



IMPROVE! - DIGICALL OPEN CALL

WP3 DEVELOP!

T3.3.1 OPEN CALL FOR PILOT PROJECTS

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1 Background of the Open call

The open call was launched in the frame of IMPROVE! Project which is an Austrian-Hungarian crossborder cooperation of digital innovation hubs for joint service portfolio and specialization. Digitalization is bringing enormous challenges for businesses across all sectors. By linking organizations dedicated to digital transformation from both sides of the border, the necessary pool of knowledge could be gained and contribute to the successful transformation of the companies.

The overall goal of the project is to strengthen the performance of the start-ups and innovation capacity of the SMEs with new digitization solutions provided by the AT-HU DIH network thus contributing to increasing the competitiveness of the business sector in the region. The complex DIH service package and the long-term DIH strategy elaborated in the project enhance the successful digitization transformation of 10 businesses contributing to the chances of survival of these and additional SMEs in the region.

The project aims to create an environment that encourages the digitization and innovation of SMEs through close cooperation of in the ATHU region already existing or newly established DIHs. On the other hand, it seeks to reach promotion and further development (thematic working groups) as well as testing the digital solutions of the DIH network in pilot projects.

2 Name of the Open call

Open call for implementation of digital solutions within the IMPROVE! project

3 Open call provider

IMPROVE! Partners (see Chapter 10) on the basis of the conditions defined below, invites all interested parties, to submit an application for the implementation of the services for establishing the pilot project.

4 Purpose and objective of the open call

The open call for establishing the pilot project is carried out within the activities of IMPROVE! project, implemented under the Interreg V-A Austria-Hungary Cooperation Programme 2014-2020:

- Work Package 3 DEVELOPE! Pilot projects for operationalization in digitalization for businesses, contributing to transfer and co-operation activities
 - Activity T3.3.3: Pilot projects with integrated DIH competencies only with cross-DIH functionalities

The **purpose** of the open call is to implement innovative solutions into SME's life by **testing a cross-regional service scheme** that supports digital transition of the cross-border region through supporting small and medium-sized enterprises (SMEs) and start-ups to apply digital solutions.

The **<u>objective</u>** of the call is to translate the digitalization tools into **tangible applications** for SMEs and start-ups in pilot projects, while relying on the complete portfolio of the ATHU DIH network.



5 Subject of the open call

The subject of the open call is to provide services of free of charge for pilot projects implemented by SMEs and start-ups registered in Hungary or Austria close cooperation with IMPROVE! project partner(s) as solution provider(s).

The subject of the pilot project are digital solutions that fall into at least one of the following areas:

- Production
- Engineering
- Software
- AI/Machine learning
- Electronics

5.1 Activities to be implemented under the project

The following activities are eligible under the Call:

Production	
3D scanning	Digitalise unique objects and components using a 3D scanner under operating conditions. The technology makes it possible to create point clouds for smaller or larger devices (max.1 m in size), which enables the creation of their 3D CAD model. Before scanning, the object is tested for feasibility.
3D modelling	Design and preparation of the 3D model of individual objects, parts, product design depending on the complexity of the product.
3D printing alloys	 Based on Solidworks Tool steel or titanium only SME has to cover the cost for material Exisiting part will be provided by SME at high quality The service provider will only do corrections and optimizations based on needs for 3D printing 1 part at max.
3D printing ink jet	• 1 print at max. Design of a Multi material system for printing with InkJet Printing of Prototypes based on a multimaterial printer (Stratasys) Individual printing of objects and components with curved surfaces
3D printing polymer	Printing products based on 3D model with FDM and SLA technologies. Individual consultation is required before implementation
Prototyping, reverse engineering	Prototype printing based on existing 3D model or sample and making necessary modifications. Individual consultation is required before implementation
3D animaition (for product development and marketing activities)	Unique marketing solutions using computer animation (CGI). The technology allows us to present our product even at the design or prototype stage with realistic animation or corporate image creation for advertising purposes. Individual consultation is required before implementation.
SCADA/MESS	 Interface to SCADA and manufacturing execution systems Interface descritpions are provided by SME Middleware based on TRL6 1 usecase at max.



