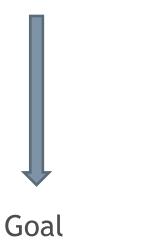


- Final conference, September 11<sup>th</sup> 2020
- CIRCE 2020 Expansion of the Circular Economy concepts through the productive districts of Central Europe
- CIRCE2020|Omar Gatto (ETRA)

#### STARTING POINT



#### Background







#### LINEAR ECONOMY

RESOURCE EXTRACTION PRODUCTION DISTRIBUTION CONSUMPTION WASTE

#### CIRCULAR ECONOMY



https://www.sandbirch.com/wp-content/uploads/2016/05/linear.png https://justlookon.com/Poplmages/industry.png



#### **PARTNERS**



MSTITUTIONAL DISTERASE















Arpav is a public body. It's a scientific -technical institution of Veneto Region, engaged in environment protection and monitoring.

IFKA Public Benefit Non-Profit Ltd. for Development of Industry is the background organization of the Hungarian Ministry of Innovation and Technology to connect supply and demand sides of the economy in the fields of IS and R&D

Public Institution for Coordination and Development of Split Dalmatia County works as instrument of development for the region with emphasis on European integration and attraction of foreign investments.

Etra S.p.a. is a public company which mainly deals with integrated water supply and waste management services.

ATM is a non-profit environmental service organization for all wastemanagement issues of its 104 municipalities in the district of Innsbruck-Land (IL) and Schwaz (SZ).

The utility company CISTOCA CETINSKE KRAJINE is a waste utility companies for collecting and disposing of waste operating in Splitsko-Dalmatinska Županija.

COUNSELLING, R&D





Bay Zoltan - Non-Profit Ltd for Applied Research is Hungary's leading applied research institution. Its objectives are to provide R&D services to companies operating in Hungary and to improve their competitiveness.

AM Trans Progres Sp. z o.o. is a Polish private company which is interested in management of waste generated in industry, and consulting and design activities, shifting several sectors.



#### **OUR CIRCULAR PATH**



communication

Context, state of the art, material flow analysis in the pilot areas

Circular Business Model of the relevant flows (TRM - LCA - LCC)

Expansion of the CircE model in the Central Europe

Transferability of the Circular Economy Model outside the pilot areas

Pilot Actions and Regional Action Plans



communication

#### **NUMBERS**



Involved stakeholder: 700

Seminars, trainings done: 35

Synergies with other projects: 50

Bilateral meeting with companies: 150

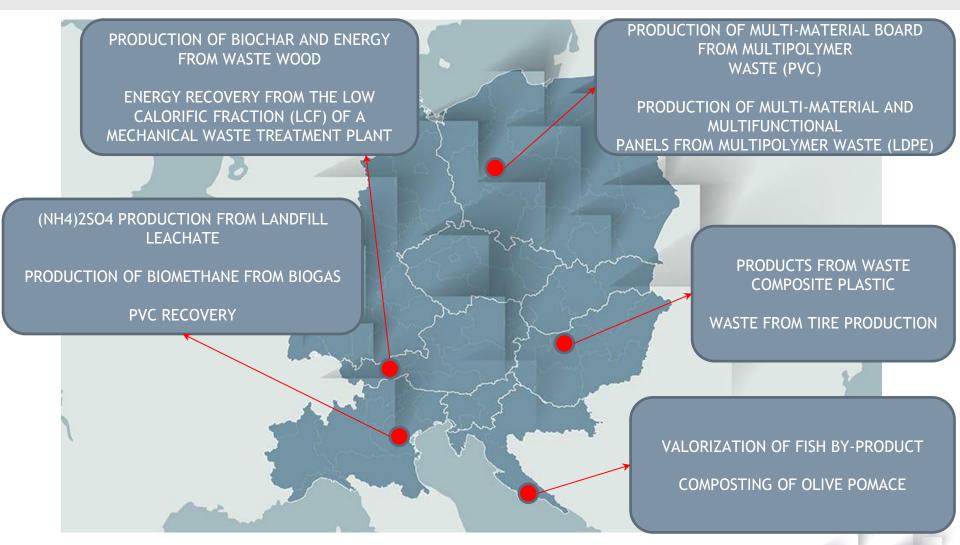
Developed pilot cases:

11



#### **PILOT CASES**







#### **HUNGARY**







# New life of plastic composite waste





# Vulcanized rubber residues are still an open challenge







#### **POLAND**





#### A circular idea suitable for 2 different waste flows















#### High-value omega 3 acids from fish processing waste





#### Enhanced sustainability of olive oil industries by pomace composting





#### **AUSTRIA**





# Energy recovery from low calorific fraction of a mechanical waste treatment plant

# LCF < 12 mm Impurities (Underflow) To AD Source: IUT

# Production of biochar and energy from waste wood by gasification











#### **ITALY**







### Onsite landfill leachate treatment

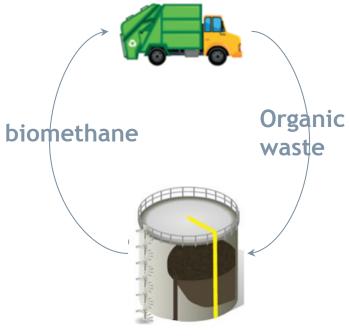




WWTP

Ammonium sulfate

# Biomethane production from AnD biogas



Anaerobic Digestion + UPGRADING

#### **PVC** recycling

SELECTION & REFINING
Post-consumption
Industrial scraps



IN COLLABORATION WITH







#### THE END?



Circularity is a never-ending story

Most of the pilots will continue beyond the project Tools and knowledge are transferable

Networking open to new projects and new ideas of collaboration

Circular initiatives have been integrated in counselling programmes of some key service agencies for the industrial sector



#### **LESSONS LEARNT**



- 1) Circular Economy is already a relevant issue of the market and this relevance will probably increase in the coming years (Green new deal, marketing, raw materials strategy, etc)
- 2) Companies need to stay in the market and the most relevant factor of the market is the economic one, so we need a policy of <u>coherent</u> **INCENTIVES** & **DISINCENTIVES**
- 3) There are currently many environmental costs that are externalities: we must push their internalization through the wider application of the Extended Producer Responsibility, which can also support eco-design
- 4) The CE system is mature but still unstable, mostly due to
- price dynamics
- missing markets for secondary raw materials
- some uncertainty and lack of flexibility in the regulatory framework
- missing coordination and planning at regional level (waste management is a 0 km issue)
- still weak application of Green Public Procurement
- 5) A strong and honest cooperation among politics (planners), businesses and researchers is needed, not only to find solutions but also to find the problems and understand their priorities
- 6) Raising awareness is always welcome



#### **MORE ABOUT CIRCE2020**





CIRCE2020 stands for Expansion of the CIRcular Economy concept in the Central Europe local productive districts

MAKE IT CIRCULAR!

https://www.interreg-central.eu/Content.Node/CIRCE2020.html

#### **WIKIWEB**



https://www.circe2020-wiki.eu/home



#### **SOCIAL MEDIAS**

