

Urban and Industrial Circular Bioeconomy

Showcases for utilizing waste and wastewater streams for industrial purposes



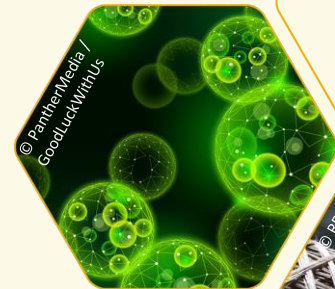
Bioeconomy – Definition in Baden-Württemberg

"Knowledge-based production and use of biological resources, processes, and principles that can be used to provide and utilize products and services in all economic sectors within a sustainable economic and social system."

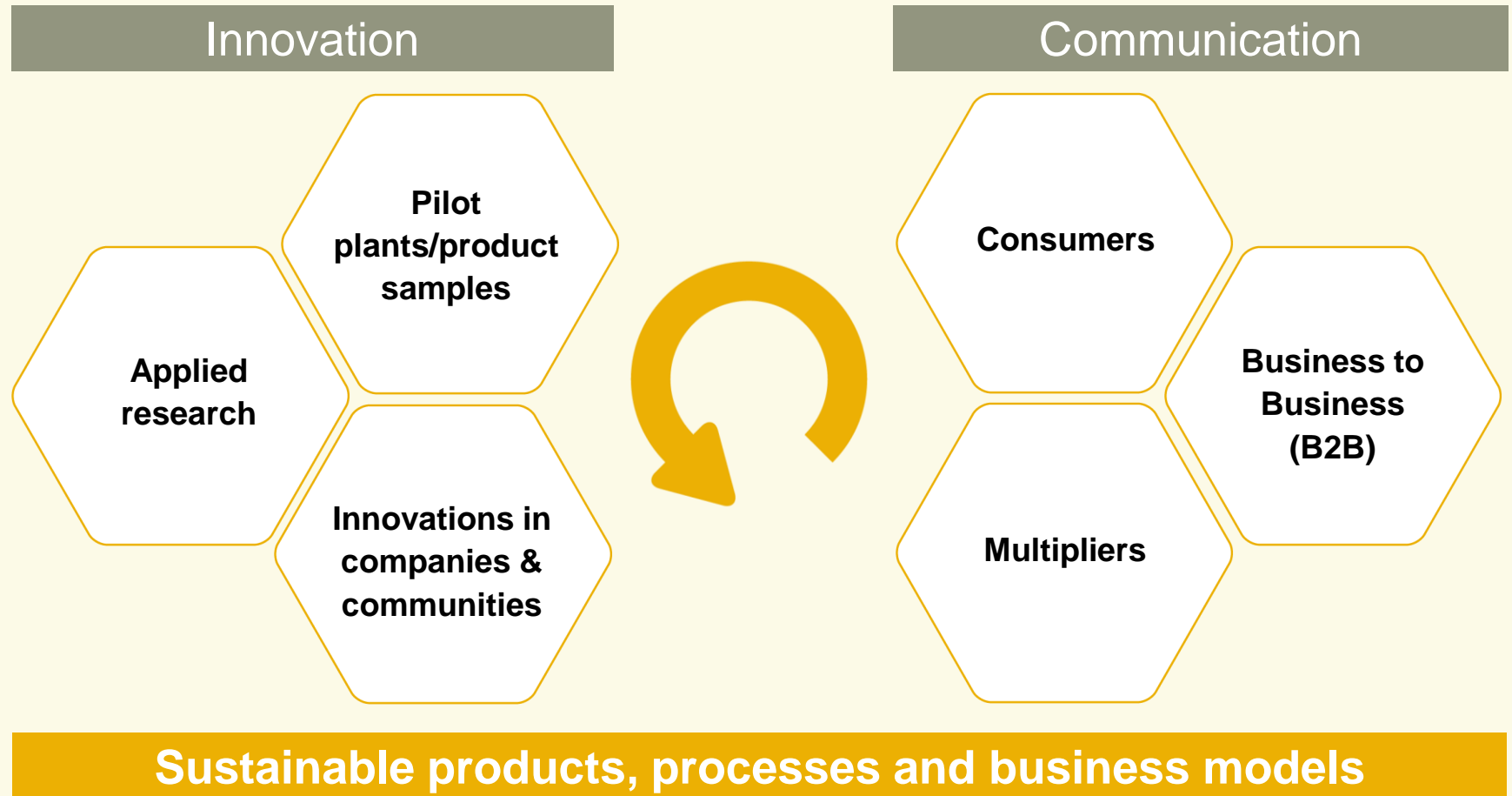


Objectives of the state strategy

