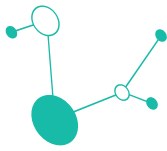


# D4.2.1 Regional Action Plan

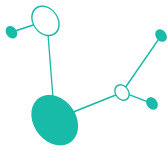
Date of Report: 27.02.2026

## Hungary, MGFÜ



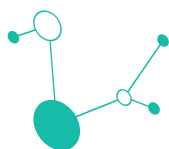
## Document Control Sheet

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## REGIONAL CONTEXT AND ECOSYSTEM OVERVIEW

### A.1 Main industrial sectors

Hungary is characterised by a strong manufacturing-oriented economy, with regions playing a key role in industrial production, export activities and integration into European value chains. Hungarian regions host a high concentration of manufacturing SMEs and mid-caps that operate primarily as suppliers to multinational companies, especially in export-driven sectors.

Key industrial domains include automotive manufacturing, machinery and equipment production, electronics, food processing, construction-related industries and, in several regions, energy and energy-related technologies. These sectors form the backbone of regional economies and significantly contribute to employment, productivity and innovation capacity.

In terms of digital maturity, Hungarian regions show a mixed profile. Large enterprises and a limited number of advanced SMEs have already implemented Industry 4.0 solutions, automation and digital production management systems. However, the majority of manufacturing SMEs remain at an early or intermediate stage of digitalisation, often due to limited internal capacities, lack of specialised skills and constrained investment resources. In 2025, 21.12% of Hungarian SMEs achieved high digital intensity, compared to the EU average of 27.17%. This share has more than doubled since 2021 (9.41%), demonstrating significant acceleration in digital adoption.

In 2024, 57.44% of SMEs reached at least a basic level of digital intensity, up from 51.73% in 2022. Nevertheless, this remains below the EU average of 72.91%, indicating room for further progress in broad-based digital transformation.<sup>1</sup>

The level of green transition is similarly uneven. While some companies have introduced energy efficiency measures, circular practices and sustainability reporting, most SMEs are still in the initial phase of decarbonisation and green transformation. Increasing regulatory requirements, ESG expectations and international supply chain standards are creating additional pressure for companies to accelerate their transition.

Hungary's eco-innovation performance has improved moderately in recent years, yet it still remains below the European Union average. According to the Eco-Innovation Index (where the EU average equals 100), Hungary's score has typically remained in the range of approximately 60–70 points during the past decade, indicating a persistent gap relative to the EU benchmark. So despite gradual improvement, Hungary's eco-innovation capacity remains constrained by relatively weak business eco-innovation activities and lower resource productivity compared with the EU average.<sup>2</sup>

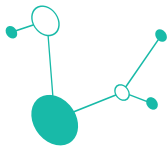
Hungary is committed to decarbonising its economy and transitioning from a linear model to a circular model. Policy measures have been implemented to encourage green transport, increase

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<sup>1</sup> Eurostat, Digital Intensity by size class of enterprise indicator

[https://ec.europa.eu/eurostat/databrowser/view/isoc\\_e\\_dii/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/isoc_e_dii/default/table?lang=en)

<sup>2</sup> European Environment Agency, 2026 <https://www.eea.europa.eu/en/europe-environment-2025/countries/hungary/eco-innovation-index>



the energy efficiency of buildings, increase the use of renewable energy, encourage the spread of green technologies and recover waste.

Strategic regional priorities are aligned with national and RIS3-related objectives, with a strong focus on smart manufacturing, digitalisation, energy efficiency, circular economy and sustainable industrial development. These priorities support the gradual integration of green and digital innovation into traditional manufacturing sectors and provide a relevant framework for the deployment of B2GreenHub-related actions.

## A.2 Key regional actors

The Hungarian regional innovation ecosystem is supported by a diverse set of actors that are highly relevant to the GREENE 4.0 and B2GreenHub ecosystem, spanning industry, research, business support and public governance.

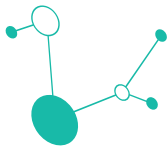
Manufacturing SMEs and mid-caps represent the core target group, particularly companies operating in automotive, machinery, electronics and food processing supply chains. Many of these firms are integrated into international value chains as suppliers to large multinational manufacturers such as automotive OEMs and Tier 1 suppliers located in Hungary. These companies have strong production capacities but often require external support in digitalisation, green transition and international innovation cooperation.

At present, business R&D expenditure is typically concentrated in the activities of large companies, while the innovation capacity of the SME sector is low by comparison. With the number and share of innovator enterprises at 45% of the EU average, Hungary's innovation performance has been on an upward trend for years. This can be further stimulated by supporting innovation in SMEs.

Technology providers and innovation-oriented SMEs play an important role in supporting industrial modernisation. This group includes engineering companies, digital solution providers, Industry 4.0 integrators and green technology firms offering energy efficiency, circular economy and sustainability-related solutions. Environmental technology providers and sectoral organisations such as the Hungarian Association of Environmental Enterprises (HAEE/KSZGY SZ) contribute to the dissemination of green technologies and professional knowledge exchange.

Strengthening links between firms and the research community is a key element in building the domestic RD ecosystem.

Universities and R&D organisations form a strong knowledge base within the ecosystem. Key actors include major technical and economic universities such as Budapest University of Technology and Economics, Széchenyi István University, University of Debrecen and other regional higher education institutions, as well as applied research centres and laboratories. These organisations provide research infrastructure, testing capacities, education programmes and innovation services relevant to green and digital transformation, although SME engagement with these institutions remains uneven.



Currently, five universities (University of Debrecen, Óbuda University, Semmelweis University, Széchenyi István University, University of Szeged) are operating independent technology transfer companies (TTCs) under the coordination of the Hungarian National Innovation Agency.

