

**BUSINESS
FINLAND**

Challenge competition 2025 for Leading companies

Webinar 23.4.2025

BUSINESS FINLAND

AGENDA

Moderator Virpi Mikkonen

Opening & welcome Jarmo Heinonen

Case Valio Veera Virtanen

Principles of the Challenge competition

Kari Komulainen

Q&A



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Opening words & welcome

Jarmo Heinonen, Business Finland

VETURI LEADING COMPANY CONCEPT



Target to increase R&D investments to 4% of GDP by 2030

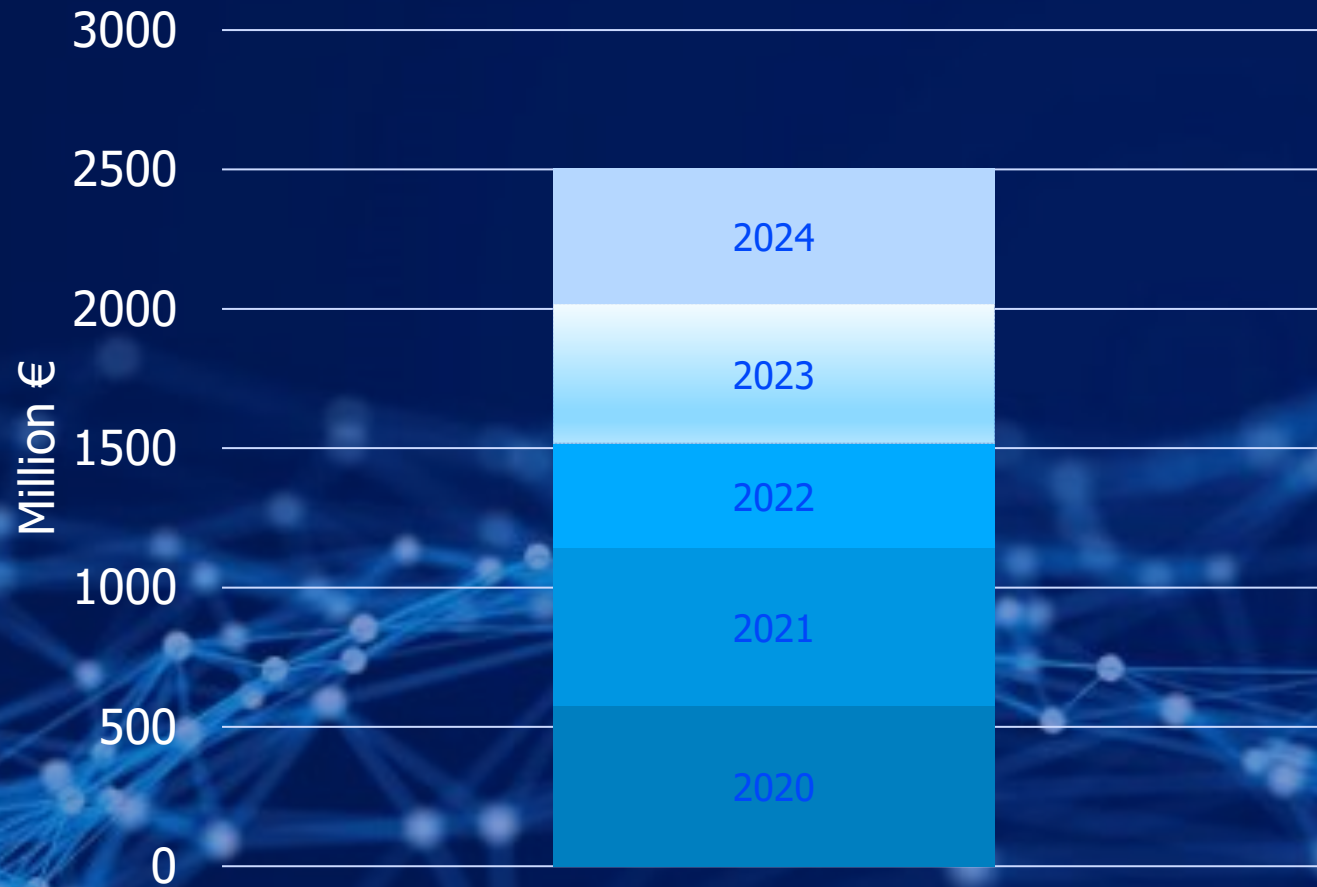


Big companies are vital to reach the target



Challenge competition for companies to i) increase significantly their R&D expenditures in Finland and ii) make an impact to the ecosystem

