



## **Action Plan of the ERUDITE Project: Enhancing Rural and Urban Digital Innovation Territories**

### **Partner**

Pannon Business Network Association (PBN)  
Hungary

## Contents

---

1	Executive Summary.....	4
2	General information.....	5
3	Policy context.....	6
4	Action/service .....	11
4.1	Service I - Robot assisted employment - human machine interaction .....	12
4.1.1	Background .....	12
4.1.2	Knowledge applied from ERUDITE.....	12
4.1.3	Action/service description .....	13
4.1.4	Timeframe and Funding.....	15
4.1.5	Workplan.....	15
4.1.6	Budget breakdown for the service/project.....	17
4.1.7	Impact expected.....	17
4.1.8	Monitoring activities in Phase 2.....	19
4.2	Service II - Digitalization Education of Local SMEs in Manufacturing – HGC Academy ....	20
4.2.1.	Background .....	20
4.2.2	Knowledge applied from ERUDITE.....	25
4.2.3	Action/service description .....	27
4.2.4	Timeframe and Funding.....	29
4.2.5	Workplan.....	30
4.2.6	Budget breakdown for the service/project.....	32
4.2.7	Impact expected.....	32
4.3	Service III – Smart phone application promoting sustainable urban transport in the Functional Urban Area (FUA) of Sárvár connected with touristic attractions.....	33
4.3.1	Background .....	33
4.3.2	Knowledge applied from ERUDITE.....	36
4.3.3	Action/service description .....	37
4.3.4	Timeframe and Funding.....	38
4.3.5	Workplan.....	38
4.3.6	Budget breakdown for the service/project.....	40
4.3.7	Impact expected.....	40
4.4	Service IV – Digital health Learning platform – Modular Innovation Learning Hub .....	41
4.4.1	Background .....	41



4.4.2	Knowledge applied from ERUDITE.....	41
4.4.3	Action/service description .....	43
4.4.4	Timeframe and Funding.....	44
4.4.5	Workplan.....	44
4.4.6	Budget breakdown for the service/project.....	49
4.4.7	Impact expected.....	49
4.5	Service V – Robotics oriented Digital Innovation Hubs on European level - DIH <sup>2</sup> Network 50	
4.5.1	Background .....	50
4.5.2	Knowledge applied from ERUDITE.....	51
4.5.3	Action/service description .....	52
4.5.4	Timeframe and Funding.....	53
4.5.5	Workplan.....	54
4.5.6	Budget breakdown for the service/project.....	55
4.5.7	Impact expected.....	55
	ANNEXES.....	57
	Annex 1 - List of main activities and meetings with the local stakeholders.....	57

## 1 Executive Summary

---

Improving the quality of life in rural areas by innovative, digital services is a priority in Western Hungary. Due to ERUDITE project key stakeholders of strategic initiatives could directly benefit from international know-how transfer.

Five projects are introduced in detail, highlighting the knowledge transfer on international scale. Each of the learning opportunities significantly contributed to a better understanding and exploitation of potential.

It is a special character of Hungary that public funds are allocated centrally, where the scale of improvement or impact is rather limited. This is why it is utmost essential to be able to provide evidence-based benchmarks and tangible measurement tools even in case of the softer projects. All these give ERUDITE a special character.

As it is outlined also in a following phase, the most influenced area with respect to policy instruments is content-related. The technical execution is definitely defined by regulatory principles, but the content-dependant elements, the focus areas can be fine-tuned.

Digitalization is a trendsetting theme all around the world, and the challenge is how to translate it into the operational level of businesses and the prediction of social impacts.

Each five pilots are contributing to the better understanding and proper preparation for the new era. Beyond that, they are also assisting the interpretation and application.

ERUDITE project is important to bring international experiences and good practices relevant for each project. It is well characterized and supported by the following document.

## 2 General information

---

- **Project: ERUDITE**
- **Partner organisation: Pannon Business Network Association, PBN**
- **Other partner organisations involved (if relevant): -**
- **Country: Hungary**
- **NUTS2 region: H22 – Nyugat-Dunántúl**
- **Contact person: Adrienn NÉMETH**
  - **Email: [adrienn.nemeth@pbn.hu](mailto:adrienn.nemeth@pbn.hu)**
  - **Phone number: +36 30 486 14 74**

### 3 Policy context

---

The Action Plan aims to impact:

- Investment for Growth and Jobs programme
- European Territorial Cooperation programme
- Other regional development policy instrument

**Name and reference of the policy instrument addressed:**

***EDIOP (Economic Development and Innovation Operational Programme)***

Széchenyi 2020: In 2014-2020 Hungary is allocated around €21.9 billion for Cohesion Policy (ERDF, ESF, Cohesion Fund) including €49.8 million for the Youth Employment Initiative and €361.8 million for territorial cooperation. Additional €3.45 billion will be devoted to development of the agricultural sector and rural areas from the European Agricultural Fund for Rural Development (EAFRD). The allocation for European Maritime and Fisheries Fund (EMFF) amounts to some €39 million<sup>1</sup>.

These funds provide financial basis for Hungary's medium and long-term development strategy. They will mobilize additional public national and private funding for growth and job creation and will reduce regional disparities in Hungary. Investments will focus on enhancing innovation activity and competitiveness of enterprises in order to increase their added value and integration into the international value chain also through better access to financing<sup>2</sup>.

EDIOP (Economic Development and Innovation Operational Programme): The programme aims to stimulate the economies of the less developed regions in Hungary.

Its most important priorities are the competitiveness of small-and medium sized enterprises, research and innovation, and employment. The programme also aims to develop the tourism industry, enterprises' energy efficiency, and information and communication technologies.

---

<sup>1</sup> [https://www.palyazat.gov.hu/program\\_szechenyi\\_2020](https://www.palyazat.gov.hu/program_szechenyi_2020)

<sup>2</sup> [http://unios-palyazatok.fhdevelopment.hu/szechenyi\\_2020](http://unios-palyazatok.fhdevelopment.hu/szechenyi_2020)

Moreover, it will stimulate the use of financial instruments to cover other objectives, like increasing renewable energy production and improving the energy efficiency of households and public buildings.

The Programme will focus on different main priorities:

- Increasing the competitiveness and productivity of SMEs
- Research, technological development and innovation
- Info communication developments
- Energy
- Employment
- Competitive labour force
- Tourism
- Financial instruments<sup>3</sup>

*Nature and background of the planned policy change:*

Involvement of Managing Authority (MA) – Ministry for National Economy – has been introduced from the ERUDITE project start and ensured with the Letter of support. The basic need for the utilization of the benefits coming from digitalization is acknowledged by the MA at the beginning of ERUDITE (April 2016).

During the project lifetime there were numerous events and regional group meetings organized with the aim to participate actively in ERUDITE project in national level and cooperate with all stakeholders in the creation of Action Plan goals.

PBN facilitated a proposal submitted by Meditel Research Ltd. (Sept 2017) for the „Robot assisted employment–human machine interaction” targeted at the integration of employees with reduced working capacity to the labour market with Industry 4.0 technological solution, meaning robotic arm.

Funding for project idea under EDIOP – Economic Development and Innovation Operational Programme was approved by the MA on Dec 2017.

Two ERUDITE good practices have directly influenced the creation of the project concept: TEAK–Center for Vocational Adult Training from Finland + MAKERLAB from Slovenia.

---

<sup>3</sup> [http://ec.europa.eu/regional\\_policy/en/atlas/programmes/2014-2020/Magyarorsz%C3%A1g/2014hu16m0op001](http://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/Magyarorsz%C3%A1g/2014hu16m0op001)

Some ideas related to project proposal were existing before ERUDITE but the main elements were developed and funded through ERUDITE process (e.g.: good practices, SEROI+ methodology, planning/designing the concrete project idea).

ERUDITE project is actively contributing to the final design of the project proposal and also to the establishment of the indicators and values for SEROI monitoring.

Based on ERUDITE outcomes – and of course findings coming from the submitted project – we can declare that the most important Policy change appeared in content-level. It means much more concrete thematic priorities on policy level based on the inputs collected from ERUDITE stakeholders (not only in business but also in citizens level).

At the beginning of ERUDITE PBN's primary goal was to change the PI priority and give market-oriented feedback (which can influence the future grants adjusted to the needs).



Please detail the name and reference of all additional policy instruments addressed within the Action Plan

**Horizon2020<sup>4</sup>**

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract.<sup>5</sup> It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market.

Horizon 2020 is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.

Seen as a means to drive economic growth and create jobs, Horizon 2020 has the political backing of Europe's leaders and the Members of the European Parliament. They agreed that research is an investment in our future and so put it at the heart of the EU's blueprint for smart, sustainable and inclusive growth and jobs.

**Central Europe Programme<sup>6</sup>**

The central EUROPE Programme is a European Union funding programme that encourages cooperation in central Europe. With 246 million Euro co-financing, it supports institutions to work together beyond borders to improve cities and regions in Austria, Croatia, Czech Republic, Germany, Hungary, Italy, Poland, Slovakia and Slovenia.<sup>7</sup>

This is a European Union funding programme that encourages transnational cooperation beyond borders in central Europe.

---

<sup>4</sup> <https://ec.europa.eu/programmes/horizon2020/what-horizon-2020>

<sup>5</sup> <http://www.h2020.gov.hu/horizont2020-program>

<sup>6</sup> <http://www.interreg-central.eu/Content.Node/apply/priorities/funding.html>

<sup>7</sup> <http://www.interreg-central.eu/Content.Node/CENTRAL-EUROPE-programme.html>

With a budget of 246 million Euro from the European Regional Development Fund (ERDF), it supports partnerships made up of public and private institutions from nine countries: Austria, Croatia, Czech Republic, Germany, Hungary, Italy, Poland, Slovakia and Slovenia.

In its projects people from all kind of institutions work together to tackle shared challenges in their cities and regions - in the fields of innovation, CO2 reduction, natural and cultural resources, and sustainable transport.

More concretely, our projects build regional capacities by involving and coordinating relevant players from all governance levels. Within the four priority axes, they realise outputs with a focus on policy-learning, pilot actions and pilot investments.

