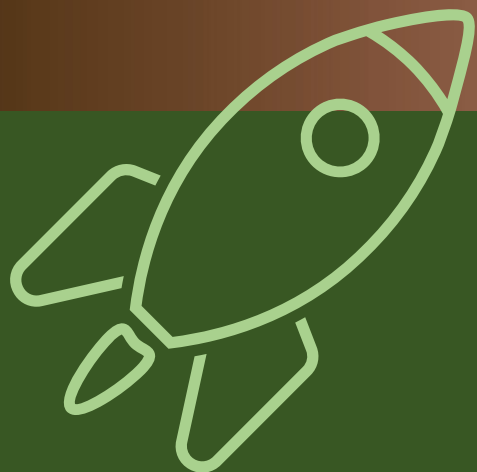


TRANSFORMING THE DANISH FOOD SYSTEM:

MISSION POSSIBLE



Anette Engelund Friis,
Mission Director, AgriFoodTure

AgriFoodTure

The challenge of the 21st century



25 % of total greenhouse gas emissions worldwide comes from agriculture and forestry

Increased middle class means increased demand for high quality food



We will be almost 10 billion people in 2050



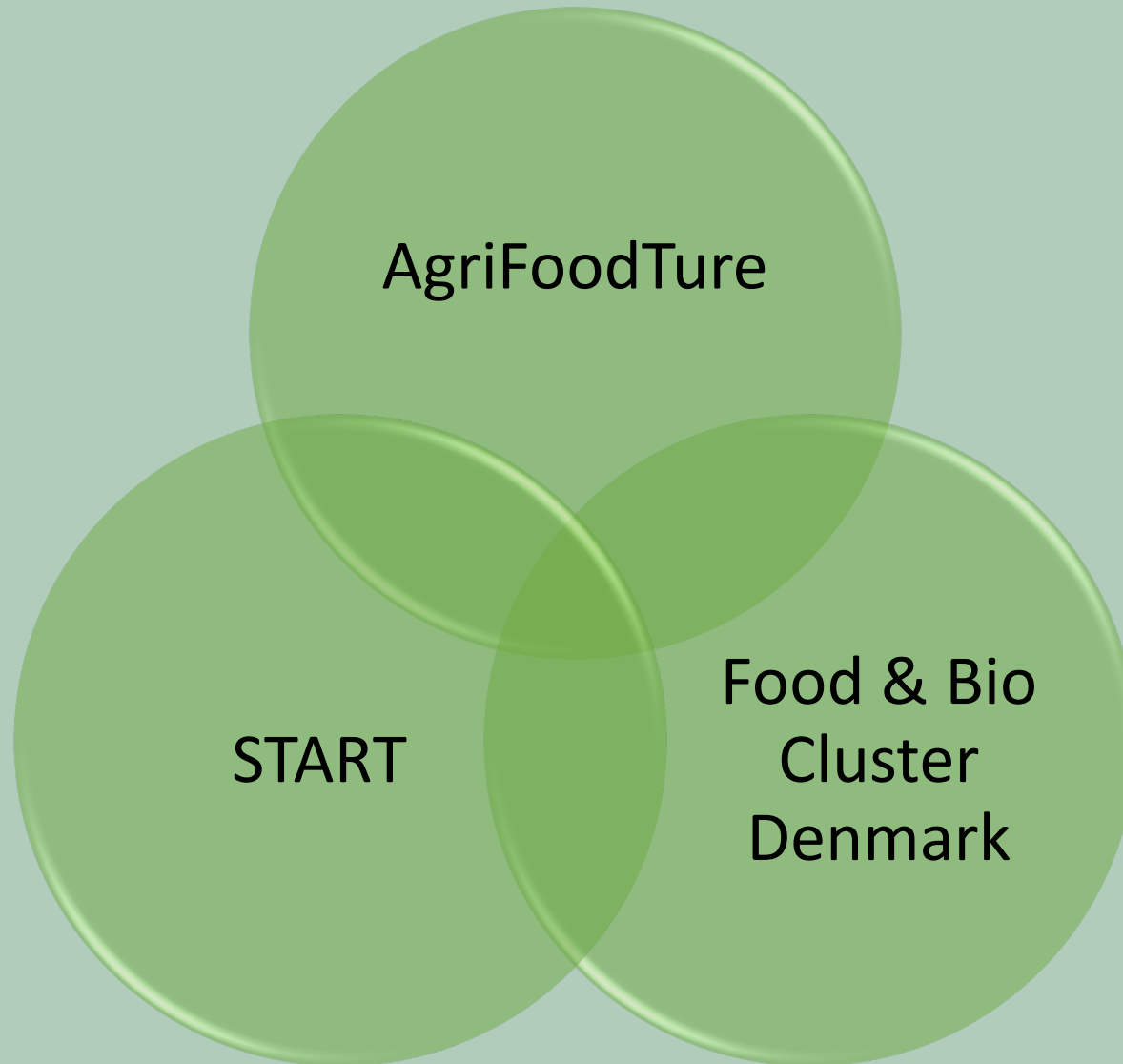
Global food production is expected to increase by 40-50 % towards 2050 (FAO)

