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Session 5

Examples of (Food) Systems funding and research approaches

Frank Hensgen,
Project Management Juelich

SmartDairy: Climate-smart dairy – Assessing challenges, innovations and solutions

- Addresses a food sector with high need for transformation to sustainability; with regard to climate change, nutrient cycles, biodiversity.
- Interesting and innovative investigations include
  - Feed additives to reduce methane emissions
  - Evaluation of climate smart policies and business-models
  - design and testing a pilot carbon market for dairy producers
  - Assessment of consumer willingness-to-pay for externalities,

  and in particular climate mitigation, based on up-to-date techniques in experimental economics (discrete choice, RCT).

- High interdisciplinarity, including agricultural and consumer economics, psychology, sociology, animal nutrition, animal genetics, agronomy and chemistry, with a focus on economics and sociology.

SmartDairy: Climate-smart dairy – Assessing challenges, innovations and solutions

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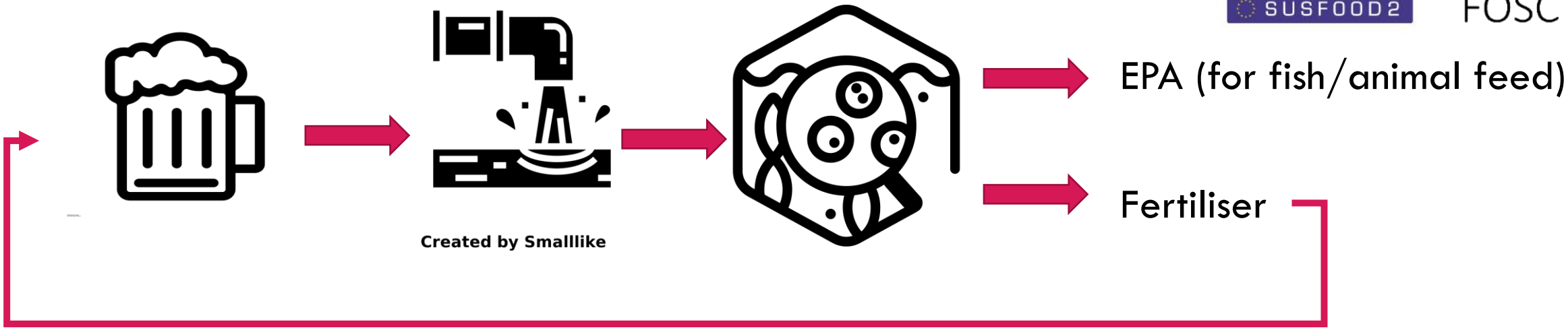
Systems Approach:

- high impact potential for the food system in Europe
- multi-disciplinary system approach (inclusion of trade-offs and synergies to existing projects and (political) frameworks
- proposal is planned in a participatory approach with high multi-stakeholder involvement including many companies and other relevant stakeholders
- inclusion of consumers and behaviour, consumer acceptance, political instruments and governance of new business models

Consortium:

6 Universities from 4 countries, + Associated Partners

AlgaeBrew: Unlocking the potential of microalgae for the valorisation of brewery waste products into omega-3 rich animal feed and fertilisers



AlgaeBrew uses microalgae to upgrade brewery wastewater and spent grain into high-value EPA for the feed industry. The biomass will be developed into a biofertiliser to achieve a zero-waste goal.

AlgaeBrew: Unlocking the potential of microalgae for the valorisation of brewery waste products into omega-3 rich animal feed and fertilisers

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Systems Approach:

- Consortium structure reflects systems approach, including relevant industry stakeholders from the beginning as partners
- Dedicated LCA WP (incl. socio-economics)
- Work Plan including system related Milestones and Deliverables
- Explicit impact considerations (Ecological, Economical and Social) in application

Consortium:

8 Partners, + Associated Partner

7 Universities, 2 Industry (Beer and Feed)

SYSTEMIC – Knowledge Hub (KH) on Food and Nutrition Security

Joint initiative of three JPIs – FACCE, OCEANS and HDHL, reflecting multidisciplinarity and food systems perspective

- Impacts of climate change on nutritional quality and composition of food; understanding consequences on human diets and health; proposing adaptive strategies/measures to ensure global/ European food and nutrition security.
- KH should identify knowledge gaps and key challenges and possible adaptive measures and improvements and new research areas across at least two of the following themes:
  - ✓ Enhancement of the nutritional composition and bioavailability of nutrients in food by bio-fortification via crop breeding, agronomic improvement and marine interventions.
  - ✓ Improved management of marine and land resources towards increased resilience, sustainability and nutritional quality, and when possible mitigation of GHG emissions
  - ✓ Dietary diversification by plant, insect and marine sources
  - ✓ Changing the practices of actors in the food system to improve diets

Food Systems aspects of SYSTEMIC KH

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- Specific outcomes of the SYSTEMIC KH should deliver impact to the three main stakeholders groups:
  - ✓Producers
  - ✓Agri and food industry (post-farmgate)
  - ✓Consumers
- Structure of SYSTEMIC KH
  - WP 1 – Resource use, current knowledge and future trends under cc
  - WP 2 – Production
  - WP 3 – Nutrition
  - WP 4 – Consumption
  - WP 5 – Public Health and Environmental impacts
- Evaluation criteria included multidisciplinarity
- Collaboration accross sectors was strongly encouraged

Consortium: 28 partners from 8 countries, covering 13 disciplines