### Thematic focuses:

- Cooperating on innovation to make CENTRAL EUROPE more competitive (Service IV – Digital health Learning platform related to “digitalLIFE4CE<sup>8</sup>” project)
- Cooperating on low carbon strategies in CENTRAL EUROPE (Service III – Smart phone application promoting sustainable urban transport in the Functional Urban Area (FUA) of Sárvár connected with touristic attractions related to “SOLEZ<sup>9</sup>” project)
- Cooperating on natural and cultural resources for sustainable growth in CENTRAL EUROPE
- Cooperating on transport to better connect CENTRAL EUROPE

---

<sup>8</sup> <http://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html>

<sup>9</sup> <http://www.interreg-central.eu/Content.Node/SOLEZ.html>

#### 4 Action/service

---

List of all selected services:

Service I

***Robot assisted employment - human machine interaction***

PI: EDIOP (Economic Development and Innovation Operational Programme)

Service II

***Digitalization Education of Local SMEs in Manufacturing – HGC Academy***

PI: EDIOP (Economic Development and Innovation Operational Programme)

Service III

***Smart phone application promoting sustainable urban transport in the Functional Urban Area (FUA) of Sárvár connected with touristic attractions***

PI: Central Europe Programme

Service IV

***Digital health Learning platform***

PI: Central Europe Programme

Service V

***Robotics oriented Digital Innovation Hubs on European level - DIH2 Network***

PI: Horizon2020

#### 4.1 Service I - Robot assisted employment - human machine interaction

##### 4.1.1 Background

###### **Service I - Robot assisted employment - human machine interaction**

**Main objectives: Integration employees with reduced working capacity to the labour market with Industry 4.0 technological solution<sup>10</sup> – Robotic arm.**

The Robotic arm enables the realization of repetitive workflows. The employee – implemented with the robotic arm – is able to work with (nearly) full value and speed. The aim of the project is the **development of a business model that offers a new, innovative Industry 4.0 technological solution – integration of the employees with reduced working capacity to the labour market with the help of robotic arm.**

In the framework of the project there will be developed a simple, programmable workstation where the robotic arm enables the realization of repetitive workflows. The employee – implemented with the robotic arm – is able to work with (nearly) full value and speed. In the designing and implementation process of the workstation there will be directly participated one healthy person with difficult social background plus one person with disability.

##### 4.1.2 Knowledge applied from ERUDITE

Partner experience and practice	How this PEP has contributed to the services developed in your Action Plan:
<p><b>MAKERLAB – Open Innovation in practice (Ljubljana, Slovenia)</b></p> <p><b>Dedicated space at the University of Ljubljana providing access to all skills and tools that students need to bring</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p>

<sup>10</sup> Industry 4.0 represents the fourth industrial revolution in manufacturing and industry. Industry 4.0 is the current industrial transformation with automatization, data exchanges, cloud, cyber-physical systems, robots, Big Data, AI, IoT and (semi-)autonomous industrial techniques to realize smart industry and manufacturing goals in the intersection of people, new technologies and innovation.

[https://www.i-scoop.eu/industry-4-0/#The\\_origins\\_of\\_Industrie\\_40](https://www.i-scoop.eu/industry-4-0/#The_origins_of_Industrie_40)

<p><b>their innovative skills to real-life – supported by university mentors.</b></p>	<ul style="list-style-type: none"> <li>• dedicated space that provides access to all the innovative tools and skills that stakeholders needed in order to develop innovative service</li> <li>• ensuring support for development in the field of innovative projects and prototyping</li> <li>• stimulating technical improvements and knowledge transfer</li> <li>• matchmaking research and business/industry side involving students</li> </ul>
<p><b>TEAK – Center for Vocational Adult Training (Teuva, Finland)</b></p> <p><b>Center for vocational adult training and education concentrating on wood, surface finishing, clothing and technology transfer (CNC, CAD, CAM, Robotics)</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• education centre for adult training focusing technology training (e.g.: Robotics)</li> <li>• offering wide range of training programs, courses and degree examinations</li> <li>• providing customer-based education and training services for companies and public organization</li> </ul>

#### 4.1.3 Action/service description

<i>Main objectives</i>	<i>Value brought by this action into the region</i>	<i>Players involved and role in the implementation and collaboration between them explanation of their involvement in service design</i>
<p><i>Integration employees with reduced working capacity to the labour market with Industry 4.0 technological solution – Robotic arm*</i></p>	<ul style="list-style-type: none"> <li>• <i>Effective integration of employees with reduced working capacity to the labour market</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Meditel Ltd. as a research institute and a founding member of Pannon Business Network Association**</i></li> </ul>

	<ul style="list-style-type: none"> <li>• Ensuring equal opportunities in the labour market</li> <li>• Promoting robot assisted employment as a new opportunity in the future</li> </ul>	<ul style="list-style-type: none"> <li>• Employees with reduced working capacity due to physical disability as a target group of the service</li> <li>• Company – especially SMEs</li> </ul>
--	---	--

Additional information:

\* The Robotic arm enables the realization of repetitive workflows. The employee – implemented with the robotic arm – is able to work with (nearly) full value and speed.

\*\*Meditel Ltd.<sup>11</sup> aims to establish and operate the Human Technology Centre (HTC) of diversified activity with an integrative approach. The HTC combines the environmental capabilities and high quality with the special professional background of its' founders to meet the health care related needs and expectations of the region.

The working relationship with university research centres, experience in production, and commitment in patient centric health care are the essential fundamentals in achieving our objectives. Meditel Ltd. is a founding member of the PBN.

The diversifying activities of Meditel can be organized around the following main areas:

- **Research and development**

Multidisciplinary developments and products come to fruition by combining medical and business knowledge with the know-how of identifying resources and funds based on real consumer needs leading to successful business models. Some completed and ongoing projects:

- Medical monograph - a diagnostic atlas
- MobilMed - National Institute of Research and Development, National Technology Program with the aim of implementing of mobile access to hospital information systems
- Face-reconstruction software - "OTKA" program

<sup>11</sup> <http://meditel.hu/index.php?pg=bemutakozas&nyelv=en>

- **Teleradiology**

Teleradiology is a form of telemedicine where diagnostic images are digitally transmitted from one place to another for reporting, consultation or second opinion.

- **Education, Science**

The objectives are mainly focusing on research and dissemination of radiology and subdisciplines, establish and operate a dedicated education centre with local and international cooperation.

#### 4.1.4 Timeframe and Funding

<i>Project/Action Investment Line/Funding Source + Amount (please state each source of funding)</i>	<i>Submitted For Funding</i>	<i>Funding Decision</i>	<i>Project Start Date</i>	<i>Other key milestones</i>
<i>Funding source: Széchenyi 2020 – EDIOP – Economic Development and Innovation Operational Programme</i>	<i>September 2017</i>	<i>December 2017</i>	<i>April 2018</i>	<i>1<sup>st</sup> milestone: April 2018 - Employment of the selected employees and establishment of their working environment</i>
<i>Amount: 40.000 EUR</i>				<i>End date of project: February 2019</i>

#### 4.1.5 Workplan

<b>WP</b>	<b>Tasks</b>
<b>Work Package 1</b> <b>“Minta” munkaállomás kialakítása két fő munkavállaló részére</b>	Task 1.1 Előzetes vállalati igényfelmérés
	Task 1.2 Feladatmeghatározás az előzetesen kiválasztott munkavállalók számára



	<p>Task 1.3</p> <p>Feladatmeghatározás robotkar számára</p>
<p><b>Work Package 2</b></p> <p><b>Audit rendszer kidolgozása</b></p>	<p>Task 2.1</p> <p>Termelés felülvizsgálat a vállalati célcsoport körében (kis- és középvállalkozások, nagyvállalatok)</p>
	<p>Task 2.2</p> <p>Munkafolyamat beazonosítása, amely kiváltható, illetve amelybe integrálható a megváltozott munkaképességű egyén és a robotkar együttes munkavégzése</p>
	<p>Task 2.3</p> <p>Képzés biztosítása a munkavállalók számára*</p>
	<p>Task 2.4</p> <p>Tesztelés és fenntarthatósági vizsgálat**</p>
<p><b>Work Package 3</b></p> <p><b>Tréningek, nyílt napok szervezése</b></p>	<p>Task 3.1</p> <p>Vásárlói célcsoportok számára bemutató biztosítása</p>

More information:

\* Task 2.3 – Cél, hogy projekt során a munkavállalók megismerjék és megtanulják az audit rendszer folyamatát, annak fázisait és képessé váljanak azon munkafolyamatok beazonosítására, amelyre a „minta” munkaállomást célszerű kialakítani.

A folyamat során a megváltozott munkaképességű személy<sup>12</sup> együtt dolgozik a robotkarral és képessé válik a beazonosított vállalati termelési folyamatba való bekapcsolódásra.

<sup>12</sup> A megváltozott munkaképesség foglalkoztatási értelemben vett definíció, amely magába foglalja a korábbi munkakörüket teljesen vagy részben ellátni nem képes egészségkárosodott személyeket, valamint a fogyatékkal élőket. A megváltozott munkaképesség arra utal, hogy a személy munkaképessége bizonyos tekintetben korlátozott, azonban rendelkezésére állnak emellett olyan képességek, kompetenciák, amelyek a



\*\* Task 2.4 – A projekt hosszú távú célja annak elérése, hogy egy-egy valós termelési folyamat kiszervezésre, illetve tesztelésre kerüljön, annak érdekében, hogy a projekt megvalósítását követően maga a módszer, illetve a kidolgozott rendszer fenntartható legyen a projektben foglalkoztatni kívánt munkavállalók számára.

