



# Good Practices & Action Plan for Boosting Bio-based Circular Economy

## BIOREGIO Project

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PÄIJÄT - HÄMEEN LIITTO



## Regional circular economy models and best available technologies for biological streams



## “Boosting Bio-based Circular Economy”

[www.interregeurope.com/bioregio](http://www.interregeurope.com/bioregio)

**Phase 1** 1.1.2017 - 31.12.2019

Active cooperation and development  
of regional action plans

**Phase 2** 1.1.2020 - 31.12.2021

Follow up implementation of the action plans

# Regions & Partners



## Päijät-Häme, Finland

- Lahti University of Applied Sciences. Lead Partner
- Regional Council of Päijät-Häme



## Castilla-La Mancha, Spain

- Deputy Regional Ministry for Environment



## Nitra, Slovakia

- Slovak University of Agriculture



## Central Macedonia, Greece

- Aristotle University of Thessaloniki
- Regional Development Fund of Central Macedonia on behalf of the Region of Central Macedonia



## South Muntenia, Romania

- National Research and Development Institute for Chemistry and Petrochemistry, Calarasi Subsidiary



## Pays de la Loire, France

- Association of the Chambers of Agriculture of the Atlantic Area



# Sharing and developing

- Sharing good practices on bio-based circular economy

and

- Designing action plans to develop bio-based circular economy in regional policies

Interregional  
level

Regional  
level

# BIOREGIO

## Interreg Europe

Regional circular economy models  
and best available technologies  
for biological streams  
2017-2021

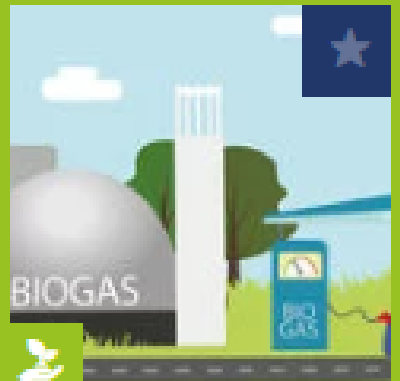




# What is a Good Practice?

## “Technology, Cooperation model, Ecosystem or Network”

- Carefully selected, based on the BIOREGIO defined criteria, e.g. resource efficiency & potential for transferability to other European regions
- All Good Practices identified in BIOREGIO are available on the website: [www.interregeurope.eu/bioregio/good-practices/](http://www.interregeurope.eu/bioregio/good-practices/)
- If a Good Practice passes the Interreg Europe expert assessment, it is published at the Policy Learning Platform (PLP)
- In BIOREGIO:
  - 43/40 (target) GPs identified
  - 27/43 GPs published on the PLP
  - 10 GPs still under validation

