InnoBridge – Bridging the innovation gap through converting R&D results into commercial success in a more effective and efficient way

Action Plan by

Partner organisation	Pannon Novum West-Transdanubian Regional Innovation Non-profit Ltd.
Other partner organisations involved (if relevant)	Ministry for Finance (Managing Authority of Economic Development and Innovation Operational Programme) Szechenyi Istvan University of Győr Technics Playground 4.0 Training Centre Chamber of commerce and industry for county Győr-Moson-Sopron
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Content

1. Policy context

1.1 Aim of the Action Plan

The Action Plan aims to impact:

X Investment for Growth and Jobs programme

€ European Territorial Cooperation programme

€ Other regional development policy instrument

Name of the policy instrument addressed:

Economic Development and Innovation Operational Pogramme for Hungary 2014-2020, Investment Priority 1b)

1.2 SWOT Analysis of Policy Instrument tackled

1.2.1 Brief description of the measure

The addressed policy instrument is the **E**conomic **D**evelopment and **I**nnovation **O**perational **P**rogramme for Hungary 2014-2020 (EDIOP), Investment Priority 1 b), that is "promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies".

The Operational Programme focuses on 7 Priority Axes + Financial Instruments, each corresponding to one of the thematic objectives set out in EU Reg. 1303/2013.

To the Priority Axis 2 – Research, technological development and innovation – 1.688.000.000 Euros are allocated for the 7 year period. The Axis is composed of two Investment Priorities, 1 a) and 1 b) that mean: R&I infrastructure and capacity, Business R&I, Strategic R&D cooperation.

The main tool for implementing national S3 strategy and R&D+I policy in Hungary including West-Transdanubia region is EDIOP and Priority Axis 2. There are no regional operational programmes in Hungary between 2014 and 2020. Ministry for National Economy is the Managing Authority of EDIOP and Hungarian Research,

Development and Innovation Office is the responsible institution for innovation policy in Hungary.

The targeted **Measure 2.1 "Promotion of intensity of companies' R&I activities"** provides financial supports to the projects that belong to one of the following areas (submeasures):

1. Supporting business enterprises in their R&D&I activities focusing on the development of prototypes, product, innovative technology and services alone or in collaboration with other enterprises (**GINOP-2.1.1-15 Supporting R&D&I activities of enterprises**);

   Detailed description available in national language: https://www.palyazat.gov.hu/doc/4500

2. Supporting the domestic and/or international protection of intellectual property rights of inventions, creative works, industrial design rights, etc. filled by SMEs, budgetary entities and non-profit companies (**GINOP-2.1.3-15 Intellectual Property Rights**);

   Detailed description available only in national language: https://www.palyazat.gov.hu/doc/4501

3. Supporting small-scale co-operations between enterprises and research institutes (**GINOP-2.1.4-15 Innovation voucher**);

   Detailed description available only in national language: https://www.palyazat.gov.hu/ginop-214-15-innovcis-voucher

4. Supporting technology-oriented innovative start-ups (from idea to the market) and their specific needs in terms of support to commercialisation, market entry, internationalisation, and upscaling (**GINOP-2.1.5-15 Building innovation eco-system – start-ups and spinoffs**);

   Detailed description available only in national language: https://www.palyazat.gov.hu/ginop-215-15-innovcis-koszisztma-start-up-s-spin-off

5. Supporting the intelligent production specialization was defined in the S3 strategy. As a result of this service increase the competitiveness of the participating SMEs and establishing new RDI co-operations between the SMEs and the academic area. (**GINOP-2.1.7-15 Prototype-, product-, technology- and service development**)

   Detailed description available only in national language: https://www.palyazat.gov.hu/doc/4539

The supports are granted to projects that are aligned with the national smart specialisation strategy. Accordingly, supported projects need to belong to the targeted sectors/industries, such as automotive, machinery, ICT, or food industry, or their activities need to be associated with overall societal challenges such as

sustainability, healthy and inclusive society, or agricultural innovation. Additional targeted areas are the use of smart technologies, such as photonics, laser technology, new materials, and technologies related to cultural and creative industry, logistics, construction industry, textile, wood, chemical industry.

(For more information on the Smart Specialisation Strategy and the documents related to it, please visit http://nkfih.gov.hu/szakpolitika-strategia/intelligens-szakosodasi-strategia-s3)

1.2.2 SWOT Analysis

This table is a short version of SWOT matrix from Peer Review document including the main bullet points which are the basis and starting points for actions defined.

STRENGTHS	WEAKNESSESS
S1 Good Coordination in Managing Authority - All support services were open before 31.03.2017	W1 Too centralised innovation system, uniform policy measure in Hungary
S2 Significantly increased budget for R&D&I compared to 2007-13	W2 No regionally decentralised resources for RDI in 2014-2020
S3 In most services pre financing (advanced payment possibility	W3 S3 review is delayed
S4 Mostly acceptable decision time for applicants	W4 No existing monitoring system of market success of supported projects or direct impact on the region and companies
S5 User friendly on-line application system (EPTK)	W5 One call – lack the possibility to react on feedback from the realised call
S6 Strong SME support	W6 The eligibility criteria of services are complicated, therefore one part of the potential applicants cannot come to funding
S7 Focus on RDI products, services	W7 Low level of knowledge management and lack of awareness for innovation
S8 Wide range of supported activities, services	W8 SMEs have limited resources in R&D&I and limited access to public R&D results
S9 Critical mass - Relevant players of R&I chain are existing	W9 Most SMEs and start-ups have shortcomings in their management
S10 Intensive industry-university collaboration, but only especially between university and large multinational companies	W10 Low level of entrepreneurial spirit

OPPORTUNITIES	THREATS
O1 Bottom up regional priorities are included in S3	T1 No regional policy after 2020
O2 Set up of a network between the national and local actors, in combination with a strong cooperation on the regional level	T2 Regional Innovation Agencies have been hollow out fully and finally – No regional innovation systems
O3 Developing the synergies between the two measures (*"Promotion of intensity of companies' R&I activities"* & *"Supporting strategic R&I collaborations and initiatives")* in the targeted Investment Priority 1b	T3 Competition for RDI funding at national level – small funding for RDI projects in West Transdanubia
O4 Better organisation of calls (e.g. 2 step calls)	T4 Possible no further funding after 2018 (exhausted budget)
O5 Reducing the decision making time for applicants in case of all CfP	T5 Missing long term orientation of the measure over the timeframe of EDIOP
O6 Even more efficient on-line application system (EPTK)	T6 Lack of alternative support services to the enterprises
O7 Attitude change: Developing new innovation policy for promotion of innovation among enterprises which are not about financial resources and direct cash-transfer	T7 In case of some services the slow decision making on applications inhibit the enterprises on their planned RDI tasks
O8 Finding new customers	T8 Successful start-ups leave the region
O9 Spread the innovative approach, strengthen cooperation between enterprises and the research institutions	
O10 Implementation of Higher Education and Industry Collaboration Centre at Szechenyi Istvan University in Győr	
O11 Competence building of startups/SMEs	

Despite the fact that, budget for RDI significantly increased in Hungary compared to last EU budget period, financial support is running out within a few months and the long term orientation of the measure is missing.