#### 4.1.6 Budget breakdown for the service/project

Category of funding	Expenditure Amount
Salaries	9.400 EUR
Overheads ( <i>i.e. calculated at x % of staff costs</i> )	
Travel & Subsistence	
External expertise	300 EUR Marketing, kommunikációs és promóciós szolgáltatások
Building/renovation / refurbishment	
Equipment	30.300 EUR UR3 ipari robotkar, UR3 robotkar megfogó fej, Speciális kialakított munkaasztal, számítógép konfiguráció (2), IP kamera, projektor
<b>TOTAL</b>	<b>40.000 EUR</b>

#### 4.1.7 Impact expected

A. Referring to the 'Self-Defined Indicators' in the Application Form:

**Self defined performance indicators:**

Number of innovative services to be implemented as new projects and funded under Priority 2.2.1 in the West Pannon region by businesses and/or municipalities/public administrations/institutions

munkában hasznosíthatóik, amelyekkel értékteremtő tevékenységet tud végezni. - [http://esely.gak.hu/sites/default/files/languages/megvaltozott\\_kiadvany\\_GAK.pdf](http://esely.gak.hu/sites/default/files/languages/megvaltozott_kiadvany_GAK.pdf)

**Target: 5**

*B. Section to explain the impact expected of this action/service:*

**Impact expected:**

- *Increased reputation of robot assisted employment*
- *More equal opportunities in the labour market*
- *More salary instead of social allowances for employees with reduced working capacity due to physical disability*
- *Better lifestyle satisfaction for employees with reduced working capacity due to physical disability*
- *More potential employees during recruitment process*
- *Promoting robot assisted employment as a new opportunity in the future*

4.1.8 Monitoring activities in Phase 2

SEROI+ Monitoring:

Project and Policy Instrument	Stakeholder	Goal	Impact	Indicator	Market or Proxy Value
<b>Project –</b> Robot assisted employment – human machine interaction  <b>Policy Instrument –</b> EDIOP – Economic Development and Innovation Operational Programme	Research institution – Meditel Ltd.	Promoting innovativ industry 4.0 technological solutions	Increased reputation of robot assisted employment	Number of trained companies	
		Boosting the labour market through the promotion of robot assisted employment	More equal opportunities in the labour market	Number of employed people with reduced working capacity due to physical disability	
	Employees with reduced working capacity due to physical disability	Able to work dispite of physical disability	More salary instead of social allowances	Difference between salary and former social allowances (yearly HUF)	
		Living happier lifestyle	Better lifestyle satisfaction	Amount of money spent on cultural and leisure activities	
	Company – especially SMEs	Handling the shortage of labour market	More potential employees during recruitment process	Number of new robot assisted jobs	

## 4.2 Service II - Digitalization Education of Local SMEs in Manufacturing – HGC Academy

### 4.2.1. Background

#### ***Service II - Digitalization Education of Local SMEs in Manufacturing – HGC Academy***

The HGC (High Growth Companies) Academy is a simultaneous **professional knowledge base, talent management program and knowledge transfer platform**. The HGC Academy is a mid-term strategic program built from **development modules** that:

- ensures a modular development progress based on preliminary needs – capital structure, technological development, CRM (Customer Relationship Management)/ERP (Enterprise Resource Planning) systems, foreign market/internationalization, online sales, leadership coaching & mentoring;
- contains a foreign professional program in different countries;
- provides an opportunity to visit the domestic industry 4.0 sample industries.

The strategic program includes 6 development modules:

- 1) **The technology module** concentrates on the so-called "Industry 4.0" technologies and provides support in the related development.
- 2) **The ERP (Enterprise Resource Planning) systems module** measures and optimizes the complex and integrity of IT systems in the company according to the goals and challenges of the company.
- 3) **The online presence module** attempts to guide companies in the world of online markets and usage of social media channels.
- 4) **The High Performance Coaching module** – which is also recognized at international level – helps the leaders to avoid burnout despite the enormous pressure and keep the performance on high level permanently.
- 5) In the framework of **the foreign market/export module**, participants can review the diversification of the foreign market and customers and develop the respective export strategies.
- 6) **The financing module** endeavours to highlight the traditional financing problems and helps to handle the challenges.



Technology readiness	High Performance Man.	CRM/ERP systems	Financing	Foreign market	Online presence
HMI	Change management	Real-time ERP	Profitability and ROE	Foreign m. diversification	Way of online presence
Sensors	Stress management	Database integration	Controlling integration	Customer diversification	Online sales/turnover
Robots	Motivation	Full-range process management	Asset management	Export/Turnover ratio	Online profit contribution
Monitoring	Delegation	Industry4.0 applicability	Annual planning	Export management	Social media usage
		Online CRM integration	Liquidity management	Export strategy	

**The main target group of the HGC Academy** – according to a general principle – **is the High Growth Companies (HGCs)**; the primary goal is to support this HGCs to move to the next stage of the development and advocate that companies who are close to be a HGC company to reach this level.

Businesses with high growth potential, which are the target group of the HGC Academy, are often characterized as **"Gazelle" companies**. But how does a company become "Gazelle"? – The word Gazelle was first used by David Birch.

A gazelle company or simply gazelle is a young, very fast-growing company. This type of company maintains consistent and rapid expansion of both employment and turnover (sales). Additionally, the company maintains a high rate of expansion for at least consecutive four years. Although 20% growth annually is the common definition, there is no single definition for a gazelle company's growth rate.<sup>13</sup>

Most international statistics define the categories of fast-growing businesses according to the growth in revenue or in employment. EUROSTAT uses two definitions:

- A high-growth enterprise (growth by 20 % or more) is an enterprise with an average annualised growth greater than 20 % per year over a three-year period. Growth can be measured by the number of employees or by turnover.

<sup>13</sup> <https://marketbusinessnews.com/financial-glossary/gazelle-company/>

- A high-growth enterprise (growth by 10 % or more) is an enterprise with average annualised growth in number of employees greater than 10 % per year over a three-year period (t – 3 to t) and having at least 10 employees in the beginning of the growth (t – 3).

In the current modern innovation ecosystem – differently from the previous ones above – the main target group of the HGC Academy (according to a general principle) is that HGC enterprises:

- which have already achieved the medium sized business status or are able to achieve this status with their sustainable and continuous operation, and
- which can ensure the sustainable economic performance with their own products and export activities.

**The selection process of the participating companies** is managed by the following specific conditions and criteria:

- at least 3 years of closed operation,
- minimum 3 % increase in sales revenue or in export sales or in number of employees,
- at least 10 employee,
- minimum turnover of HUF 100 million.

---

A HGC Akadémia **egyszerre szakmai tudásbázis, tehetséggondozó program és tudásközvetítő platform**<sup>14</sup>. A HGC Akadémia egy **fejlesztési modulokból felépített középtávú stratégiai program**, amely:

- modulokból felépített, előzetes igényeken alapuló fejlesztést nyújt – tőkeszerkezet, technológiai fejlettség, vállalatirányítás, külpiacra jutás, online értékesítés, vezetői mentorálás területein;
- külföldi szakmai programot tartalmaz;
- biztosítja a tagoknak a hazai Ipar 4.0 mintagyárak meglátogatását.

---

<sup>14</sup> [https://hgc.ifka.hu/hu/page/hgc\\_akademia](https://hgc.ifka.hu/hu/page/hgc_akademia)

A stratégiai program hat fejlesztési modult tartalmaz:

- 1) A **technológia modul** az úgynevezett „Ipar 4.0” technológiáiban segít eligazodni és előrelépni.
- 2) Az **ERP rendszerek modul** a vállalati informatikai rendszerek összességét és integrációját méri fel és optimalizálja az adott vállalkozás céljainak és kihívásainak megfelelően.
- 3) Az **online jelenlét modul** arra tesz kísérletet, hogy messzebb kalauzolja a vállalkozásokat a virtuális piacok és az online média világába.
- 4) A nemzetközi szinten is elismert módszertannal dolgozó **High Performance Coaching modul** abban segít a vezetőknek, hogy a hatalmas nyomás ellenére el tudják kerülni a kiégést, és mégis tartósan magas színvonalon tudjanak teljesíteni.
- 5) A **külpiaci, exportfejlesztési modul** keretében a résztvevők áttekintik a külpiaci és vevődiverzifikáltságot, és kialakítják a megfelelő exportstratégiát.
- 6) A **finanszírozási modul** a hagyományos finanszírozási problémákra próbál rávilágítani, és segítséget nyújtani a kihívások kezelésében.

Technology	Coaching	ERP/CRM	Finances	Export sales	Online
<b>Technology readiness</b>	<b>High Performance Man.</b>	<b>CRM/ERP systems</b>	<b>Financing</b>	<b>Foreign market</b>	<b>Online presence</b>
HMI	Change management	Real-time ERP	Profitability and ROE	Foreign m. diversification	Way of online presence
Sensors	Stress management	Database integration	Controlling integration	Customer diversification	Online sales/turnover
Robots	Motivation	Full-range process management	Asset management	Export/Turnover ratio	Online profit contribution
Monitoring	Delegation	Industry4.0 applicability	Annual planning	Export management	Social media usage
		Online CRM integration	Liquidity management	Export strategy	

A **HGC Akadémia fő célcsoportját**<sup>15</sup> általános elv szerint a kifejezetten **nagy növekedési képességű vállalkozások (High Growth Companies, HGC) alkotják**, elsődleges cél ezen HGC-k következő fejlődési szakaszba lépését elősegíteni, illetve hogy a HGC státuszhoz közeli vállalkozások valóban elérjék ezt szintet.

<sup>15</sup> <https://hgc.ifka.hu/#project>

A célcsoportot alkotó, nagy növekedési potenciállal rendelkező vállalkozásokat gyakran ún. **“gazella”** vállalatokként is jellemzik. De mitől számít gazellának egy vállalkozás?<sup>16</sup>

A *gazella* szót először David Birch használta. Eredetileg olyan gyors növekedésű kis- és fiatal (20 foglalkoztatottnál kevesebb, 4 évnél fiatalabb vállalkozásokra alkalmazta, amelyek gyors iramú bevétel növelésre képesek (évente minimum 20%-os növekedés).

*Elefántoknak* nevezte a nagyvállalatokat, amelyek lassabban, nehezkesebben reagálnak a kihívásokra, a változásokra, ugyanakkor a tömegük, méretük miatt nehezebben elpusztíthatóak.

*Egerekként* jellemezte az olyan kisvállalkozásokat, amelyeknek nem célja a növekedés, inkább csak az önfenntartás.

Birch 1994-ben már úgy látta, a méret kevésbé lényeges: „ezek a gazellák gyorsan mozognak a kis és a nagy méret között – különböző időben, bármelyik irányban – és csak a méret alapján kategorizálni őket azt jelenti, hogy figyelmen kívül hagyjuk legfontosabb jellemzőiket: a nagyfokú innovativitást és a gyors foglalkoztatás-növekedést.”<sup>17</sup>

A gazellák tehát olyan vállalkozások, amelyek hirtelen tudnak nagyra – de legalábbis közepesre – nőni, de akár vissza is eshetnek (időszakosan vagy teljesen) a növekedésben. Sokuk nem is éri meg a teljes „felnőttkort”, hamarabb elpusztul, de a növekedési periódus alatt látványos ugrásokra képes.