Veturi companies' cumulative R&D commitments



More than
800 R&D
projects in
ecosystems

Fortum & Metsä Group
ExpandFibre

Nokia
Unlock Industrial 5G

Neste
Novel Sustainable Solutions for Transportation and chemicals

KONE
Flow of Urban Life

ABB
Green Electrification

Sandvik
SHIFT'25

BUSINESS
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TietoEvyry
Trusted Digital Societies

Bittium
Seamless and Secure connectivity

Ponsse & Epec
Forward'27

Danfoss
Fossil Free Future

LEADING COMPANIES 2020-2025

Konecranes
ZERO4

Mirka
SHAPE

Picosun
Chip Zero

Orion
Virtual BigPharma

Valio
Food 2.0

Wärtsilä
Wide and Intelligent Sustainable Energy

Patria
eAlliance

Kempower
Heavy Electric Traffic Ecosystem

Nokia
LEAD

Nokian Renkaat
Futureproof

Canatu
Carbon Age

Kalmar
Move2Green

ANDRITZ
BioCircleToZero

Borealis Polymers
Sustainable Plastic Industry Transformation

Wärtsilä
Zero Emission Marine

Valmet
Beyond circularity

Nokia
Competitive EDGE

Meyer
NEcOLEAP Climate Neutral Cruise Ship

ABB
H2 Springboard

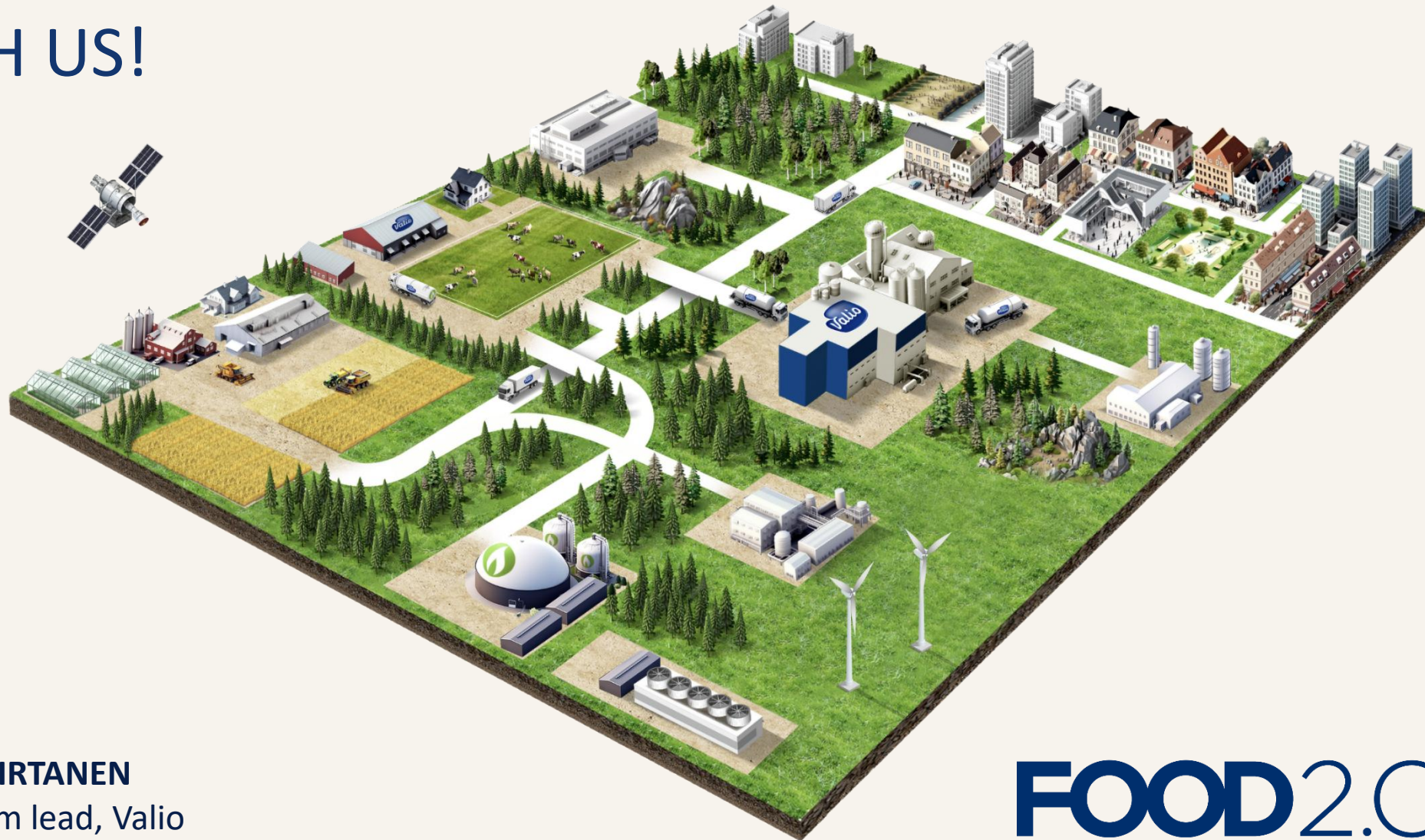


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FOOD2.0 VALIO

Veera Virtanen, Ecosystem Lead, Valio

JOIN THE JOURNEY WITH US!