The "one call practice" (allocated budget for support services is already exhausted after first call) doesn't allow sufficient flexibility to react on lessons learnt from realised calls.

Better organisation of the calls for the offered services and better training of the potential applications offer further opportunities and could be interlinked with a smooth transition into the new program period with a mixed funding approach.

Innovation system and approach seems too centralised, there is uniform policy measure in Hungary and the local strategy cannot influence the content. This is the time to develop new alternative support services for enterprises with focusing on regional and local resources which are not about direct financial supports.

Competition for RDI funding took place at national level and fund was not allocated to convergence regions. Number of submitted and approved project proposals from West Transdanubia were lower than the national average in case of almost all of the five submeasures and the applicants were regular customers and not new one. Some of the main reasons that smaller companies have to face with lack of competences, human capacities and management skills. There is lack of awareness of innovation. Furthermore the level of entrepreneurial is low in West Transdanubia.

In addition, new ways of motivating West Transdanubian companies to strive for more intensive R&D activities need to be established.

Due to exhausted budget, (new) call for proposals cannot be published and new project(s) cannot be financed. Projects have entered the implementation phase. There are some ongoing flagship projects in West Transdanubia that are financed by ERDF and link with addressed policy instrumet. Higher Education and Industry Collaboration Centre will be established at Szechenyi Istvan University in Győr within 4 years which centre can increase the competitiveness of the SMEs if the new services will be valuable for the companies and can improve the access to public R&D reults and research infrastructures.

Five ideas are in the focus to increase the intensity of companies' R&I activities and maintain the innovation among the West Transdanubian enterprises in long term perspective:

- Create new services in competence building and training of start-ups/ SMEs
- Monitoring the market success of the project supported by the policy instrument
- Test an open space for prototyping and working with students and teachers
- Finding new customers and increase R&D+I (human) capacities of SMEs
- Development of alternative support services for the enterprises with strong cooperation on regional level

2. Action 1: Stimulating joint small scale co-operations between companies and R&D+I providers

2.1 The Background

Aim of the Action: Increase the number of small scale co-operation between companies and R&D+I service providers.
Enhancing the intensity of innovation activities of enterprises through receiving innovation service.

(Modification on the call for proposal of Innovation Voucher).

INNOVATION VOUCHER is part of the targeted policy instrument in Hungary. This sub-measure targets specifically SMEs that are characterised by lower-than-the average innovation intensity and helps SMEs in access to innovation services outside the company.

One of the main weaknesses was identified during the Peer Review of West Transdanubia/Hungary: "low number of the applicants – low interested in innovation voucher scheme". Call for proposals of Innovation Voucher was published on 06 January 2016 (submission from 30 Nov 2016) with expected number of granted projects: 300-500. Number of submitted project proposals was only 13 (0 from West Transdanubia) until November 2017 and only 7 selected projects.

After the Peer Review workshop of West-Transdanubia (21 June 2017), some key stakeholders among them Ministry for National Economy, Pannon Novum and Chamber of commerce and industry for Győr-Moson-Sopron County with the involvement of some SMEs started to discuss what could be the reason for that and how to reach more potential companies and facilitate the co-operation between enterprises and R&D+I service providers.

PP04 Pannon Novum and representative of the Managing Authority of targeted policy instrument could exchange experiences and receive valuable information related to „Innovation Voucher" scheme in many cases thanks to the well-structured Peer Review workshops and Good Practice sessions.

Following lessons learnt were fed into the innovation voucher scheme implemented under the OP:

1) 2nd Interregional learning workshop in Sofia, Peer Review workshop of Lower Austria, discussion with Technology Innovation Partners (TIP) (Sept 2016): One of the main support services of TIP is matching companies R&D institutes and universities. TIP has contact to regional und European

institutes (focussing Germany, Czechia, Slovakia, Hungary, Slovenia) thanks to EU funded Centrope_tt project in which framework R&D institutes were surveyed and transnational innovation voucher scheme was tested in Centrope region. ***The definition of „research institution" (potential R&D service provider) as described in the Centrope_tt methodological manual applies not only for universities and accredited organisations.***

2) 3rd Interregional learning workshop in Alentejo, Peer Review workshop of Malopolska, presentation of Malopolska Region Policy Instrument by Malopolskie Centre of Entrepreneurship (Dec 2016): ***„Types of service providers: Scientific units, entrepreneurs having the status of research and development center, technology transfer centers, business environment institution - innovation centers, laboratory, research and development centers."***
3) 4th Interregional learning workshop in Tampere, Good Practice Session of Tampere, Presentation of Tredea Innovation Voucher by Tampere Region Economic Development Agency (March 2017): ***„Service providers: Not only universities and educational institutions but also companies of various sizes"***

2.2 Action

Action 2.2.1 Modification on the call for proposal of Innovation Voucher

The main purpose of the action is to extend the group of potential R&D+I service providers from whom the beneficiaries (companies) can order innovation services for their product, process or service development.

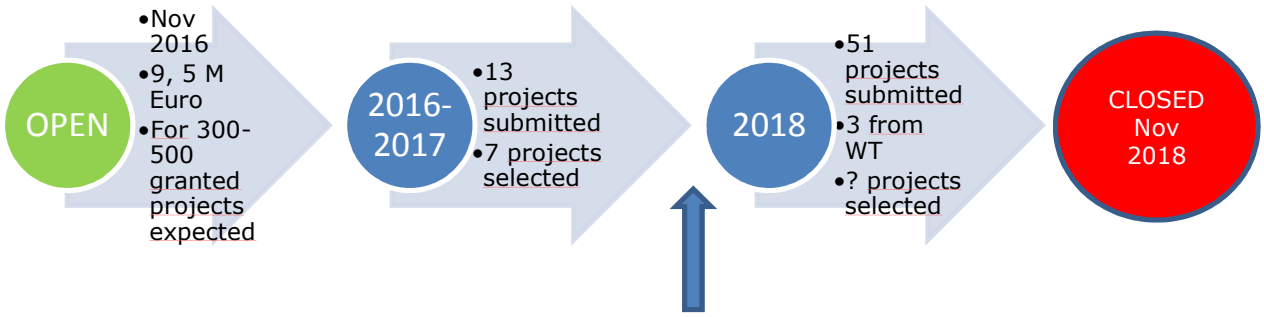
Modification on Innovation Voucher scheme was done on 08 November 2017: Service providers are not only universities and accredited organisations but also „qualified innovative companies" which companies have references and fulfil some criteria. (*Please see the lessons learnt from Innobridge project were fed into the innovation voucher scheme implemented under the OP in the previous chapter*)

When the modification request was done budget was available for all granted projects for this call: 3.000.000.000 HUF (**approx. 9.500.000 Euro**, exchange rate 315 HUF/EUR)!

