


TAKING
COOPERATION
FORWARD

 University of Miskolc,
22. November 2018.



V4

WASTE XXI
RECYCLING



SMART URBAN RE-USE FLAGSHIP ALLIANCES IN CENTRAL EUROPE



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INNOVATION PARTNERSHIP

FACTS AND FIGURES

8

areas of expertise

38

ongoing international projects

25 years

of experience in research and development, innovation and knowledge management

MORE THAN
200

industrial partner companies

MORE THAN

150

international projects successfully implemented

120

researchers employed

Close to
6 million

EUR income per year

professional cooperation with almost 150 internationally acclaimed scientific institutions from

42

countries

5

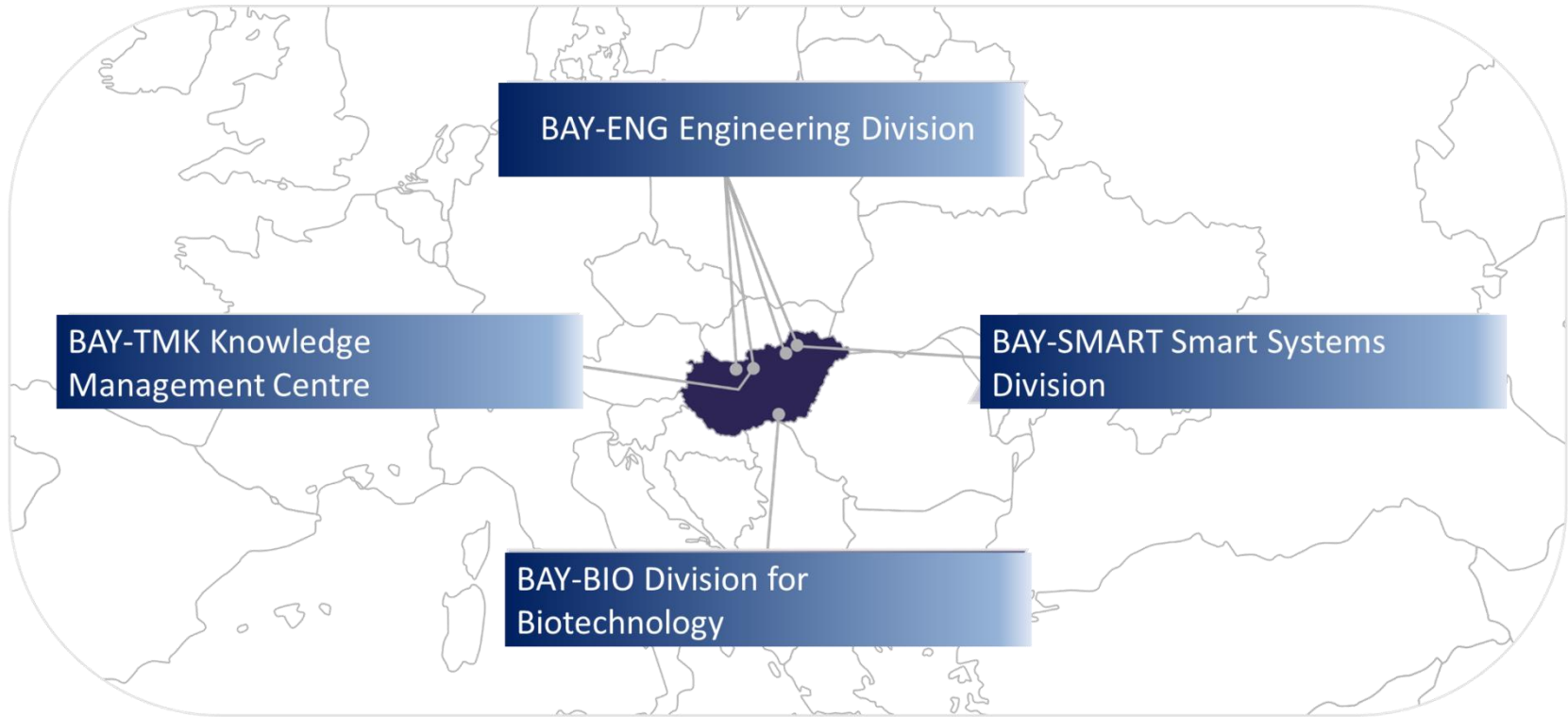
research facilities competitive by European standards with 10.000 m² total lab area



Bay Zoltán
(1900, Gyulavári, - 1992, Washington)

Hungarian Experimental Physicist,
Member of the Hungarian Academy of Sciences.