VEERA VIRTANEN
Ecosystem lead, Valio
veera.virtanen@valio.fi

FOOD2.0



THE GLOBAL FOOD SYSTEM IS FACING SIGNIFICANT CHALLENGES – HOW DO WE SOLVE THEM?



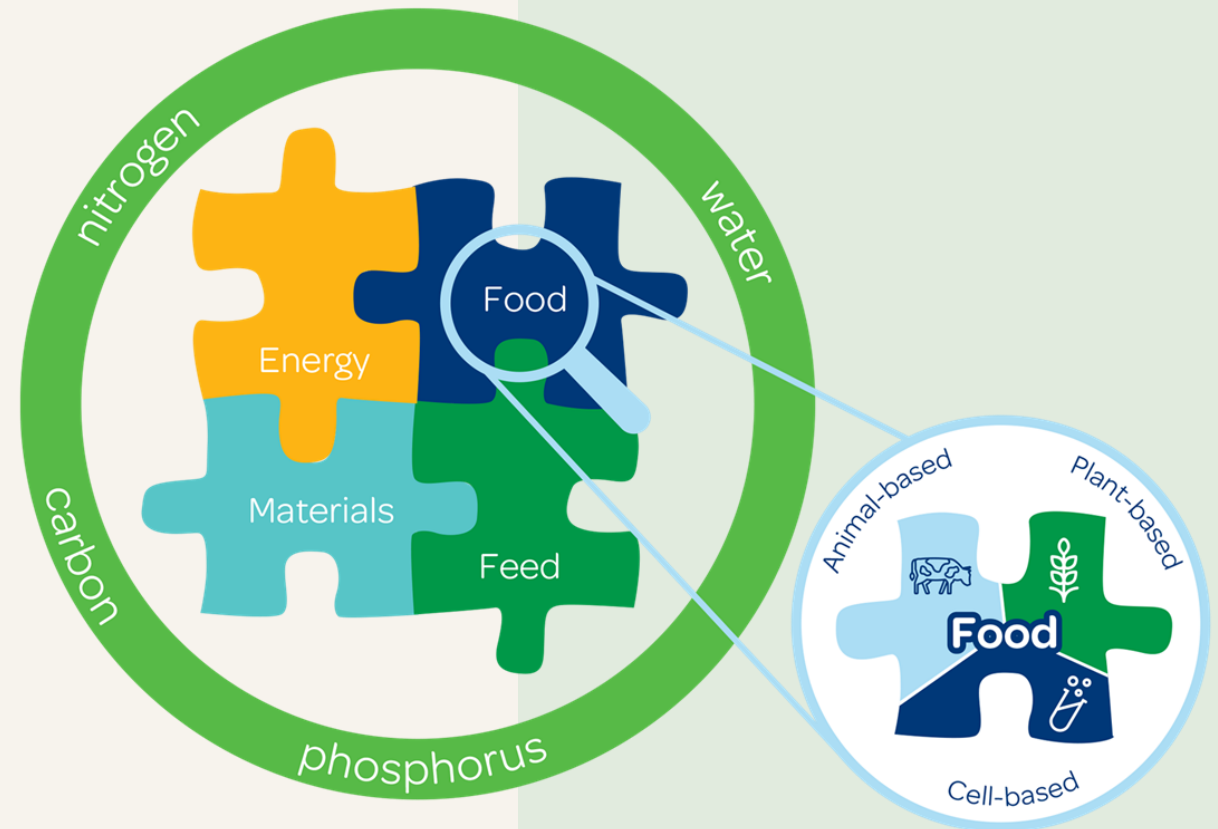
FOOD 2.0 – NATURE-SMART FOOD SYSTEM

THE NEW FOOD 2.0 SYSTEM:

BUILDS ADDED VALUE ON SUSTAINABLY PRODUCED FOOD

- ✓ circulates nutrients efficiently in integrated value chains
- ✓ promotes biodiversity
- ✓ recognises the complementary roles of plant-based, animal-based and cell-based foods
- ✓ builds on resource- and data-efficient technologies