Business support organisations and intermediary institutions play a crucial role in SME development and innovation uptake. Relevant actors include the Hungarian Economic Development Agency (MGFÜ), chambers of commerce and industry (e.g. HCCI/MKIK), regional development agencies, cluster organisations and digital support platforms such as VALI, VOSZPort and “Go Digital for Business”. These organisations provide advisory services, training, funding guidance and awareness-raising activities that can facilitate SME engagement with the B2GreenHub platform.

Clusters are also relevant players in the innovation ecosystem for instance [Southwest Hungarian Engineering Cluster](#), [Innoskart Digital Cluster](#), [Omnipack Cluster](#) and [KEXPORT Cluster](#).

The HUN-REN Centre is an independent budgetary institution established by the Hungarian Parliament on 1 August 2019 to manage and operate a centrally funded, independent research network, which is the cornerstone of Hungarian scientific life. The list of national laboratories could be found under this link: <https://nkfih.gov.hu/for-the-applicants/innovation-ecosystem/national-laboratories-programme/laboratories>

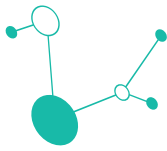
HUN-REN's eleven research centres and seven research institutes, as well as 116 funded research teams in universities and other public institutions, carry out basic and applied research in a wide range of fields, from mathematics and natural sciences to life sciences, humanities and social sciences

Bay Zoltán Applied Research Nonprofit Ltd., as a member of the HUN-REN research network, aims to increase the competitiveness and efficiency of Hungarian companies through successful innovation and technology transfer, in close cooperation with leading Hungarian and foreign partner institutions.

Clusters and innovation networks also contribute to ecosystem connectivity and value-chain development. Sectoral clusters in manufacturing, digitalisation and environmental technologies, as well as participation in European networks such as European Digital Innovation Hubs (e.g. DigitalTech EDIH), support knowledge transfer, testing, and cross-border cooperation.

Public authorities and policy institutions ensure strategic coordination and alignment with national and RIS3 priorities. Key actors include relevant ministries, regional policy bodies and national innovation and development institutions that design and implement programmes related to green transition, digitalisation and industrial competitiveness.

The mission of the Hungarian Innovation Agency (NIÜ) is to increase Hungary's innovation performance and capacities by enhancing the pipeline of innovative entrepreneurs and researchers, facilitating the access of innovative SMEs and startups to international markets, fostering an innovation-driven environment and enhancing the global visibility of the ecosystem. The Hungarian National Research Development and Innovation Office has been a key government institution in the Hungarian innovation ecosystem since 2015. It primarily supports innovative



enterprises in creating higher added value through a system of competitive RDI funding schemes financed by the National Research, Development and Innovation Fund (NRDI Fund), universities and other research institutions in expanding their RDI capacities, in achieving research results that are useful for society and the economy, and - on the basis of excellence - researchers and research communities in their research that is important for the country and can be evaluated internationally. Their involvement is essential for the institutional embedding, scalability and long-term sustainability of B2GreenHub-related actions within the Hungarian innovation ecosystem.

## A.3 Existing platforms and support structures

Hungary has a well-developed landscape of digital platforms and support structures that assist SMEs, professionals and institutions in areas related to green transition, digitalisation, innovation and workforce development. These tools cover different functions such as funding information, digital readiness support, professional networking, training, knowledge sharing and innovation services. While these platforms are mostly national in scope and function-specific, they represent important complementary assets that can support the effective implementation and uptake of the B2GreenHub platform at regional level.

### Regional innovation platforms and funding portals

One of the most relevant national support platforms is VALI, operated by the Hungarian Economic Development Agency. VALI functions as a central information and funding gateway for SMEs, providing personalised guidance on grants, financial instruments, training opportunities, regulatory updates and business support services. Its personalised recommendation logic based on company profiles makes it a highly effective entry point for SMEs navigating complex support ecosystems.

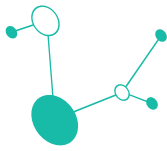
From a regional innovation perspective, VALI demonstrates strong integration potential with B2GreenHub, as it can direct SMEs towards green and digital transformation services, training modules and innovation opportunities available on the platform. In this context, B2GreenHub can act as an implementation bridge by guiding companies from general information and funding awareness towards concrete innovation, matchmaking and technology adoption activities.

### Cluster tools and professional networking structures

Professional and sectoral organisations such as the HAEE (KSZGYSZ) platform play a key role in knowledge dissemination and stakeholder engagement within the Hungarian green economy. The platform provides access to sector-specific news, thematic working groups, events and professional networking opportunities, particularly in environmental services, sustainability and green technologies.

These cluster-like and community-based structures show strong synergy potential with B2GreenHub, especially in mobilising SMEs, technology providers and experts. B2GreenHub can build on these existing networks to expand stakeholder outreach, identify pilot partners and facilitate cross-border cooperation, while offering a more structured and transnational innovation environment.

## Testing environments and innovation support infrastructures



Hungary's innovation ecosystem includes several testing and advisory infrastructures, most notably the DigitalTech European Digital Innovation Hub (EDIH), which provides digital readiness assessments, training, advisory services and “test-before-invest” support for SMEs and public organisations. In addition, applied research centres, university laboratories and pilot environments offer testing and validation capacities relevant to Industry 4.0 and green technologies.

Complementary examples include specialised tools such as the Clean-Way map application, which demonstrates how geospatial data can support circular economy practices, waste utilisation and resource optimisation. Although narrower in scope, such solutions illustrate how digital tools can enhance practical decision-making and pilot-oriented activities.

In this context, B2GreenHub can serve as a coordination layer that connects SMEs to testing facilities, demonstration infrastructures and applied research services across regions and countries, thereby strengthening access to innovation support beyond national boundaries.

## Training ecosystems and digital competence support

Hungary also benefits from a structured training and digital competence ecosystem, including platforms such as VOSZPort and the “Go Digital for Business” initiative supported by the Hungarian Chamber of Commerce and Industry (MKIK). These platforms offer digital maturity assessments, training materials, case studies, webinars and guidance on digital transformation pathways for SMEs.