Updated guideline and call is available on the following link: https://www.palyazat.gov.hu/mdosult-az-innovcis-voucher-cm-felhvs-3

This action is already under implementation.

Innovation Voucher in Hungary



Source: Own edition based on the datas received from the Managing Authority, January 2019

2.3 Players involved

Ministry for Finance (Managing Authority) – monitoring the Action

2.4 Timeframe

04 January 2016	call for innovation vouchers opened
08 November 2017	modification by InnoBridge on Innovation Voucher
30 April 2019	projects selected
31 December 2019	projects running
28 February 2020	result documentation expected
until 31 March 2021	monitoring and evaluation of the results

2.5 Costs

Budget which is affected by the amended guideline = budget for all granted projects for this call: 3.000.000.000 HUF (approx. 9.500.000 EUR, exchange rate 315 HUF/EUR)

Costs for managing the call/monitoring the action is included in the budget above. No additional costs expected.

2.6 Funding sources

Funding sources are provided through Sub-measure 2.1.4: „Innovation voucher" Supporting small-scale co-operations between enterprises and research institutes of the addressed policy instrument "Economic Development and Innovation Operational Programme for Hungary 2014-2020"

2.7 Monitoring indicators

Action implementation will be monitored semi-annually with the following meaningful indicators with expected figures for the defined indicators are as follows:

- Estimated amount of Structural Funds influenced by the project: approx. 9.500.000 Euro (for all 6 convergence regions in Hungary)
- Number of enterprises in West-Transdanubia receiving financial support (indicator of the OP): 3
- % of SMEs benefiting from the instrument in West Transdanubia that introduce new to the firm product/service due to the improved policy instrument until 2023: 33

3. Action 2: Supporting the university-industry collaboration - Integration of new aspects and systematic approach of commercialisation of R&D into the open collaboration platform created by Szechenyi Istvan University

3.1 The Background

Objective of the Action: Support the creation of an open collaboration platform in Szechenyi Istvan University with identification and introduction of new aspects and systematic approach of commercialisation of R&D from InnoBridge partner regions.

During the interregional workshops and Peer Review of West Transdanubia were identified and/or highlighted that no established forms or practice of communication between the SMEs and the universities, technology transfer processes are not effective, SMEs have limited access to public R&D results in the region (See SWOT Analysis W7-9.). Companies' R&D+I activities are hindered by lack of knowledge, skills and competences.

There is a regional flagship project under implementation (project title: **Higher Education and Industry Collaboration Centre at Szechenyi Istvan University**, project duration: 2016- 2020, budget from ERDF: 20,2 M EUR) at Szechenyi Istvan University in Győr financed by the "complementary" of the addressed policy instrument (Investment Priority 1A and not 1B). The University will **create an open collaboration platform** based on its industrial relations, experiences, human resources and research infrastructures in order to serve the industrial needs firstly of the SMEs and implement effective knowledge and technology transfer.

The project consists of 6 sub-projects, two of them are closely linked with the InnoBridge topic:

- Sub-project 5: **Development of support services for promoting international competitiveness of SMEs** (Creation of open R&D labs for industrial needs; development of service portfolio including training-, product- and organizational-development services for SMEs; establishment Management Campus as competence centre.)
- Sub-project 6: Development of **student innovation** competition teams (creating modern labs and technical equipments, development of industrial relations, involvement of talented students, encourage students to engage in academic activity)

Some of the main expected results of the project closely linked with the InnoBridge topic:

- Number of developed tested prototype, product, service, technology (TRL 6-7): 14 (Date of targeted value: 31/12/2020)
- Number of created spin-off enterprise: 4 (Date of target value: 31/12/2020)

Szechenyi Istvan University is interested in some Good Practices identified in InnoBridge and ready to study and transfer some element(s) of them which can contribute to create an effective and sustainable collaboration platform:

- **Kampusareena – Tampere region**: tut.fi/en/kampusareena/ twitter @kampusareena #kampusareena #kampusklubi
  Acts as *Hub of Hubs* that bridges gaps between industry, science and education. It is a university campus facility (both physical infrastructure Kampusklubi ® and a virtual platform) providing broad range of expertise, services, networking events, pool of talents and job opportunities. The funding of this instrument came from ERDF in the past, now it is self-sustainable.

- **Creative Pre-Incubator Program Lower Austria**
  For regions with an underdeveloped entrepreneurial culture at universities and missing support services in the pre-startup phase, the CPI program is an effective first step on the way to establish an entrepreneurial culture at universities as well as to identify and develop students' potentials to start their own business. At the same time the programs facilitates the access to universities' infrastructure for these potential entrepreneurs.
  http://www.accent.at/ueber-uns/creative-pre-incubator.html

- **Competence Mapping – Lower Austria**
  The Competence Map is a systematic approach to identify significant innovation potentials of SMEs and to sharpen their innovation strategy. Internal and individual workshops with a qualified consultant are organised for regional companies to learn how to identify and develop the own competences by changing the point of view of the own business strategy.
  https://www.competence-map.eu/tos

- **Uni-Business challenge contests - Castilla y Leon**

  The Practice of Uni-Business Challenge Contest from Castilla y León region demonstrates interesting points how to promote small joint (university-business) projects in RTD aimed at solving technological needs or challenges previously identified from the business side. The target groups are private companies and universities.
  http://www.redtcue.es/desafio

  In West Transdanubia and Hungary based on the suggestion of the Managing Authority (4th stakeholder meeting, Budapest, 02 Febr. 2018), should be put more focus on how to involve and motivate university students in collaboration with companies and prototyping who are potential employees and engineers for the companies in the future. The Managing Authority is interested in the evaluation result of this kind of pilot action: "How to engage university students and finance their work or motivate them in prototyping?" Outcomes and main findings can serve as input for the Measure.

Delegation of Szechenyi Istvan University visited the **Staff Exchange in Lower Austria on the 10-12 of April 2018** where the participants increased their skills in the following fields which are very useful and serve as inputs for the university developments:

- survey of SME development needs based on the practice by TIP
- institutional aspects of innovation and incubator programmes in Lower Austria
- the importance of student innovation
- potential University Service Portfolio
- strategy development and communication in digitization, clusters, incubation programmes.

