



- **Bay Zoltán Nonprofit Ltd. for Applied Sciences**
- **Key enabling technologies for Clean Production in Europe**  
Alba Iulia – 7<sup>th</sup> November 2019
- **SZILÁRD PÉRCESI**  
Business Development Manager



Year of foundation:  
**1993**

Date of transition to Nonprofit Ltd. form:  
**2011**

State owned,  
but not State financed entity

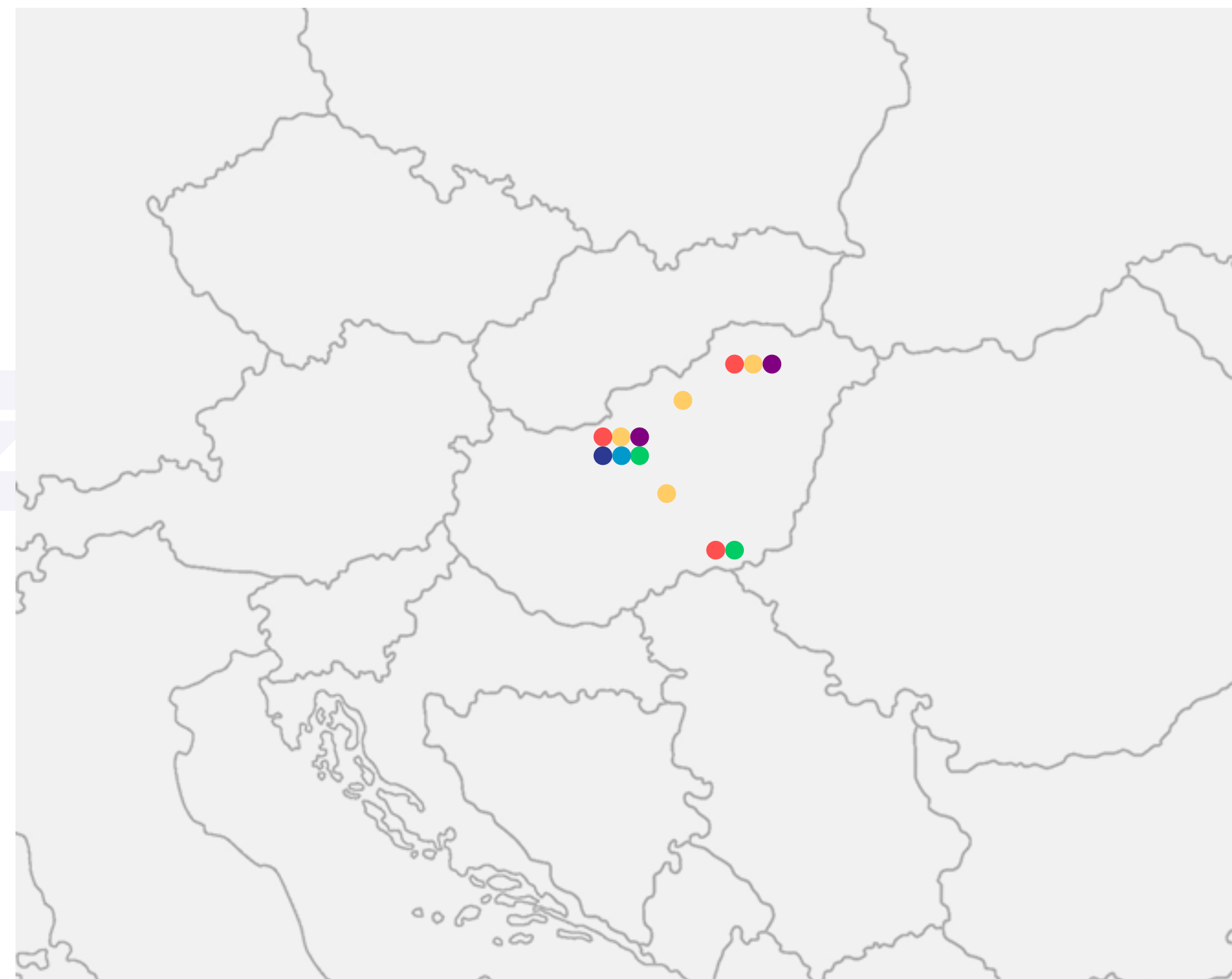
Total headcount:  
**175 employee** (2018)