These training ecosystems have strong complementarities with the B2GreenHub Green Path Academy, as they prepare SMEs for more advanced green and digital innovation activities. By linking introductory digital competence tools with B2GreenHub's specialised training, technology portfolios and matchmaking services, a coherent learning and innovation pathway can be established for manufacturing SMEs.

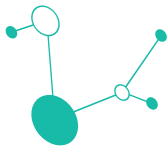
## Synergy potential with B2GreenHub and added value for regional stakeholders

Overall, the analysed platforms show the strongest integration potential in three areas: personalised SME guidance (VALI), digital and innovation support (DigitalTech EDIH, VOSZPort, Go Digital for Business), and sectoral networking (HAEE/KSZGYSSZ). Rather than duplicating these existing tools, B2GreenHub can function as an “implementation bridge” that connects fragmented national services with transnational innovation opportunities.

By integrating and aligning with existing platforms, B2GreenHub can guide SMEs from initial awareness and funding discovery towards competence development, testing, matchmaking and participation in cross-border green and digital value chains. This approach increases platform usability, avoids institutional overlap and strengthens long-term sustainability.

For regional stakeholders, the added value of B2GreenHub lies in providing a transnational layer that complements existing national support structures. It enhances access to international partners, technologies, testing environments and knowledge resources, while embedding Hungarian SMEs, research organisations and support institutions into a broader European green and digital innovation ecosystem.





# KEY REGIONAL NEEDS AND BARRIERS

## B.1 Priority needs

### Access to finance

Manufacturing SMEs in Hungarian regions require improved access to funding schemes and financial instruments that support green and digital investments. High upfront costs related to technology adoption, digitalisation and decarbonisation often exceed internal financial capacities, especially for small and medium-sized suppliers operating in international value chains. SMEs need clearer guidance on available funding opportunities and better alignment between financial support schemes and practical innovation actions.

### Digital maturity and data readiness

Digital maturity among Hungarian SMEs remains uneven, with many companies still at an early stage of digitalisation. Limited internal IT capacities, lack of data-driven decision-making and insufficient experience with digital platforms hinder their participation in innovation ecosystems and the effective use of advanced tools. SMEs require accessible digital readiness support, user-friendly platforms and step-by-step onboarding processes.

### Green business model transformation

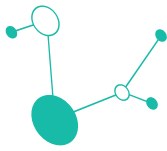
SMEs increasingly face pressure from international supply chains, ESG requirements and sustainability regulations, yet many lack structured guidance for transitioning towards greener business models. Companies need practical support in areas such as energy efficiency, circular economy practices, decarbonisation and compliance with sustainability standards. The demand is particularly strong for tested, low-risk solutions applicable in real industrial environments.

### Skills gaps

A significant skills gap exists in green and digital competences, particularly among SME managers and technical staff. Companies express a strong need for application-oriented training on Industry 4.0 technologies, sustainability practices and digital transformation pathways. Existing training opportunities are often fragmented and insufficiently tailored to manufacturing SMEs.

### Partner search difficulties

SMEs and technology providers both report challenges in identifying reliable partners for innovation, piloting and technology adoption. The partner search process is often informal, time-consuming and limited to existing national networks, reducing opportunities for cross-border cooperation and value-chain integration.



## **Access to testing and piloting**

Limited access to testing and demonstration environments represents a major operational need. SMEs require opportunities to validate technologies in real industrial conditions before making investment decisions. The absence of accessible pilot infrastructures increases perceived risks and slows the adoption of green and digital solutions.

## **Regulatory complexity**

Companies need clearer guidance in navigating sustainability regulations, reporting requirements and digital compliance standards. The growing complexity of EU and national regulatory frameworks creates uncertainty, particularly for smaller firms with limited administrative capacity.

## **Ecosystem fragmentation**

Although Hungary has a well-developed institutional ecosystem, cooperation between SMEs, research organisations, universities and support institutions remains fragmented. Actors often operate in parallel structures with limited coordination, reducing the overall effectiveness of innovation support services.

### **Summary**

Overall, Hungarian manufacturing SMEs primarily need practical, low-risk and easily accessible support for green and digital transformation. Survey evidence and regional consultations indicate that companies are less constrained by strategic willingness and more by operational limitations, including lack of information, skills, testing opportunities and reliable partners. The ecosystem offers multiple support instruments, but these are fragmented and insufficiently connected, which limits SME engagement and slows integration into transnational innovation networks.

## **B.2 Main barriers**

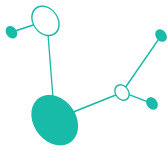
### **High investment costs**

The adoption of green and digital technologies requires significant upfront investment, which many SMEs cannot easily finance due to limited internal resources and risk-averse investment behaviour.

### **Lack of knowledge about available solutions**

Many SMEs are not aware of existing green and digital technologies, available platforms or innovation support services. This information gap significantly delays technology uptake and participation in innovation programmes.

### **Long partner search processes**



Identifying suitable technology providers, research partners or pilot hosts is often inefficient and time-consuming. The absence of structured matchmaking mechanisms further reinforces ecosystem fragmentation.

### **Limited cross-border contacts**

Hungarian SMEs typically rely on national networks and have limited experience in international cooperation. This reduces their participation in transnational value chains and innovation partnerships.

### **Low digital readiness**

Low digital maturity limits the effective use of digital platforms, data-driven tools and innovation services. This barrier is particularly significant for smaller manufacturing SMEs with limited internal expertise.

### **Administrative and legal differences**

Administrative complexity and differences in regulatory frameworks across countries discourage SMEs from engaging in cross-border cooperation and pilot activities.

### **Language and cultural barriers**

Language limitations and lack of international cooperation experience reduce SMEs' willingness to participate in transnational networking, matchmaking and joint innovation projects.

