facilitation of mentors, and increase the involvement of SMEs and business support organization to achieve a higher level of industry exposure of the trainees wherever it was suitable and possible.

Edition 2 (A): Structure of the training program

All OI Labs has ran the four compulsory modules and selected optional modules of the Entrepreneurship training. Some Labs also developed specific/adapted modules, e.g. IMSTU merged Project management and SCRUM method for their solvers developing IT prototypes. Prototyping in Mechanical Engineering (UDJG), or added new modules, e.g. Problem Definition Persona, User Testing and IoT (Testfeld Ulm) or Financial Planning (IMSTU) to respond to the new specific co-creation projects offered by the seekers. In some cases, it was necessary to balance the training time among compulsory, optional and additional/adapted modules. This approach may be used in the further operation of the OI Labs as well.

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In the D 5.2.2 Report on the 2nd Edition of the Entrepreneurship training, the partners running training inserted comments and lessons learned on the Edition 2 and proposals concerning the sustainability of the Entrepreneurship training program.

Edition 2 (B): Trainees:

At the DA-SPACE consortium level, 305 participants attended at least one entrepreneurship module during the 2nd Edition in all seven laboratories, as follows: Solvers of challenges: 191; Other students of universities: 73; Employee of seekers: 23; Employee of the partner (but not a member DA-SPACE team): 12; Other participants: 6.

Opening the Entrepreneurship trainings for young talents other than the solvers aimed to increase the popularity of the OI Labs within the entrepreneurship ecosystem and was considered to be an important step towards developing sustainable OI Labs after the end of the project.

Edition 2 (C): Formats

Several training formats (or combinations) were implemented:

- Hands on workshop/lectures/seminars (all OI Labs),
- Company Simulation (UDJG OI Lab),
- Gamification (UDJG OI Lab)
- Role play (UDJG OI Lab, UNIPU OI Lab)
- Field visits (UNIPU OI Lab)
- Working lunch or dinner / entrepreneurial cafe (UDJG OI Lab, UNIPU OI Lab, Testfeld Ulm).

Edition 2 (D): Staff exchange

To promote transnational exchange on entrepreneurship topics, staff exchange process have been set up during the Edition 2 and the cooperation between some partners has then been established.

Planning the staff exchange, was based on the regional plans of the entrepreneurship training and the competences of each partner, reflected in the competence matrix, in order to match experts coming from all partner institutions with

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local entrepreneurship training needs. Experts from abroad trained the solvers/young talents in the topics that could not be covered by the local OI Lab trainers. The presentation language was predominantly English but in Czech Republic and Slovakia - the mother tongues because of the language proximity. It contributed to, strengthening cooperation among project partners. Overall objectives of the mobilities were achieved: helping the solver teams to improve and develop their competences and skills with concrete tools and methods and increasing the transnational impact of cross-border cooperation among regional OILs.

7 Summarizing the output

The entrepreneurial spirit and mindset is not exclusive to the business sector, but to people, organisations and universities taking responsibility for shaping their innovation ecosystems also through entrepreneurship education.

All partners in DA-SPACE project are increasingly involved in entrepreneurship education. Especially the universities, they are well aware that the provision of skills for innovation and in entrepreneurial skills, beyond technological undertakings, to their students is one of their responsibility for shaping their innovation ecosystems also through entrepreneurship education. That this means not only supporting project development and start-ups but also creating an entrepreneurial mindset in their student and staff and in the regional communities, which is an essential asset for regional transformation and development.

The consortium developed the concept of the Entrepreneurship training program based on analysis (WP3) and previous experience of consortium partners. The concept has been tested and put in place in each of the 7 countries by local project partners and external experts, which have been recalled from external institution (coming from the same country) or from other partners countries (under the Staff Exchange activities). The common frame (so called "concept") has been defined at consortium level, but each partner personalized the way to present it and the materials to be provide.

The Edition 1 of the Entrepreneurship training program have been launched with the first cycle of the OI Lab, and it has been improved at consortium level for the Edition 2 and for future use.