ENCOURAGES ALL PLAYERS TO STRIVE FOR A COMMON GOAL

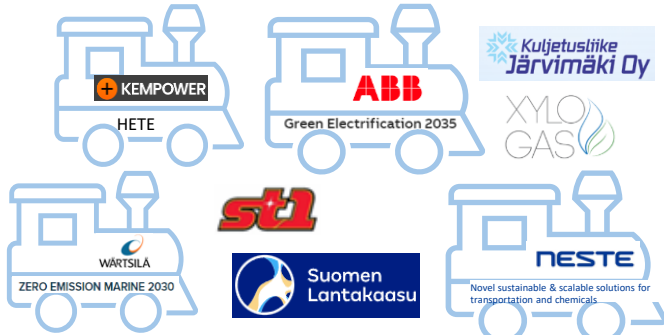




FOOD 2.0 ECOSYSTEM – APRIL 2025

AND LINKS TO THE OTHER VETURI COMPANIES

ENERGY AND TRANSPORT



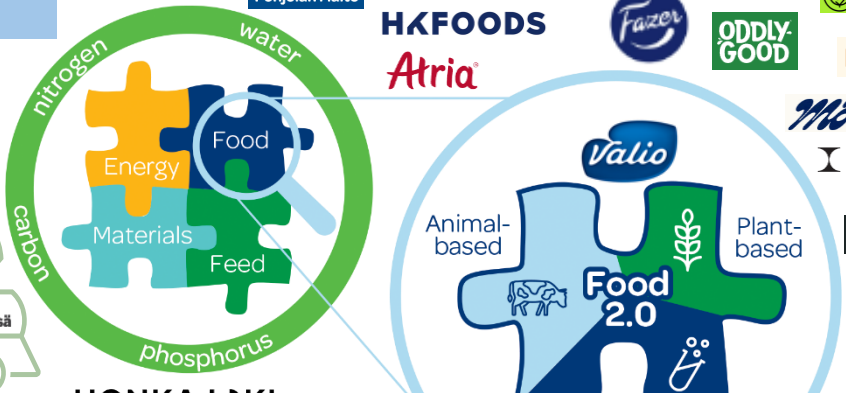
FOOD AND FEED, PROCESS TECHNOLOGY



DIGITAL, DATA, AI



MATERIALS AND CHEMICALS



RESEARCH AND EDUCATION



CONSULTANCY



ORGANIZATIONS



FINANCIERS AND ENABLERS



ROADMAP

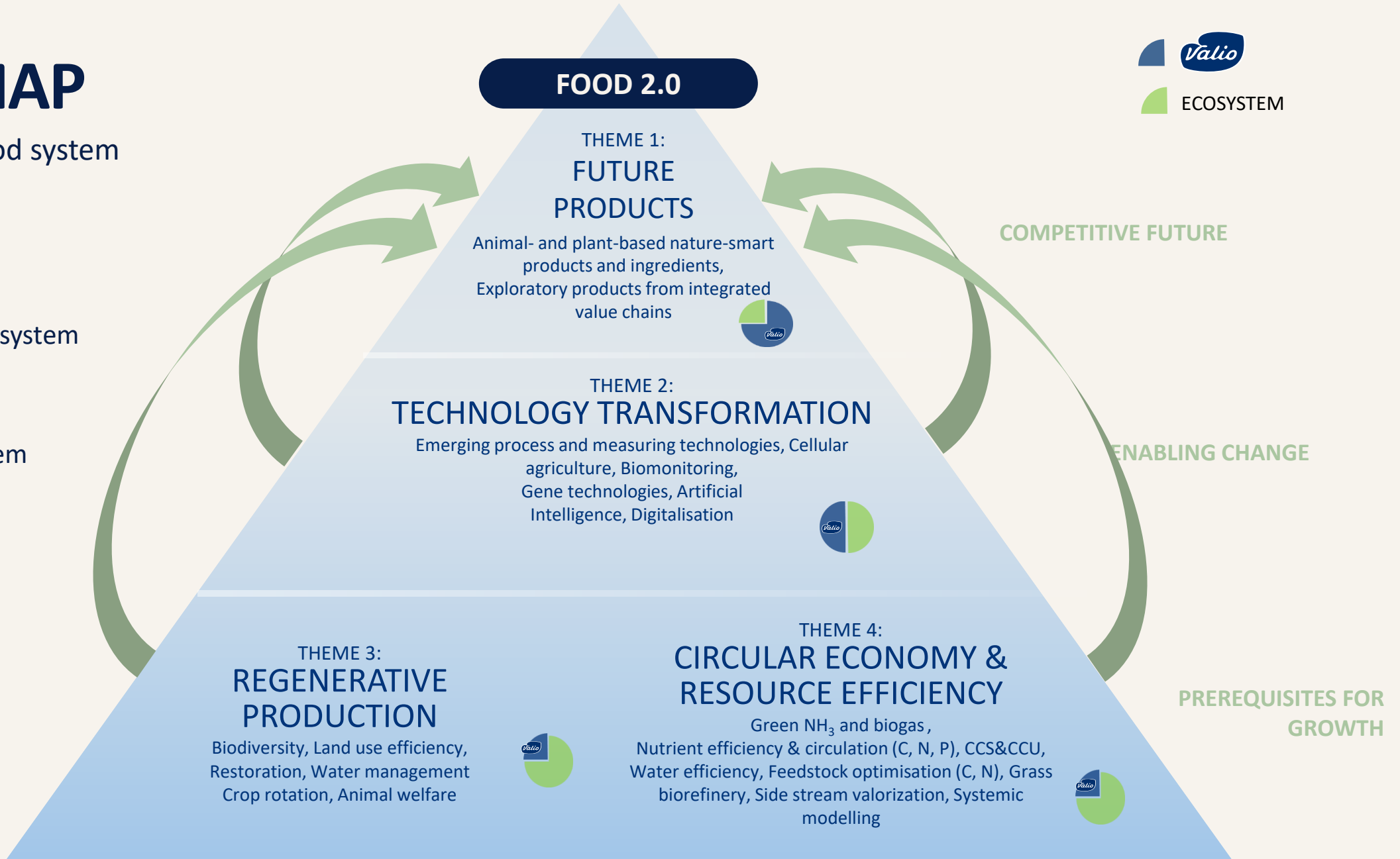
Nature-smart food system

TARGETS:

100 PARTNERS
involved in the ecosystem

EUR 100 MILLION
investments in RDI
across the ecosystem

EUR 1 BILLION
GROWTH
in food exports
by 2032



NEED FOR FOOD 2.0 ECOSYSTEM RDI

Nutrients	Biodiversity and animal welfare	Climate impact	Resource efficiency	Human nutrition	Digitalisation	Disruptive & enabling technologies
Nitrogen and phosphorus circulation in food system	Measuring and modeling biodiversity	Carbon cycle and capture in integrated food system	Agri-food biorefineries	Nutritionally valuable compounds from side streams	Data ownership, quality and integration	Gene technologies for resilience and efficiency
Roadmap for green ammonia in Finland	Sustainable farming practices	Agricultural aerosols	Water- and energy-efficient processes	Nutritional quality of new foods	Computational modeling for assessing sustainability	Cellular agriculture