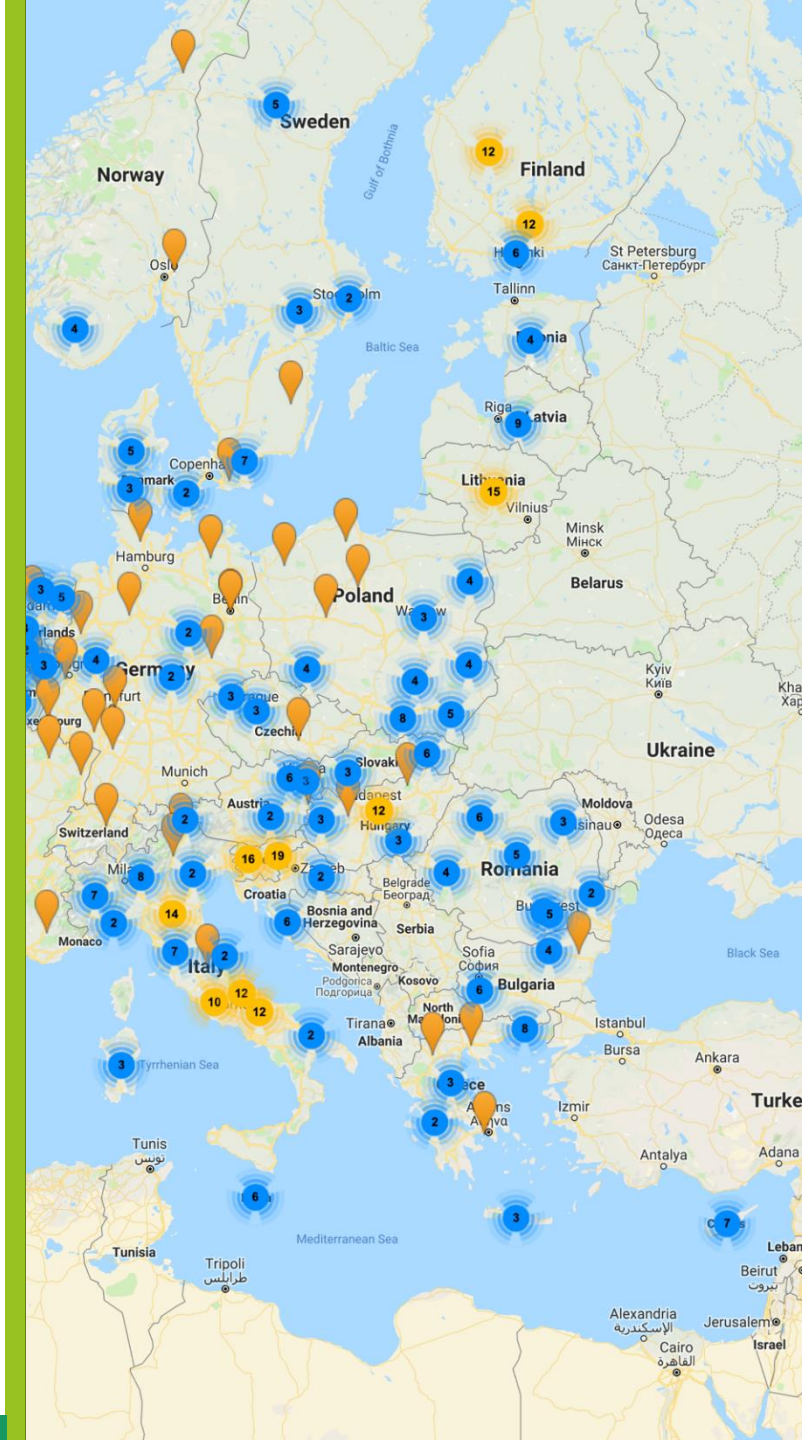


# Policy Learning Platform



“By sharing knowledge, experiences and practices, everyone can capitalize on already tried-and-tested solutions”

- Online database launched by Interreg Europe
- Sharing expert-validated Good Practices from European cities and regions
- <https://www.interregeurope.eu/policylearning/good-practices/>



# Bio-based Circular Economy Good Practices in Päijät-Häme, Finland



1. Regional Road Map towards  
Circular Economy

- 2. Effective Municipal Waste Source Separation and Recovery
- 3. Utilisation of Biowaste Streams - Bio-based Industrial Symbiosis
- 4. Smart Solutions for Waste Separation

Kujala



- 5. The Päijät-Häme Grain Cluster
- 6. Bioethanol from Food Industry By-products
- 7. Xylitol from Oat Mill Sidestreams

Grain Cluster

8. Material Footprint Calculator for Citizens





# GP1. Regional Road Map towards Circular Economy

“Regional circular economy strategy created by the Päijät-Häme region”

- Presents regional goals and actions to achieve the vision: “Päijät-Häme - the successful resource efficient region” by 2030
- Goals related to **material flows, bio circular economy, energy, new services** and to the **role of Päijät-Häme being a forerunner**
- Developed through bottom-up approach in cooperation with various stakeholders, e.g. the regional council, universities, municipalities and companies