## **PRIORITY INTERVENTION AREAS**

Based on the identified regional needs and barriers, Hungarian regions will prioritise a limited number of strategic intervention areas aligned with the Transnational Strategy and the practical needs of manufacturing SMEs.

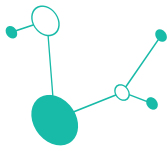
## **Strategic Objective 1 – Knowledge & Competence Uplift**

### **Why is this priority relevant for the region?**

Significant skills gaps and low digital and green maturity levels among SMEs require structured competence development. Companies need practical, application-oriented training to support Industry 4.0 adoption, sustainability transition and effective use of innovation platforms.

### **Which target groups are addressed?**

Manufacturing SMEs, SME managers, technical staff, business support organisations and innovation intermediaries.



### **What change is expected?**

Improved green and digital competences, increased platform usage, higher awareness of available solutions and stronger readiness for technology adoption and innovation participation.

## **Strategic Objective 2 – Transnational Ecosystem Connectivity**

### **Why is this priority relevant for the region?**

Hungarian SMEs face partner search difficulties, limited cross-border contacts and fragmented innovation networks. Strengthening transnational connectivity is essential to integrate regional actors into European green and digital value chains.

### **Which target groups are addressed?**

SMEs, technology providers, research organisations, clusters and innovation support institutions.

### **What change is expected?**

Increased cross-border cooperation, more efficient partner search, stronger participation in transnational pilots and improved integration into international innovation ecosystems through the B2GreenHub platform.

## **Strategic Objective 3 – Platform Synergies & Reach**

### **Why is this priority relevant for the region?**

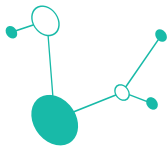
The Hungarian support ecosystem includes multiple platforms and support tools, but they operate in a fragmented manner. Strengthening synergies between existing national platforms and B2GreenHub can significantly enhance SME engagement and support efficiency.

### **Which target groups are addressed?**

SMEs, business support organisations, platform operators, public institutions and innovation intermediaries.

### **What change is expected?**

Higher platform uptake, better coordination between support structures, improved accessibility of innovation services and stronger long-term embedding of B2GreenHub within the regional innovation ecosystem.



## Strategic Objective 4 – Education–Industry–Research Linkages

### Why is this priority relevant for the region?

Cooperation between SMEs, universities and research institutions in Hungary is still fragmented and mostly project-based, limiting access to applied knowledge, testing capacities and innovation support. Stronger linkages are needed to support workforce development and accelerate green and digital transformation in manufacturing SMEs.

### Which target groups are addressed?

Manufacturing SMEs, universities, applied research institutions, students and innovation support organisations.

### What change is expected?

More regular and structured cooperation between industry, education and research actors, improved SME access to academic knowledge and testing services, and better alignment of skills development and research activities with real industrial needs.

## REGIONAL MEASURES

### MEASURE 1

#### 1. Title of the Measure 1:

#### **B2GreenHub Introductory Training and SME Awareness Programme**

#### 2. Strategic Objective and Priority Area

Strategic Objective (SO): 1 – Knowledge & Competence Uplift

Priority Area:

#### **X Training / Skills**

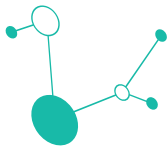
☐ Technology adoption

☐ Testing & piloting

#### **X Matchmaking & networking**

☐ Policy support / governance

#### 3. Problem or Need Addressed



Many Hungarian SMEs have limited awareness of green and digital transformation opportunities and lack basic knowledge about available support tools and platforms. As a result, companies often do not engage in training activities and are not prepared to use innovation platforms such as B2GreenHub.

#### 4. Target Groups

##### **X Manufacturing SMEs**

- ☐ Technology providers
- ☐ Research / education organisations
- ☐ Public authorities
- ☐ Intermediaries / clusters
- ☐ Other (specify):

#### 5. Description of the Measure

This measure focuses on simple introductory training and awareness-raising activities aimed at Hungarian SMEs. Short online or hybrid workshops will be organised to present the fundamentals of green and digital transformation and to introduce the B2GreenHub platform. The action will support basic platform onboarding, demonstrate available services and encourage SMEs to take their first steps toward competence development and further engagement.

#### 6. Connection to the Transnational Ecosystem

Introducing B2GreenHub tools and services thus having a transnational match-making effect.

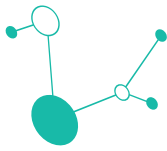
#### 7. Roles and Responsibilities

Lead organisation(s): Hungarian Economic Development Agency

Supporting actors (regional / transnational): Hungarian Chamber of Commerce, Local trainers and innovation support experts

#### 8. Expected Outputs and Results

Generating a gradual increase in platform uptake, competence development and SME readiness for green and digital transformation, while creating a sustainable pipeline of engaged users for subsequent B2GreenHub actions (matchmaking, piloting and transnational cooperation).



## 9. Indicative Timeline

### X Short-term (within 12 months)

- ☐ Medium-term (12–36 months)
- ☐ Long-term (beyond 36 months)

## 10. Resource Level (Indicative)

### X Low

- ☐ Medium
- ☐ High

## 11. Monitoring Indicators (KPIs)

- Number of SMEs participating in introductory training sessions
- Number of SMEs registered on the B2GreenHub platform following the events
- Number of training sessions organised
- Participant feedback collected after events

## MEASURE 2

### 1. Title of the Measure nr 2

### **B2GreenHub Cross-border Partner Search and Matchmaking Support**

### 2. Strategic Objective and Priority Area

Strategic Objective (SO): 2 – Transnational Ecosystem Connectivity

Priority Area:

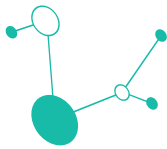
### X Training / Skills

- ☐ Technology adoption
- ☐ Testing & piloting

### X Matchmaking & networking

- ☐ Policy support / governance

### 3. Problem or Need Addressed



Hungarian SMEs have limited experience in cross-border cooperation and often do not know where or how to find reliable international partners. Even when interest exists, companies lack structured support and simple entry points to join transnational innovation networks and value-chain partnerships.