Systemic modeling of nitrogen circulation	Monitoring and verification of animal welfare	Sustainable farming practices	Side-stream valorisation and logistics	Health monitoring, sustainable and personalised diet	Artificial intelligence in food system	Power-to-X in food system
Technologies for recycled nutrients		Climate impact modeling	Renewable energy from agricultural biomasses		Robotics and automatization	Remote sensing in food system
			Biogas production value chain optimisation		Sensors and edge computing	Water management
			Agrofibers			
			Recycling of agricultural plastics			

ECOSYSTEM PROJECTS

Food 2.0 - Nature-smart food system

FOOD 2.0

THEME 1:
FUTURE
PRODUCTS

BF Co-innovation: **FoodID** (VTT)

- Hybrid food & cellular agriculture

BF Co-research: **FABuLOATS** (LUKE)

- Production of uniform and high-quality oats and faba beans

MMM Makera: **PROTETURVA** (Finnish Food Authority)

- Safety of plant-based meat analogues

MMM Makera: **FINNUTRI** (LUKE)

- Domestic food production and dietary needs

RCF: **AI in food R&D** (VTT)

- Linked to BF-FoodID

THEME 2:
TECHNOLOGY TRANSFORMATION

BF Co-research: **AlgaCircle** (UTU)

- Microalgae & circular economy

FRIF: (LUKE)

- **Methane mitigation by animal breeding**

BF Co-innovation: **AWVS** (LUKE)

- Animal welfare verification system

BF Co-research: **CARBON+** (UH)

- Agricultural aerosols

THEME 3:
REGENERATIVE
PRODUCTION

THEME 4:
CIRCULAR ECONOMY &
RESOURCE EFFICIENCY

ACTIONS TO SUPPORT EXPORT AND GROWTH

By joining forces we can all grow – everyone can contribute!