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7.1. Contribution to EUSDR actions and/or targets

Entrepreneurship training program of DA-SPACE project was targeted 2 priority areas of the EUSDR.

Within PA08- **Competitiveness**, Entrepreneurship training program targeted on the action *"To foster cooperation and exchange of knowledge between SMEs, academia and the public sector in areas of competence in the Danube Region"*, especially by enhancing international networks. Staff exchange activities contributed to strengthening cooperation among project partners, from 7 countries in the Danube region. Increasing the transnational impact of cross-border cooperation among regional OILs was one of the successfully achieved objectives of the mobilities.

Within PA09 – **Investing in People & Skills**. The training responded to Target 2: *Contribution to improved educational outcomes and relevant skills and competences in the Danube Region, focusing on learning outcomes for employability, entrepreneurship, innovation, active citizenship and well-being (A3: To support creativity and entrepreneurship)*, supporting creativity and entrepreneurship through development and implementation of curricula and innovative teaching methods as joint effort of academia and relevant businesses. Through its Entrepreneurship training program, DA-SPACE boosted creativity and entrepreneurship by developing courses on innovation-driven entrepreneurship & open innovation. It involved SMEs, academia and the public institutions in sharing real cases to be analysed during training sessions or to be solved by students within the OI Lab involving potential users in order to help the seekers to develop innovative products & services with higher market acceptance.

7.2. Integration and use of the output by the target groups

The Innovation Ecosystem generated by the project DA-SPACE has developed innovative learning systems addressing both local businesses (directly address to SMEs and indirectly - to business support organizations and public authorities) and young talents to raise the competences of Danube Regions actors and to improve the learning system currently adopted by those target groups.

The Entrepreneurship training program concept (D5.1.1 Concept of entrepreneurship training) is available to everyone willing to implement an Entrepreneurship course addressing students from university, young talents and eventually

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team member of industry players (mainly SMEs in the case of DA-SPACE project) . It is intended as a general framework to guide any interesting institution willing to offer an Entrepreneurship training program and to raise awareness on entrepreneurship topic and generate new Start-ups.)

Target Group Type 1, Local public Authority: the model of the Entrepreneurship training program will be used in the actions dedicated or including Entrepreneurship objectives, such as: Regional / national innovation strategies, Digital Agenda, or sustaining relevant priorities defined in the Research and Innovation Strategy for Smart Specialisation (RIS3) such as fostering specific R&D competences, entrepreneurial mind-set, efficient knowledge & technology transfer and innovative start-ups within the Region.

Target Group Type 2, Higher Education and Research: all the universities, partners in the project already run different formula of entrepreneurship education programs. Selected modules of the innovative DA-SPACE concept of training are subject of the integration in university study programmes, for all the levels of academic education: lifelong learning, bachelor, master, doctoral and postdoctoral studies. The Entrepreneurship training program, as a whole, could be the subject of new Master study programs, in respect to the regulations and bureaucracy specific to national authorizations, in the European HEIs.

Target Group Type 3, SME: The non-conventional learning environment created in the OI Labs fostered the competences of employees of SMEs, making them adapting to market requirements. By creating a learning and innovation culture in local business, DA-SPACE offers better perspective to high-educate people and fosters competence and skills of innovation, business and creativity, not only in young people, but also in companies and in the entire local environment.

Target Group Type 4, Young talents: this target group represents the main group of users of this output. The training was designed to be a basic introduction in all relevant topics, which are usually dealt with in the entrepreneurship education. University and high school students, young entrepreneurs and other young talents could attend and benefit from the Entrepreneurship Training Program, having the opportunity to learn the basic knowledge of entrepreneurship via the Training program and the learning-by-doing process.

Target Group Type 5, Business Support Organisation: Chambers of Commerce (regional, bi-national), clusters, industrial parks, ITC parks are planning to use this concept of Entrepreneurship training to foster entrepreneurial education outside of formal education

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institutions and are committed to leverage on this training program also for the vocational education of the employees of their members.