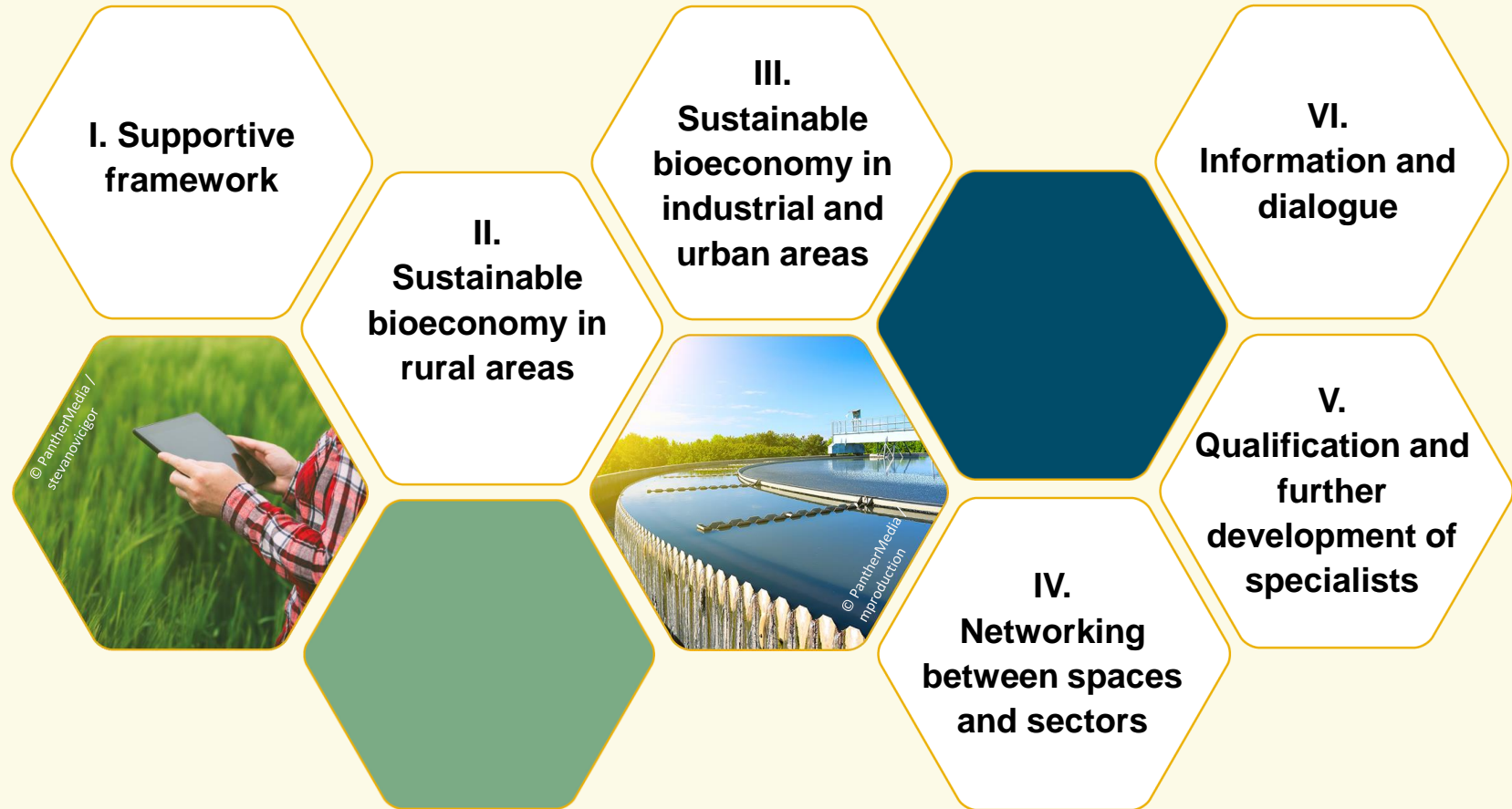
1. Developing renewable or recyclable raw material sources with innovative biological concepts.
2. Reduction of greenhouse gas emissions in Baden-Württemberg, conservation of natural resources and preservation of biodiversity.
3. Baden-Württemberg is to become an exemplary state for a transformation to a sustainable and circular economy.
4. Strengthening rural areas by increasing regional value creation through innovative bioeconomic solutions and creating attractive, sustainable jobs.