A nemzetközi statisztikák zöme az árbevétel vagy a foglalkoztatás növekedése szerint definiálja a gyorsan növekvő vállalkozások kategóriáit. Az EUROSTAT két definíciót használ:

- „A gyors növekedésű vállalkozás (legalább 20%-kal) olyan vállalkozás, amely átlagos éves növekedése több mint 20% egy hároméves periódus alatt. A növekedést mérhetjük foglalkoztatottak számában vagy árbevételben is.”<sup>18</sup>

<sup>16</sup> <http://hgcaademia.hu/allatkert-a-gazdasagban-mitol-lesz-egy-vallalkozas-olyan-mint-egy-gazella/>

<sup>17</sup> Birch, D. L. – Medoff, J. (1994): Gazelles. Megjelent: Solmon, L.C. - Levenson, A. E. (szerk.) (1994): Labor Markets, Employment Policy and Job Creation, Boulder: Westview Press, 159-168.o.

<sup>18</sup> [http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:High-growth\\_enterprise](http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:High-growth_enterprise)





- „A gyors növekedésű vállalkozás (legalább 10%-kal): olyan vállalkozás, amely átlagos éves növekedése a foglalkoztatottak számát tekintve több mint 10% egy hároméves periódus alatt, feltéve, hogy a kiinduló évben több mint 10 foglalkoztatottal rendelkezett.”<sup>19</sup>

*A mai modern innovációs ökoszisztémában* – az előzőektől eltérően – *a HGC Akadémia fő célcsoportját általános elv*<sup>20</sup> szerint azon HGC vállalkozások képezik, amelyek:

- középvállalkozói státuszt már elérték, vagy képesek elérni a fenntartható és folyamatos működésükkel, és
- a gazdasági teljesítményt saját önálló termékkel, exporttevékenységgel képesek fenntarthatóan szolgálni.

**A résztvevő vállalkozások kiválasztása** az alábbi konkrét feltételekhez és szempontokhoz igazodik:

- legalább 3 év lezárt működés,
- minimum 3 % növekedés árbevételben vagy export értékesítésben vagy létszámban,
- legalább 10 fő foglalkoztatott,
- minimum 100 millió forint árbevétel.

### 4.2.2 Knowledge applied from ERUDITE

Partner experience and practice	How this PEP has contributed to the services developed in your Action Plan:
<p><b>Áislann – supporting innovation in Gaeltacht (Donegal, Ireland)</b></p> <p><b>Áislann Ghaoth Dobhair offering support to knowledge-based enterprises and providing fully</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• offering support to knowledge-based enterprises as a business development innovation body</li> </ul>

<sup>19</sup> [http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:High-growth\\_enterprise](http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:High-growth_enterprise)

<sup>20</sup> Széchenyi2020 - HGC Akadémia koncepció és cselekvési terv, egyeztetési munkaanyag

<p><b>serviced workplace for start-up and early stage businesses</b></p>	<ul style="list-style-type: none"> <li>• supporting the change of the business model inside the company – providing a more knowledge-based future concept</li> <li>• encouraging network building among the small- and medium sized enterprises</li> <li>• offering complete business solution to entrepreneurs for high quality development</li> </ul>
<p><b>CoLAB – Innovation Hub in North West Ireland (Letterkenny, Ireland)</b></p> <p><b>As a collaborative hub and incubation centre supports technology entrepreneurs with great ideas to turn the visions into viable businesses</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• supporting and stimulating the innovation process of the enterprises</li> <li>• changing the entrepreneur behaviour/attitude towards the innovation and risk-taking</li> <li>• transferring technology and ideas into businesses</li> <li>• accelerating business growth through development programs and training facilities</li> </ul>
<p><b>Lormes Digital Hub or Smart Work Centre (France)</b></p> <p><b>Multi-functional, multi-stakeholder digital center providing ICT training, education services and flexible business space with high level ICT infrastructure</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• supporting managerial, technical and administrative training and support with collaborative facilities</li> <li>• creating a multi-functional centre to promote digital working, education and training</li> <li>• providing human and technical resources and consultation for business development – network building</li> </ul>



4.2.3 Action/service description

<i>Main objectives</i>	<i>Value brought by this action into the region</i>	<i>Players involved and role in the implementation and collaboration between them explanation of their involvement in service design</i>
<p><i>Promotion of international competitiveness and networking of Hungarian SMEs with emphasised growth and innovation potential*</i></p>	<ul style="list-style-type: none"> <li>• <i>Increasing international competitiveness of the regional SMEs</i></li> <li>• <i>Ensuring networking opportunity not only at regional level but also at national/interregional level</i></li> </ul>	<p><b>Consortium members:**</b></p> <ul style="list-style-type: none"> <li>• <i>Pannon Business Network Association as a consortium member (Hungary)</i></li> <li>• <i>Inno AG as a consortium member (Germany)</i></li> <li>• <i>Business Upper Austria as a consortium member (Austria)</i></li> </ul> <p><b>Target group of HGC Academy:</b></p> <ul style="list-style-type: none"> <li>• <i>National small and medium sized enterprises with emphasized growth and innovation potential<sup>21</sup></i></li> </ul>

Additional information:

**Background to HGC Academy concept – Domestic market landscape by size and capital**

- 2.000 businesses in Hungary have over 250 million HUF annual EBITDA<sup>22</sup> (large and medium-sized)
- 1.080 of those are owned by Hungarians (by value: 44% in Central, North-West Transdanubia: 4%; South Transdanubia: 2%; North-East: 5%, others 13-15%)
- TOP100 represents 76% of the total sales of the large and medium-sized businesses
- 7 Hungarian-owned companies are in the top100 (51., 65., 66., 71., 90., 91, 100)
- 231 companies out of the 1.080 are in the manufacturing

<sup>21</sup> <https://ifka.hu/gazdasagfejlesztes/hirek/mit-jelent-valojaban-gazellanak-lenni>

<sup>22</sup> <https://www.investopedia.com/terms/e/ebitda.asp>

- 58 years old is the average age of the manufacturing top 231 owners

**\*\*Professional background of the consortium members:**

PBN in numbers and competencies:

- 53 international SME development projects, 400 EU partner organizations, 25 full-time employees, 11 years of operation, 9 million EUR contracted value
- SME auditing and benchmarking - 250 SMEs audited in Western Hungary
- Internationalization in focus – managing European-level partnership
- Regional Operative Program preparation for county Vas
- AAL products development and services
- TechTransfer spin-off company for Polymer printing and sensor technology
- Industry4.0 - International projects and scientific paper

Inno AG in numbers and competencies:

- 13 locations in Europe
- 25+ years of project experience in 80+ regions
- initiates and leads innovation projects for business companies, public research institutes and governmental organizations on regional, national, multinational level (Interreg Europe Policy Learning Platform, Cluster collaboration platform)
- acts as coordinator and partner in local, regional, national and international innovation grants and funding programmes (EU projects, H2020, Interreg, KIC InnoEnergy)
- supports research institutions, businesses, political institutions and development agencies in the generation and implementation of exploitation strategies and innovation frameworks.

Business Upper Austria in figures:

- 250 – 300 support projects – of which 60 successfully completed
- 290 events with 11,709 participants
- 2,291 cluster partners
- 860 supported companies for innovation projects; property protection consultation
- 150 projects
- 132 cooperation projects and cooperative measures

- 30 supported start-ups
- 3-4 supplier innovation days with 60 participating companies
- thematic topics: development of mechatronic systems, advanced manufacturing & production, raising enthusiasm for technology among young people, service-innovation

## 4.2.4 Timeframe and Funding

Project/Action Investment Line/Funding Source + Amount (please state each source of funding)	Submitted For Funding	Funding Decision	Project Start Date	Other key milestones
Funding source: Széchenyi 2020 – EDIOP – Economic Development and Innovation Operational Programme	September 2017	December 2017	January 2018	Preparatory activities until March 2018 <ul style="list-style-type: none"> <li>• Strategy and action plan concept elaboration</li> <li>• Survey among target groups</li> </ul>
Amount: 1.4 M EUR				Business development and training program until March 2019 <ul style="list-style-type: none"> <li>• HGC Academy Workshops with the participation of 300 businesses</li> <li>• On-the-job-mentor program for 300 companies</li> <li>• Study tour abroad for 300 companies</li> </ul>
				Community development focusing on knowledge transfer and entrepreneur



				<i>development – April 2019</i> <ul style="list-style-type: none"> <li><i>Publishing of the Encyclopaedia of successful entrepreneurs in 2000 copies</i></li> </ul>
				<i>Policy recommendation – May 2019</i>

#### 4.2.5 Workplan

WP	Tasks
<b>Work Package 1</b>  <b>Előkészítő feladatok</b>	Task 1.1  HGC képzési és motiválási követendő gyakorlatok elemzése
	Task 1.2  HGC Akadémia koncepció és cselekvési terv kidolgozása
	Task 1.3  Célcsoport empirikus igényfelmérése  (szakmai telefonos megkeresés, kopogtató email elkészítése és küldése, személyes megkeresés, interjúk lebonyolítása és azokról jegyzőkönyv)
	Task 1.4  Fókuszcsoporthoz vizsgálat



<p><b>Work Package 2</b></p> <p><b>Motivációs vállalkozásfejlesztési képzési program megvalósítása</b></p>	<p>Task 2.1</p> <p>Hazai workshopok megvalósítása</p>
	<p>Task 2.2</p> <p>On-the-job mentor program kidolgozása</p>
	<p>Task 2.3</p> <p>Tematikus nemzetközi szakmai utak megszervezése</p> <p>(Cselekvési terv kidolgozása, utazási terv elkészítése, külföldi partnerintézmények megkeresése)</p>
<p><b>Work Package 3</b></p> <p><b>Tudásbázis és vállalkozásfejlesztési együttműködést célzó közösség kialakítása</b></p>	<p>Task 2.1</p> <p>Sikeres vállalkozók lexikonjának elkészítése és 2000 példányban való megjelentetése</p>
	<p>Task 2.2</p> <p>Program eredmények webinar formában történő elérhetővé tétele</p>
	<p>Task 2.3</p> <p>Piackutatás és nemzetközi partneradatbázis létrehozása</p>
<p><b>Work Package 4</b></p> <p><b>Szakpolitikai ajánlás</b></p>	<p>Task 4.1</p> <p>Szakpolitikai ajánlásokat megfogalmazó dokumentum készítése az eredmények összegzéseként</p>