7.3. Geographical coverage and transferability

The two Editions of the Entrepreneurship training program have been developed and activated during two cycles of the Open Innovation Labs created in seven countries of the area covered by the EU Strategy for the Danube Region: Germany, Romania, Czech Republic, Slovakia, Croatia, Bulgaria and Serbia, in following locations (fig. 2):

-  TESTFELD ULM OI Lab, located at Verschwörhaus, Ulm, organised by City of Ulm and bwcon, GERMANY
-  UDJG OI Lab, located at “Dunarea de Jos” University of Galati; organised by UDJG and APTE, ROMANIA
-  CTU OI Lab, at Czech Technical University in Prague, organised by CTU, CZECH REPUBLIC
-  STU OI Lab, located at Faculty of Informatics and Information Technology, organised by STU, SLOVAKIA
-  UNIPU OI Lab, at Juraj Dobrila University of Pula, organised by UNIPU and Region of Istria, CROATIA
-  TUS OI Lab, at Technical University of Sofia, organised by TUS and GIS, BULGARIA
-  VOICT OI Lab, at the Business Incubator Novi Sad, organised by UNS and VOICT, SERBIA



Fig.2. The DA-SPACE network: distribution of the DA-SPACE OI Labs in the Danube Area

During the implementation of the activities of the OI Labs, the consortium of the DA-SPACE project had, as a strategic priority, the transferability of the results of DA-SPACE, so these results can be used also outside the DA-SPACE partners' countries, in Danube area. The consortium acted in order to sensitize higher education and research institutions on the Entrepreneurship training developed and tested in DA-SPACE project and to transfer all the knowledge and tool necessary for its implementation.

Four Transferability workshops were developed and run, to transfer all the knowledge and the lesson learned during the two cycles of the OI Labs and Entrepreneurship training program in regions interested in developing entrepreneurial issues. The regions have been selected among the Danube area countries not involved in DA-SPACE (Ukraine, Moldova, Bosnia and Herzegovina, Montenegro) and in which similar approach are still missing or are less developed, still having many gaps in the

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entrepreneurial education or showing a low number of entrepreneurs and new startups funded.

All the information and experience to set up an OI Lab and the Entrepreneurship training program have been shared, as well as all useful documents (e.g. the Guidelines and the Concept) for the facilitation of the planning of the Entrepreneurship training.

7.4. Durability and sustainability

The main output of WP5, namely the Entrepreneurship training, was developed with the specific aim of sustainability, reusing all the knowledge produced (in terms of content, format, material) mainly within the Entrepreneurship training activities of the 6 universities involved in the consortium (IM STU, UDJG, TUS, CTU, UNIPU, UNS). During the implementation of the project, partner universities have evaluated how to include this training program within their curricula and have started discussion in this respect inside their institutions. Partners have evaluated also the opportunity to continue their collaboration and the development of the Entrepreneurship training program by applying for funding under the Erasmus + and other European Programmes.

The continuation of the staff exchange and mutual learning activities, on topics related to entrepreneurship was a strong commitment from all higher education institutions, partners in DA-SPACE project. Staff exchange activity will be integrated in future activities of all Open Innovation labs, after the end of DA-SPACE project, with the support of European programmes for academic mobilities, Erasmus+ and CEEPUS.

Related to the sustainability of the Entrepreneurship training program, the partners running Entrepreneurship training program stated engaging measures as following:

1. TESTFELD ULM OI Lab, GERMANY;

The OI Lab staff is planning to continue offering the concept of DA-SPACE OI Lab and the associated Entrepreneurship training program. The Ulm University of Applied Sciences has transferred the Entrepreneurship training developed and set up at TESTFELD ULM OI Lab into its own curriculum (running as "*Interdisciplinary Product Development*" (<https://tinyurl.com/y25lhc5r>, p. 110). This course is offered to all students from all faculties. For the training at the Aicher-Scholl-Kolleg the Lab are currently looking for a person who can continue to offer the training and the course. At this time it can not be made a reliable statement on this matter.