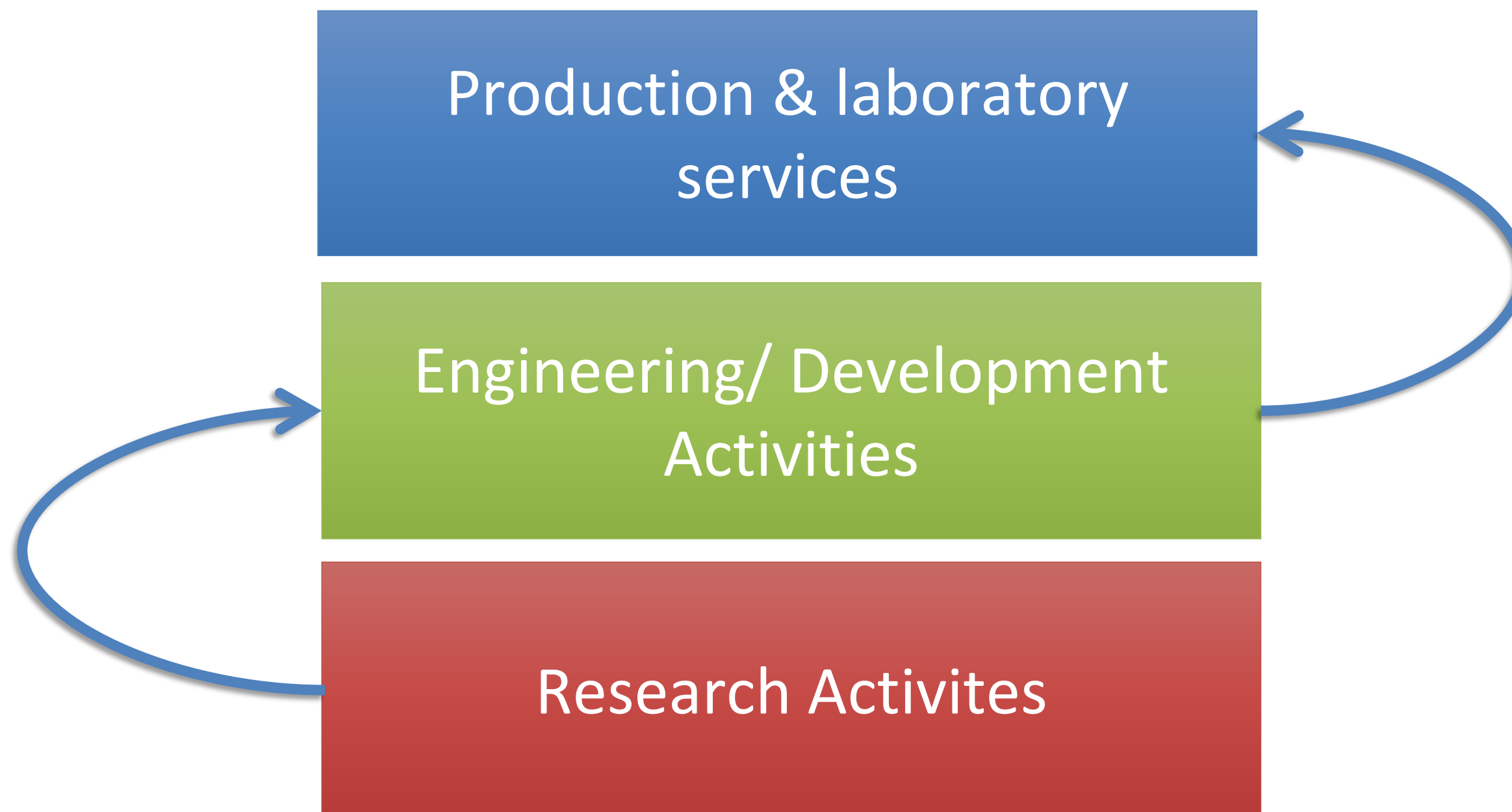
Revenue:  
**6 million €** (2018)

Worth of assets:  
**7,5 million €** (2018)