Main take-away from **Staff Exchange in Tampere in October 2018** is the experiences of Kampusareena services towards companies (Kampusklubi, co-working spaces and facilitated innovation process) and Demola / Koklaamo programmes that focus on student projects with industry and community. The concepts are simply, but in the implementation phase small details matters a lot which makes a difference in success! In a design space there has to be colourful and design furniture to purchase and put in use. Reinforcing innovative encounters are managed by professional facilitators, otherwise no new collaborative projects could be created. The collaboration is the main goal and all spaces are designed for this purpose.

Picture made on 11 Oct 2018 visiting Kampusareena during the Staff Exchange in Tampere

3.2 Action

3.2.1 Design the new Management Campus building for creating co-working spaces

During the Staff Exchange in Tampere (October 2018) the Hungarian delegation visited Kampusareena where Ms. Mervi Huhtelin, the concept developer highlighted several meeting points in the building that were designed ergonomically to inforce meetings between business and university people. The collaboration is the main goal and all spaces are designed for this purpose.

Actions to be implemented:

- ➔ Request e.g. Kinnarps Hungary to design the interiors of the communal spaces of the new Management Campus building and purchase ergonomic furniture for the Management Campus in order to create an inspiring and collaborative environment as well as support the design of cooperation projects between business and the university.
- ➔ Installation of large monitor screens displaying event information to be placed in several parts of the new MC building.

3.2.2 Developing methodologies, skills and capacities in Management Campus (University-Industry Collaboration Centre) based on Tampere model

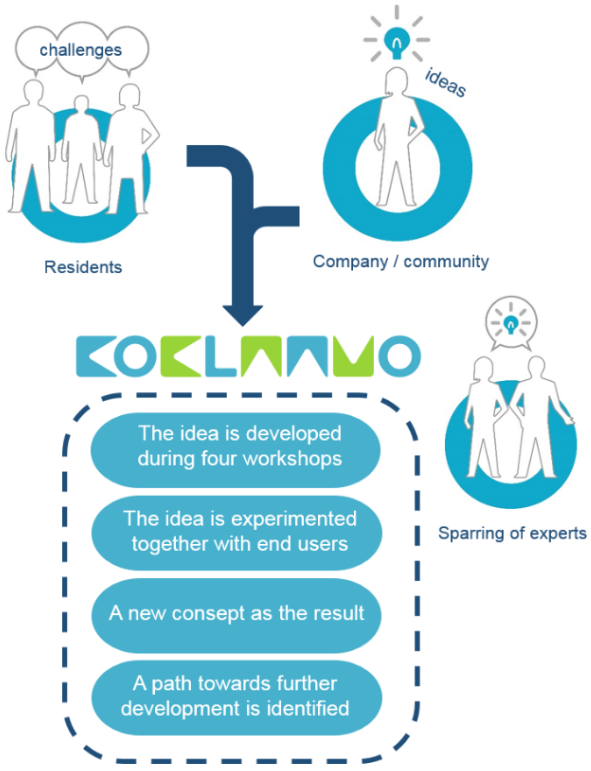
Koklaamo project – City of Tampere

A place for experimentation with the aims to create business opportunities for SMEs, responsibility and strengthen networking. The city as an enabler, facilitator, networker. Co-creation place where people can do quick and agile experimentation.

They use a lean service design method with templates. See Lean service creation handbook (https://koklaamo.fi/in-english/).

Concepts are tested at the very early stage with potential customers (i.e. insights). Developers learn the demand very early and how the concept should be developed further.

The overview of the process:



Source: Koklaamo project – City of Tampere, Lilli-Nora Siikasmaa Project manager, Staff exchange in Tampere, October 2018

Action to be implemented:

- ➔ Apply See Lean service creation handbook in Management Campus as main methodology for problem solving and prototyping products and services (https://koklaamo.fi/in-english/).
- ➔ Hire an event manager who will organise professional presentations, workshops for networking and project definition purposes. (sample Ms. Mervi Huhtelin) Contact Ms. Mervi Huhtelin for further information on event and workshop organisation details and examples. (She writes a PhD on the topic too).
- ➔ Hire and train an innovation process facilitator for Universitas-Győr Nonprofit Ltd who meets and discusses RDI needs and challenges of SMEs that could be implemented with support of the university staff.
- ➔ Present research results of FIEK competence center's to business people in the new MC building and support their preparation for the meeting, i.e. highlighting value proposition of their results.

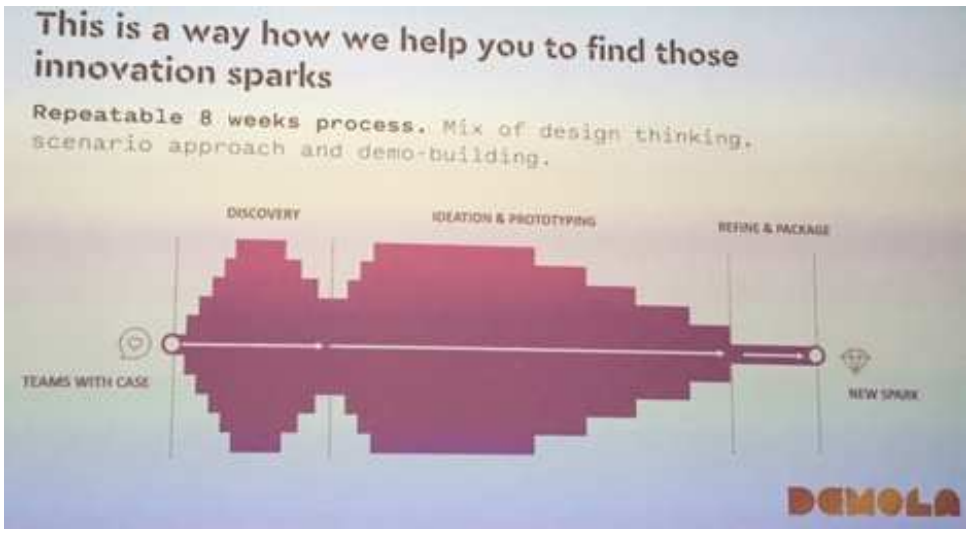
- ➔ City of Győr and its public companies should be contacted and asked for those problems and/or societal challenges that could be solved by student teams though project work included in curricula. Contact Mr Bacsa to collect experiences with Hungarian Demola projects managed by BME in Budapest.
- ➔ Develop an app to follow international students at SZE based on the experiences of edonation.com (see Mindtrek conference)

3.2.3 Pilot development of SMEs in joint development teams formed by students, teacher and SMEs

DEMOLA – Practical approach to build new innovation capabilities and ecosystems

Demola is a sandbox for ideas, future scenarios and what-ifs. The essence and uniqueness of Demola is co-creation. Use in situations where we don't know the exact questions. In the process students imagine situations where a certain technology could be used. The technology could be developed by firms, but its use should be discovered. Most successful projects are those in which companies contributed a lot.