#### 4. Target Groups

*(Select and describe main beneficiaries)*

##### **X Manufacturing SMEs**

##### **X Technology providers**

☐ Research / education organisations

☐ Public authorities

##### **X Intermediaries / clusters**

☐ Other (specify):

#### 5. Description of the Measure

This measure supports Hungarian SMEs in identifying and connecting with international partners through the B2GreenHub platform. The action focuses on simple and practical activities such as guided platform onboarding, assisted partner search, and participation in online or hybrid matchmaking events organised within the B2GreenHub ecosystem. The aim is to lower entry barriers for SMEs and encourage first steps toward cross-border cooperation without complex administrative or financial requirements.

#### 6. Connection to the Transnational Ecosystem

Introducing B2GreenHub tools and services. Support matchmaking. Involvement in cross-border cooperation.

#### 7. Roles and Responsibilities

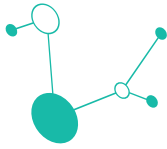
Lead organisation(s): Hungarian Economic Development Agency

Supporting actors (regional / transnational): Chambers of commerce, regional facilitators experts

#### 8. Expected Outputs and Results

Lower entry barriers to international collaboration, foster structured partner discovery and contribute to the gradual development of sustainable cross-border cooperation networks involving Hungarian SMEs.





## 9. Indicative Timeline

☐ Short-term (within 12 months)

☒ **Medium-term (12–36 months)**

☐ Long-term (beyond 36 months)

## 10. Resource Level (Indicative)

☒ **Low**

☐ Medium

☐ High

## 11. Monitoring Indicators (KPIs)

- Number of Hungarian SMEs registered on the B2GreenHub platform
- Number of partner searches initiated through the platform
- Number of matchmaking interactions and meetings facilitated
- Number of follow-up cooperation intentions expressed by SMEs

## MEASURE 3:

### 1. Title of the Measure

**B2GreenHub–VALI Synergy and SME Referral Action**

### 2. Strategic Objective and Priority Area

Strategic Objective (SO): 3 – Platform Synergies & Reach

Priority Area:

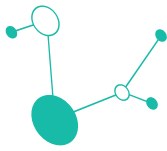
☐ Training / Skills

☐ Technology adoption

☐ Testing & piloting

☒ **Matchmaking & networking**

☒ **Policy support / governance**



### 3. Problem or Need Addressed

SMEs in Hungary are confronted with a fragmented support ecosystem, where information on digital and green transformation, funding opportunities and innovation platforms is spread across multiple systems. As a result, SMEs often remain unaware of relevant platforms or do not progress from basic information services to active participation in innovation and networking activities.

### 4. Target Groups

*(Select and describe main beneficiaries)*

#### **X Manufacturing SMEs**

- ☐ Technology providers
- ☐ Research / education organisations

#### **X Public authorities**

#### **X Intermediaries / clusters**

- ☐ Other (specify):

### 5. Description of the Measure

This measure aims to strengthen synergies between the B2GreenHub platform and national SME support tools, with a particular focus on the VALI platform. The action will promote mutual visibility and referral mechanisms between platforms by informing SMEs using VALI about B2GreenHub services related to green and digital transformation. Simple referral pathways, joint communication activities and coordinated awareness actions will support SMEs in moving from information access to active participation in platform-enabled networking, training and innovation activities.

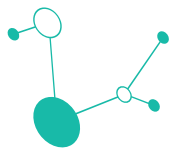
### 6. Connection to the Transnational Ecosystem

Link to transnational platforms or networks. Involvement in cross-border cooperation or value chains.

### 7. Roles and Responsibilities

Lead organisation(s): Hungarian Economic Development Agency

Supporting actors (regional / transnational): VALI platform operators, Ministry of National Economy



## 8. Expected Outputs and Results

Increase the visibility and uptake of the B2GreenHub platform among Hungarian SMEs by linking it with widely used national support tools such as VALI. It will help SMEs move more easily from general information and funding awareness to active participation in training, matchmaking and innovation activities. Overall, the action will reduce ecosystem fragmentation and create a more coherent and user-friendly support pathway for green and digital transformation.

## 9. Indicative Timeline

☐ Short-term (within 12 months)

☒ **Medium-term (12–36 months)**

☐ Long-term (beyond 36 months)

## 10. Resource Level (Indicative)

☒ **Low**

☐ Medium

☐ High

## 11. Monitoring Indicators (KPIs)

- Number of SMEs informed about B2GreenHub through VALI-related channels
- Number of SMEs registering on the B2GreenHub platform following referral actions
- Number of joint communication or awareness activities implemented
- SME feedback on usability and relevance of combined support pathways

## MEASURE 4

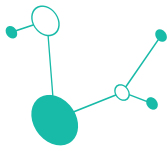
### 1. Title of the Measure

**B2GreenHub University–Industry Cooperation and Knowledge Exchange Action**

### 2. Strategic Objective and Priority Area

Strategic Objective (SO): 4 – Education–Industry–Research Linkages

Priority Area:



☐ Training / Skills

☐ Technology adoption

**X Testing & piloting**

**X Matchmaking & networking**

☐ Policy support / governance

### 3. Problem or Need Addressed

Cooperation between enterprises, universities and applied research institutions in Hungary is often ad-hoc and project-based. SMEs have limited access to academic knowledge and testing capacities, while universities and research bodies face challenges in connecting educational and research activities to real industrial needs. This weak linkage limits workforce development and slows innovation uptake.