First Moon Radar Experiment; New definition of the meter based on the speed of the light



BIOTECHNOLOGY



INFORMATION AND
COMMUNICATONS
TECHNOLOGY



ENVIRONMENTAL
SCIENCES, LCA



MATERIAL
TECHNOLOGY,
NANOTECHNOLOGY



MECHANICAL
TESTING



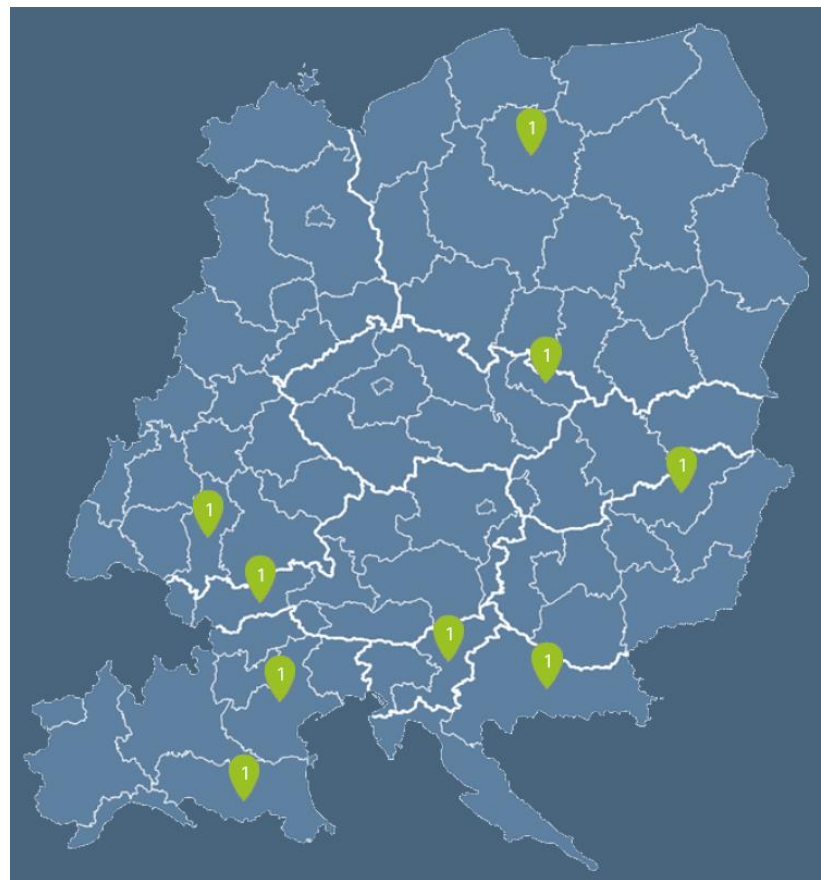
PRODUCTION
SYSTEMS AND
LOGISTICS



SURFACE Factsheet

SMART URBAN RE-USE FLAGSHIP ALLIANCES IN CENTRAL EUROPE

- **Founder:**
 - INTERREG Central Europe Programme
- **Duration**
 - 2017. July – 2020. June
- **Core outputs**
 - **Smart Re-use Parks in urban regions**
 - **Multi-stakeholder re-use based Urban Waste Prevention Plans**
 - **Framework conditions for the establishment of Smart Re-use Parks**
 - **Twinning SURFACE oriented cities**
- **Participant Countries**
 - Austria
 - Croatia
 - Czech Republic
 - Hungary
 - Poland
 - Slovenia
 - Region of Germany (Schwaben)
 - Regions of Italy (Emilia-Romagna, Veneto)