Product Development by business	Feedback from customers and market research is always very important
model canvas, idea generating	before certain products are developed or to improve existing solutions.
workshops, agile methods and	Therefore, in the framework of this pilot actions, we can carry out an
participation	participatory process to find out which products are needed/demanded with
	which functionalities, price, specifications before production/prototype
	design by using tested qualitative/quantitative methods (For instance
	quantitative online-surveys or 10-15 Interviews or 2/3 workshops/focus
	groups).

Engineering	
Topology optimization	Based on Solidworks
	 Exisiting part will be provided by SME at high quality
	 The service provider will not correct or redesign the part
	• 1 part at max.
CAD (Computer Added Design)	Based on Solidworks
	• 3D models
	 Exisiting part will be provided by SME at high quality
	• The service provider will only do corrections and optimizations based on
	needs for 3D printing
	• 1 part at max.
Collaborative robotics	 Develop a collaborative proposal for pre-identified workflows in companies. This includes the suggestion of the tools to be acquired (robot, gripper, sensor, etc.), as well as after purchasing of the tools the demonstration programming of the workflow, as required. Consulting and Development of a Collaborative Robot System, Testing
	and Validation in the service provider's Labs; Testing of »X Rob System« for specified USE Cases
Business modell	 Management tool for tracking Key performance Indicators (KPIs) in production processes
	 Business / manufacturing process modelled in Business Process Model and Notation (BPNM)
	 PJM (Performance Journey Map) tool - a digital tool for the visualization of service processes, as a basis for the optimization of processes
Mechatronic Engineering,	 Optimisation of energy efficiency
simulation systems	 Development of prototypes and demonstrators
	 Image recognition
	• 3D models
	 Simulation calculations (mechanical, electrical, magnetic)
	Automation of processes

Software	
AR – Augmented Reality	Extended reality applications (iOS, Android) in the following areas:
	• visualisation of company or production data (smart phone, tablet)
	• process, product or corporate marketing applications (smart phone,
	tablet, webAR)
VR System - Assembly Eye	Testing of USER specified human-centered processes production processes:
	The Assembly Eye uses a standard camera. With the associated software from
	the service provider, it can extract the movements of the individual actors
	from the image data in spatial and temporal context and digitize relevant
	information for the process flow. Depending on requirements, this can be the
	basis for (real-time) analysis tools or input for trainable system intelligence
	(deep learning methodology).