AgriFoodTure's Vision

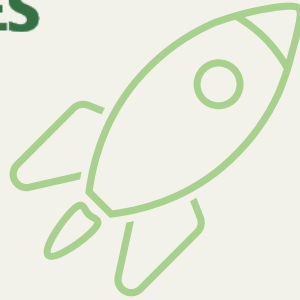
AgriFoodTure wants to position Denmark as the leader for innovative, disruptive solutions that enable the green transition of the agri-food system and contribute to:

- Achieving a 70% reduction in greenhouse gas emissions in Denmark by 2030 and net-zero emissions by 2050.
- Protecting the environment and supporting Danish nature and biodiversity.
- Increasing the competitiveness of Danish business and industry.

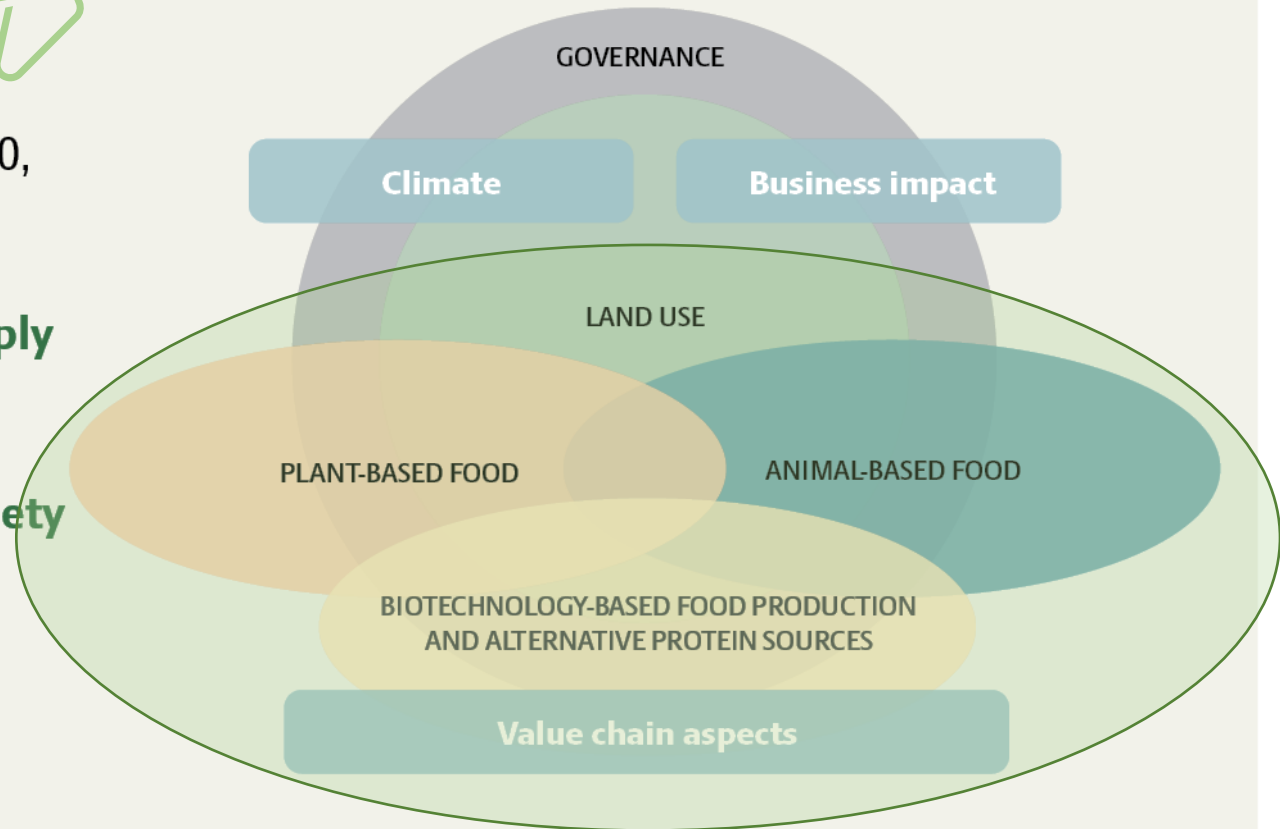
The Opportunity



MULTIPLE SUSTAINABILITY OBJECTIVES



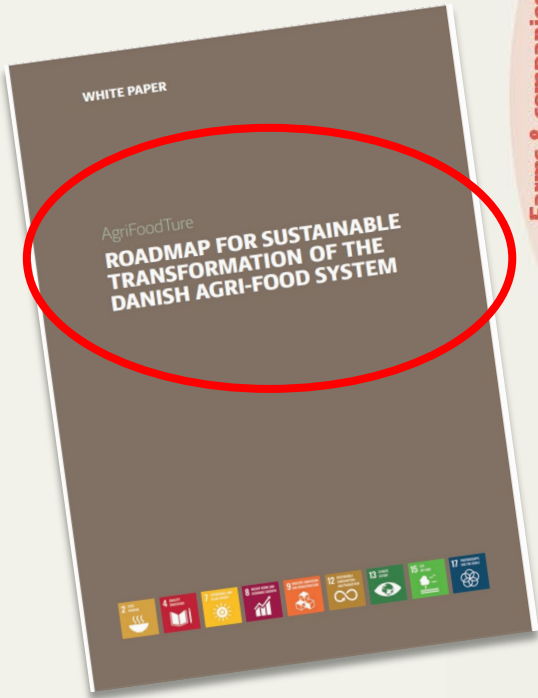
- **Climate, Environment, Nature:**
70% reduction of GHG emissions by 2030, carbon neutrality by 2050
- **Meeting the increased global food supply**
in support of growing demands
- **Denmark to become world leading society within circular economy** by 2030
- **Securing business opportunities**
based on innovative and sustainable solutions



AGRI-FOOD TRANSITION: A systems approach in a multi-stakeholder, multi-process integrated system

GLOBAL
FOOD
SYSTEM

Human demands,
social and cultural
transformation



Farms & companies:
Adaption, possibilities and barriers



LAND USE MANAGEMENT

- Rewetting organic soils
- Drainage mineral soils
- Reestablish wetlands

Fertilisation

- Cropping systems
- Forage crop production
- Perennial cropping
- Plant breeding
- Nutrient loads
- Pesticides
- Biochar