JOINT DEVELOPMENT, NETWORKS AND VISIBILITY

- ✦ Joint R&D&I projects – financing e.g. from Business Finland, ministries, EU
- ✦ Active search of partners and linking companies for collaboration
- ✦ Events and training activities
- ✦ Visibility for companies in events, media, etc.
- ✦ International networks eg. Nordic collaboration

FINANCIAL AND BUSINESS

- ✦ Investments for start-ups or joint-ventures
- ✦ R&D capabilities, testing and collaboration
- ✦ Large companies can be the first customers for start-ups

SUPPORT IN EXPORT ACTIONS

- ✦ Collaboration with national export program led by Ruokatieto
- ✦ Collaboration negotiations in export logistics
- ✦ New market scouting with the support from Business Finland Global Food and Foodtech team

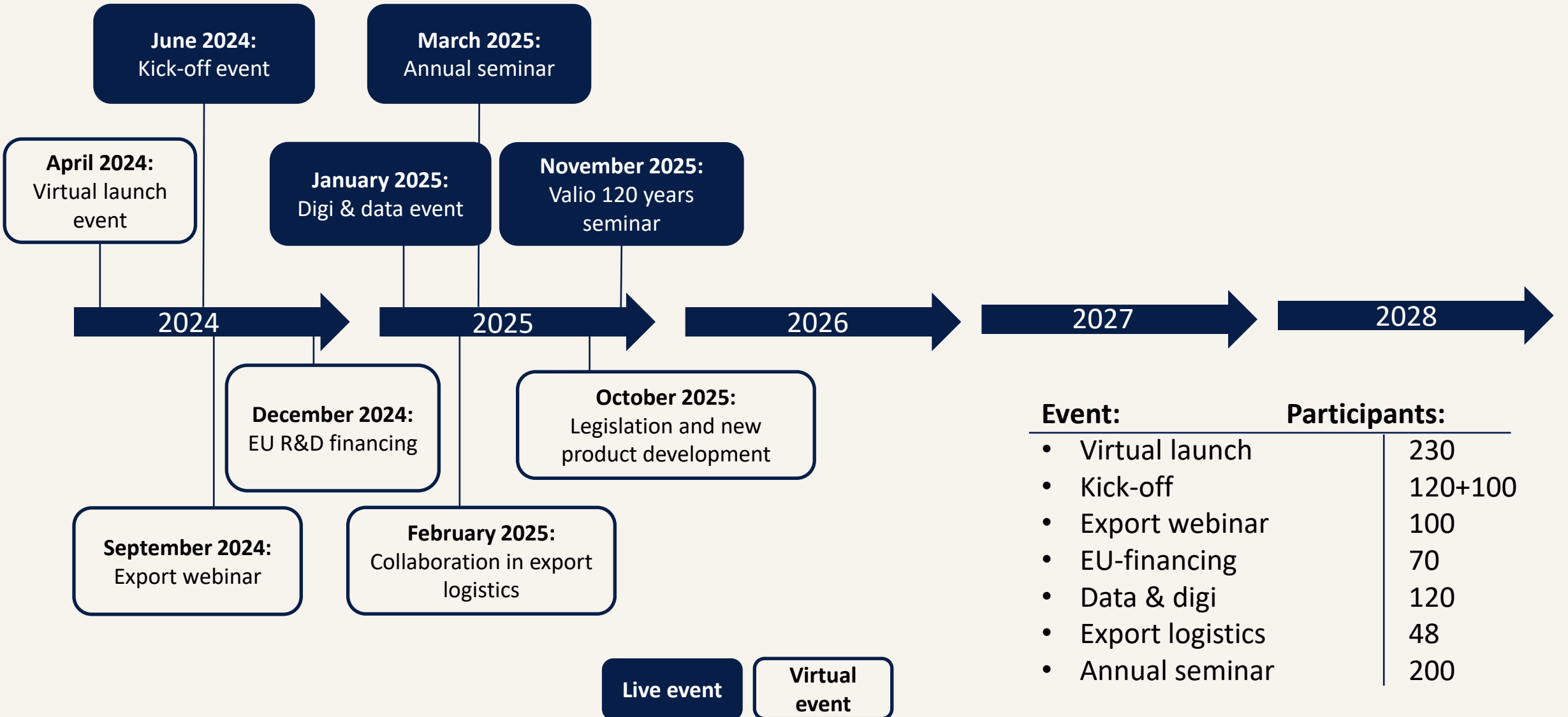


CONCRETE SUPPORT ACTIONS FROM VALIO FOR SMES

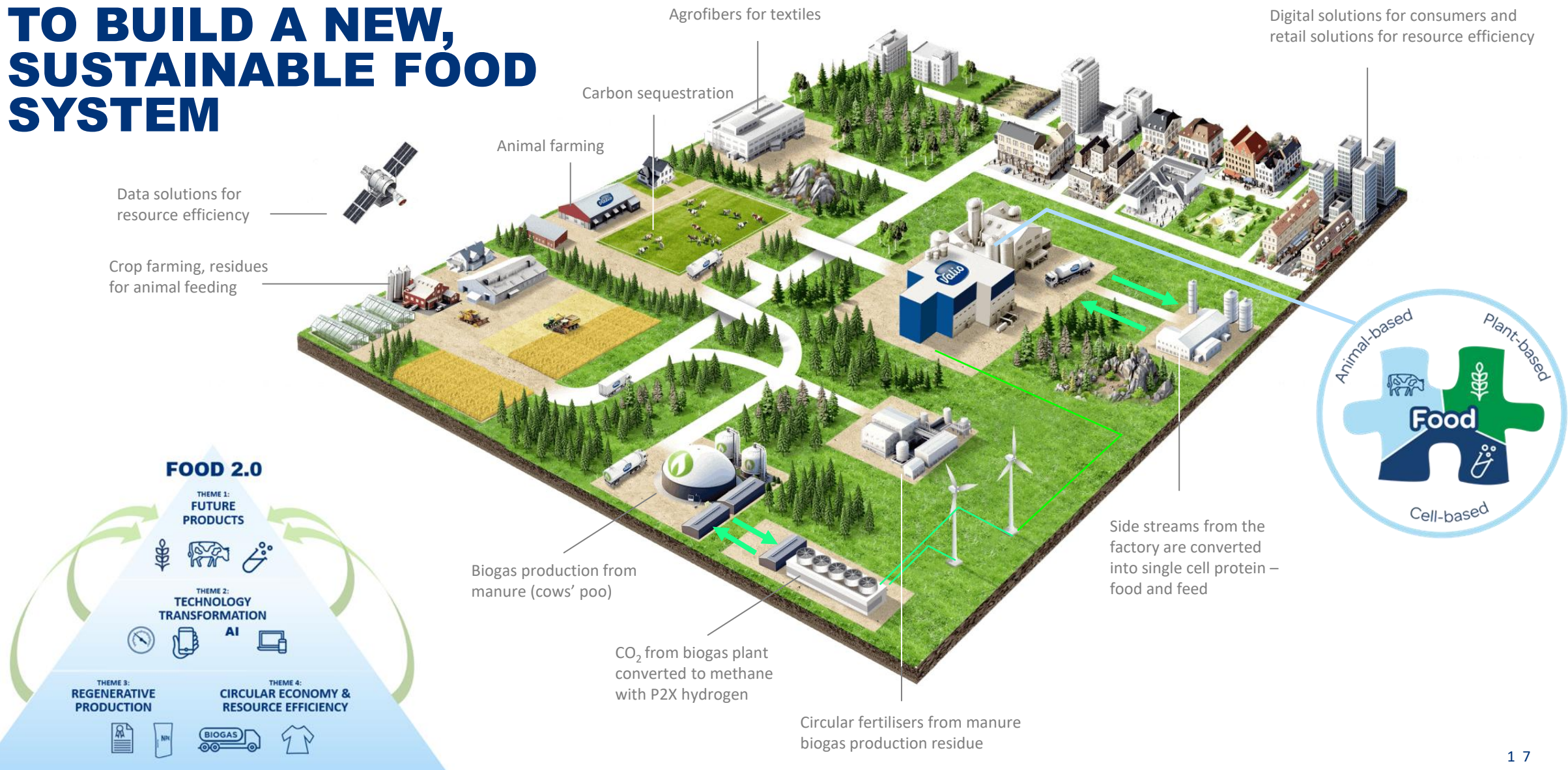
- ✦ Oddlygood – joint venture with Mandatum
- ✦ Suomen Lantakaasu – joint venture with St1
- ✦ Enifer - Minority investment
- ✦ Foodwest – Minority investment
- ✦ Melt and Marple – collaboration agreement in R&D



FOOD 2.0 EVENT SUMMARY



WORKING TOGETHER TO BUILD A NEW, SUSTAINABLE FOOD SYSTEM



FOOD 2.0

THEME 1: FUTURE PRODUCTS



THEME 2: TECHNOLOGY TRANSFORMATION



THEME 3: REGENERATIVE PRODUCTION



THEME 4: CIRCULAR ECONOMY & RESOURCE EFFICIENCY



Principles of the Competition

Kari Komulainen, Business Finland

Competition categories*

The plan is to allocate a total of EUR 80 million R&D funding for this challenge competition. Funding for the ecosystem partners is not included in this figure.

Competition categories are

Companies that operate globally and have the capacity to make major additional investments in RDI in Finland. The maximum amount of Business Finland's funding is EUR 20 million for a leading company and EUR 50 million for ecosystem partners.

Companies that strive to grow into a global player, solve a smaller or more focused challenge, develop completely new business openings or strengthen the role of a company operating in Finland in a globally operating group. Business Finland's funding for the challenger company up to 10 M€ and for its ecosystem 20 M€.