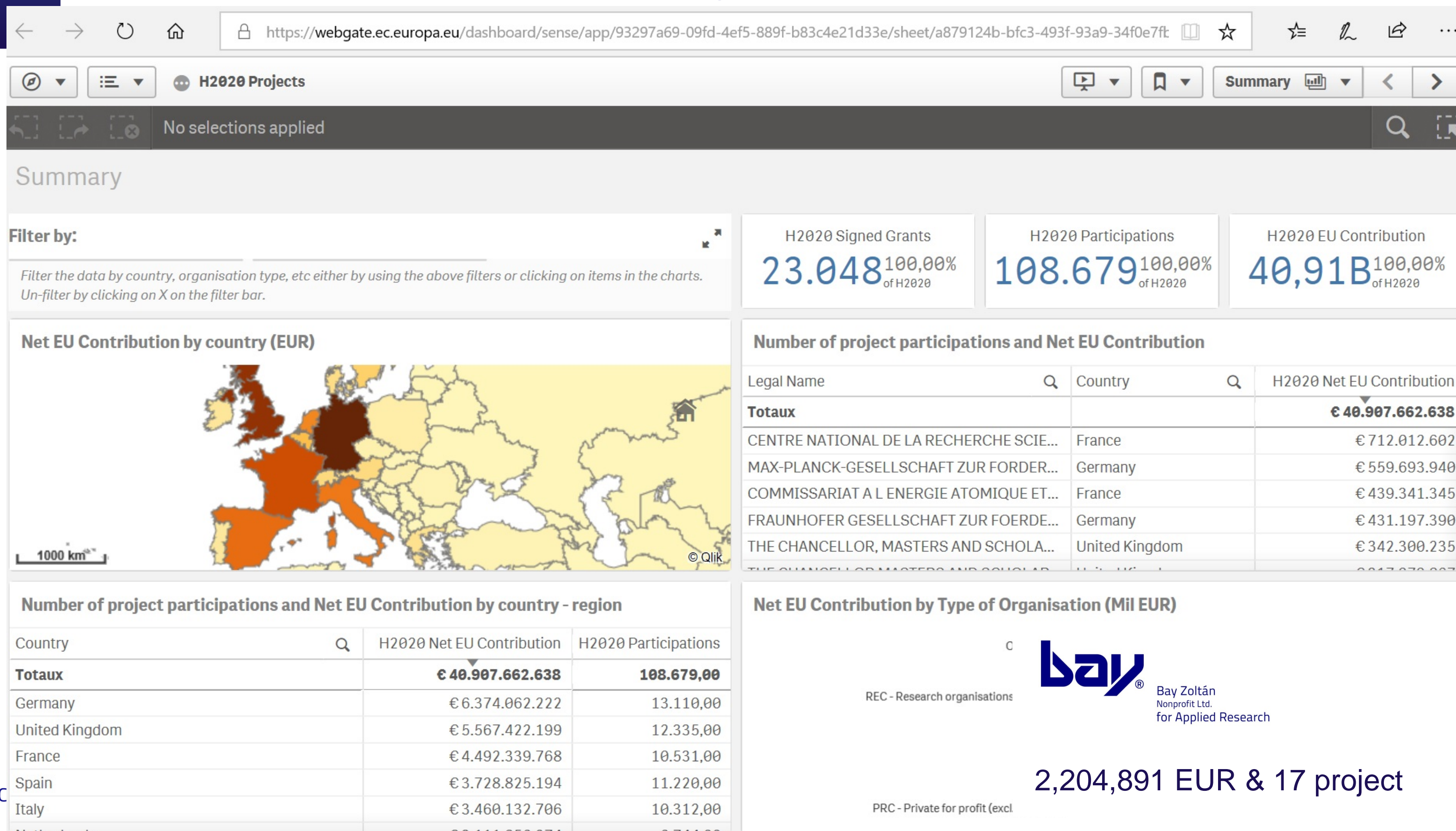
- Biotechnology Division (BAY-BIO)  
SZEGED, BUDAPEST
- Engineering Division (BAY-ENG)  
MISKOLC, BUDAPEST, EGER, KECSKEMÉT
- Smart Systems Division(BAY-SMART)  
MISKOLC, BUDAPEST
- Knowledge Management Center(BAY-TMK)  
BUDAPEST, SZEGED, MISKOLC
- Innovations Park (BAY-INNO)  
BUDAPEST
- Business Development group (BAY-SALES)  
BUDAPEST, SZEGED, MISKOLC