Challenges of customers of partner companies are requested to propose problems. 2-3 company reps are involved in the diverse student team. The process is facilitated by a trained facilitator who is action as project manager. He /she is not involved what is done, but HOW is done. Duration: 8 weeks, company reps should spend min 1 day / week with the student team.



Presentation slide by Demola during the Staff Exchange in Tampere, October 2018

Students are motivated because of real-life cases, engage with companies, gain credit points, but no financial compensation.

IPR model: company gets all non-exclusive IPR, the students own the patent.

More info: https://www.demola.net/

Action to be implemented:

Testing the Toolkit developed by Szechenyi Istvan University (service portfolio of Management Campus) including training-, product- and organizational-development services for enterprises with the adaptation of some lessons learnt from Demola and Uni-Business challenge contest from Castilla y Leon:

- ➔ Establishment of joint development teams formed by students, teacher and SMEs (how to motivate students, how to motivate enterprises)
- ➔ Set up the IPR rules before the process
- ➔ Exploring company problems and challenges with the involvement of university open labs, R&D competences and external experts
- ➔ Tailored made development of 15-20 SMEs: Discovery, Ideathon & Prototyping.

3.3 Players involved

- ✓ Szechenyi Istvan University as project owner and service provider (member of regional stakeholder group in West Transdanubia)

3.4 Timeframe

PREPARATION PHASE (Phase 1)

- Design the new Management Campus building for creating co-working spaces
  - Timeline: October - December 2018

IMPLEMENTATION PHASE (Phase 2)

- Developing methodologies, skills and capacities in Management Campus (University-Industry Collaboration Centre) based on Tampere model
  - Timeline: October 2018 – March 2020
- Pilot development of SMEs in joint development teams formed by students, teacher and SMEs
  - Timeline: January 2019 - August 2020

- Evaluation of pilot developments of SMEs and feedbacks for the policy makers: „How to engage university students and finance their work or motivate them in prototyping?
    - Timeline: September 2020 – March 2021

3.5 Costs

Costs are part of the project budget of Higher Education and Industry Collaboration Centre at Szechenyi Istvan University.

Design & infrastructure investment for creating co-working spaces: 20.000 Euro

Cost for hire and train innovation process facilitator(s): 5.000 EUR

Pilot development of SMEs (15 pilot x 5.000): 75.000 Euro

3.6 Funding sources

Funding sources are provided through ERDF, Economic Development and Innovation Operational Programme for Hungary 2014-2020, 2nd Priority axis: Research, technological development and innovation, Investment priority 1/a – Development of research and innovation infrastructures (Project identification number: GINOP-2.3.4-15-2016-00003).

3.7 Monitoring indicators

Action implementation will be monitored semi-annually with the following meaningful indicators and expected figures for the defined indicators are as follows:

- Estimated amount of Structural Funds influenced by the project: 100.000 Euro
    - Number of university colleagues participated in facilitator training: 5
    - Number of implemented pilot projects with SMEs: 15
- % of SMEs benefiting from pilot projects that introduce new product/service to the firm until 2023: 20

4. Action 3: Working with schools and students

4.1 The Background

Objective of the Action: Collaboration with schools and (university) students to meet needs or challenges of companies and design solutions and innovative projects.

Prototype development is supported by the targeted measure in form of company alone, collaboration with other enterprises or research institutes, HEIs. However we learnt and gained new inspiration from the InnoBridge project partners that individuals, students, team of students, not only HEI but also primary and secondary schools can open new way for innovation.

We consider the creation of a FabLab (personal digital fabrication) as a great opportunity to boost prototyping among students and encourage entrepreneurship.

We first knew about these small-scale laboratories during the 3rd InnoBridge Interregional Learning Workshop in December 2016 when we visited the ÉvoraTech FabLab. Afterwards, the 1st Capacity Building Workshop (Valladolid November 2017) provided us opportunity to get deeper and more specific knowledge about the Good Practice of ADRAL.

Probably there are (technological) needs or challenges identified by a company or a group of companies that can be solved by a team of students with a teacher (or with external mentor, coach) from a secondary school not only from HEIs. The most of the vocational training centres are not well equipped for this small joint projects. There is a place in Győr (Technics Playground 4.0 Mechatronic and Training Centre, see later TP 4.0) which is basically open for everyone, targeting also primary and secondary schools and has a lots of real industrial machines and equipments for prototyping (3D printers, CNC milling & turning & cutting, laser marker & cutting, computers, industrial robots, etc) focusing on new industrial revolution (industry 4.0). TP 4.0 has thousands visitors each year from primary and secondary schools. Technics Playground 4.0 is one of the main cooperating partners of Professio Metal Industry and Vocational Training Cluster which is an accredited innovation cluster in Hungary. Cluster membership consist of: 20 SMEs, 2 large company, 2 secondary school, 1 university. Automotive, machinery, ICT, smart technologies, laser technologies belong to the S3 priorities. Integration of the FabLab concept can contribute to the success.

During the scenario development for InnoBridge partner regions and West Transdanubia, identified new key driver for addressed policy instrument which is suggested to take into account: „Industry 4.0, digitalisation, automation, robotics". (5th Meeting of stakeholder group of West Transdanubia, in Budapest, August 2018). On the one hand it is about competence development of students important in terms of future: working on projects, meet with the problems of companies. On the other hand is support for the companies in adaptation of new industry solutions in the field of automation, digitalisation and robotics.

4.2 Action

➔ **Action 4.2.1 Creating and management (pilot launch) a FabLab for individuals at Technics Playground 4.0 in Győr** and establishing cooperations with similar organisations and networks at regional, national and interregional level.

Rough concept: Moving forward from technical career guidance to develop skills important in terms of future & enhance creativity and entrepreneur spirit among primary and high school school students by adapting FabLab concept to Technincs Playground 4.0 Mechatronics and Training Centre in Győr.

Creating a useful knowledge base for the whole community and dissemination of the principle learning by doing. To become a platform for learning and innovation: a place to play, to create, to learn, to mentor, to invent.

Resources needed defined by ÉvoraTech FabLab are available:

- ✓ Human resources: Technicians with knowledge in 3D mod., electronics and software programming.
- ✓ Equipments: The recommended Fab Foundation equipment (3d printers, SNC milling machines, etc.)

Business model:

1. Providing services for companies (developments, prototypes, rental fee of facilities)
2. Training for students, teachers, companies – employees
3. Venue for events – rental fee of facilities

Joining international networks and participation in project co-operations is needed to exchange experiences, create (missing) conditions & find the right way for running a Fablab, develop (joint) training programmes and services – This is why so called "pilot launch" during InnoBridge phase 2.