### 4. Target Groups

*(Select and describe main beneficiaries)*

**X Manufacturing SMEs**

**X Technology providers**

**X Research / education organisations**

☐ Public authorities

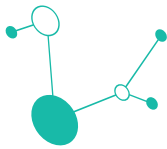
**X Intermediaries / clusters**

☐ Other (specify):

### 5. Description of the Measure

This measure supports simple and practical cooperation between SMEs and academic or applied research institutions through the B2GreenHub platform. Universities and research centres will be encouraged to present their relevant competences, laboratories and applied services on the platform. SMEs will be supported in identifying suitable partners for student projects, thesis topics, small-scale testing or knowledge exchange activities. The action aims to strengthen regular interaction and build trust between education, research and industry without complex contractual frameworks.

Within the framework of this action, the zoldallasportal.hu platform could be used as a platform to reach university students, young researchers to promote the B2GreenHub platform opportunities. The operator of this website is the Hungarian Association of Environmental Enterprises has signed cooperation agreements with the most relevant universities in Hungary, so they could be reached through their mediation – as it was presented by the Managing director



of the Association during the second Transnational Learning Camp held in Budapest, 17<sup>th</sup> February 2026:

**GREEN JOBS  
PORTAL**

 [zoldallasportal.hu](https://zoldallasportal.hu)

**GREEN JOBS PORTAL**

We created our sector-specific job portal to meet the demand for green economy professionals, where job seekers and employers can find each other on an up-to-date, centralized platform.



Currently available only in  
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**University partners**

  
Pannon Egyetem  
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LUDOVIKAI

  
ELTE  
EÖTVÖS LORÁND  
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EGYETEM  
UNIVERSITY OF MISKOLC

  
ÓBUDAI EGYETEM  
ÓBUDA UNIVERSITY

  
SZTE  
SZEGEDI TUDOMÁNY EGYETEM

  
MATE  
MAGYAR AGRÁR- ÉS  
ÉLETTUDOMÁNYI EGYETEM

## 6. Connection to the Transnational Ecosystem

Use of B2GreenHub tools or services.

## 7. Roles and Responsibilities

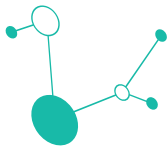
Lead organisation(s): Hungarian Economic Development Agency

Supporting actors (regional / transnational): Hungarian Association of Environmental Enterprises, University faculties (technical, economic and environmental), applied research institutes

## 8. Expected Outputs and Results

Strengthen regular cooperation between SMEs, universities and applied research institutions by creating simple and accessible interaction channels through the B2GreenHub platform. As a direct output, more universities and research organisations will be registered on the platform, and a growing number of SME–university cooperation initiatives, student projects and knowledge exchange activities will be initiated.

In terms of results, the action will improve access of SMEs to academic knowledge, testing capacities and innovation support, while helping universities better align their educational and research activities with real industrial needs. In the longer term, this will contribute to stronger



education–industry linkages, enhanced workforce development and increased innovation uptake among Hungarian manufacturing SMEs.

#### 9. Indicative Timeline

☐ Short-term (within 12 months)

**X Medium-term (12–36 months)**

☐ Long-term (beyond 36 months)

#### 10. Resource Level (Indicative)

**X Low**

☐ Medium

☐ High

#### 11. Monitoring Indicators (KPIs)

- Number of universities and research institutions registered on the B2GreenHub platform
- Number of SME–university cooperation initiatives initiated
- Number of student projects, thesis collaborations or knowledge exchange cases supported
- Feedback from SMEs and academic partners

### MEASURE 5:

#### 1. Title of the Measure

### **B2GreenHub – Chamber of Commerce SME Outreach and Engagement Action**

#### 2. Strategic Objective and Priority Area

Strategic Objective (SO): 3 – Platform Synergies & Reach

Priority Area:

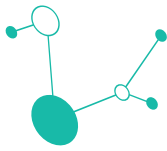
**X Training / Skills**

☐ Technology adoption

☐ Testing & piloting

**X Matchmaking & networking**

☐ Policy support / governance



### 3. Problem or Need Addressed

Many Hungarian SMEs have limited awareness of green and digital transformation platforms and innovation services, and they rarely engage in transnational cooperation tools on their own. Although chambers of commerce maintain regular and often mandatory contact with companies, this channel is not systematically used to promote innovation platforms such as B2GreenHub. As a result, a large share of SMEs remains outside structured innovation ecosystems.

### 4. Target Groups

*(Select and describe main beneficiaries)*

#### **X Manufacturing SMEs**

- ☐ Technology providers\_
- ☐ Research / education organisations
- ☐ Public authorities

#### **X Intermediaries / clusters**

#### **X Other (specify): chambers of commerce and industry**

### 5. Description of the Measure

This measure aims to promote the B2GreenHub platform through cooperation with chambers of commerce and industry, which serve as key entry points to SMEs. The action will include joint information sessions, short presentations during chamber events, targeted newsletters and integration of B2GreenHub into existing SME advisory and information services. Chambers will be encouraged to introduce the platform as a practical tool for partner search, training, green and digital technology adoption and international cooperation. The measure will focus on simple awareness-raising and guided onboarding activities to ensure that SMEs can easily access and start using the platform.

### 6. Connection to the Transnational Ecosystem

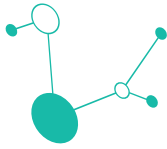
Introducing B2GreenHub tools and services.

### 7. Roles and Responsibilities

Lead organisation(s): Hungarian Economic Development Agency

Supporting actors (regional / transnational): Chambers of commerce and industry

### 8. Expected Outputs and Results



The planned actions will result in increased awareness and use of the B2GreenHub platform among Hungarian SMEs and ecosystem actors, supported by training, outreach and matchmaking activities. They are expected to improve SME competences, facilitate partner search and strengthen cooperation between industry, academia and support organisations. Overall, the actions will enhance SME engagement in green and digital transformation and support their integration into transnational innovation networks.