Cloud – Microsoft Azure	 Smartphone APP development usually comprises of the APP part as well as cloud (database) part
	• We would cover either a smartphone app or a webapp comprising of three technical parts at a max
	For smartphone APPS: either Andorid or iOS
	Based on C# and .NET Core only
	• Based on TRL6
	• We do not publish smartphone APPs to the stores within the project
	• 1 project at max
Payment systems	 Interface development to payment provider Based on C# and .NET Core only
	 only covering following provider: Ogone, PayLife, Cardcomplete
	based on TRL6
	• 1 usecase at max.
Usabilty testing	One of the most important factors of websites and webshops is user-
	friendliness. If customers can't find the desired information on your
	website, they will probably search on another website of your competitors.
	Usability Tests are used to find out how customers navigate through your
	website and which factors can be optimized in order to increase the user-
	friendliness. In the framework of this project, a pilot action with
	approximately 15 participants can be carried out to analyze
	websites/webshops/prototypes/etc. (depending on the complexity of the
	stimuli).
Eye-tracking	Eye-Tracking can be used to evaluate which elements on websites, tv-ads,
	marketing stimuli, etc. are clearly visible and which are not (often combined
	with usability-testing). These results can help to optimize the examined
	stimulus.
	In the framework of this project, a pilot action with approximately 15
	participants can be carried out (depending on the complexity of the stimuli).
Emotional Analysis	Emotions are often crucial factors in purchasing decisions and therefore need
	careful investigation. By using Galvanic Skin Response (GSR) you can analyze
	objectively if certain stimuli are emotionally appealing to customers or not
	(websites/prototypes/ads). Within the framework of this project a pilot
	action with approximately 15 participants can be carried out (depending on
	the complexity of the stimuli, can also be combined with usability testing).
Digital marketing	Within the framework of the pilot action, we can assist SMEs with setting up
	of a Social Media Strategy and their Target Group Analysis. Furthermore, we
	can carry out general Social Media Teachings and provide a Digital Marketing
	Strategy for companys (with SEO-Readiness Check).
Smart digital service	Control technology and PLC (Programmable Logic Controller)
	programming
	Integration and programming of micro controllers
	• Development of intelligent algorithms for the optimisation of processes
	Development of apps for smart devices (e.g. Android devices)
	Digitization of objects through 3D measurement Development and implementation of innovative communication
	 Development and implementation of innovative communication networks
	Mobile devices and RFID
	Virtual reality
	 Digitization of energy flows, networking of spatially separated laboratories, home automation
Innovation tools, models,	Application of innovation tools to elaborate an action plan for further
integration,	development of the SME



AI/Machine learning	
Customer data analysis processes	Using existing data to develop solutions that can strengthen the profitability
Unique algorithm solutions in	and efficiency of businesses. By analysing customers, we propose a purchase value or frequency, we
data analysis	categorise customers in a unique way (segmentation) or predict who will be
Segmentation processes	a unique and recurring customer (classification). By creating algorithms,
Data visualization	solutions can be implemented in a completely autonomous manner. Our aim
	is to enable smaller non-Series manufacturers to use data analysis services.
	Our specialty is to create algorithms for small and medium-sized databases.
	We are able to analyse tens of thousands of websites so that the company
	can evaluate both its image and market changes (NLP – national language
	procecesses)

Electronics	
Electronics development	 developing and designing electronic circuits and printed circuit boards manufacture small and very small batches with our internal production line
Industrial measurement	 conduct different kinds of measurements of existing devices
technology and measurement automation	 acquire data about the devices' efficiency and characteristic values in different environmental conditions.
sensors/actuators	Embedded systems
	 Sensor integration and control units
	• Development of energy-efficient hardware systems for the corresponding requirements of sensors
	 Sensor, sensor node, network communication, energy harvesting
IoT	 Setup the communication between a cloud service and an IoT capable device or develop a middleware
	 Based on C# and .NET Core only
	 For smartphone APPS: either Andorid or iOS
	Based on TRL6
	• 1 project at max

Mixed solution of the above mentioned services

5.2 Ineligible activities

In the frame of the call beyond the activities defined under chapter 5.1 shall not be eligible.



6 Conditions for submitting a pilot project application

6.1 Eligibility conditions

- The application must be a simple application in which the applicant defines the digital service(s)
- APPLICANT may only be a micro, small or medium-sized enterprise¹ and start-up organized as a legal or natural person who is engaged in economic activity in the programme area (Győr-Moson-Sopron, Vas und Zala County in Hungary and Nord-, Mittel- and Südburgenland, Wien, Wiener Umland-Südteil, Niederösterreich Süd, Graz und Oststeiermark in Austria) and is organized as a company or sole proprietor with a business address in Hungary or Austria.
- The applicant is not in equity or in any other way proprietary or management related to the open call providers (see Chapter 10).
- The applicant may apply to the open call with only one application. If several applications of the same Applicant arise, only the first arrived application is considered, while the others are discarded.
- The pilot project must be consistent with the purpose and subject of the public call.

Necessary steps for the implementation of the pilot project:

- 1. applicants define the problem they would like to solve in the pilot project (submitting the application form)
- 2. partners present a proposal for a solution
- 3. agreement on proposal
- 4. partners implement a pilot project with applicant,
- 5. applicant with relevant partners prepare a report, following the template in this open call and analyse effects of the pilot project.