# Bay participation in H2020 programmes



# Main international partners





# Better Access of SMEs to Key Enabling Technology services and Micro-grants for Clean production

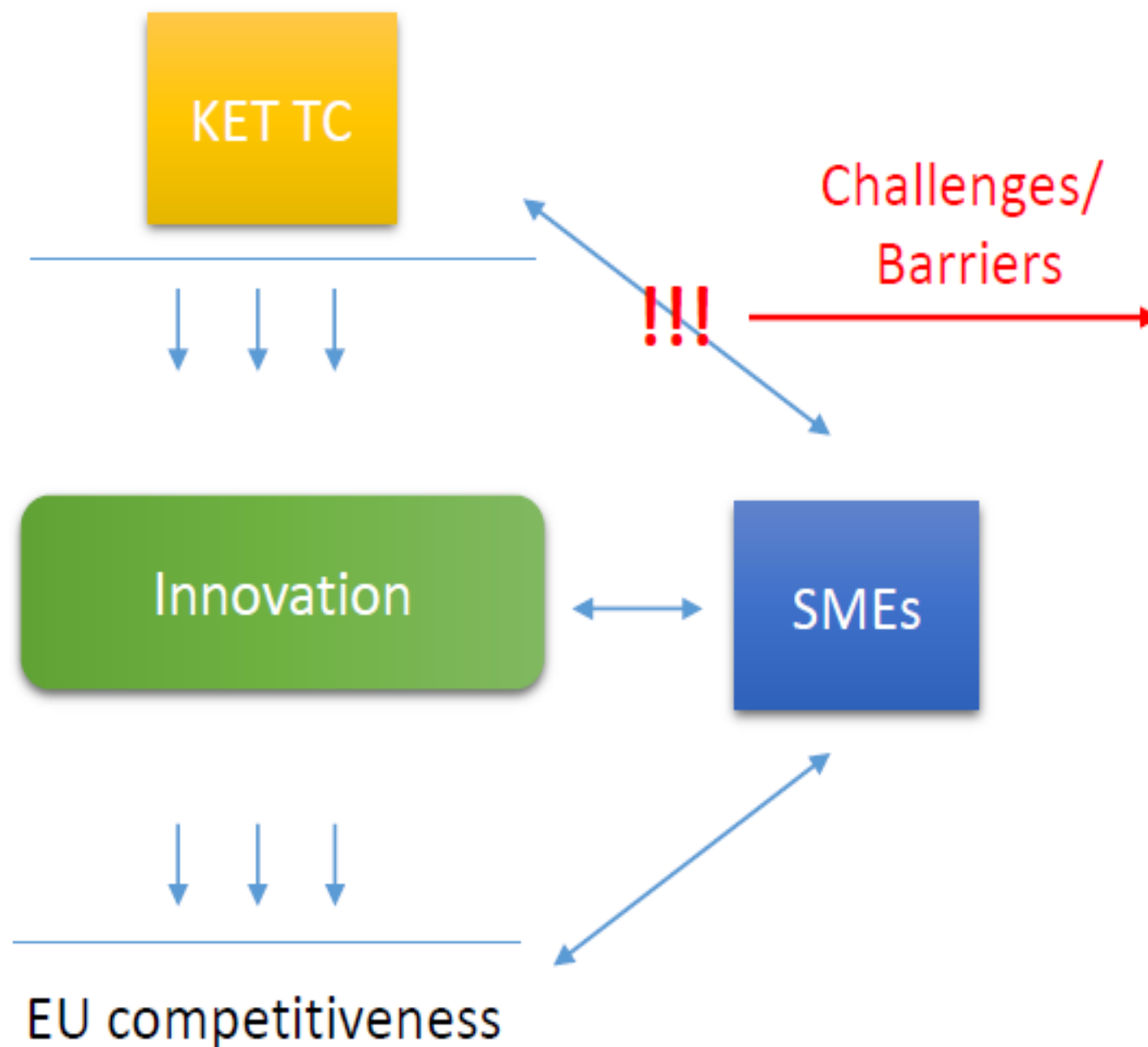
Funded by the Horizon 2020 framework programme of the EU to support SME-s with Key Enabling Technologies development in order to achieve cleaner production