# GP5. The Päijät-Häme Grain Cluster

## “Cooperation network of the local grain value chain”

- Brings together all actors in the region, from grain producers to industry and retail, both large international to small craft companies, e.g. mills, breweries, a malt producer, bakeries and about 1000 farmers
- Founded in 2003; exceptional on an international scale
- Funding covered by the member companies + partly from ERDF/other projects
- **Synergies, product development and circular economy solutions**
  - **Innovative food** products development
  - **Bioethanol** production from food industry side streams, bio-based industrial symbiosis
  - **Xylitol from oat mill side streams** – the world 1<sup>st</sup> xylitol factory acquiring its raw material from the company’s own processes, production starts in 2020



# Sharing and developing

- **Sharing good practices on bio-based circular economy**

and

- **Designing action plans to develop bio-based circular economy in regional policies (so far 2/6 APs signed & approved, 4 APs under validation by JS)**

<https://www.interregeurope.eu/bioregio/action-plans/>

Interregional  
level

Regional  
level

# BIOREGIO

## Interreg Europe

Regional circular economy models  
and best available technologies  
for biological streams  
2017-2021

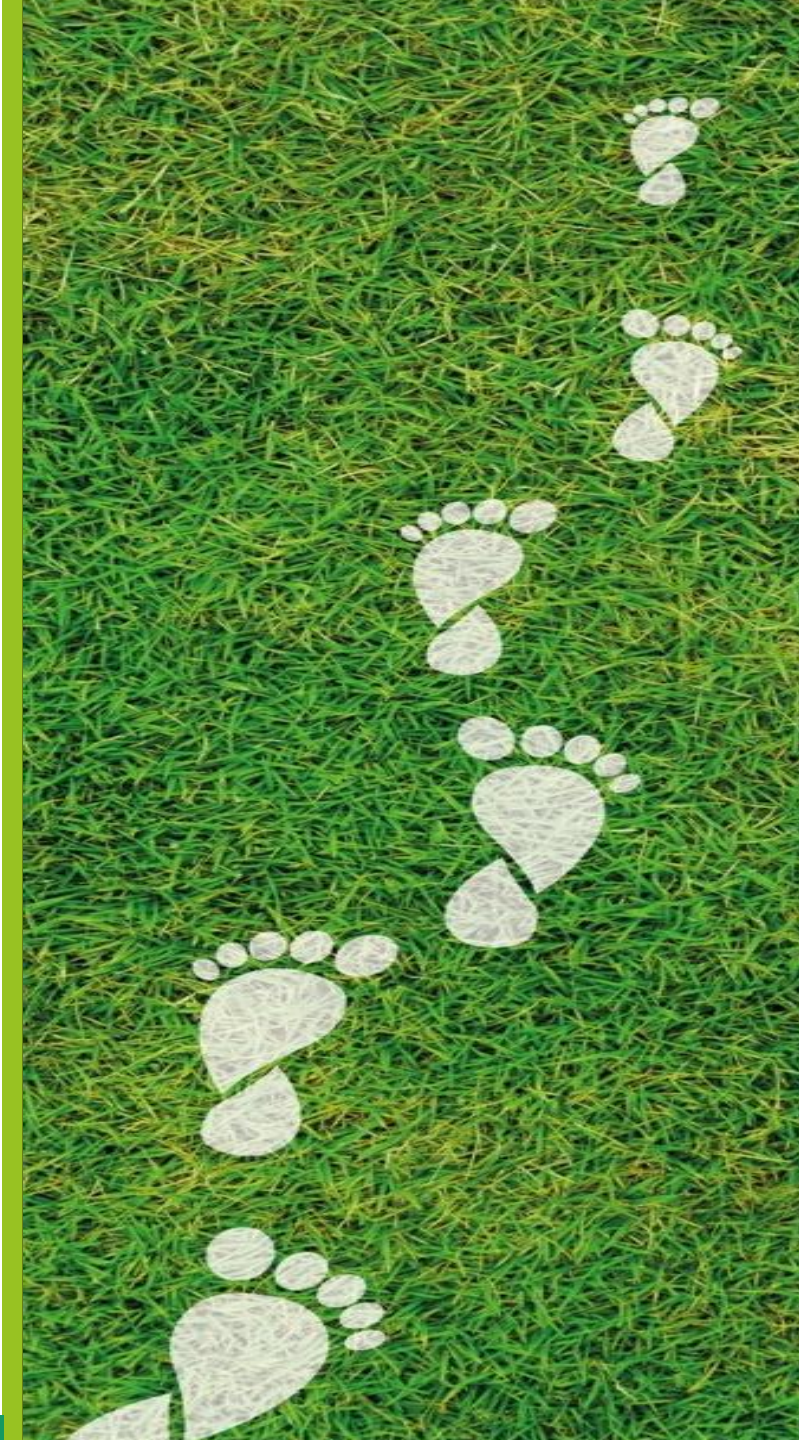




# Regional policies improvement **BIOREGIO** (1) Interreg Europe

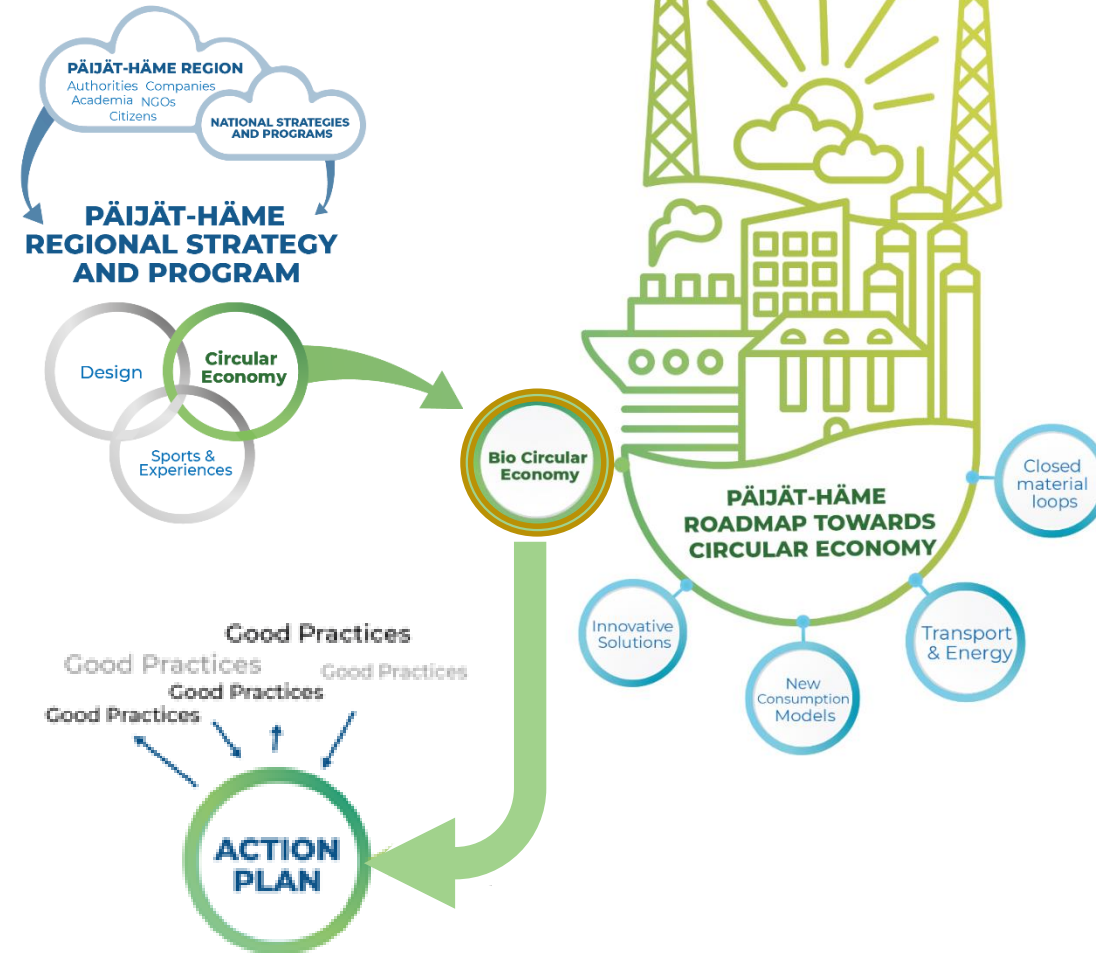
## **BIOREGIO goals in Päijät-Häme (PH):**