TAK

Base pillars of sustainable development

- ❑ **Ecological sustainability** - Improving resource efficiency by reducing wastes and emissions by extending the lifetime of products.
- ❑ **Social sustainability** - The primary goals are the change of public behaviour towards a sustainable life style. Additionally creation of “green jobs” for low qualified / long-time unemployed people as well as providing good quality products for people with low income are also promoted.
- ❑ **Economic sustainability** - Strengthening regional economies by stimulating co-operations between different actors and development of new business fields and models (especially for social enterprises, SMEs and service providers) and supporting the sharing economy.



February 2. 2015. - Closing the loop - An EU action plan for the circular economy

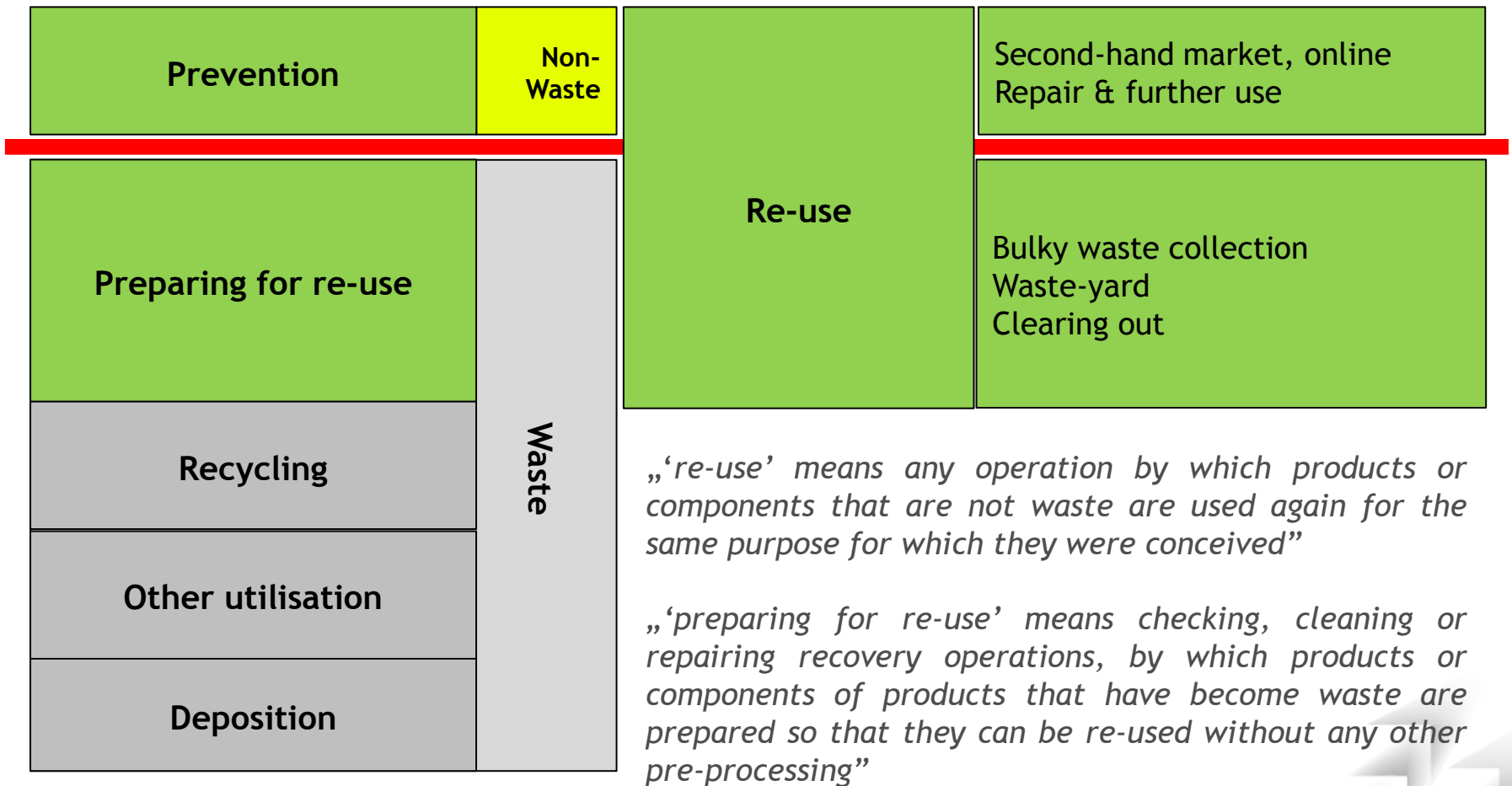
The aim of the Circular Economy is to maintain the value of products, materials and resources in the economy for as long as possible, during their usage and even beyond their turning into waste by recirculating to production process and so minimising their generated amount.