What we do...



... in these fields of action



Bioeconomy in industrial and urban areas

- Focus on secondary raw materials and sources and resource efficiency.
- Promotion of industrial and urban biorefineries
- Use of the sustainable bioeconomy for circular economy and resource efficiency
- „Cross Industry“ Innovation processes
- Cross-industry and cross-sector dialogs



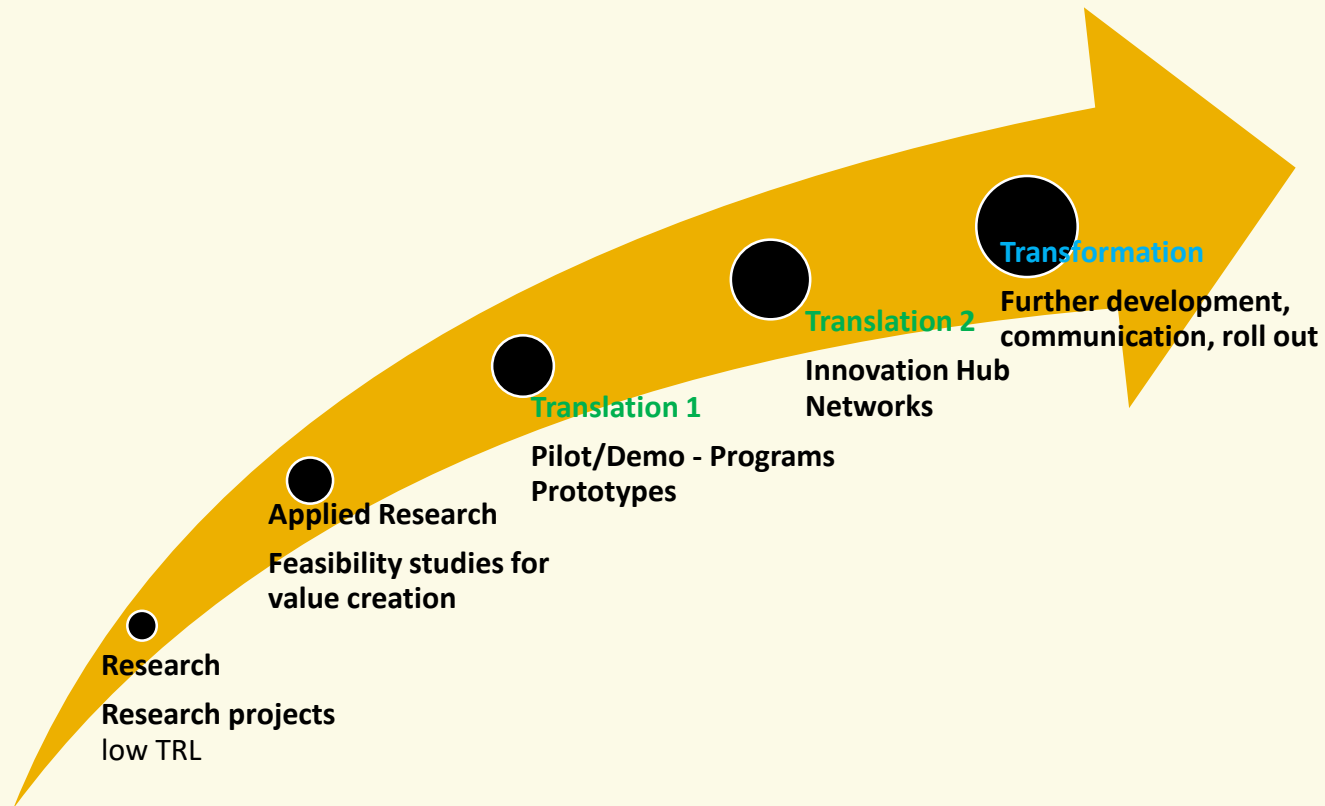
Bioeconomy in industrial and urban areas

