



POWER4BIO
REGIONS FOR
BIOECONOMY



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Learnings for high potential value chains

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1. Added value generation

Waste → Feed → Food

Drivers:

- reducing waste (ban on landfill, costs of composting, etc)
- reducing environmental impact (taxes/incentives)
- reducing dependency on market prices for one product.
- sum of value of individual components > value of combined stream
- added value in food (connected to food trends)

Some success conditions in presented examples:

- Existing logistics for gathering biomass
- Existing processing facilities for similar products
- Existing channels for product sales; market size fits residue size
- Enthusiastic entrepreneur
- Ability to take a loss in the start-up phase (investor, large company, shared facilities)

2. Aiming for sustainability ambitions

Drivers:

- Additional value creation
- Reducing waste
- Improving circularity
- Legislation, Subsidies

Conclusions

- Value creation is a solid driver
- High value examples: protein, functional biopolymers, food additives (webinar 4)

Challenges

- Diversity of products and thus markets
- New products need legislation development (food)
- Subsidy should provide learning curve

3. Aiming at food trends

Highlights relevant food trends

- Clean label
- Healthy ingredients
- Reduce food waste, recycle surplus food
- Alternative protein sources, plant based

Learnings

- Food trends offer good opportunities
- Some developments are based on specific properties of the side streams / residues
- Others replace (virgin) crops (intended benefit: lower costs)
- Require co-development of processes & market & market volumes

4. Regional synergies

- Economy of scale through combining efforts: critical mass
- Residual stream synergy: re-use by others, direct application, shorter transportation distance, less storage, possible distribution of residual streams over land, or as feed
- Product synergy: the products or by-products of one company form the raw materials of the other.
- Water synergy: Condensation water for irrigation, less groundwater extraction
- Energy synergy: production of biogas from side-streams and manure. Subsequently, heat can be produced by CHP, low quality heat to horticulture or cities.
- Synergy through sharing facilities: Mutual steam supply
- R&D synergy: joint innovation, exchanging knowledge & experience
- Organizational synergy: logistics, advise on business, construction and operation of new facilities and training programs

Thank you for your attention



Next series: 11 November 2020, 9 am CET

- Session 7: Funding opportunities
- Session 8: Supporting policies



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