#### 4.2.6 Budget breakdown for the service/project

Category of funding	Expenditure Amount
Salaries	1.400.000 EUR (senior, junior and admin staff costs)
Overheads ( <i>i.e. calculated at x % of staff costs</i> )	
Travel & Subsistence	
External expertise	
Building/renovation / refurbishment	
Equipment	
<b>TOTAL</b>	<b>1.400.000 EUR</b>

#### 4.2.7 Impact expected

A. Referring to the 'Self-Defined Indicators' in the Application Form:

**Self defined performance indicators:**

Number of innovative services to be implemented as new projects and funded under Priority 2.2.1 in the West Pannon region by businesses and/or municipalities/public administrations/institutions

**Target:** 5

B. Section to explain the impact expected of this action/service:

**Impact expected:**

- *More effective short- and medium-term development programs*
- *Increased competitiveness of the Hungarian SMEs in international level*
- *More targeted subsidy schemes and financial state support*
- *More active business network system*
- *Popularization of Industry 4.0 solutions – promoting digitalization*
- *Stronger lobby power for networking and internationalization*



### 4.3 Service III – Smart phone application promoting sustainable urban transport in the Functional Urban Area (FUA) of Sárvár connected with touristic attractions

---

#### 4.3.1 Background

---

##### ***Service III – Smart phone application promoting sustainable urban transport in the Functional Urban Area (FUA) of Sárvár connected with touristic attractions***

The history of the Functional Urban Areas (FUAs) is going back to the late 1970s and early 1980s.

A European wide research project identified those cities which has strong relations their surrounding areas. The research called these areas *Functional Urban Region (FUR)*. A FUR included a core city and its commuting zone with at least 200,000 inhabitants. Around 150 FUR was identified in Europe by the research which became the basis of the *Urban Cycle theory* developed by van Klaasen's team at Erasmus University, Rotterdam. Urban cycle theory is modelling the process of urbanisation in four steps: urbanisation, suburbanisation, desurbanisation and reurbanisation.

Policymakers of the European Union set up the document of *European Spatial Development Perspective (ESDP)*<sup>23</sup> in the late 1990s.

The key concept of ESDP is *polycentricity*, to ensure regionally balanced development. Based on the ESDP a series of research has started funded by the ESPON program<sup>24</sup> since the early 2000s. The famous *ESPON 1.1.1 study on Potentials for polycentric development in Europe* identified and mapped the hierarchy of the European urban centers called them *Functional Urban Areas (FUAs)* and *Metropolitan Growth Areas (MEGAs)*. FUAs were broken down into two groups:

- 1) transnational/national, and
- 2) regional/local FUAs.

This second FUAs level takes into consideration of FUAs that have a population of 20.000 inhabitants bringing small and medium size cities into the European picture of urban network.

---

<sup>23</sup> [http://ec.europa.eu/regional\\_policy/sources/docoffic/official/reports/pdf/sum\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/pdf/sum_en.pdf)

<sup>24</sup> [https://www.espon.eu/export/sites/default/Documents/Projects/ESPON2006Projects/ThematicProjects/Polycentricity/fr-1.1.1\\_revised-full.pdf](https://www.espon.eu/export/sites/default/Documents/Projects/ESPON2006Projects/ThematicProjects/Polycentricity/fr-1.1.1_revised-full.pdf)

FUAs concept refers to agglomerations of municipalities that are grouped together according to their functional orientation in order to reflect the actual daily operational conditions of people, enterprises, and community organisations. FUAs is a useful concept also when analysing regional development from a functional viewpoint, like urban mobility. The most important quality of the concept of FUAs is thus its capacity to extend beyond administrative boundaries of core cities. As a result, the needs of economic activity and service production can be more efficiently mapped. This leads to more coherent strategic planning and visioning.

In the second half of the 2000s, ESPON 1.4.3 study on urban functions revised ESPON 1.1.1. This study separated FUAs to three categories<sup>25</sup>:

1. *Large FUAs*: the population of the FUA is more than 250.000 inhabitants.
2. *Medium FUAs*: the population of the FUA is more than 100.000 inhabitants.
3. *Small FUAs*: the population of the FUA is more than 50.000 inhabitants.

In general, the smallest FUAs have not considered morphological cities that would have more than 20.000 inhabitants but with less than 50.000 in the whole FUA. Based on this new classification Sárvár (Hungary) is not FUAs compared to ESPON 1.1.1.

The OECD is also developed a FUAs approach in the early 2010s. The OECD classification of functional urban areas breaks into four types according to their population size<sup>26</sup>:

1. *Small urban areas*, with a population below 200 000 people;
2. *Medium-sized urban areas*, with a population between 200 000 and 500 000;
3. *Metropolitan areas*, with a population between 500 000 and 1.5 million;
4. *Large metropolitan areas*, with a population of 1.5 million or more.

Based on this classification, Sárvár (Hungary) is FUAs.

The latest FUAs definition was a joint development by the EU and the OECD in the last years. The new approach also covers the entire European urban network.

<sup>25</sup> [https://www.espon.eu/export/sites/default/Documents/Projects/ESPON2006Projects/ThematicProjects/Polycentricity/fr-1.1.1\\_revised-full.pdf](https://www.espon.eu/export/sites/default/Documents/Projects/ESPON2006Projects/ThematicProjects/Polycentricity/fr-1.1.1_revised-full.pdf)

<sup>26</sup> <http://www.oecd.org/cfe/regional-policy/Definition-of-Functional-Urban-Areas-for-the-OECD-metropolitan-database.pdf>

FUAs are defined as the core city/municipality and its commuting zone. This joint approach helps to handle statistically FUAs, which defined as LAU2 level in the European regional statistics<sup>27</sup>.

### Example from FUAs in Hungary<sup>28</sup>

Cities/FUAs	Country	Population of		Urban Audit		
		Core city	FUAs	Cities & greater city	FUAs	
Budapest, District 14*	HUN	130 000	1 740 000	Yes	NUTS3	
Szombathely (Vas county)	HUN	78 000	110 000	Yes	LAU 2	Code1
Sárvár	HUN	15 000	39 000	No	LAU 2	Code2

Based on the information above and our findings based on our research we would like to promote low carbon mobility in the Functional Urban Area (FUA) of Sárvár. We are convinced that the planned ICT-based smart phone application – as a value-added service – would contribute to this objective and Sárvár FUA may benefit from the application playing significant role in tourism and economic development.

It is very important to emphasize that Sárvár joined the Covenant of Mayors in 2015. Based on the conventional procedure of the attendance to the Covenant of Mayors, new members should prepare their **SEAP/SECAP (Sustainable Energy Action Plan/Sustainable Energy and Climate Action Plan)** documents in two years.<sup>29</sup>

The SECAP will thoroughly analyse the opportunities of energy efficiency and the renewable energy potential in the city. This document on the one hand will contribute to the would-be energetic investments and makes the municipality's decisions easier, on the other hand it promotes the mitigation of CO2 emission.

<sup>27</sup> [http://ec.europa.eu/eurostat/ramon/miscellaneous/index.cfm?TargetUrl=DSP\\_DEGURBA](http://ec.europa.eu/eurostat/ramon/miscellaneous/index.cfm?TargetUrl=DSP_DEGURBA)

<sup>28</sup> CHESTNUT project - CompreHensive Elaboration of STRategic plaNs for sustainable Urban Transport (DTP1-1-037-3.1) Interreg Danube Transnational Programme; <http://www.interreg-danube.eu/approved-projects/chestnut>

<sup>29</sup> <https://ec.europa.eu/jrc/en/publication/covenant-mayors-climate-and-energy-reporting-guidelines>



Due to the SECAP, the municipality is able to map the energy saving possibilities, which will serve sustainability and rational energy consumption. According to the plan of Sárvár Municipality, the SECAP was finalized in the autumn of 2017<sup>30</sup>.

Sárvár, the capital of the FUA is a popular touristic destination all year, so one of the main target groups would be the tourists who come to the city/FUA. Besides, lot of people commute to work/to school to Sárvár from the FUA, so they can use this application as well. However, every people who travel to Sárvár or to the FUA, would have the possibility to use this program.

### 4.3.2 Knowledge applied from ERUDITE

Partner experience and practice	How this PEP has contributed to the services developed in your Action Plan:
<p><b>‘Canal du Nivernais’ Digital Waterway in Burgundy (France)</b></p> <p><b>Digital highway for users of the Nivernais Canal – motor of local development facilitating access to multimedia services along the length of the canal</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• facilitating digital multimedia services supporting sustainable mobility involving available transport modes – kind of information services</li> <li>• attracting new tourists using the digital innovation services – raising awareness for the importance of tourism (economic and social aspect)</li> <li>• improving access to local information through one complex platform</li> <li>• creating opportunity for dialogue between service providers and end-users – keep the stakeholders up-to-date in real time via smart application</li> </ul>

<sup>30</sup>[http://www.sarvarvaros.hu/files/\\_sarvarvaros/download\\_files/4319/SarvarVarosFenntarthatoEnergiakesKlimaakcioterveSECAP2017.pdf](http://www.sarvarvaros.hu/files/_sarvarvaros/download_files/4319/SarvarVarosFenntarthatoEnergiakesKlimaakcioterveSECAP2017.pdf)

<p><b>Ulvön island – E-tourism services (Sweden)</b></p> <p><b>Fibre-connection for an up-to-the-minute tourism service in the biggest fishing village along the High Coast of Sweden</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• e-tourism services providing by the county council and service providers</li> <li>• collecting realistic (background) information about the advantages of e-tourism services – excellent example for touristic related e-service based on fibre connection</li> <li>• improvement possibility thanks to the digitalization in rural area aiming at tourism</li> </ul>
---	--

