

Circular Food Systems for Nutrition Security

A Transformative Research Agenda as Next GRA Flagship

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A Global Flagship Proposal



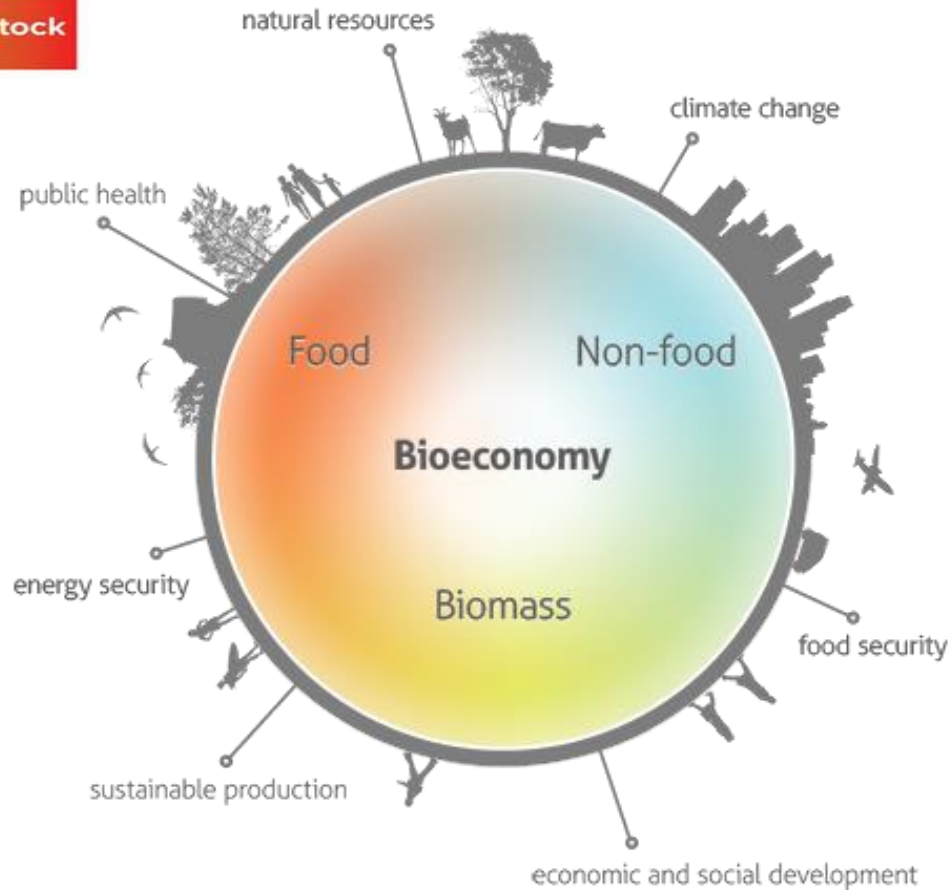
Food Production in Biobased Society

FOOD vs. FEED

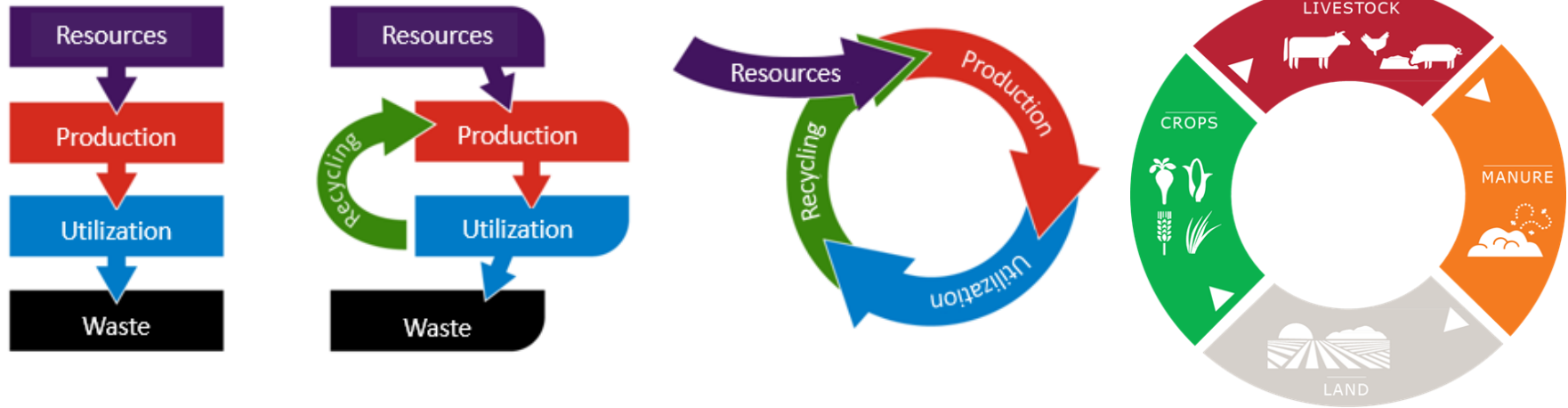
crops mostly grown for

humans

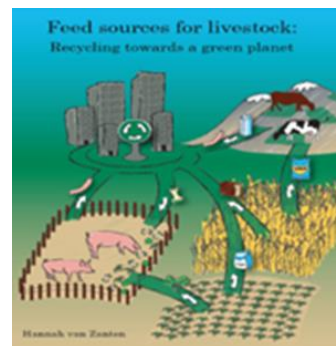
livestock



From Linear to Circular, no Waste to Spill

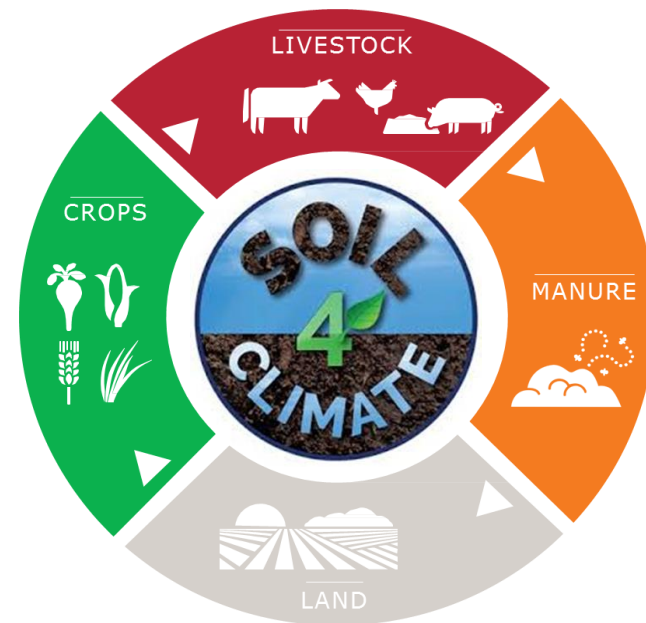


- Use currently spilled biomass (crop residuals, manure) to produce food
- Maximize resource use efficiency in all parts of the cycle



Vision

- Towards integrated **crop-livestock** within a circular system production, that maximizes the overall production of nutritious human edible food, minimizes the environmental impact, **reduces the emission of greenhouse gases**, and **enhances soil carbon sequestration**.



A Transformative Flagship

- Understanding circularity of food systems at farm/national/regional/local scales
- Developing innovations to optimize food-feed-fuel production systems
- Assessing the feasibility and potential of circular food systems
- Developing best practices in integrative crop; livestock; manure and soil management



Double purpose crops; production and digestibility of alternative feed; manure versus green or chemical fertilization; soil carbohydrate dynamics.

A Global Flagship Programme