- Better management and strategic focus of policy instrument ***Sustainable Growth and Jobs 2014-2020 - Finland's Structural Fund Programme*** to better meet the challenges of the bio-based circular economy development in PH
    - Active promotion of development opportunities through cooperation between companies, universities, and administrations (triple helix) and the development of special skills
- Funding new bio circular economy projects (ERDF, other funding) (BIOSYKLI - Päijät-Häme circular bioeconomy project from 9/19-8/22)
- Action Plan – defines actions for the bio-based circular economy regional development



# Regional policies improvement (2)

- ***Päijät-Häme Regional Development Strategy and Plan for 2018–2021*** (2017) includes circular economy as one of the three smart specialization spearheads
- ***The Päijät-Häme Roadmap Towards Circular Economy*** (2017) defines objectives and actions for promoting circular economy
  - Thanks to BIOREGIO:
    - Bio-based circular economy is emphasized (importance of nutrient cycles) in the 2018 Roadmap update
    - ***Päijät-Häme Bio-based Circular Economy Action Plan*** created based on the 2018 Roadmap update





# The Action Plan

- Päijät-Häme Bio-based Circular Economy Action Plan, approved 8.5.2019 by the Päijät-Häme Mayor  
<https://www.interregeurope.eu/bioregio/action-plans/>
- Supporting the regional circular economy roadmap's goal related to bio-based economy
- Implementation of the actions will be monitored in the 2<sup>nd</sup> phase of the project

## Actions

1. Promoting a sustainable bio-based circular economy and enhancing nutrient cycles
2. Pilots in biowaste collection and recovery
3. Promoting the use of bioproducts and bioenergy
4. Päijät-Häme as an international reference area for circular economy



# Regional Stakeholders Working Together

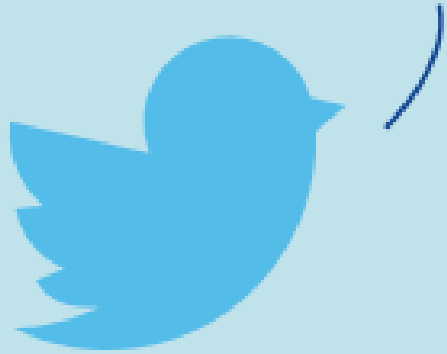
## Päijät-Häme Circular Economy Cooperation Group (former name Päijät-Häme Bioeconomy Group)

- Various regional actors – regional authorities, academia, enterprises, associations
  - Päijät-Häme Regional Council – Chair
  - Häme Centre for Economic Development, Transport and the Environment
  - City of Lahti, City of Heinola
  - Finnish Forest Centre, Lahti Region Development LADEC Ltd, Päijät-Häme Grain Cluster
  - Lahti Energy Ltd, Päijät-Häme Waste Management Ltd, LABIO Ltd
  - Lahden Työn Paikka (a social enterprise owned by the City of Lahti)
  - LUT University, University of Helsinki, Aalto University, Lahti University of Applied Sciences
- Regularly meets, discuss & participate at the interregional events
- Also acts as a regional stakeholder group for BIOREGIO & other relevant projects
- Commitment to annually update the roadmap & Action Plan



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**Thank you!**

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