Bay Zoltán Nonprofit Kft.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 777441

# KET4CP VISION



## 1. SMEs

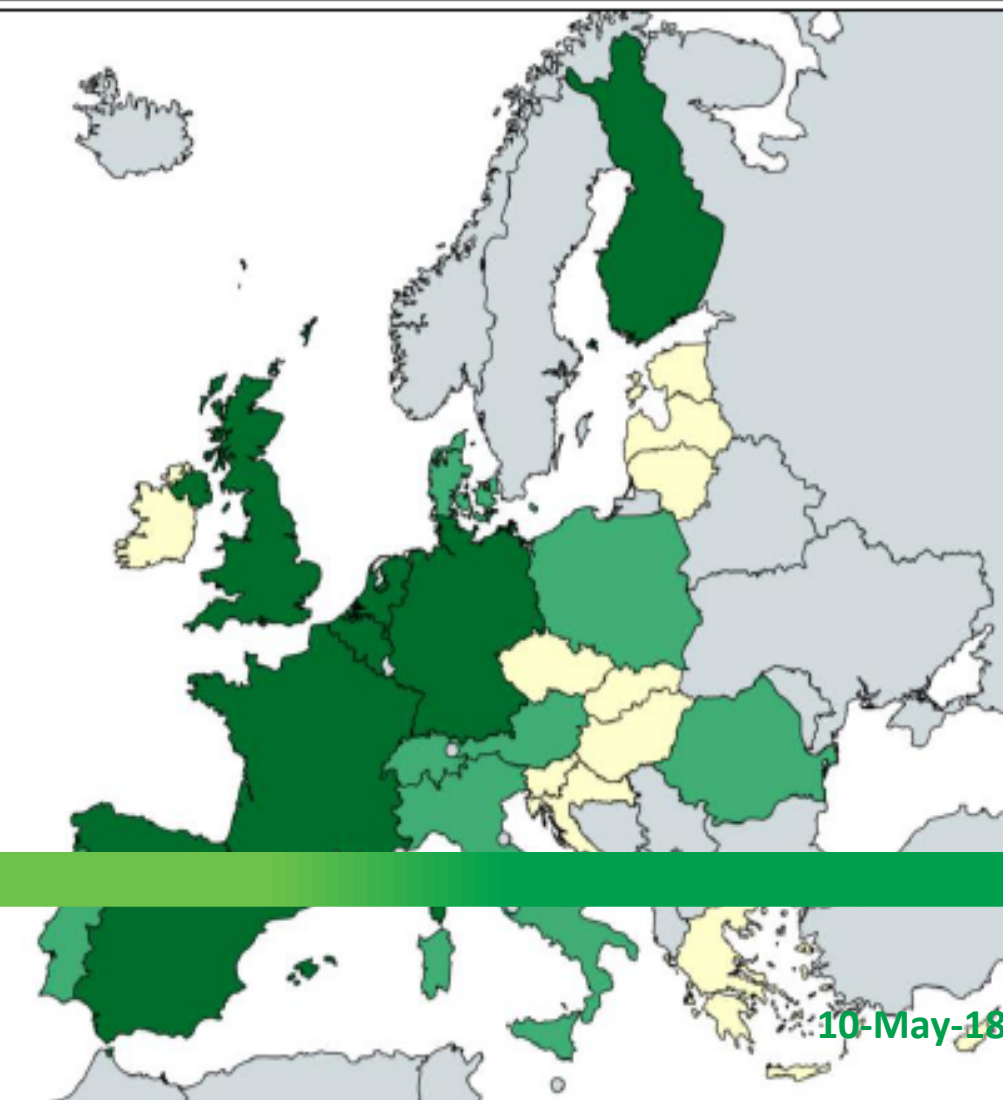
- Lacking knowledge;
- Avoid changes in production using KETs they cannot test or fully understand;
- Lack in knowledge of the potential of other new technologies and their conjoint effects
- Lack access to KETs technology infrastructures and services in many European regions