6.2 Deadline and method for submitting an application/Application procedure

Opening date	Closing date
25 th January 2021	28 th February 2021 Until 16:00

The deadline for submitting the application is 28.02.2021 until 16.00.

The application on defined forms in this open call documentation has to be submitted electronically to the address: <u>info@pbn.hu</u> AND the relevant regional contact point (see Chapter 10) in copy.

¹ The size of the enterprise shall be determined in accordance with Annex I of Commission Regulation (EU) 651/2014, accessible at <u>http://eur-lex.europa.eu/legal-content/SL/TXT/?uri=CELEX%3A32014R0651</u>



Please, use the following expression in the subject of your application e-mail:

- In Hunagrian: IMPROVE!_Jelentkezés pilot projektre
- In German: IMPROVE!_ Bewerbung für Pilotprojekt
- In English: IMPROVE!_Application for pilot project

Submitted forms shall be completed in German or Hungarian or English language. Attachments are allowed. Scanned versions of all signed forms must be submitted to the e-mail address: <u>info@pbn.hu</u> AND the relevant regional contact point (see Chapter 10) in copy

List of attachments:

- Apllication form signed by legal representative
- Declaration by the applicant signed by legal representative
- De minimis declaration signed by legal representative

Dynamic of the open call:

- Deadline for submission of application: 28.02.2021 until 16:00
- Deadline for issuing the selection decision and contracting: 31.3.2021
- Start of the demonstration project: 1.4.2021
- End of the demonstration project and deadline for submission of report: 31.3.2022



7 Evaluation and selection process

7.1.1 Criteria for evaluation of the application

The selection procedure will be conducted by the Project Approval Committee appointed by the responsible person of the open call providers (hereinafter: PAC).

Only the timely submission of applications will be included in the evaluation process.

All timely applications shall be evaluated by the PAC on the basis of the criteria set out in the table below:

CRITERIA		Max. Amount of points	Nr of points scored
1	The applicant participated in project activities in the past e.g. participate in infodays, contacting related to the business cases, direct communication, etc.	Up to 5	
2	The pilot project applies a mixed solution of the eligible activities (YES – 5 points /NO- 0 point)	Up to 5	
3	Pilot project proposal – The project content is descibed in detailed / satisfactory/unrealistic or incomplete	Up to 10	
4	Sustainability and exploitation – The pilot project contributes to the business sustainability of the applicant e.g. new market entrace, new product development, etc.	Up to 10	

7.1.2 Selection process

Evaluation of the applications will start no later than five (5) working days after the deadline for submission of applications.

The PAC may at any time, during the examination of the application, invite the Applicant to deliver **clarifications** in writing (by e-mail) about the information contained in the application. The Applicant must forward clarifications within defined time limit, otherwise the PAC will decide on interpretation of information provide on its own.

The **ten (10) highest ranked** applications will be selected for supporting by the PAC. During the selection process, PAC strives to ensure cross-regionality by selecting at least 2 pilots from each region. If this condition cannot be fulfilled, the decision on the winners will be made solely on the basis of the scores. PAC has the right to extend the list dependant on the available resources. At the same time the PAC sets the next best 5 applications defined as members of the reserve list.



The decision of the PAC on the winning applicants will be **published on the IMPROVE! project website** (<u>https://www.interreg-athu.eu/hu/improve/</u>) no later than 25 days after the expiration of the deadline for submission of applications. In addition the winning applicants will be informed by the regional contact point **via e-mail** about the decision of the PAC and Applicants will be called for signing the **Cooperation Agreement**.

In that case if the Applicant **withdraws** from the signature or if the contract is not concluded within defined time limit, the next best scoring application will be approved.