#### 4.3.3 Action/service description

<i>Main objectives</i>	<i>Value brought by this action into the region</i>	<i>Players involved and role in the implementation and collaboration between them explanation of their involvement in service design</i>
<p><i>Developing an ICT-based smart phone application to promote sustainable mobility involving all available transport modes in Särvär Functional Urban Area (FUA) – integration of different sustainable mobility modes into one platform – “mobility as a service”</i></p>	<ul style="list-style-type: none"> <li>• <i>Promoting sustainable mobility approach in Särvär FUA</i></li> <li>• <i>Boosting the touristic sector in Särvär FUA as a popular touristic destination</i></li> <li>• <i>Reducing CO2 emission in Särvär FUA in general level</i></li> <li>• <i>Reducing the usage of the non-sustainable transport modes</i></li> <li>• <i>Contributing to the healthier lifestyle in Särvär FUA and keeping health the air quality</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Touristic destination management company Särvär as a main touristic agency in Särvär FUA (who provides information for the application)</i></li> <li>• <i>Service providers – transport modes providers, touristic attractions</i></li> <li>• <i>Tourists, local people and people also from Särvär FUA, commuters and touristic destinations from Särvär as a target group</i></li> </ul>

#### 4.3.4 Timeframe and Funding

<i>Project/Action Investment Line/Funding Source + Amount (please state each source of funding)</i>	<i>Submitted For Funding</i>	<i>Funding Decision</i>	<i>Project Start Date</i>	<i>Other key milestones</i>
<i>Funding source: Interreg Central Europe Programme – SOLEZ project <sup>31</sup> (Smart Solutions supporting Low Emission Zones and other low-carbon mobility policies in EU cities) - CE243</i>	<i>October 2017 – First negotiation among PBN and project Lead Partner</i>	<i>December 2017 – Service proposal accepted by the Lead Partner</i>	<i>July 2018 – Planned date of the official launch of the smart phone application</i>	<i>Negotiation started with the local policy-level stakeholders in summer 2017</i>
<i>Amount: 16.500 EUR</i>				<i>Preparation activities started in autumn 2017</i>
				<i>Continuous correspondence with SOLEZ Lead partner (Municipality of Vicenza, Italy)</i>

#### 4.3.5 Workplan

<b>WP</b>	<b>Tasks</b>
	Task 1.1 Software establishment including a map about Sárvár FUA

<sup>31</sup> <http://www.interreg-central.eu/Content.Node/SOLEZ.html>

<p><b>Work Package 1</b></p> <p><i>Developing an ICT-based smart phone application</i></p>	<p>Task 1.2</p> <p>Collecting the all application-relevant information within Sárvár FUA<sup>32</sup></p> <p>(i.e.: public transport modes, timetables, prices, car-pooling and bike-sharing opportunities, available pedestrian and cycling routes, available parking places, seasonal hop-on/hop-off system, taxi opportunities, etc.)</p>
	<p>Task 1.3</p> <p>Integration the navigation system into the application to compare the means of transport (i.e.: safety, environmentally friendliness, price, etc.)</p>
	<p>Task 2.1</p> <p>Development of an official marketing strategy</p>
<p><b>Work Package 2</b></p> <p><b>Disseminating and promoting the application</b></p>	<p>Task 2.2</p> <p>Demonstrating the software to the wider audience</p>
	<p>Task 2.3</p> <p>Providing access to the application for all stakeholders</p>
	<p>Task 2.4</p> <p>Translating the application into German, English and Czech version (because of the large number of foreign tourist)</p>

<sup>32</sup> <http://pbn.hu/en/actualities/452-solez-local-public-event-in-sarvar-about-the-prepared-action-plan-and-the-would-be-smartphone-application.html>

#### 4.3.6 Budget breakdown for the service/project

Category of funding	Expenditure Amount
Salaries	
Overheads ( <i>i.e. calculated at x % of staff costs</i> )	
Travel & Subsistence	
External expertise	16.500 EUR for ICT application developer company
Building/renovation / refurbishment	
Equipment	
<b>TOTAL</b>	16.500 EUR

#### 4.3.7 Impact expected

A. Referring to the 'Self-Defined Indicators' in the Application Form:

**Self defined performance indicators:**

Number of innovative services to be implemented as new projects and funded under Priority 2.2.1 in the West Pannon region by businesses and/or municipalities/public administrations/institutions

**Target:** 5

B. Section to explain the impact expected of this action/service:

**Impact expected:**

- Promoting sustainable mobility approach in Sárvár FUA
- Boosting the tourism in Sárvár FUA
- Promoting the healthy lifestyle among the citizens – healthier citizens
- Exploiment and quality of transport services will be better
- Better selection of transport services - more satisfied customers
- Providing transport services more effectively – easier access to all public transport modes
- Integration different transport modes – lower CO2 emissions



#### 4.4 Service IV – Digital health Learning platform – Modular Innovation Learning Hub

##### 4.4.1 Background

###### **Service IV – Digital health Learning platform – Modular Innovation Learning Hub**

The service of “**Digital health Learning platform – Modular Innovation Learning Hub**” is connected to **digitalLIFE4CE project** (Interreg Central Europe Programme). The digitalLIFE4CE project is *looking for novel solutions in the field of digital integrated healthcare systems*.

The fragmentation of the health care system as well as weak cooperation between relevant actors negatively affect regional authorities, care providers and citizens in many regions of central Europe. To answer these weaknesses, this project – together with its developed service – *brings together policy makers, experts from research and development and actors relevant for implementation*.

The aim of the service is to **develop a new framework to provide:**

- policy stakeholders with a global picture on available solutions and their implications;
- technology solution providers with options for joint cooperation; and
- beneficiaries with new applications and technologies.<sup>33</sup>

Additionally, the project will **research and promote best practice cases in so called ‘Healthcare Excellence Spots’** and **investigate ways to increase investment in digital health start-ups** and to **boost innovation in healthcare systems with a need for an integrated care coordination**.<sup>34</sup>

##### 4.4.2 Knowledge applied from ERUDITE

Partner experience and practice	How this PEP has contributed to the services developed in your Action Plan
<b>C-TRIC – Healthcare Innovation Hub in Derry (Derry, Northern Ireland)</b>	This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:

<sup>33</sup> <http://pbn.hu/hu/nemzetkozi-projektjeink/futo-projektek/eder-akos/431-digitallife4ce.html>

<sup>34</sup> <http://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html>

<p><b>Clinical Research Facility and Healthcare Innovation Hub providing specialist workspace and services for academic researchers, clinical researchers and the biotechnology industry</b></p>	<ul style="list-style-type: none"> <li>• offering innovative services for all healthcare-related stakeholders</li> <li>• general need of reducing costs and time in the healthcare system – ageing population is an increasing problem in Europe</li> <li>• utilizing effectively academic knowledge in business and also in society level</li> <li>• supporting research and development of innovative health technologies</li> </ul>
<p><b>Society needs digital home care for elderly (Stockholm, Sweden)</b></p> <p><b>Digital home care services for elderly provided by a Swedish mid-size municipality</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• background information collection about the ageing population in general – common challenge for Europe with accelerating social costs</li> <li>• providing and promoting new innovative healthcare solutions</li> <li>• fostering digitalisation in the healthcare system and boosting innovation</li> <li>• network building among the all healthcare-related stakeholders</li> </ul>
<p><b>EPTEK – Nordic Telemedicine Center (Seinäjoki, Finland)</b></p> <p><b>Regional development organization helping health care professionals in adapting new digital solutions</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• boosting new innovative digital healthcare solutions and projects</li> <li>• motivating traditional healthcare organizations to implement new digital technologies</li> </ul>



	<ul style="list-style-type: none"> <li>• supporting digital training, consultation, education to develop new digital working processes</li> <li>• offering eHealth expertise and services to health and social-related stakeholders</li> <li>• supporting cooperation between stakeholders – utilising available knowledge and services through virtual platform</li> </ul>
--	---

#### 4.4.3 Action/service description

<i>Main objectives</i>	<i>Value brought by this action into the region</i>	<i>Players involved and role in the implementation and collaboration between them explanation of their involvement in service design</i>
<i>Development of a modular innovation learning platform for a multi-actor approach in field of healthcare system</i>	<ul style="list-style-type: none"> <li>• <i>Building up strong cooperation among economics, politics, science, healthcare providers, health professionals not only at regional level but also at national and interregional level</i></li> <li>• <i>Promoting innovative healthcare solutions and best practice examples – knowledge exchange</i></li> <li>• <i>Fostering digitalisation in the healthcare system &amp; boosting innovation</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>DigitalLIFE4CE project consortium (Austria, Croatia, Hungary, Poland, Slovenia, Germany, Italy) as the developer of the Learning platform</i></li> <li>• <i>External experts of the healthcare sectors from the CE region (Austria, Croatia, Hungary, Poland, Slovenia, Germany, Italy) as co-operators of the project realization</i></li> </ul>

#### 4.4.4 Timeframe and Funding

<i>Project/Action Investment Line/Funding Source + Amount (please state each source of funding)</i>	<i>Submitted For Funding</i>	<i>Funding Decision</i>	<i>Project Start Date</i>	<i>Other key milestones</i>
<i>Funding source: Interreg Central Europe Programme – DigitalLIFE4CE project <sup>35</sup> (Fostering innovation in integrated healthcare systems solutions) - CE984</i>	<i>Winter 2016</i>	<i>Spring 2017</i>	<i>Project start: May 2017</i>	<i>Final deadline for finetuning of the content – November 2018</i>
<i>Amount: 59.000 EUR in consortium level</i>			<i>Activity start: October 2017</i>	

#### 4.4.5 Workplan

<b>WP</b>	<b>Tasks</b>
<b>Work Package 1</b>  <b>Developing of Digital health Learning platform for a multi-actor approach</b>	Task 1.1  Developing IT-based toolbox system
	Task 1.2  Collecting stakeholders in a quadruple helix context <sup>36</sup>
	Task 1.3  Ensuring exchange of knowledge and content-related information through the platform

<sup>35</sup> <http://www.interreg-central.eu/Content.Node/digitalLIFE4CE.html>

<sup>36</sup> <https://cor.europa.eu/en/documentation/studies/Documents/quadruple-helix.pdf>

<p><b>Work Package 2</b></p> <p><b>Establishment a Learning Hub generating solution-oriented cooperation*</b></p>	<p>Task 2.1</p> <p>Identifying linkages among stakeholders</p>
	<p>Task 2.2</p> <p>Matching of relevant actors</p>
	<p>Task 2.3</p> <p>Demonstrating the learning hub to the wider audience</p>
	<p>Task 2.4</p> <p>Mapping of integrated digital healthcare solutions – creating thematic courses (6)</p>
	<p>Task 2.5</p> <p>Preparing Learning Modules (3) for each thematic courses**</p>

More information:

**\*Work Package 2 – Establishment a learning hub generating solution-oriented cooperation**

The Learning Hub creates a collaborative space where:

- consortium members,
- mentors,
- all kind of stakeholders and
- interested people or institutions

can exchange knowledge within integrated digital healthcare.