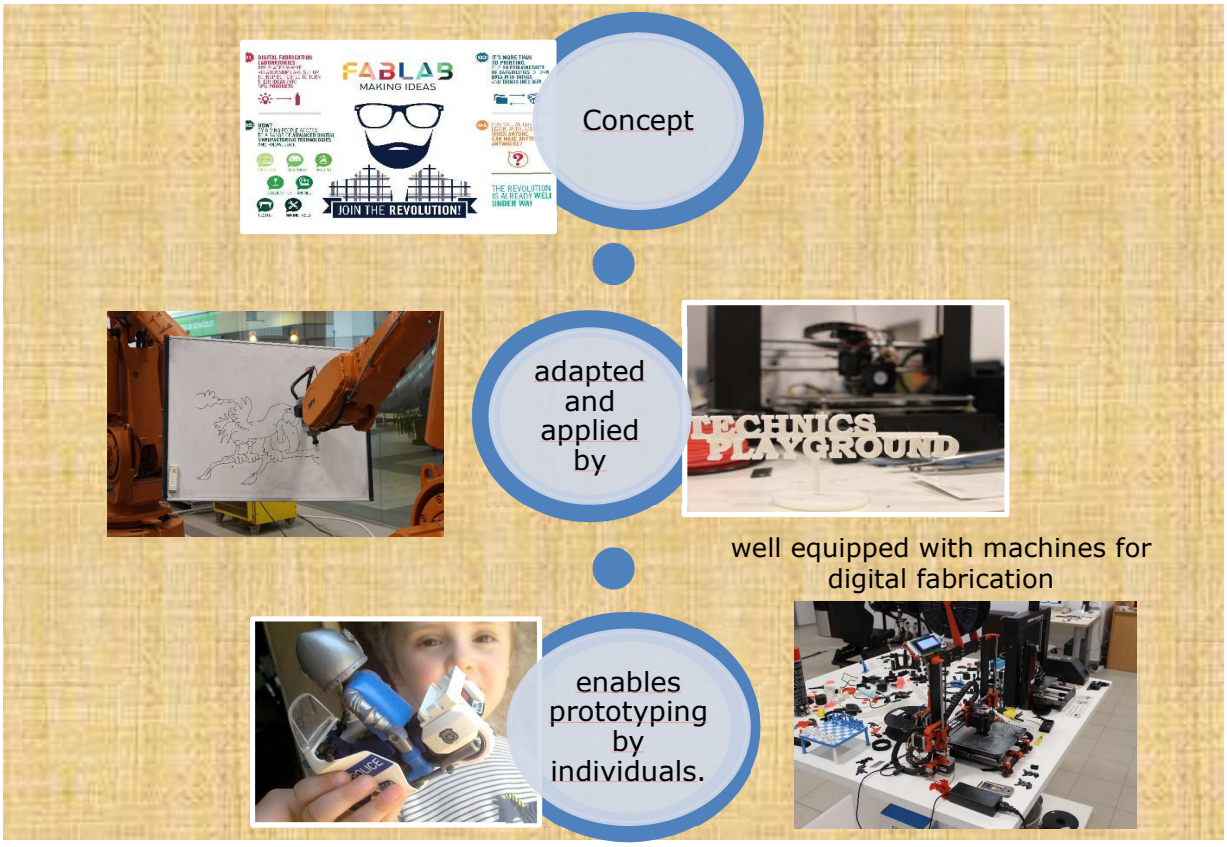
➔ **Action 4.2.2 Building co-operations and interactions between education – science & industry** to meet & design solutions for society and/or industry problems**:**

- o Organising workshops (0,5-5 days with small groups, max. 24 participants) and innovation school contests for primary and secondary school students at Technics Playground 4.0.
- o Organising workshops and "Engineering thematic days" (0,5-2 days with small groups) for university students at Technics Playground 4.0.

➔ **Action 4.2.3 Dissemination & communication** activities/events where business/technology topics are communicated to scholars/ university students and aimed at bringing closer the achievements of science and technology to regional citizens:

- Creating an exhibition area at the Training Centre of Technics Playground 4.0 (Target group: primary and secondary schools, regional citizens).

Creation of FabLab point at Technics Playground 4.0 in Győr to enable prototyping by students



Source: own edition

4.3 Players involved

- ✓ Technics Playground 4.0 Mechatronics and Training Centre (hosting events)
- ✓ Professio Metal Industry and Vocational Training Cluster (involvement of companies)

- ✓ Chamber of commerce and industry for Győr-Moson-Sopron county (involvement of companies and schools)
- ✓ Pannon Novum Nonprofit Ltd. (involvement of companies and schools, development of international project proposal)

4.4 Timeframe

This action is foreseen to be implemented from 1 April 2019 to 31 March 2021.

01.04.2019 – 31.03.2021 Workshops for students (min. 1 workshop per semester)

31.03.2020 exhibition area opened

31.03.2021 FabLab created (with final conception and business model)

4.5 Costs

According to the current rough concept the costs are estimated as follows:

Creation and management of FabLab for students: 500 EUR/month

Average cost per workshop for students: 1.000-2.000 EUR

Awards and incentives for participants: 1.500 EUR

Communication and dissemination: 2.000 EUR

We estimate the implementation costs summing up to approx. 38.500 EUR for the two years April 2019 till March 2021

Additional costs are covered as in kind contribution by the parties listed under funding sources.

4.6 Funding sources

Private sponsors for events, prototyping and awards

Technics Playground – venue, staff effort

Pannon Novum – staff effort

European projects (targeted funds: Interreg V-A SK-HU and/or Visegrad Fund and/or Interreg Danube and/or Central and/or Erasmus + for interregional networking of FabLab points, development of training programmes, etc.)

Contributions from companies for installation of exhibition area

4.7 Monitoring indicators

Action implementation will be monitored semi-annually with the following meaningful indicators and expected figures for the defined indicators are as follows:

The expected figures for the defined indicators are as follows:

- Number of created FabLab: 1
- Number of involved companies: 5
- Number of involved students: 200
- Number of established exhibition area: 1
- Number of submitted international project: 1

5. Action 4: Integration of INNOVATION PROFILING into the regional innovation supporting system of West Transdanubia

5.1 The Background

Objective of the Action: Supporting low/medium innovative companies to increase their innovation capacity. Identification of potential new customers for the R&D+I funding scheme.

In West Transdanubia the competitiveness of SMEs is hindered by the lack of awareness for innovation. Most SMEs and start-ups have shortcomings in their management. There is lack of innovation strategy in low und average innovative small and medium sized companies. Peer Review experiences show that the number of submitted project proposals from West Transdanubia for R&D+I grants is moderate (lower than the national average) and the applicants are regular customers and not new one.

We learnt from an Austrian stakeholder (TIP) in InnoBridge project that having an innovation strategy is an important success factor for companies in realising innovative ideas on the market and strengthening their competitive position.