8 Information on financing

Services awarded under this Open Call will be provided by the IMPROVE! partners free of charge based on the Cooperation Agreement. The supported services are non-refundable and count as de minimis aid.

De minimis aid is **regulated** by the Commission Regulation (EU) No 1407/2013 and applies to aid granted to undertakings in **all sectors with the exception** of (a) the fishery and aquaculture sector, (b) the primary production of agricultural products, (c) the sector of processing and marketing of agricultural products, (d) aid to export-related activities towards third countries or Member States, namely aid directly linked to the quantities exported, to the establishment and operation of a distribution network or to other current expenditure linked to the export activity (e) aid contingent upon the use of domestic over imported goods.

In case the company belongs to the grounds for exclusion under Art.2 of the Regulation (be considered to be a **single undertaking**) than any de minims aid may be granted.

The total amount of de minimis aid granted per Member State to a single undertaking shall not exceed **EUR 200 000** over any period of three fiscal years (Art.3. (2)) Applicants have to submit a de minimis **declaration** as part of the Application Form (See Annexes).

The amount of de minimis aid (gross grant equivalent) is **calculated on real-cost basis**. In case of the current Open Call the value of the provided service is 320 engineering hours in Hungary and 200 engineering hours in Austria plus the costs of the needed raw material and/or external services per pilot project in the total value of max.12.000EUR. The exact amount of the de minimis aid is going to be defined during the contracting phase.

At the end of implementation of the pilot project the Beneficary will receive a »Certificate on de minimis aid « which will include the amount of de minimis aid in gross grant equivalent.



9 Confidentiality

The information contained in the application forms will be treated cofidentially , published or redistributed to 3rd parties outside the IMPROVE! project partnership and controlling bodies without the prior written consent of the Applicant.



10 Contact points

HUNGARY

West-Transdanubian Region

Pannon Business Network Association Contact person: Ms Regina Rosta-Pethő E-mail to: <u>regina.petho@pbn.hu</u> Tel: +36 30 968 1445 Homepage: <u>www.pbn.hu</u>

AUSTRIA - Styria

Campus02 University of Applied Sciences Contact person: Mr Wilfried Wolf

E-mail to: <u>Wilfried.Wolf@campus02.at</u> Tel: +43 316 6002 154 Homepage: <u>www.campus02.at</u>

AUSTRIA – Vienna

PROFACTOR GmbH Contact person: Mr Christian Wögerer E-mail to: <u>christian.woegerer@profactor.at</u> Tel: +43 (0)664 6207675 Homepage: <u>www.profactor.at</u>

<u> AUSTRIA – Lower Austria</u>

FOTEC Research and Technology Transfer Contact person: Mr Michael Kollegger E-mail to: <u>Kollegger@fotec.at</u> Tel: +43 2622 90333 300 Homepage: <u>www.fotec.at</u>

<u>AUSTRIA – Burgenland</u> *Forschung Burgenland* Contact person: Mr. Thomas Kremsner E-mail to: <u>Thomas.Kremsner@forschung-burgenland.at</u> Tel: +43 (0) 5 / 7705 - 5468 Homepage: <u>www.forschung-burgenland.at</u>



11 Annexes

Annex1 APPLICATION FORM

APPLICANT DATA		
Full name in English		
Full name in national language		
Short name in English		
Short name in national language		
Tax number		
Registration number		
Address		
Legal representative		
Position		
Phone number		
E-mail address		

CONTACT DATA / CONTACT PERSON	
Name and surname	
Position	
Phone number	
E-mail address	

SIZE OF THE APPLICANT (in accordance with EU regulation 651/2014/EU) – choose one

□ Micro enterprise

□ Small enterprise

□ Medium-sized enterprise

PARTICIPATION IN OTHER IMPROVE! PROJECT ACTIVITY						
Participating in InfoDay	🗆 Yes	If yes, please specify:				
	🗆 No					
contacting related to the	🗆 Yes	If yes, please specify:				
business cases	🗆 No					
Direct communication with	🗆 Yes	If yes, please specify:				
contact points	🗆 No					
Other	🗆 Yes	If yes, please specify:				
	🗆 No					



APPLICANT'S INTRODUCTION (up to 500 characters)

Please provide a brief outline of the company, you may wish to include some of the following: sector, customers, how long the company is established, how many employed, main products and main market(s).