## 2. KET/TCs

- high disparities throughout Europe as to EU's official mapping of KETs service providers for TRL 4 to 8 support activities\*

*Note: such as proof of concept, demonstration, prototyping, pilot production and demonstration/pilot lines/pre-series and product validation*

*map: dark green > 10, green between 5 & 10, yellow < 5*  
©created mapschat.net



KET4CleanProduction



# KET4CleanProduction: Project Consortium

## 13 KETs Technology Centres



No	Participant organisation name	Type	Country
1	Steinbeis 2i GmbH – S2i	EEN	Germany
2	Acondicionamiento Tarrasense Asociacion – LEITAT	KET TC	Spain
3	Warwick Manufacturing Group – WARWICK	KET TC	United Kingdom
4	Rise ACREO – Acreo	KET TC	Sweden
5	Hahn-Schickard-Gesellschaft für angewandte Forschung e.V. – HSG-IMIT	KET TC	Germany
6	Joanneum Research Forschungsgesellschaft mbH - JOANNEUM	KET TC	Austria
7	Tyndall National Institute – Tyndall	KET TC	Ireland
8	International Iberian Nanotechnology Laboratory – IIL INL	KET TC	Portugal
9	Teknologian Tutkimuskeskus VTT Oy - VTT	KET TC	Finland
10	CEA Liten – CEA	KET TC	France
11	Bio Base Europe Pilot Plant vzw – BBEPP	KET TC	Belgium
12	Fraunhofer-Institut für Produktionstechnik und Automatisierung – Fraunhofer	KET TC	Germany
13	Bay Zoltán Nonprofit Ltd. For Applied Research – BZN	KET TC/EEN	Hungary
14	Jožef Stefan Institute – JSI	KET TC/EEN	Slovenia
15	GIS Transfercenter Foundation – GIS	EEN	Bulgaria
16	PRAXI Network – FORTH	EEN	Greece
17	Væksthus Hovedstadsregionen – VHHR	EEN	Denmark
18	Latvian Technological Center – LTC	EEN	Latvia
19	Slovak Business Agency – SBA	EEN	Slovakia
20	TERA Tehnopolis – TERA	EEN	Croatia

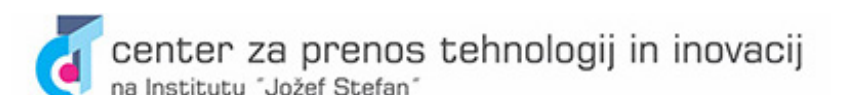
## 18 EU Member States



## 7 Business Support Partners



Project coordinator



# About KET4CP: Open Call for Micro Grants



<b>Scope:</b>	Cross-border cooperation projects 1 SME + min. 2 KETs technology centres (KET TCs) integrate KETs to solve clean production challenges.
<b>Call opening:</b>	1. Jun 2018
<b>Call closing:</b>	30. Apr 2020, 17:00 CET
<b>Cut-off dates:</b>	31. January 2020 and 30. April 2020

[www.ket4sme.eu/micro-grants](http://www.ket4sme.eu/micro-grants)

<b>Expected duration of a micro grant project:</b>	up to 6 months
<b>Total EU funding available for third parties:</b>	EUR 2.000.000
<b>Financial support for each third party:</b>	EUR 50.000 (lump sum)

# Open Call for Micro Grants

<https://www.ket4sme.eu/micro-grants>



**Type of activities:** Integration of Advanced Manufacturing Technologies and combination of **multiple key KETs**

Seeking for one or several of the following **clean production objectives**:

- the development of new production processes
- the improvement of the manufacturing of existing products by reducing
  - production costs; or
  - reliance on raw materials; or
  - consumption of energy; or
  - generation of waste and pollution

**Technology services:**

- research and innovation activities (TRL 4 to 8; focus on higher TRLs) including e.g. demonstration, testing, pilot production and related engineering activities; complemented by feasibility studies



Key Enabling Technologies (KETs)

- **Advanced Materials**
- **Industrial biotechnology**
- **Nanotechnologies**
- **Photonics**
- **Micro-/nanoelectronics**
- **Advanced Manufacturing**