- ❑ Provisions along the economic value chain until 2030.
- ❑ The following legislative proposals (directives) have been adopted:
 - Ecodesign
 - Energy efficiency labelling
 - Waste,
 - Packaging waste,
 - Landfill of waste
 - End of Life Vehicles,
 - Batteries and accumulators and waste batteries and accumulators,
 - Waste of electric and electronic equipment
- ❑ Priority areas of the Circular Economy:
 - Plastics
 - Food waste
 - Critical raw materials
 - Construction and demolition
 - Biomass and bio-based products - Bioeconomy

The European Waste Directive (2008/98/EC)

The waste hierarchy



What is a Smart Re-use Park?

Ideally a “Smart Re-Use Park” (SRP) is a flexible and modular combinations of re-use oriented services - located in visible and liveable urban areas - organically embedded into urban waste prevention strategies.

- **More than a conventional re-use centre:** preparing for re-use activity, taking over waste, optionally selling refurbished items. Extended functionality towards additional sustainability dimensions, i.e.:

- repair cafes, repair and upcycling workshops, rental services (Product as a Service), swapping platforms, educational labs, online reuse marketplaces, exhibitions for different target groups (schools, environmental initiatives, general public, etc.).

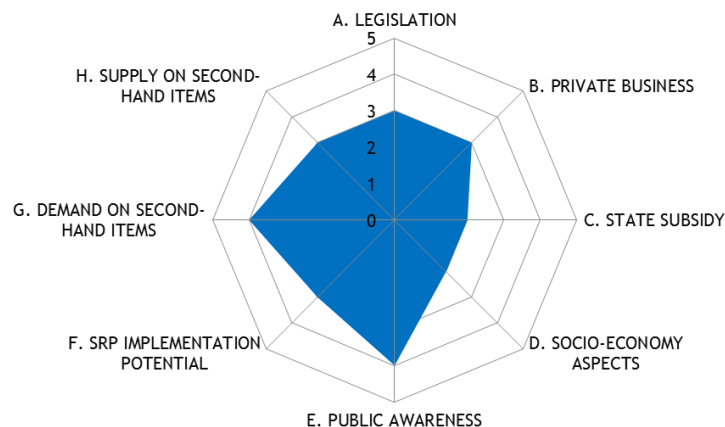
- **Key factors for establishment an SRP:**

- Geographical area
 - Concerned (local) stakeholders, cooperation
 - Organisation structure of an SRP
 - Implemented functions and services within an SRP.
 - Available and additionally required infrastructure
- **Where?**
 - **Who?**
 - **How?**
 - **What?**
 - **Which means?**



First actions of the project

1. **Comprehensive overview on status-quo:** in each project region (Infrastructure, Function, Legal background, Stakeholders, Waste management situation)
2. **Decision Matrix tool:** the DM is supposed to provide guidance about selection criteria to be adopted in other locations throughout Europe in order to implement the available practices via the project results. The DM is substantially based on the experiments of project partners to unfold and share their opinion and expertise, which are important for a common thinking.
 - Survey was made comprising questions categorised into 8 dimensions:
 1. Legislation
 2. Private business
 3. State subsidy
 4. Socio-economy aspects
 5. Public awareness
 6. Smart Re-use Park implementation potential
 7. Demand on second-hand items
 8. Supply on second-hand items