Afforestation

- Nature + biodiversity
- Multifunc. landscape

PLANT-BASED FOOD

- Plant breeding
- Plant biologicals
- Robotics and farming systems

Upcycling and recycling
Proces. raw materials
Product development

BIOTECHNOLOGY-BASED SOLUTIONS

Cellular agriculture and alternative proteins

Landbased aquaculture production

Invertebrates, mussels, crustaceans, fish, algae, seaweed

Biorefining

Environment: CO₂, air quality, water
Biodiversity – Nature

Energy: Gas, oil, water, sun, wind, biofuel

Food products + food processing



Living labs

Value chain
Science – Technology
Research – Innovation



Employment
Science – Technology
Research – Innovation



Living labs

Consumers:
preceptions and preferences

Consumers

Dietary changes
Human nutrition

Stakeholder management
across value chain

Political governance
regulations

Accounting GHG emissions

Political governance
regulations

Climate change

GHG = N₂O + CO₂



GHG = CH₄

**ANIMAL-BASED
FOOD PRODUCTION**

Nutrition
Breeding / genetics
Production systems
Technologies
PLF



Meat

Dairy

Eggs

Food

DATA

DATA

Circularity: slurry, manure

Feed

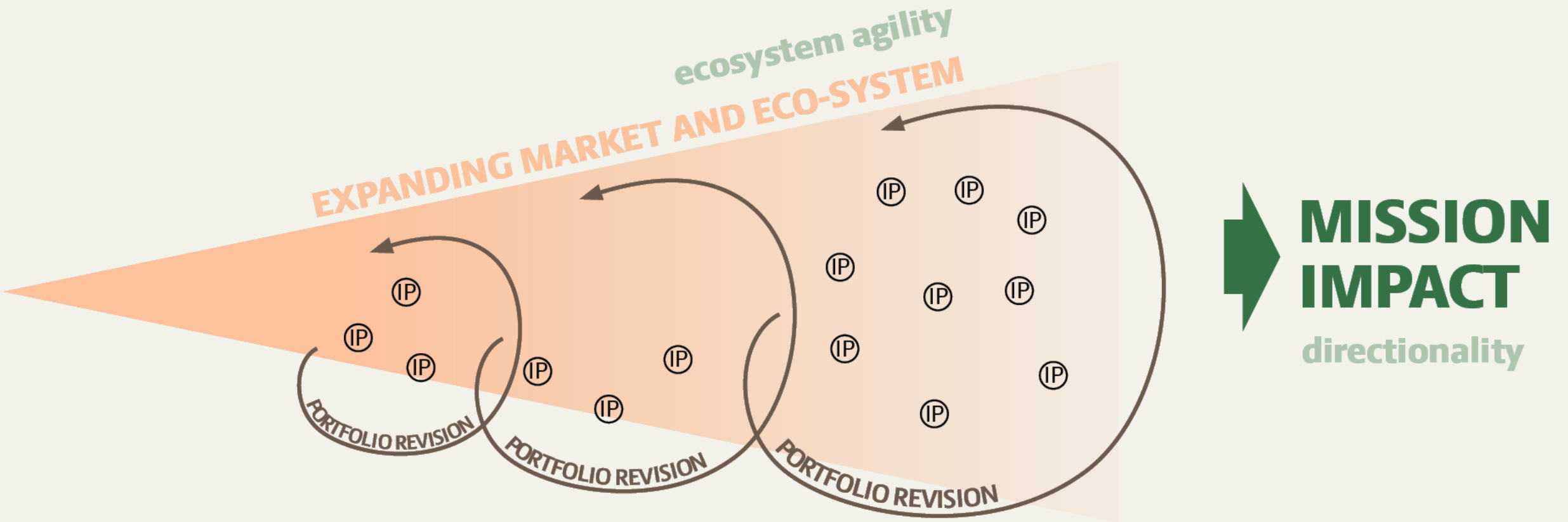
feed

food

Recirculation of nutrients

MISSION-ORIENTED GOVERNANCE

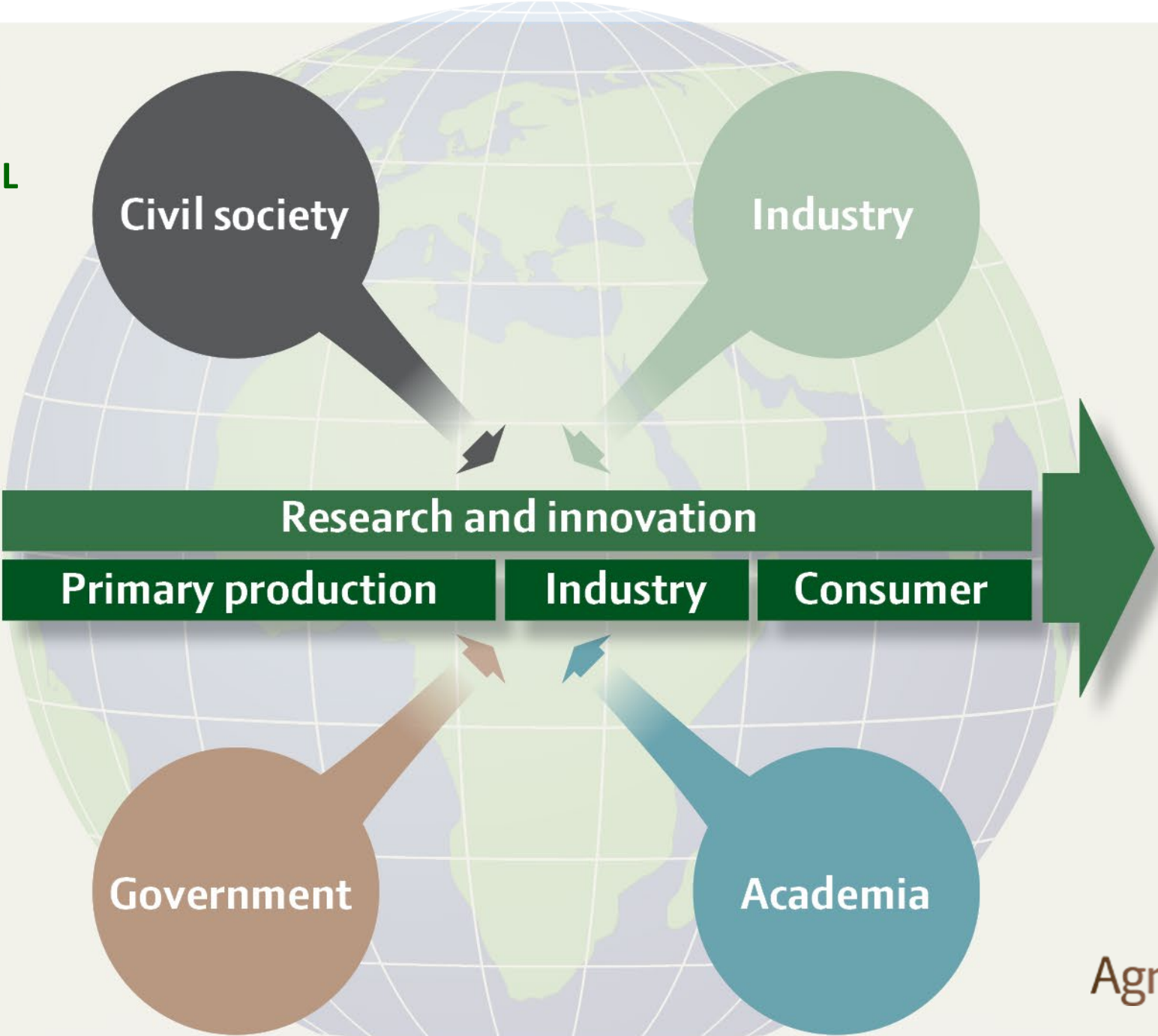
MISSION IMPACT, PORTFOLIO MANAGEMENT AND ECO-SYSTEM AGILITY

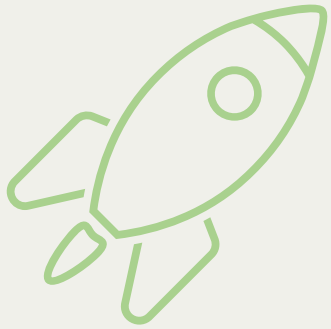


The partnership as a GAME CHANGING ecosystem driver