#### 9. Indicative Timeline

☐ Short-term (within 12 months)

☒ **Medium-term (12–36 months)**

☐ Long-term (beyond 36 months)

#### 10. Resource Level (Indicative)

☒ **Low**

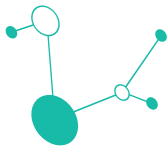
☐ Medium

☐ High

#### 11. Monitoring Indicators (KPIs)

- Number of chamber-related awareness events and presentations organised
- Number of SMEs reached through chamber communication channels
- Number of SMEs registering on the B2GreenHub platform via chamber outreach
- Feedback from chambers and participating SMEs on platform relevance and usability





# TRANSNATIONAL COOPERATION MEASURES

## E.1 Regional actors ready for cross-border cooperation

Several Hungarian actors show strong potential and readiness for cross-border cooperation within the B2GreenHub ecosystem. These include manufacturing SMEs operating in automotive, machinery, electronics and environmental technology supply chains, which are already integrated into international value chains and open to innovation partnerships. For example:

- Manufacturing SMEs: UgrinPack Ltd., HWD Recycling, Pilze-Nagy Ltd.

Relevant intermediaries include the Hungarian Economic Development Agency (MGFÜ), chambers of commerce and industry (MKIK and regional chambers), and innovation support organisations involved in SME development and internationalisation.

Clusters could also form relevant partners for cross-border cooperation for instance [Southwest Hungarian Engineering Cluster](#), [Innoskart Digital Cluster](#), [Omnipack Cluster](#) and [KEXPORT Cluster](#). All of them are active on transnational level.

Universities and R&D organisations such as technical and applied research faculties, as well as institutions participating in European networks (e.g. Digital Innovation Hubs), are also well-positioned to engage in transnational knowledge exchange, joint pilots and applied research cooperation.

In addition, technology providers and environmental solution companies connected to professional networks (e.g. HAEE/KSZGYSZ) represent potential partners for cross-border green and digital innovation projects and pilot activities.

## E.2 Forms of cooperation

x Joint participation in EU/national projects

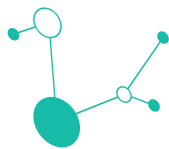
X Cross-border piloting

X Shared testing facilities

☐ Consortium building

X Skills exchange

☐ Cross-border value chain development

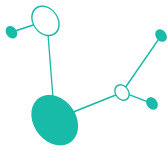


## E.3 Use of B2GreenHub tools for internationalisation

The B2GreenHub platform will support internationalisation through concrete, user-oriented tools that directly address partner search and cooperation barriers faced by Hungarian SMEs. The matchmaking module and partner search functions will enable SMEs, technology providers and research organisations to identify and contact relevant international partners based on sector, technology needs and cooperation interests, significantly shortening the partner discovery process.

The Open Innovation Map will allow Hungarian stakeholders to explore foreign technology providers, pilot opportunities and competence centres, helping them identify suitable partners for cross-border projects, testing and value-chain cooperation. In addition, the platform's technology portfolio will provide access to validated green and digital solutions from other regions, supporting SMEs in selecting reliable technologies and initiating cooperation with solution providers.

Training modules and knowledge resources will prepare SMEs for international collaboration by improving their digital and green competences and familiarity with innovation platforms. Furthermore, the platform will facilitate participation in cross-border matchmaking events, pilot activities and consortium-building processes, enabling Hungarian actors to engage more easily in EU projects, joint demonstrations and transnational innovation initiatives while reducing administrative, informational and networking barriers.



## A. INTEGRATION OF B2GREENHUB INTO REGIONAL WORKFLOWS

The integration of the B2GreenHub platform into regional workflows will be based on a gradual, user-oriented approach that aligns with existing SME support structures and institutional practices in Hungary.

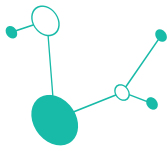
**Onboarding strategy for SMEs** will focus on simple and guided entry points through introductory trainings, awareness sessions and assisted registration processes. SMEs will be introduced to the platform during workshops, chamber events and innovation advisory activities, with step-by-step guidance on how to use key functions such as matchmaking, training modules and technology search. Special attention will be given to manufacturing SMEs with low digital maturity to ensure accessible onboarding and sustained engagement.

**Promotion channels** will primarily include chambers of commerce and industry, business support organisations, innovation agencies, clusters and university networks, as these actors maintain regular contact with SMEs. Additional promotion will be carried out through newsletters, professional events, webinars, intermediary platforms (e.g. VALI and digitalisation support portals) and targeted communication campaigns focusing on green and digital transformation.

**Integration into regional innovation support structures** will be ensured by embedding B2GreenHub into the daily advisory and SME support activities of key intermediary organisations such as the Hungarian Economic Development Agency, chambers, innovation hubs and Digital Innovation Hubs. The platform will be presented as a complementary tool within existing services related to innovation support, internationalisation, digitalisation and sustainability, rather than as a standalone initiative.

The **most demanded services** are expected to include partner search and matchmaking, access to validated technology portfolios, practical training modules, and guidance on green and digital transformation pathways. In addition, SMEs are likely to use the platform for identifying testing opportunities, innovation partners and relevant knowledge resources that support low-risk technology adoption.

To **ensure sustainable uptake**, the platform will be continuously promoted through institutional partners and integrated into ongoing SME support programmes, training activities and advisory services. Regular feedback collection, user support and alignment with national platforms and policy priorities (including RIS3) will help maintain relevance and usability. Long-term sustainability will be strengthened by creating synergies with existing national support tools and by positioning B2GreenHub as a practical implementation platform within the broader regional innovation ecosystem.



# IMPLEMENTATION AND GOVERNANCE

## G.1 Implementation phases

### Phase 1 – Alignment & Preparation

This phase will focus on aligning regional stakeholders, support institutions and intermediary organisations with the objectives of the B2GreenHub platform. Key activities will include stakeholder mapping, coordination with chambers of commerce, universities and innovation support organisations, and the preparation of communication and onboarding materials. During this phase, initial awareness-raising activities and introductory training sessions will be launched to familiarise SMEs and ecosystem actors with the platform's functions and services. Institutional embedding into existing SME support workflows will also be initiated.