# Technology Readiness Levels (TRL 1-9)

1	Idea
2	Basic research
3	Technology formulation
4	Applied research. First laboratory tests completed; proof of concept
5	Small scale prototype
6	Large scale prototype
7	Prototype system
8	Demonstration system
9	First of a kind commercial system
10	<i>Full commercial application</i>



# Who can submit a project proposal?

- **Small and medium enterprises** (not a consortium!)
- Max. 250 employees
- Max. 50 MEUR annual turnover
- Based in an **EU member state or EU Associated Countries\***

*\*Iceland, Norway, Albania, Bosnia-Herzegovina, North Macedonia, Montenegro, Serbia, Turkey, Izrael, Moldova, Switzerland, Faroe Islands, Ukraine, Tunesia, Georgia, Armenia*

■ EU member state  
■ H2020 associated country

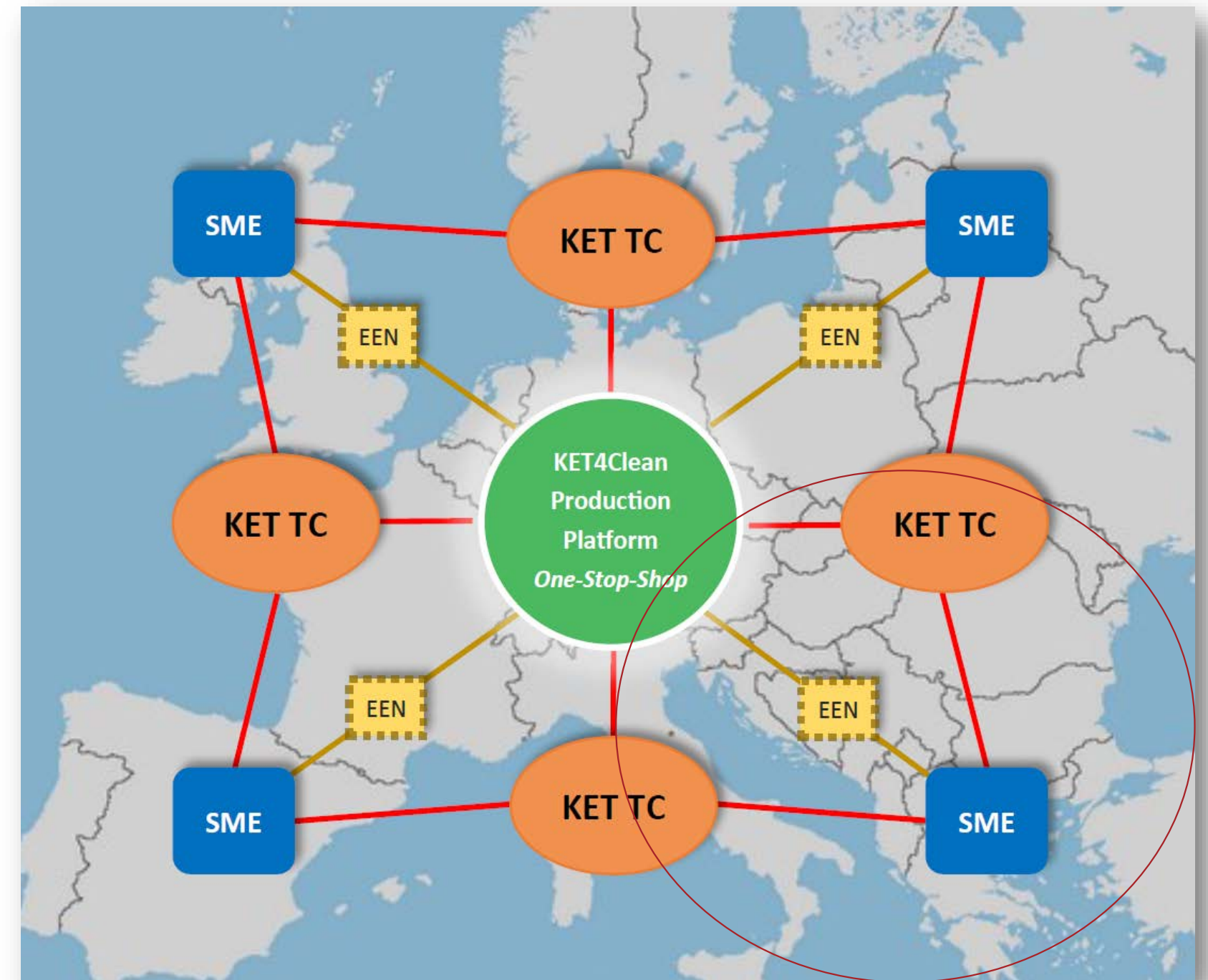
Created with mapchart.net ©



# Connecting SMEs and KET Technology Centres across Europe

## KET4CleanProduction aims to

- create an open innovation ecosystem with a **one-stop-shop** for EU manufacturing SMEs facilitating **cross-border access to innovation services** through a network of superior KET Technology Centres in **clean production**.
- foster the use of advanced manufacturing technologies and related key enabling technologies by SME to upgrade their production processes towards resource- and energy efficiency and sustainability
- help SMEs to benefit from multi-KET service know-how and infrastructure to solve their clean production challenges
- implement a micro-grant scheme boosting clean production in SMEs through KET applications.



KET4CleanProduction ecosystem “from SME awareness” to “cross-border multi-KETs support”



# Procedure to apply for a Micro Grant

## Step 1:

Registration on the web platform



## Step 2:

Submission of a technology request



## Step 3:

Submission of a micro grant proposal



## Step 4:

Evaluation and feedback to the micro grant proposal



## Step 5:

Implementation and follow-up on the micro grant project

Technology Request Form

1. Company details

Company name:	
Address:	
City:	
Country:	
Year established:	
URL:	
Type of company:	<input type="checkbox"/> Micro (< 10 staff members) <input type="checkbox"/> Small (< 50 staff members) <input type="checkbox"/> Medium (< 250 staff members) <input type="checkbox"/> Large (> 250 staff members)
Double-click on the tick box and choose "activate" to set on "x".	