The Learning Hub will consist 6 thematic courses<sup>37</sup>:



Connected Health & Networking



Digitalisation for Healthcare Management



Digitalisation for Health Promotion and Prevention



Digital Assistance in Health Delivery



Monitoring & Analytics for Health Care Trends



Technical & Organisational Infrastructure

### 1) Connected Health & Networking

Course is essential to build up networks between health sectors and also between different health professionals, patients, policy makers, health care providers and managers, etc.

Networking is the basis for integrated Health Care.

### 2) Digitalisation for Healthcare Management

Course refers to the organizational design and functionality of digital healthcare management.

The aim of the course is to provide information how to increases efficiency and quality of management.

<sup>37</sup> DigitalLIFE4CE project (Fostering innovation in integrated healthcare systems solutions) - CE984, Interreg Central Europe Programme

### 3) **Digitalization for Health Promotion and Prevention**

Course refers to showcase all activities to improve health or to prevent illnesses by using new technologies, social media or digital innovations.

The aim of the course is to improved knowledge dissemination and public participation in digital health promotion development.

### 4) **Digital Assistance in Health Delivery**

Course refers to revolutionize inclusion and integration of digital assistance systems and digital assistants to support the provision of care.

The aim is to showcase patient support monitoring tools, assistant systems, virtual reality & sensory technologies to help with complex or precise tasks.

### 5) **Monitoring & Analytics for Health Care Trends**

Course refers to population-wide, big data monitoring and analysis.

The goal is to identify challenges and opportunities that exist with population-wide big data analytics for assessing health trends and monitoring of health-related subject matter, such as environmental health parameters or epidemiology.

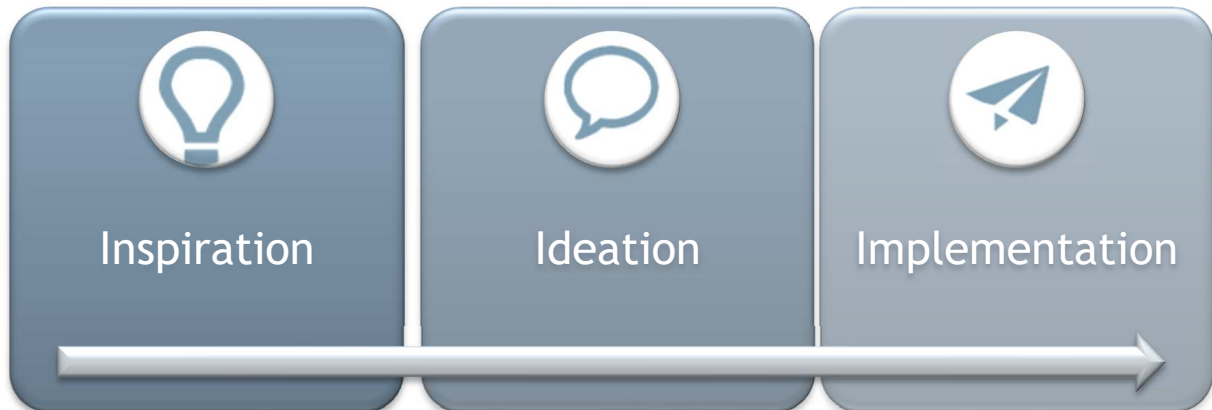
### 6) **Technical & Organisational Infrastructure**

Course refers to improvement dissemination of digital technical and organizational infrastructure and applications.

The goal is to showcase health data management systems, IT systems and micro/nano-processing technology, apps, living labs, digital innovation hubs and innovation hot spots.

**\*\*Task 2.5 - Preparing Learning Modules (3) for each thematic courses**

Each thematic course is split up in 3 learning modules<sup>38</sup>.



A. **The Inspiration phase** is characterized by learning how to better understand thematic topics and stakeholder interest.

This means from highlighting important actors or solutions and case studies, to bringing in different perspectives on the thematic topic areas. These activities are central to bringing new knowledge together.

B. **The Ideation phase** focuses on making sense of everything that the stakeholders have heard. It is the time where all of the information is gathered into one place, and it is the phase of generating tonnes of ideas, identifying opportunities to design solutions which overcome the challenges seen in the inspiration phase.

C. **The Implementation phase** which centers on bringing the design solutions or pilots to life. The stakeholders will figure out the best pathway to enable solutions to deliver maximum impact on the world.

<sup>38</sup> DigitalLIFE4CE project (Fostering innovation in integrated healthcare systems solutions) - CE984, Interreg Central Europe Programme



#### 4.4.6 Budget breakdown for the service/project

Category of funding	Expenditure Amount
Salaries	33.500 EUR in consortium level
Overheads ( <i>i.e. calculated at x % of staff costs</i> )	5.025 EUR in consortium level (15% of staff costs)
Travel & Subsistence	4.000 EUR in consortium level
External expertise	16.475 EUR in consortium level
Building/renovation / refurbishment	
Equipment	
<b>TOTAL</b>	59.000 EUR in consortium level

#### 4.4.7 Impact expected

A. Referring to the 'Self-Defined Indicators' in the Application Form:

**Self defined performance indicators:**

Number of innovative services to be implemented as new projects and funded under Priority 2.2.1 in the West Pannon region by businesses and/or municipalities/public administrations/institutions

**Target: 5**

B. Section to explain the impact expected of this action/service:

**Impact expected:**

- Establishment of a collaborative learning platform focused on healthcare system – more satisfied healthcare actors
- More active strategic cooperation among the stakeholders not only at regional level but also at national, interregional level
- More efficient network alliances to develop future foresight
- More effective collaboration –bridging geographical gap between regions and stakeholder

## 4.5 Service V – Robotics oriented Digital Innovation Hubs on European level - DIH<sup>2</sup> Network

---

### 4.5.1 Background

---

#### **Service V – Robotics oriented Digital Innovation Hubs on European level - DIH<sup>2</sup> Network**

The European Commission launched on 19 April 2016 the first industry-related initiative of the Digital Single Market package. Digitising the European Industry (DEI) is a strategic priority of the European Commission to deliver the Digital Single Market<sup>39</sup>. Building on and complementing the various national initiatives for digitising industry, the Commission will act to trigger further investments in the digitisation of industry and support the creation of better framework conditions for the digital industrial revolution.

One of the more important pillars of the Digitise European Industry effort is the activity to **develop a network of Digital Innovation Hubs (DIH)**.

Digital Innovation Hubs are **one-stop-shops that help companies to become more competitive with regard to their business/production processes, products or services using digital technologies**<sup>40</sup>.

They are based upon technology infrastructure (competence centre) and provide access to the latest knowledge, expertise and technology to support their customers with piloting, testing and experimenting with digital innovations.

DIHs also provide **business and financing support** to implement these innovations, if needed across the value chain. As proximity is considered crucial, they act as a first regional point of contact, a doorway, and **strengthen the innovation ecosystem**.

A DIH is a **regional multi-partner cooperation** (including organizations like RTOs, universities, industry associations, chambers of commerce, incubator/accelerators, regional development agencies and even governments) and can also have strong linkages with service providers outside of their region supporting companies with access to their services.<sup>41</sup>

---

<sup>39</sup> <http://nkfi.gov.hu/international/international-news-and/digital-innovation-hubs>

<sup>40</sup> <http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs>

<sup>41</sup> <http://s3platform.jrc.ec.europa.eu/digital-innovation-hubs>

DIH<sup>2</sup> Network<sup>42</sup> is the pan-European Network of robotics oriented DIHs. The challenge is to provide a sustainable ecosystem of robotics stakeholders covering the entire value network to facilitate and accelerate a broad uptake and integration of robotic technologies and supporting the digitisation of industry through robotics.

The projects should address the provision of a network of robotics Digital Innovation Hubs (DIH) in the four prioritised application areas (PAA) of:

- Healthcare
- Infrastructure Inspection and Maintenance
- Agri-Food and
- Agile Production.

#### 4.5.2 Knowledge applied from ERUDITE

Partner experience and practice	How this PEP has contributed to the services developed in your Action Plan
<p><b>Digital Enterprise Lab – DEL (Venice, Italy)</b></p> <p><b>Research, experimentation and educational centre with focus on digital and technology-driven innovation</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• developing digital innovation centre with focus on digitalization and technology-driven innovation such as robotics</li> <li>• assisting companies/organizations to develop their competencies and knowledge to become more competitive in the market</li> <li>• supporting innovative thinking, usage of digital technologies, knowledge exchange and network building with different digital research centres</li> </ul>

<sup>42</sup> <https://ec.europa.eu/digital-single-market/en/digital-innovation-hubs>

<p><b>MAKERLAB – Open Innovation in practice (Ljubljana, Slovenia)</b></p> <p><b>Dedicated space at the University of Ljubljana providing access to all skills and tools that students need to bring their innovative skills to real-life – supported by university mentors.</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• dedicated space that provides access to all the innovative tools and skills that stakeholders needed in order to develop innovative service</li> <li>• ensuring support for development in the field of innovative projects and prototyping</li> <li>• stimulating technical improvements and knowledge transfer</li> <li>• matchmaking research and business/industry side involving students</li> </ul>
<p><b>TEAK – Center for Vocational Adult Training (Teuva, Finland)</b></p> <p><b>Center for vocational adult training and education concentrating on wood, surface finishing, clothing and technology transfer (CNC, CAD, CAM, Robotics)</b></p>	<p>This PEP has actively contributed to the developed innovative service – some good practice elements have been transferred partially:</p> <ul style="list-style-type: none"> <li>• education centre for adult training focusing technology training (e.g.: Robotics)</li> <li>• offering wide range of training programs, courses and degree examinations</li> <li>• providing customer-based education and training services for companies and public organization</li> </ul>