TIP INNOVATION PROFILING – Lower Austria
This Good Practice selected by InnoBridge project is a structured and simple process for sensibilizing companies for R&D and innovation. SMEs are informed about possible and relevant supporting instruments (regional, national, European) – not excluding any offer – which is increasing the transparency of offered innovation support services.
It is also a trust building tool among intermediaries of the ecosystem as they realise that it is a collaborative approach bundling also several services from different intermediaries/R&D providers (a holistic approach).

Pannon Novum and one of our stakeholders (Szechenyi Istvan University) visited the Staff Exchange in Lower Austria on the 10-12 April 2018 where the participants learnt and received informations that this approach helps to identify new clients and it must be embedded in a mix of support services (can be linked with Action 2 – development of a Toolkit and training service by Management Campus). Success factors: the tool apply by an existing intermediary organisation but not as a standalone measure, part of a regional ecosystem with several other supporting instruments, strong regional cooperation among intermediaries – business support organisations, good (regular) contact to SMEs.

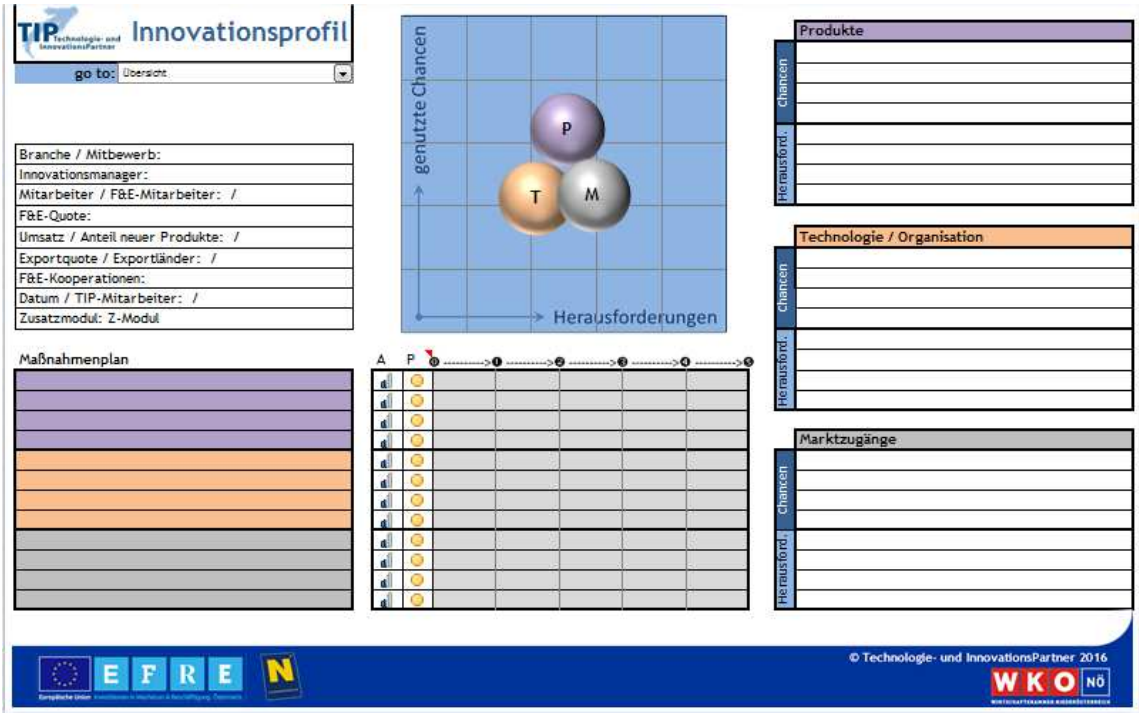
5.2 Action

Innovation Profiling acts as a starting point in the process of elaborating a first innovation strategy as well as sensitization for the importance of having a more comprehensive one.

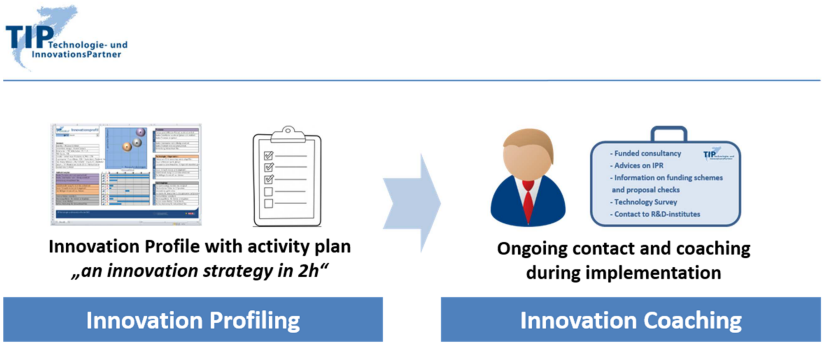
The aim of Innovation Profiling is to speak about future challenges focusing on following three topics

- Product - what the customer finally gets,
- Technologies - how the product (or service) manufactured and
- Markets - how the company finds it´s customers.

A bilateral discussion with the entrepreneur results in a rough innovation strategy on one page with a list of activities for the next years including appropriate supporting measures offered by the organisation or other intermediaries and funding schemes.



The tool itself is based on Microsoft Excel, applied by Technology- and InnovationPartner (Economic Chamber of Lower Austria)



Source: Description of Good Practice TIP Innovation Profiling

Chamber of commerce and industry for Győr-Moson-Sopron and Pannon Novum Non-profit Ltd. in West Transdanubia region is interested in supporting low/medium innovative companies to increase their innovation capacity and identification new costumers for R&D+I funding scheme. Both organisations have already established good contacts to companies and provide them different consulting & advisory services and do surveys among the target group which is not directly the same as innovation coaching provided TIP but Innovation Profiling could be combined with other services & activities available in West Transdanubia.

Innovation managers and SME development consultants of both organisations (min. 4 person) will be trained in a 2-3 hours workshop planned in April 2019 how to apply the tool.

Both the Chamber and Pannon Novum carries out bilateral discussions with companies about the future challenges focusing on three topics mentioned above (product, technologies, markets) and elaborates rough innovation strategy on one page based on the guidelines and templates provided by TIP Lower Austria.

The tool will be used also for trust building among the other intermediaries of regional ecosystem and a workshop (2-3 hours, 10 participants) two times in period 01 January 2020 – 31 March 2021 will be organized about the Innovation Profiling and gained experiences, about the role and offers of these intermediaries, cooperation opportunities. Expected output of the workshops: List of competences, services & supporting measures of intermediaries.

