

CROSS-REGIONAL ASSESSMENT WORKSHOP

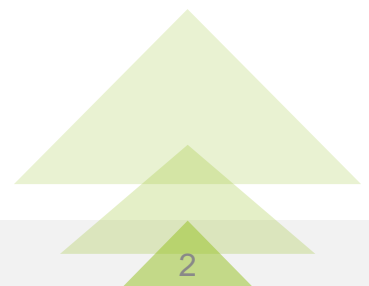
Region: Upper Austria

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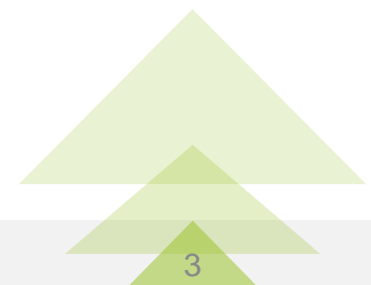
STAKEHOLDER DATABASE

- 95 Stakeholders identified – within and outside of cooperation network
 - 3 x Political Institutions
 - 13 x Academia & Research
 - 71 x Private Businesses
 - 8 x Other (Agencies, Associations, Cluster)
- 20 product categories → food producers and companies that can utilize side streams



STAKEHOLDER DATABASE - EXAMPLE

Resch & Frisch Holding GmbH	Resch & Frisch Holding GmbH	Private businesses and associated organisations	Bakery Products and Confectionary
backaldrin International The Kornspitz Company GmbH	backaldrin International The Kornspitz Company GmbH	Private businesses and associated organisations	
Fischer Brot GmbH Honeder Bakery	Fischer Brot GmbH Honeder Naturbackstube GmbH	Private businesses and associated organisations	
Jindrak KG	Jindrak KG	Private businesses and associated organisations	
Dirneder Muehle GmbH & Co KG	Dirneder Mill GmbH & Co KG	Private businesses and associated organisations	Mills, Bakery Additives,
Haberfellner Mill GmbH	Haberfellner Muehle GmbH	Private businesses and associated organisations	
Pfahnl Backmittel GmbH	Pfahnl Backmittel GmbH	Private businesses and associated organisations	
Plohberger Malz GmbH	Plohberger Malz GmbH	Private businesses and associated organisations	
Puratos Austria GmbH	Puratos Austria GmbH	Private businesses and associated organisations	
Zagler Bio GmbH	Zagler Bio GmbH	Private businesses and associated organisations	
Agrana Starch GmbH	Agrana Staerke GmbH	Private businesses and associated organisations	Sugar and Starch
Gmundner Diary GmbH Berglandmilch eGen	Gmundner Molkerei GmbH Berglandmilch eGen	Private businesses and associated organisations	Milk Products
TANN GmbH	TANN GmbH	Private businesses and associated organisations	Slaughter and Meat
Rudolf Grossfurtner GmbH	Rudolf Grossfurtner GmbH	Private businesses and associated organisations	
Anton Riepl Meat Factory KG Greisinger GmbH	Anton Riepl Fleischmanufaktur KG Greisinger GmbH	Private businesses and associated organisations	
Kremstal Shrimp OG	Kremstal Garnelen OG	Private businesses and associated organisations	Fish and Seafood
Eisvogel Hubert Berneqger GmbH	Eisvogel Hubert Berneqger GmbH	Private businesses and associated organisations	
Elfin Delicacies GmbH	Elfin Feinkost GmbH	Private businesses and associated organisations	



VALUE CHAINS FROM FOOD INDUSTRY

1. Bakery Products
2. Dairy and Dairy Products
3. Oils, Oil Press Cakes
4. Brewery Products – draff/spent grain



VALUE CHAIN 1 – BAKERY PRODUCTS

- Highest amount of **avoidable** food waste in AUT
- Input of biomass streams (dough, bio waste, old bakery products) for biogas plants (regional autonomy)
- Rework for dough – problem: assurance of quality



VALUE CHAIN 2 – DAIRY AND DAIRY PRODUCTS

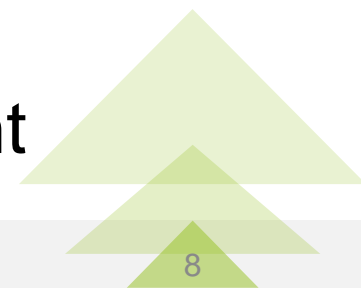
- Highest amount of food waste in general (partly unavoidable)
- Many dairy products in general – side streams: whey protein
- Utilization of the dairy waste for biofuel, biogas, fermentation
- Ideas: utilization for packaging, valuable nutrients for food, feed and fertilizer

VALUE CHAIN 3 – OILS AND OIL PRESS CAKES

- On-going projects for utilization of oil press cakes
- Focus on more regional available oils in AUT (not olive oil)
- Utilization of sunflower press cakes as valuable protein source
- Use of mustard press cakes for antimicrobial properties → e.g. as additive in biodegradable food packaging
- Problem: not suited as feed because of oil extraction residues

VALUE CHAIN 4 – BREWERY (DRAFF)

- Valuable source of protein, sugars and nutrients for feed and fertilizers
- Use as material in biogas plants because easily accessible sugars
- Interesting: utilization of draff for fibres in paper industry
- Problems: fast deterioration (spoilage), high water content



AVAILABLE SKILLS AND CAPABILITIES IN THE REGION

- Available skills Upper Austria
 - University of Applied Sciences Upper Austria
 - Schools with focus on sustainable agriculture and food production
 - Non-universitary research centers with focus on sustainable foods
- Large food production companies with lots of side stream output and use of technology
- Different cluster & association networks



OPPORTUNITIES & LINKS WITH PREVIOUS IMPLEMENTATIONS, STRATEGIES OR ROADMAPS

- Bioeconomy and CE is in focus and therefore more funding opportunities
- Bioeconomy Strategy Austria (2019)
- Flagship Projects of Bioeconomy in Austria (2021):
 - Sustainable, bio-based consumption patterns
 - Funding & promoting bioeconomy
 - Regional Value added through the bioeconomy
- Bioeconomy action plan (Autumn 2022)



FORESEEABLE BARRIERS FOR DEPLOYMENT

- Technology for small food production companies too expensive and extra skills needed for operating
- Output volume of side streams of small production lines too little for large purchasers
- Keeping balance between introducing new technologies but maintaining and creating new jobs

FORESEEABLE BARRIERS FOR DEPLOYMENT

- Personnel shortage in food production
- Communication difficulties, awareness/mindset
- (Food) regulations; policies



THANK YOU

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