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Because the current offer of services at TESTFELD ULM OI Lab do not contain any kind of training, at this time, the Lab will consider to find resources to run the Entrepreneurship training, after the end of the project.

2. UDJG OI Lab, ROMANIA;

In the near future, the OI Lab will have no resources to run the Entrepreneurship training program, as a whole. Some achievements and planned actions can be presented:

The module "Business Models" of the DA-SPACE entrepreneurial training programme has already been integrated in the curriculum of a Master programme "Managerial Strategies and Policies", within Faculty of Economics and Business Administration of "Dunarea de Jos" University of Galati.

Authorising the introducing of courses containing modules of DA-SPACE entrepreneurship training: "Essentials of entrepreneurship" and "Entrepreneurial skills development" (1st year, Licence), "Project management" (4th year, Licence and 2nd year, Master) in the curricula of most of the study programs in the fields of Engineering and Sciences is an ongoing process.

Modules of the DA-SPACE entrepreneurship training will be included in courses and trainings (in ongoing and future projects) with topics related to entrepreneurship, as well as in the curricula of the three already authorised courses of "Entrepreneurship Competences".

The Student Entrepreneurship Society of "Dunarea de Jos" University of Galati invites, as regular basis local entrepreneurs on workshops, whose topics are Lean Startup, Business Model, providing to its members open debate opportunities on these subjects.

The institutional Postdoctoral Education Program entitled "Academic Excellence and Entrepreneurial Values in Postdoctoral Research", approved by the Senat of UDJG (on May 31, 2018), will integrate 2 modules of DA-SPACE entrepreneurship training.

Authorizing of a Master study programme in Entrepreneurship is an objective for the leadership of the university..

3. STU OI Lab, SLOVAKIA.

The use of entrepreneurship training has not been a novelty among the students who were the member of the solver teams of the individual challenges. They were exposed to the course of *Fundamentals of Entrepreneurship* in the first year of their studies and topics as Project management, Team management, Agile software development, Lean startup, Business model canvas or Presentation skills were part of their previous courses, e.g. *Basics of Software Engineering, Management of Software*

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Projects or Team Project.

However, in the academic year 2018 /2019 was included in the FIIT study programmes for the 2nd study level (MSc.) a new course “*Innovation-driven entrepreneurship in the ICT*” which was favorably accepted by the students (some 50 participated in it). The relevant part of this course is also development of startup business plan, following the steps of the MIT framework by the startup teams “*Disciplined Entrepreneurship*” solving their selected challenges and finally presenting their solutions as a part of their performance evaluation.

4. TUS OI Lab, BULGARIA:

At the Faculty of Mechanical Engineering of TU - Sofia from the academic year 2018/2019, in the specialty “*Mechatronics*”, an additional program has been approved by the faculty council, as a supplementary elective course “*Intellectual Property Rights Management*” for the first semester of the fourth year of the students. The program includes patent and utility model search and analysis, preparation of patent and utility model patent documents, and the patent purity process.

The “*Information Systems in Mechatronics*” program includes additional “*Presentation Skills*” lectures, which will provide the students a clear and convincing presentation of the developed projects, using modern technical means and multimedia applications. KiC instruments for entrepreneurial training will be included as well.

To the post-graduate education sector of the Technical University there is an Innovation and Engineering School where the programs are updated with the results obtained from the implementation of the DA-SAPCE Entrepreneurship training program.

5. CTU OI Lab, CZECH REPUBLIC;

8 The Entrepreneurship training as a whole will be part of an accredited degree program at the Faculty of Information Technology and will be implemented at the Department of Software Engineering.

9 Some modules of the Entrepreneurship training program will be used in other related projects - the Czech Israeli Cooperation project.

6. UNIPU OI Lab, CROATIA:

The concept of Open Innovation Lab will be continued, as well as the Entrepreneurship training program, as an example of direct implementation of entrepreneurship knowledge through informal education within the cycles. Duration and content will be adjusted to the needs in the local ecosystem, but it will continue to be informal education intended for all young talents involved.