Name of contact person:	
Function / Position:	
Department:	
Languages spoken:	
Phone:	
E-mail:	

Micro Grant Proposal

Application for Third Party Financing according to General Annex K of the Horizon 2020 WP 2019-17.

Official name of company:	
Official legal form of company:	
Name of contact person:	
E-mail address of contact person:	
Telephone number of contact person:	
Official address of company:	
VAT registration number:	
Country:	
The following KET technology centres (KET TCs) have been chosen to implement the project (min. 2 KET TCs):	
1. Lead KET TC name:	
Address:	
Country:	
Contact person:	
Telephone number:	
E-mail address:	
2. KET TC name:	
Address:	
Country:	
Contact person:	
Telephone number:	
E-mail address:	
Title of Technology Request submitted previously (if applicable):	
Project title:	
Objectives of the project:	

Check the steps in detail at <https://www.ket4sme.eu/micro-grants>

- **Doroti Pack Kft. (dorotipack.hu):**  
Increasing the efficiency of the meat processing factory by automatizing the product loading processes.
- Country: Hungary
- KET Technology Centers:
  - 3D Printing
  - Camera vision
- KET: advanced materials and advanced manufacturing

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managing technologies

**bay**®

Bay Zoltán  
Vezető Kutató  
For Applied Research





# Summary - video

- <https://www.youtube.com/watch?v=YYSFGEYw0YNo&feature=youtu.be>

Join the Community - KET4

Biztonságos | <https://www.ket4sme.eu/join-the-community>

KET4  
CLEAN PRODUCTION

About KET4CP | KET4CP Consortium | Community | News & Events | Publications | Contact | Login

MAP SUCCESS STORIES MICRO GRANTS JOIN THE COMMUNITY

Do you want to be part of the community?

## Sign up now!

Register as SME

or

[Join as KET TC or EEN](#)

You have further questions?

You want to know more about current funding opportunities?

You want to be up to date?

<https://www.ket4sme.eu/contact>

Windows taskbar: Internet Explorer, File Explorer, Outlook, Chrome, VLC, File Explorer, Task Manager, PowerPoint, Word

System tray: HU, 15:22, 2018.06.22.

The background image shows a man wearing a VR headset and interacting with a large, transparent, 3D mechanical model of a complex machine. He is in a workshop or office setting with various tools and equipment visible. The image has a blue tint and a subtle particle effect.

Thank You for Your Attention