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Results of the Hungarian Decision Matrix

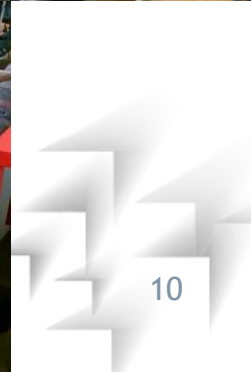


SURFACE PROJECT

Opposite ways for second life of used items



vs.



PROJECT SURFACE

Hungarian situation and potentials

Environmental Awareness Raising Centres (EARCS) in Budapest XV., XVIII.- FKF Nonprofit Zrt.

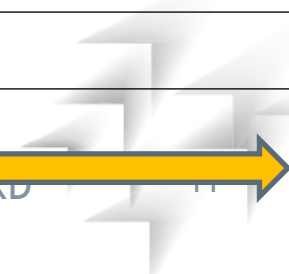
Strengths	Weaknesses
Items with full functionality are sold;	Geographical location of EARCS are not favourable;
Furnitures have strong interest.	Taking over of obsolete items is restricted only for inhabitants living on the service area;
Educational activity	There is no preparing for re-use activity currently;
Activity supported by strong CSR.	Low number of visitors;
	No electronic equipment re-use.



Present (specific to SRP)

Strengths	Weaknesses
Existing EARCS are straightforward initiatives	Legislation does not hinders re-use, however it also does not support it: no clear definition on waste/product - question of second hand shops acting in semi-legally.
Multiple externalities of re-use on environment, society, economy.	Lack of incentives (legal, financial) to run an SRP
	Low level of publicity, communication
Opportunities	Threats
High education potential	Lack of QA for items, especially for WEEE
Already existing activities supporting target future aims	High costs of some activities (i.e. testing and refurbishment of complex items, as EEE)
More re-use centres (SRPs) can be implemented	Inappropriate legislative support
Including more product categories (EEE)	Financial feasibility, lack of financing.
Development of bulky waste collection to a door-to-door basis.	

Future



Actions of the project

Red - already implemented task; Blue: ongoing task

- ❑ Identification of potential stakeholders:
 - **list of potential stakeholders** having influence on the SRP development;
 - moderated platform for them to interact for changing information - **Multi-Stakeholder Forum**.
 - Aim of the Multi-Stakeholder Forum:
 - ❑ Re-use interested actors from each field (i.e. waste management companies, municipalities, policy makers)
 - ❑ Involvement actors having direct/indirect effect on local/regional waste prevention plans
 - ❑ Consensus development on local/regional level to convey results for national scale and for international collaboration
- ❑ **Roadmap** for each project partner as a customised itinerary to develop their own SRP in their region;
- ❑ **Cooperation Matrix** to support the selection process of the most appropriate relationships to be established; feasible cooperation mechanism among mapped stakeholders; reports; lessons learnt
- ❑ **Activation toolbox** as a decision support tool to allow urban managers to establish and implement the SURFACE results into their waste prevention plan and/or SRP.
- ❑ **Smart Re-use Twinning Schemes** for supporting a joint field training process which will allow transfer and implementation of SRP based systems in other locations outside the partnership.

Summary, conclusions

- Reuse & waste prevention options become integrated options of environmental management strategies & action plans;
- Urban decision makers can share decisions,
- Multi-stakeholder cooperation schemes and Smart ReUse Parks action plans can be shared and used internationally,
- Tested & validated pilots can be studied,
- An increased set of immediately usable instruments can be adopted through twinning training schemes.



Thank you for your attention!

For more information, please visit:

<https://www.interreg-central.eu/Content.Node/SURFACE.html>

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