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7. VOICT OI Lab, SERBIA.

The OI Lab will use the Entrepreneurship training program in the future. They intend to include Entrepreneurship training in one of the activities they have been implemented for the last few years. VOICT have been involved in several projects to develop and implement a comprehensive and up-to-date vocational program based on ICT companies' needs. Those were funded by some ministries of the Republic of Serbia, as well as by some other international organizations in Serbia (GiZ, UNDP, USAID). It turned out that participants also lack basic entrepreneurial knowledge and skills, so this type of training will be included as compulsory subjects in the curriculum in the future.

Also, it is planned to offer developed trainings to student of University of Novi Sad, especially for those that just have started studies. Participation at the training are going to be free of charge, and it will be organized by UNESCO Chair for Entrepreneurial Studies, at University of Novi Sad. Exact time and number of trainings will be known after collecting funds for coverage of costs.

10 CONCLUSION

Based on analysis performed during preparatory actions of the OI Lab activities, the consortium partners developed the concept of the Entrepreneurship training program, to be implemented in seven OI Labs located in countries covered by the EU Strategy for the Danube Region. The large previous experiences of partners in learning, training and entrepreneurship allowed a high level of compliance of the Concept with the aims of the DA-SPACE project and the DTP Programme Objectives.

The Concept was designed and validated as a tool appropriate to share and spread the format of the Entrepreneurship training also outside the regions involved in the DA-SPACE consortium. Although the common structure has been defined at the consortium level, each partner personalized the way to run it, the content to be provided and the training methods and techniques. The 1st Edition of the Entrepreneurship training program has been launched at the same time period with the first cycle of the OI Labs and it has been improved at consortium level during the 2nd Edition and for a sustainable future use.

During Edition 1 and Edition 2, all OI Labs have run four compulsory training modules and optional modules. Some modules were adapted, and some new modules



were added, to better fit to the needs of the solvers/young talents and their co-creation projects.

Considering its results and beneficiary target groups, the Entrepreneurship training program of DA-SPACE project contributed to actions and targets of 2 priority areas of the EUSDR: PA08- Competitiveness and PA09 – Investing in People & Skills.

The Entrepreneurship training program had a good integration and use by the target groups. According to the data provided by OI Labs, hundreds of participants attended in at least one module of training during both Editions of the training: solvers of challenges; other students of universities; employee of partner universities; employee of the seekers who launched the challenges; employee of other project partners.

The interest of the trainees on the content of the training has been differentiated. For example, some participants, especially those with ICT background, considered as relevant the modules useful for solving the challenges and less useful the modules preparing them to begin a small business. Only a 3-5% of trainees expressed the intention to transform their solutions in a start-up.

After the assessment of the training it was noticed that over 86% of the answers reflect the appreciation for the initiative of organizing this kind of training. The feedback reflected also the relatively low level of student experience in open innovation. According to the answers of the respondents, open innovation information was a novelty for 30-40% of the trainees.

Over 70% of survey respondents appreciate that the information presented during the training might be useful in their carrier. More than 90% of respondents appreciated positively the trainer's involvement and the training logistics.

The good geographical coverage and transnational impact of the output is sustained by the location of the OI Labs, in 7 countries of the Danube area, the achievements during the training staff exchange between all partners and the sharing of the results to other four countries of the Danube area, outside the EU region of the Danube area.

Overall objectives of the mobilities, performed on Staff exchange activities were attained: helping the teams to improve and develop their competences and skills with concrete tools and methods; transnational impact; cross-border cooperation among individual OI Labs.

The sustainability of the output has been considered especially by universities project partners. They have evaluated how to include this training program within their curricula and have started formal discussion, in this respect, with the leadership of their

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institutions. Each of them is committed to assure the Sustainability of the Entrepreneurship training program, based on two valuable resources: the strong group of the experienced experts, working in the DA-SPACE project, and the financial resources offered by European programmes and structural funds.

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