Secondary raw materials and sources



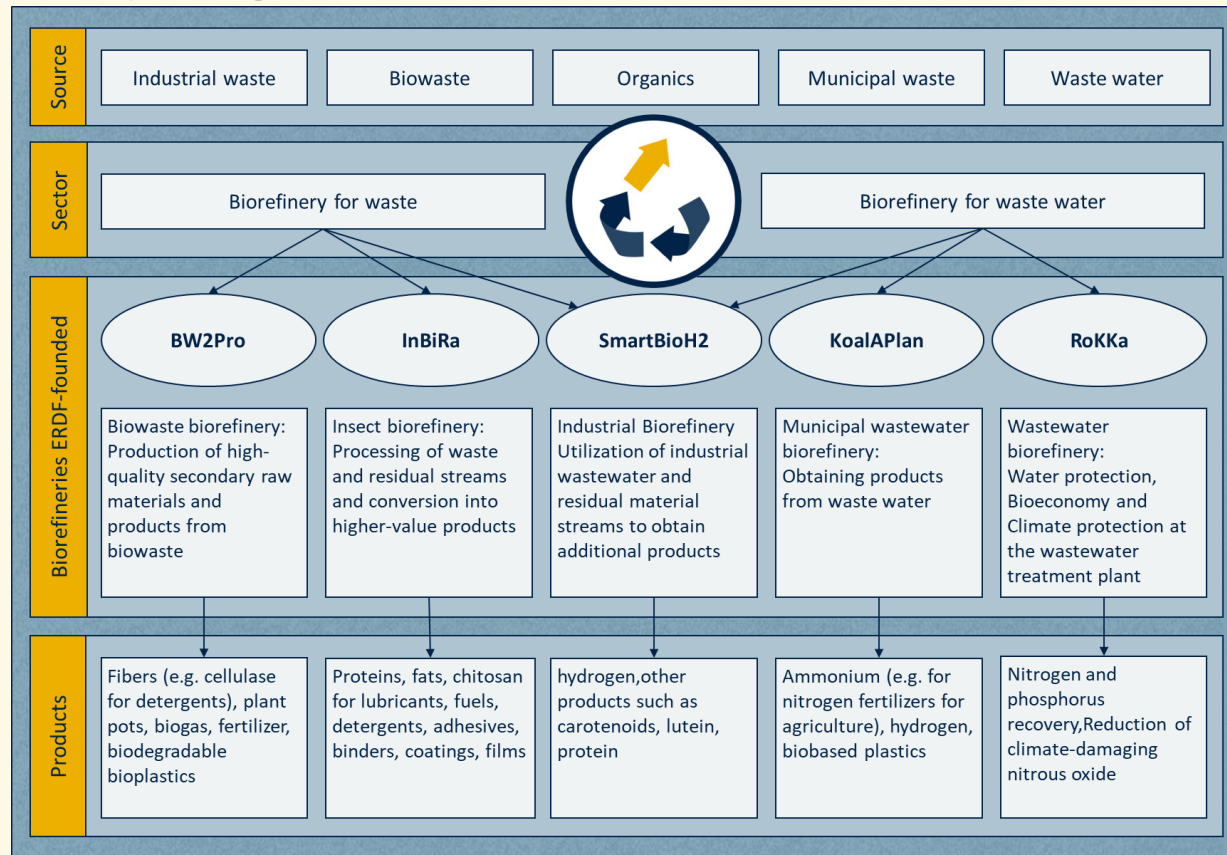
Bioeconomy in industrial and urban areas

Systematic approach



Bioeconomy in industrial and urban areas

Biological „Ab-Cycling“



Bioeconomy in industrial and urban areas

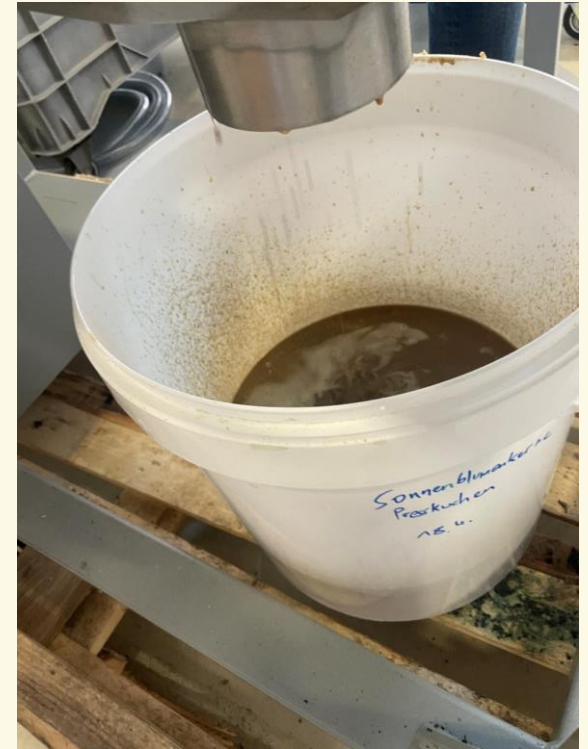
Insect biorefinery - InBiRa



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Bioeconomy in industrial and urban areas