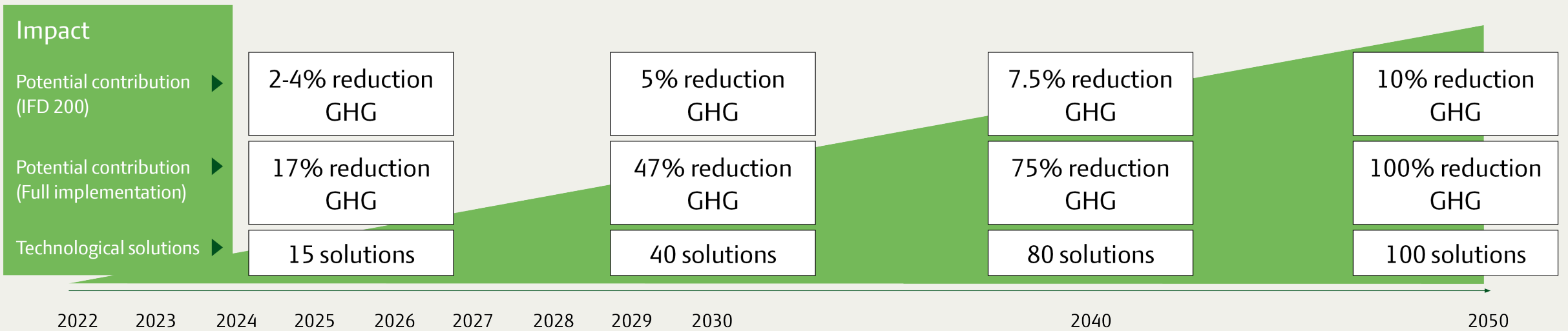
QUADRUPLE HELIX

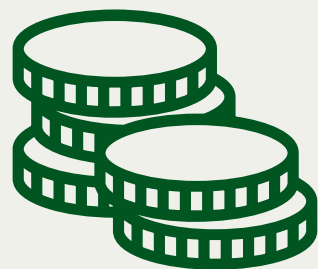
THE NEW DANISH MODEL
FOR MATCHMAKING





IMPACT





Funding needs

	TRL 1-4		TRL 5-9				Total m DKK
	Publ foundations	Priv foundations	Publ foundations	Priv foundations	Priv investments	Processing facility	
	m DKK	m DKK	m DKK	m DKK	m DKK	m DKK	
Land use and management*	150	300	150	600	300	0	1,500
Animal based food production	200	200	400	600	1,200	1,400	4,000
Plant based food production	300	300	300	300	900	900	3,000
Biotech and alternative proteins	400	400	400	-	1,200	1,600	4,000
Total	1,050	1,200	1,250	1,500	3,600	3,900	12,500

* Public "Land purchase" is not included

www.agrifoodture.com

Thank you for your attention!