5.3 Players involved

- ✓ Chamber of commerce and industry for Győr-Moson-Sopron county (service provider)
- ✓ Pannon Novum Non-profit Ltd. (service provider)

5.4 Timeframe

For phase 2 (implementation phase):

- Introduction of the new support service for enterprises in 2 intermediary organisations (business support organisation)
  - Training workshop for the innovation managers, SME development consultants on how to use the tool (min. 4 person)

    Timeline: May 2019
  - Launch Innovation Profiling (Targeted 10 companies per year)

    Timeline: June 2019 - ongoing

- Workshop for intermediaries of regional ecosystem – trust building, cooperation opportunities

  Timeline: two times in period 01.01.2020 – 31.03.2021

5.5 Costs

It is a soft measure. INNOVATION PROFILING will be combined with other activities and services are ongoing or planned in West Transdanubia. 1 profiling needs about 8-16h (preparation and on-site visit).

We estimate the implementation costs summing up to approx. 4.000 EUR for the two years April 2019 till March 2021:

- Personal and travel cost for 20 profiling (1 profiling needs about 8-16h): 3.500 Euro
- Cost for venue of (3) workshops is in kind and own contribution of the parties: 500 Euro

Venue for training workshop - Chamber of commerce and industry for Győr-Moson-Sopron county (CCI Győr), financed by own contribution.

Venue for workshops of intermediaries of regional ecosystem – CCI Győr or Pannon Novum, financed by own contribution.

5.6 Funding sources

Funding will be provided by Chamber of commerce and industry for Győr-Moson-Sopron county and Pannon Novum.

5.7 Monitoring indicators

Action implementation will be monitored semi-annually with the following meaningful indicators and expected figures for the defined indicators are as follows:

- Number of service providers (persons) with increased skills in innovation management: 4
- Number of SMEs received Innovation Profiling: 20
- Number of regional stakeholders participated at workshop for trust building: 15
- % of SMEs benefiting from Innovation Profiling that introduce new product/service to the firm until 2023: 20

6. The Action Plan at a glance

Action/ Timeframe & milestones		Phase 2 (01.04.2019 – 31.03.2021)																						
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1. Innovation Voucher	●				●										●										●
2. Open collaboration centre at university																									
2.1 Creating co-working spaces	●																								
2.2 Developing methodologies, skills and capacities													●												
2.3 Pilot development of SMEs																		●							
2.4 Evaluation of pilot developments																									●
3. Working with students																									
3.1 Creating a FabLab																									●
3.2 Workshops for students							●						●						●						●
3.3 Creating an exhibition area													●												
4. Innovation Profiling in WT																									
4.1 Training workshop			●																						
4.2 Launch Innov. Profiling														●											●
4.3 Workshop for trust building															●										●

Indicator overview of West Transdanubian Action Plan

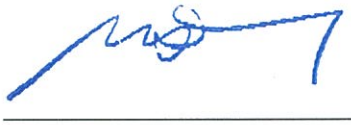
Action	Indicator	Source	Base	Target value
1. Innovation Voucher	Number of enterprises in W-T receiving financial support	Ministry for Finance	0	3
	% of SMEs benefiting from the instrument in W-T that introduce new to the firm product/service until 2023	Ministry for Finance	0	33%
2. Higher Education and Industry Collaboration Centre at Szechenyi Istvan University (FIEK at Uni SZE in Győr)	Number of implemented pilot projects with SMEs	Szechenyi Istvan University	0	15
	Number of university colleagues participated in facilitator training	Szechenyi Istvan University	0	5
	% of SMEs benefiting from pilot projects that introduce new product/service to the firm until 2023	Szechenyi Istvan University	0	20%
3. Working with schools and students	Number of created FabLab	Technics Playground 4.0	0	1
	Number of involved companies	Technics Playground 4.0	0	5
	Number of involved students	Technics Playground 4.0	0	200
	Number of established exhibition area	Technics Playground 4.0	0	1
	Number of submitted international projects	Pannon Novum	0	1

4. Innovation Profiling	Number of service providers (persons) with increased skills in innovation management	Pannon Novum and CCI Győr	0	4
	Number of SMEs received Innovation Profiling	Pannon Novum and CCI Győr	0	20
	Number of regional stakeholders participated at workshop for trust building	Pannon Novum and CCI Győr	0	15
	% of SMEs benefiting from Innovation Profiling that introduce new product/service to the firm until 2023	Pannon Novum and CCI Győr	0	20

7. Signature (to be signed by Pannon Novum, with a letter of endorsement signed by Managing Authority)

Date: 04 July 2019

Signature:



Managing director, Pannon Novum West-Transdanubian Regional Innovation Non-profit Ltd.

Stamp of the organization:

PANNON NOVUM
NYUGAT-DUNÁNTÚLI REGIONÁLIS
INNOVÁCIÓS NONPROFIT KFT.
9700 Szombathely, Berzsenyi Dániel tér 2.
Adószám: 14197280-2-18
Bank: 18203198-06017277-40010012

Acknowledgement of Receipt

IA20190000054123

InnoBridge
Interreg Europe

European Union
European Regional
Development Fund

Project acronym	InnoBridge (PGI00176)
Project title	Bridging the innovation gap through converting R&D results commercial success in a more effective and efficient way
Name of the organisation (original) /including department (if relevant)	Gazdaságfejlesztési Programok Irányító Hatósága, Gazdaságfejlesztési Programokért Felelős Helyettes Államtitkárság, Pénzügyminisztérium
Name of the organisation (English) including department (if relevant)	Managing Authority for Economic Development Programmes, Deputy State Secretariat for Economic Development Programmes, Ministry for Finance
Name of the policy instrument addressed (original)	Gazdaságfejlesztési és Innovációs Operatív Program, Beruházási prioritás 1b: A vállalkozások K+I beruházásainak előmozdítása, kapcsolatok és szinergiák létrehozása.
Name of the policy instrument addressed (English)	Economic Development and Innovation Operational Programme for Hungary, Investment Priority 1b: Promoting business investment in R&I, developing links and sinergies.
Name of partner(s) concerned in the application form (English)	Pannon Novum Non-profit Ltd.

We hereby confirm:

- that on the 12. 02. 2019 we received the Action Plan prepared by Pannon Novum West Transdanubian Regional Innnovation Non-profit Ltd. (PP4) in the framework of the above-mentioned project;
- that the Action Plan has been prepared in accordance with Annex 1 of Interreg Europe Programme Manual (version 6, 19 December 2018);
- that we participated in the regional stakeholder group (RSG) of the above-mentioned partner in the project;
- that we are effectively acquainted with the contents of the Action Plan, and we will consider possibilities for implementation of the Action Plan through our policy instrument;
- that the 3rd modification (November 2017) in call for proposals EDIOP-2.1.4 (Innovation Voucher) was fed by InnoBridge Action Plan (first version) and good practices.

Name of signatory	*Balázs Greinstetter*
Position of signatory	*Deputy State Secretary* *(Head of Managing Authority)*
Date	21/03/2019
Signature and institution stamp (if exists)	Pénzügyminisztérium 28.