#### 4.5.3 Action/service description

<i>Main objectives</i>	<i>Value brought by this action into the region</i>	<i>Players involved and role in the implementation and collaboration between them explanation of their involvement in service design (use relevant SEROI+ Template)</i>

<p><i>Developing a network of Digital Innovation Hubs (DIHs) with the aim of providing access to best practices and research results in the field of robotic technologies, covering most regions of Europe</i></p>	<ul style="list-style-type: none"> <li>• <i>Increasing deployment of robotics in business fields concentrating on the Western part of Hungary</i></li> <li>• <i>Facilitating the application of robotic technologies</i></li> <li>• <i>Supporting the automatization of industries through robotics</i></li> <li>• <i>Possibility to collaborate with other Digital Innovation Hubs coming from abroad</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Pannon Business Network Association from Hungary – as a consortium member</i></li> <li>• <i>Project consortium members – under negotiation</i></li> </ul>
--	---	---

#### 4.5.4 Timeframe and Funding

<b>Project/Action Investment Line/Funding Source + Amount (please state each source of funding)</b>	<b>Submitted For Funding</b>	<b>Funding Decision</b>	<b>Project Start Date</b>	<b>Other key milestones</b>
<p><i>Funding source: Horizon 2020</i></p>	<p><i>March 2018</i></p>	<p><i>April 2018</i></p>	<p><i>2<sup>nd</sup> half of 2018</i></p>	<p><i>Publication date of the call: October 2017</i></p>
<p><i>Amount:</i></p> <ul style="list-style-type: none"> <li>○ <i>EUR 64 million in total</i></li> <li>○ <i>EUR 16 million per each project</i> <ul style="list-style-type: none"> <li>▪ <i>EUR 8 million for the operation of the consortium</i></li> <li>▪ <i>EUR 8 million for pilot action</i></li> </ul> </li> </ul>			<p><i>Project duration: 24 months</i></p>	<p><i>Topic: Robotics – Digital Innovation Hubs (DIH)</i></p> <p><i>→ Focus area: Digitising and transforming European industry and services (DT)</i></p>



4.5.5 Workplan

WP	Tasks
<p><b>Work Package 1</b></p> <p><b>Developing a network of robotics Digital Innovation Hubs</b></p>	<p>Task 1.1</p> <p>Recruitment of DIH members, plan for networking cooperation</p>
	<p>Task 1.2</p> <p>Engaging in the development of robotics-oriented organizations</p>
	<p>Task 1.3</p> <p>Disseminating and demonstrating the network</p>
<p><b>Work Package 2</b></p> <p><b>Establishment of the Best Practices Platform</b></p>	<p>Task 2.1</p> <p>Collecting best practices and research results in the field of collaborative robotics</p>
	<p>Task 2.2</p> <p>Providing access to best practices and research results</p>
	<p>Task 2.3</p> <p>Specialization based on Best Practice segmentation and specialization on collaborative robotics</p>
	<p>Task 2.4</p> <p>Joint Business proposals on various fields of robotics</p>
	<p>Task 2.5</p>

	Addressing ethical, data privacy and protection issues
	Task 2.6 Consider cyber-security issues

#### 4.5.6 Budget breakdown for the service/project

Category of funding	Expenditure Amount
Salaries	EUR 8 million
Overheads ( <i>i.e. calculated at x % of staff costs</i> )	
Travel & Subsistence	
External expertise	EUR 8 million – as a pilot actions
Building/renovation / refurbishment	
Equipment	
<b>TOTAL</b>	EUR 16 million (consortium level)

#### 4.5.7 Impact expected

A. Referring to the ‘Self-Defined Indicators’ in the Application Form:

**Self defined performance indicators:**

Number of innovative services to be implemented as new projects and funded under Priority 2.2.1 in the West Pannon region by businesses and/or municipalities/public administrations/institutions

**Target: 5**

*B. Section to explain the impact expected of this action/service:*

***Impact expected:***

- *Increasing deployment of robotics in business fields*
- *Upgrading the quality and knowledge of the workforce*
- *Facilitating the application of robotic technologies*
- *Formatting and developing the supply chains*
- *Generating new businesses*
- *Leveraging effect on other sources of funding (i.e. national or regional funding)*



ANNEXES

Annex 1 - List of main activities and meetings with the local stakeholders

Activity/meeting	Date	Stakeholders involved	SEROI+ Module addressed and main outcomes
<b>1<sup>st</sup> Joint Local Stakeholder event</b>	12.05.2016 Budapest - 8 participants	<ul style="list-style-type: none"> <li>• PBN as an ERUDITE project partner</li> <li>• Ministry for National Economy as a Managing Authority</li> <li>• Ministry for National Development</li> <li>• Municipality of Vas County</li> </ul>	<ul style="list-style-type: none"> <li>• Discussion ERUDITE project aims and the working method to develop an active and direct working relationship between PBN and the relevant stakeholders</li> <li>• Introduction ERUDITE goals and activities – Policy Instrument &amp; objective addressed as a part of SEROI+ progress, identification of the policy goals and possible stakeholder group categories</li> <li>• Focus areas proposals – research activity during the realization process</li> <li>• MA’s expectations towards ERUDITE – linkage with the overall economic development strategy</li> </ul>
<b>Local Stakeholder Event</b>	22.11.2016 Szombathely	<ul style="list-style-type: none"> <li>• PBN as an ERUDITE project partner</li> </ul>	<ul style="list-style-type: none"> <li>• Introduction of Open Innovation and Social &amp; Economic Return of Investment elements as a two corner stones of ERUDITE</li> </ul>

Activity/meeting	Date	Stakeholders involved	SEROI+ Module addressed and main outcomes
	- 12 participants	<ul style="list-style-type: none"> <li>Ministry for National Economy as a Managing Authority</li> </ul>	<ul style="list-style-type: none"> <li>Discussion PBN service priority areas and SEROI modules such as healthy ageing, e-health services for the elderly</li> <li>Discussion the activity and meeting plan of ERUDITE</li> <li>MA expectations toward the Policy Learning possibility in accordance with the determined policy goals</li> <li>Feedback about the selected policy instrument – prioritization of the objectives</li> </ul>
<b>Local/Regional Stakeholder Group Meeting</b>	26.07.2017 Budapest - 5 participants	<ul style="list-style-type: none"> <li>PBN as an ERUDITE project partner</li> <li>Ministry for National Economy as a Managing Authority</li> </ul>	<ul style="list-style-type: none"> <li>Common brainstorming on the development of new digital services what can catalyse the regional innovation capacity</li> <li>Discussion the collected good practice topics and categories – selected the relevant themes</li> <li>Discussion the possible advantages of the Policy Learning Platform used in ERUDITE</li> <li>Collection the feedback related to the tailored SEROI+ Monitoring Tool focusing the Impacts, Indicators, requirements and the possible values</li> </ul>

Activity/meeting	Date	Stakeholders involved	SEROI+ Module addressed and main outcomes
<b>Open Interreg Day organized by MA</b>	10.10.2017 Budapest - 29 participants	<ul style="list-style-type: none"> <li>• PBN as an ERUDITE project partner</li> <li>• Ministry for National Economy as a Managing Authority</li> <li>• Organizations managed Interreg Europe projects</li> </ul>	<ul style="list-style-type: none"> <li>• Dissemination event with the aim to promote ERUDITE outputs organized by the MA</li> <li>• Cross fertilization opportunity with other Interreg Europe projects - Network building</li> <li>• Building cooperation with other organizations whom managed Interreg Europe projects</li> <li>• Collecting information about the planned policy instrument development ideas and funding schemes</li> </ul>
<b>Techno and InnoCamp – “Smart Services” Conference – ERUDITE/SEROI+ Dissemination Section</b>	15.11.2017 Szombathely - 8 participants	<ul style="list-style-type: none"> <li>• PBN as an ERUDITE project partner</li> <li>• ELTE University</li> <li>• Municipality of Sárvár</li> <li>• KARMA Interactive Ltd.</li> <li>• IFKA Public Benefit Non-Profit Ltd. for the Development of Industry</li> </ul>	<ul style="list-style-type: none"> <li>• Dissemination event with the aim to promote ERUDITE outputs focusing on SEROI+ methods (service design process) in general and the collected good practices</li> </ul>

Activity/meeting	Date	Stakeholders involved	SEROI+ Module addressed and main outcomes
<b>Local/Regional Stakeholder Group Meeting</b>	13.03.2018 Szombathely - 21 participants	<ul style="list-style-type: none"> <li>PBN as an ERUDITE project partner</li> <li>Service end-user stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Finalizing the modules of the proposed digital service concentrating on the indicators' and impacts' aspect</li> <li>Identification &amp; finalization of the stakeholders in policy and also in service level</li> <li>Discussion the state-of-the-art of the AAL projects as a good practices submitted by PBN to ERUDITE – updating the regional priorities</li> </ul>

**Pannon Business Network**  
H-9027 Győr Gesztenyefa u. 4.  
[www.pbn.hu](http://www.pbn.hu)



***Approval of ERUDITE Action Plan***

Pannon Business Network Association (PBN) agrees to implement the Action Plan for the ERUDITE Action Plan as detailed above.

I confirm that I have the required authorisation of to do so and that the required authorisation process of ERUDITE Action Plan has been duly carried out.

On behalf of:

Signed:

A handwritten signature in blue ink, appearing to read "Géza Éder", is written over a horizontal line.

Name:

Mr. Géza Éder

Position in Organisation:

President

Date:

2018.03.28.

**PANNON GAZDASÁGI  
HÁLÓZAT EGYESÜLET**  
9027, Győr Gesztenyefa u. 4.  
Adószám: 18984303-2-08  
Tsz.: 18203198-06013691-40010010



**Endorsement of ERUDITE Action Plan**

On behalf of the Ministry of Finance I would like to confirm our support for the ERUDITE Action Plan developed through the ERUDITE project.


We agree, where appropriate, to promote and give assistance to the delivery and implementation of the projects and other activities as detailed in the ERUDITE Action Plan.

I confirm that I have the required authorisation of to do so and that the required authorisation process of ERUDITE Action Plan has been duly carried out.

On behalf of:

Ministry of Finance

Signed:

  
\_\_\_\_\_

Name:

Peter Keller

Position in Organisation:

Head of International and Cluster Unit  
MA for Economic Development Programmes

Date:

14.06.2018.