Wastewater biorefernies (RoKka, KoalAplan)



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Frank Eppler

Bioeconomy in industrial and urban areas

PeePower™

- Waste water is a valuable source!
- Generation of Hydrogen (electricity) from urine
- Application tested in pilot scale at German National Garden Show in Mannheim



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Bioeconomy in industrial and urban areas

Local bioeconomy strategies

- Municipalities are the hub of product and residual material flows
→ Objective: Integration of the bioeconomy into the economy „on site“
- Founding of 3 urban areas for the development of measures for establishing bioeconomy structures on local scale.
 - KommBÖ4MRN (MRN)
 - RE2source (TRKA)
 - InBioRegS (WRS)
 - ZirBioS (Stadt Stuttgart)

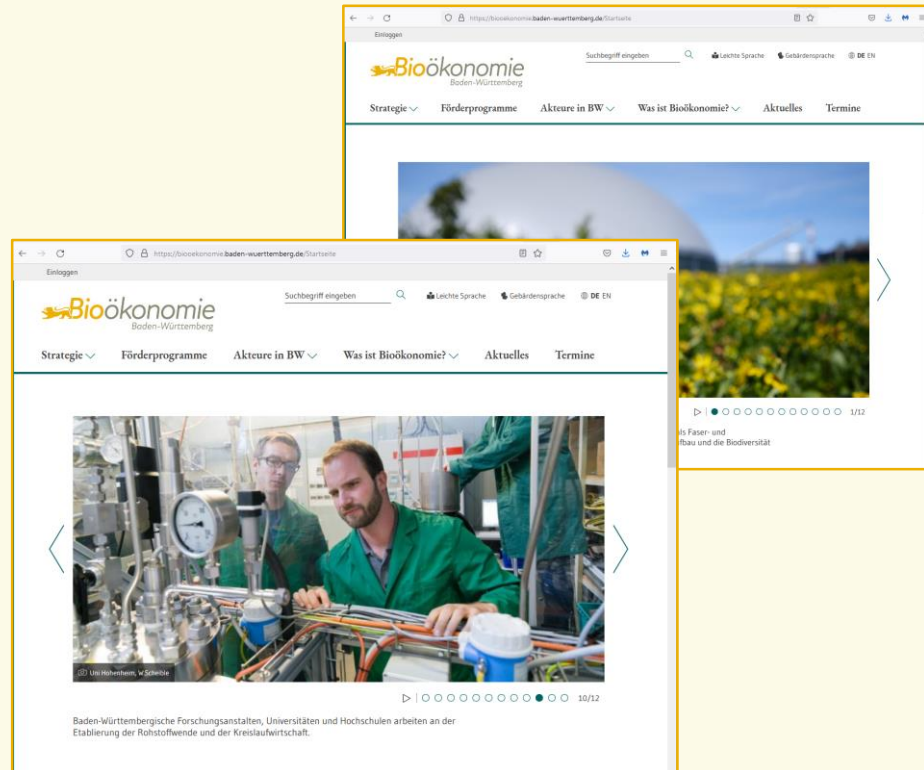


Bioeconomy Baden-Württemberg – Online

www.biooekonomie.baden-wuerttemberg.de

Content:

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- Founding programs
- Networking
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Bioeconomy Baden-Württemberg



Baden-Württemberg

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Thank you!



Bioökonomie im industriellen und urbanen Raum

Cluster, Cross-industry Innovations

- Fachinitiative Bioraffinerien (Umwelttechnik BW GmbH)
- Innovation Hub CCU_{BIO} (Umwelttechnik BW GmbH)
- Translations Hub ValBio-Urban (Universität Stuttgart)
- Fachinitiative Bioökonomie-Gründer Start-in BÖ (BIOPRO)
- Urban Bioeconomy Lab (Fraunhofer IGB)