### Phase 2 – Service Uptake & Experimentation

In this phase, the emphasis will shift to active platform use and practical experimentation. SMEs, technology providers and research organisations will be supported in registering on the platform, participating in matchmaking events, using training modules and exploring technology portfolios. Pilot cooperation activities, knowledge exchange actions and university–industry interactions will be facilitated through the platform. Continuous feedback from users and stakeholders will be collected to refine services and improve usability within the regional context.

### Phase 3 – Scaling & Capitalisation

The final phase will focus on scaling up platform usage and capitalising on achieved results. Successful practices, cooperation cases and pilot experiences will be disseminated through regional networks, chambers and innovation intermediaries. The integration of B2GreenHub into regular SME support services and policy-relevant programmes will be strengthened to ensure long-term sustainability. Lessons learned will be shared with transnational partners to support replication, policy alignment and the further development of cross-border green and digital value chains.

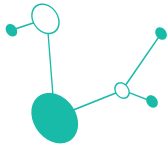
## G.2 Governance structure

### Regional coordination mechanism

The implementation of the Regional Action Plan will be coordinated by the Hungarian Economic Development Agency (MGFÜ) as the main regional coordinator of B2GreenHub-related activities. Coordination will be ensured through regular communication with chambers of commerce, universities, innovation intermediaries and platform partners, as well as through periodic stakeholder meetings and progress reviews. This mechanism will guarantee alignment between regional actions, SME needs and the objectives of the transnational strategy.

### Roles of project partners

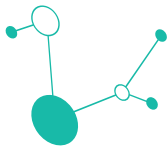
MGFÜ will lead the coordination, stakeholder engagement, communication and integration of the B2GreenHub platform into existing SME support services. Chambers of commerce and business



support organisations will play a key role in SME outreach, awareness-raising and onboarding. Universities and applied research institutions will support training, knowledge exchange and SME–research cooperation activities. Transnational project partners will contribute through platform development, matchmaking services, knowledge sharing and support for cross-border cooperation and pilot activities.

### **Decision-making structure**

Strategic decisions related to regional implementation and alignment with the Transnational Strategy will be coordinated by MGFÜ in consultation with project partners and key stakeholders. Operational decisions (e.g. events, outreach activities, onboarding actions) will be taken at regional level based on stakeholder feedback and monitoring results. Regular coordination with transnational partners will ensure consistency, transparency and alignment with project-level objectives and KPIs.



## MONITORING AND KPI FRAMEWORK

The monitoring framework will follow the KPI logic of the Transnational Strategy and focus on measurable indicators related to platform uptake, cooperation and innovation engagement. Data will be collected through B2GreenHub platform statistics, event participation records, stakeholder feedback and internal monitoring reports.

Key performance indicators will include the number of SMEs onboarded to the B2GreenHub platform, the number of matchmaking connections initiated and the number of cross-border cooperation links established through platform-supported activities. Additional KPIs will track the number of training completions, pilot or test engagements facilitated, and the number of technologies explored or adopted by SMEs through the platform.

Progress will be reviewed on a regular basis to assess the effectiveness of regional actions and adjust implementation if needed. The monitoring results will also be shared with transnational partners to ensure alignment with common project indicators, support mutual learning and demonstrate the contribution of Hungarian regional actions to the overall GREENE 4.0 objectives.

*KPIs will include:*

- Number of SMEs onboarded to B2GreenHub
- Number of matchmaking connections initiated
- Number of cross-border cooperation links established
- Number of technologies adopted
- Number of training completions
- Number of pilot/test engagements

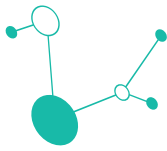
## SUSTAINABILITY AND CAPITALISATION

### Integration into regional RIS3 strategies

The Regional Action Plan is closely aligned with Hungarian and regional RIS3 priorities, particularly in the areas of smart manufacturing, digitalisation, energy efficiency, circular economy and sustainable industrial development. The integration of B2GreenHub into existing innovation and SME support workflows ensures that platform-related activities complement ongoing policy objectives and funding schemes. By supporting SME competence development, technology adoption and cross-border cooperation, the actions directly contribute to RIS3 goals related to innovation capacity, competitiveness and green transition.

### Long-term governance model

In the long term, the governance of B2GreenHub-related activities at regional level will be maintained through the Hungarian Economic Development Agency (MGFÜ) in cooperation with



chambers of commerce, innovation intermediaries, universities and business support organisations. The platform will be embedded into regular SME advisory, training and internationalisation services, ensuring continuous coordination and stakeholder engagement beyond the project framework.

### **Continuation beyond project lifetime**

The sustainability of the actions will be ensured by integrating B2GreenHub into existing institutional programmes, SME support services and communication channels already operated by national and regional organisations. Awareness-raising, onboarding and matchmaking activities can be continued with relatively low resources, as they mainly rely on coordination, facilitation and digital tools rather than infrastructure investments. The platform's alignment with existing national tools (e.g. funding portals, digitalisation platforms and chamber services) will further support its long-term use by SMEs.

### **Expansion toward new regions or actors**

The implemented model can be gradually extended to additional Hungarian regions and sectoral ecosystems, particularly those with strong manufacturing bases and growing green and digital innovation needs. Expansion will also target new actors such as clusters, sectoral associations, additional universities, applied research centres and technology providers, thereby broadening the platform's user base and strengthening ecosystem connectivity.

### **Replication potential**

The proposed approach has high replication potential due to its low-cost, platform-based and institutionally embedded design. The use of existing intermediary organisations, training structures and national platforms as outreach channels can be easily adapted in other regions with similar SME-dominated industrial structures. Lessons learned from the Hungarian implementation can support replication in other partner regions, contributing to the wider uptake of B2GreenHub and the development of a more integrated transnational green and digital innovation ecosystem.