



Sustainable Technologies and Resources for Circular Economy from Laboratory to Industrial Scale on our Research Site :metabolon

Technology
Arts Sciences
TH Köln



EUROPÄISCHE UNION
Investition in unsere Zukunft
Europäischer Fonds
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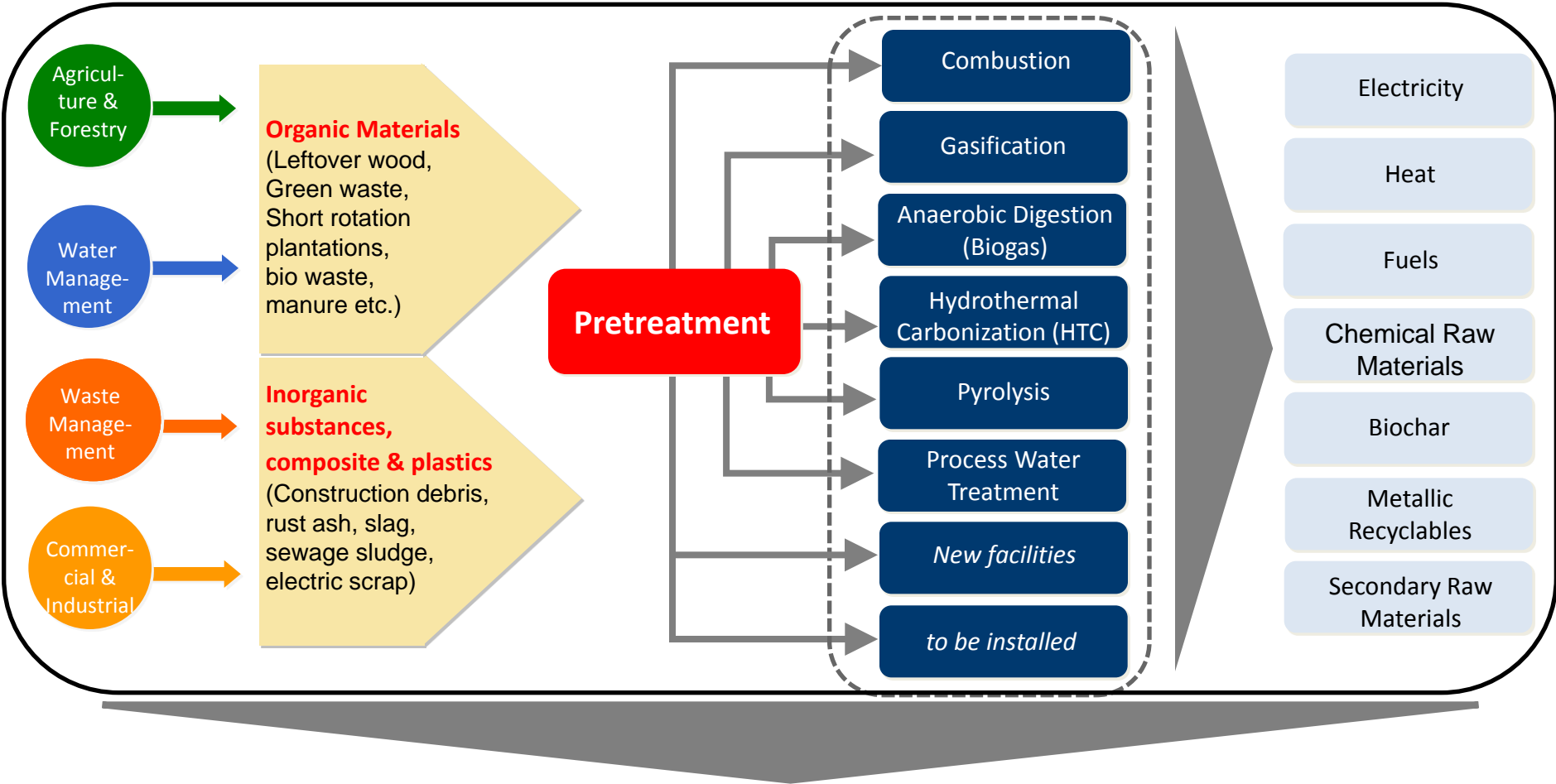
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Research Site
:metabolon

Research Concept for Building Circular Economy

Area Resources Pretreatment Utilization Products



Evaluation

**Balancing, LCA, profitability,
Economic and Sociological Considerations**

Research Activities and Ideas



Material and energetic utilization

of residues and waste materials
closing of material cycles.



Unique infrastructure on: metabolon

From the laboratory, through
existing mini-plants and pilot plant
facilities to an implementation in
industrial plants.



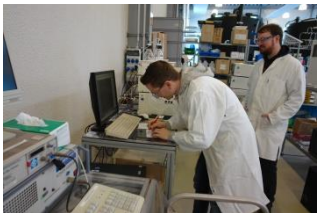
Interdisciplinary approach

- Chemistry
- Chemical Engineering
- Automation
- Computational Intelligence



Holistic approach:

Integrating social sciences is very
welcome.



- University partners with knowledge in **chemistry, chemical engineering, energy and automation.**
- University partners from **social sciences, experienced in questions of social acceptance of innovative technologies.**
- **Public bodies** with interest in circular economy, e.g. waste treatment organizations.
- **Industry partners** interested in circular economy, preferred from the area of capital goods industry

Our Experience in European Projects

Participation and / or Coordination:

- **ILE/IMS:**
Industrial Wastewater (2002-2006)
- **Wapscience:**
Wastewater Treatment (2004-2007)
- **SILCO:**
Innovative Control in drinking water (2010-2012)
- **Renew:**
Dissemination of Biogas-knowledge (2013-2015)
- **ATBEST:**
Joint PhD-projects (Marie-Curie program - 2013-2016)
- **ENERWATER:**
Energy efficiency of Wastewater Treatment (2015-2018)



Thank you!



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