PILOT PROJECT INFORMATION

Pilot project name

Pilot project acronym

PROJECT CONTENT - CHALLANGES AND SOLUTIONS (up to 2000 characters)

Please, describe what specific challenges you are encountering and point out the proposed solution to this challenge or the improvement that you want to implement as part of the proposed pilot project.

Please, tick the selected service(s):



Production				
3D scanning				
3D modeling				
3D printing alloys				
3D printing ink jet				
3D printing polymer				
Prototyping, reverse engineering				
3D animaition				
SCADA/MESS				
Product Development by business model canvas				
Engineering				
Topology optimization				
CAD (Computer Added Design)				
Collaborative robotics				
Business model				
Mechatronic Engineering, simulation systems				
Software				
AR – Augmented Reality				
VR system – Assembly Eye				
Cloud – Microsoft Azure				
Payment systems				
Usability testing				
Eye-tracking				
Emotional Analysis				
Digital marketing				
Smart digital service				
Innovation tools, models, integration				
AI/Machine learning				
Customer data analysis processes				
Unique algorithm solutions in data analysis				
Segmentation processes				
Data visualization				
Electronics				
Electronics development				
Industrial measurement technology and measurement				
automation				
Sensors and actuators				
IoT – Internet of Things				
Mixed solution of the above mentioned services				
(in this case please, tick all services for what you want to apply)				

SUSTAINABILITY AND EXPLOITATION (up to 1000 characters)



Please briefly describe how the result of the pilot project will benefit your company. How do you expect to use the results and how will this benefit contribute to the business sustainability?

 Place and date
 Stamp
 Name and surname of the legal representative

 Signature
 Signature



Annex2 DECLARATION BY THE APPLICANT

Legal representative ______ (provide name and surname) of the applicant ______ (Provide full name of the applicant) declare that:

- We agree and accept all conditions stated in the open call.
- In case of a successful candidature at the open call, we agree to publishing the information from the application forms and the final report for the purpose of informing the public and other institutions responsible for monitoring the implementation of the IMPROVE! project under the Interreg V-A Austria-Hungary Cooperation Programme 2014-2020.
- The application is prepared in GERMAN / HUNGARIAN / ENGLISH language (*Please, underline the appropriate language*).
- All statements given in this application are true and correspond to the actual situation
- In accordance with Annex I of Regulation 651/2014 / EU, we do not count as a large enterprise
- We are not in equity or in any other way proprietary or management related to the IMPROVE! project partners.
- We apply to this open call with only one application.
- We are aware that we are responsible for achieving the objectives of the pilot project.

Stamp	Name and surname of the legal representative	
	Signature	
	Stamp	



Annex3 DE MINIMIS DECLARATION

Name of the applicant in national language:

ATHU118 IMPROVE! project supported in the frame of Interreg V-A Austria-Hungary Program offers services for the selected SMEs.

As legal representative of the above mentioned company which uses (is wishing to use) services offered in the frame of the project

I hereby declare that:

The organisation I represent and all other entities belonging to the same group of interest have not receives any de minimis aid in the last three fiscal years (this means the current and the two previous fiscal years).

The organisation I represent and all other entities belonging to the same group of interest has received the following *de minimis aid in the last three fiscal years (this means the current and the two previous fiscal years):*

	Supporting organization	Member State	Contact of the supporting organization	ID of the supported project	Amount of subsidy	Date of the supporting decision
1.						
2.						
3.						
4.						
5.						

I hereby certify that the information contained in the declaration is true and I take full responsibility for it.

Date:

Place:

.....

Signature of the company's authorized representative