Leading companies must provide solutions to major future challenges, either to missions or significant technological challenges

- Leading company defines the mission and roadmap and leads the cooperation
- Partners (companies, research organisations) and their projects contribute to solving the mission

ANDRITZ aims to double the value derived from wood without harvesting more trees.

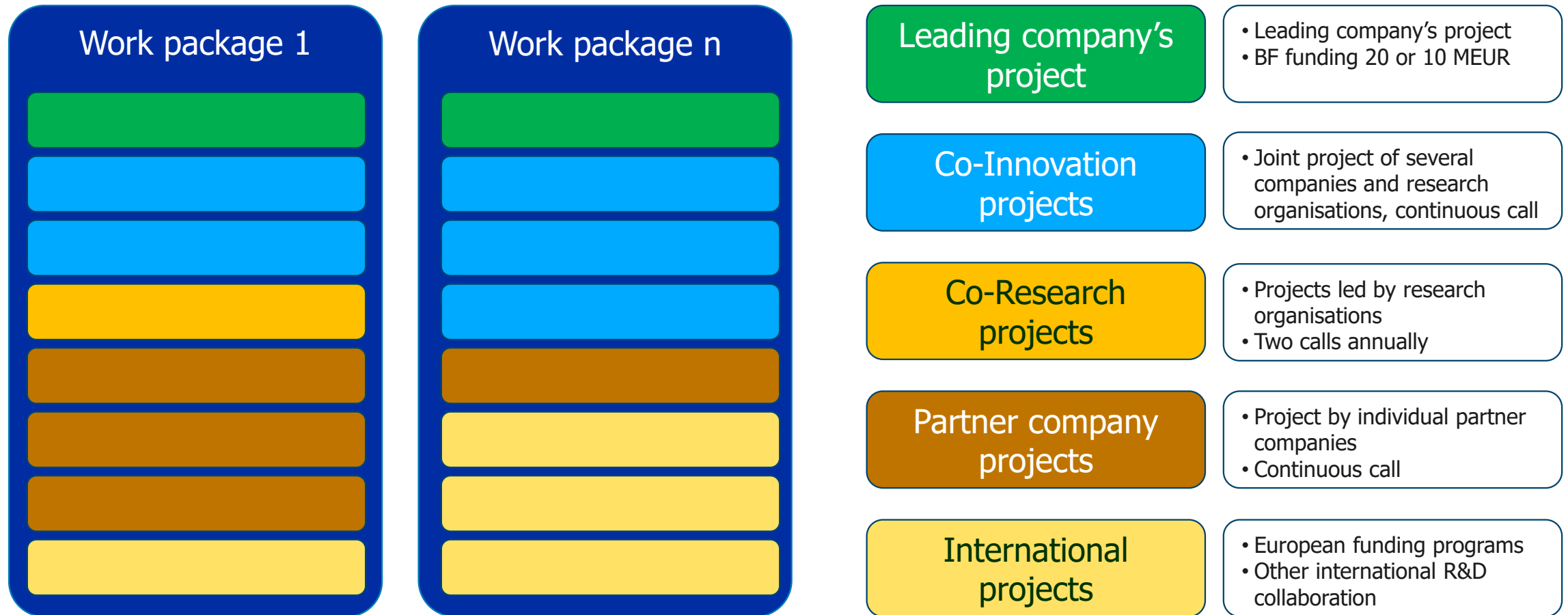
Valio - Food 2.0 Nature-smart Food System

Canatu - The semiconductor industry is in urgent need of new alternatives as traditional materials approach their limits.

Kalmar's vision is to achieve a net-zero emission logistics chain in ports, terminals and other heavy logistics by 2045.

Insert your mission here

Leading company's ecosystem evolves over time, catalysed by clear and compelling mission



Division of tasks between Leading Company & ecosystem case Wärtsilä Zero Emission Marine



The roadmap describes

- what Wärtsilä will do (blue part of pie chart)
- what is needed from partners (red)



1st competition phase concentrates on impact

First round entries must be received by
by 23:59 pm on September 5th, 2025

- Increase in R&D investments in Finland, credibility of the increase, other positive societal impacts
- Clarity of mission and objectives, **need for an ecosystem to achieve the objectives**
- Export business potential for the leading company and the ecosystem
- Integration of the leading company project into the core of the company's strategy and commitment of the company's top management
- Added value of Business Finland's funding

Payment indicators

Addition of R&D investments in Finland (weigh 70%):

- M€, as your company reports to Statistics Finland

Collaboration with other companies and research entities (weight 30%):

- # of co-innovation projects
- # of international R&D applications
- # of partners

Payment indicators will be finalized during the 2nd phase and documented in the funding decision. **If targets are not met, funding will be reduced.**

	Ref. year 2024	2025	2026	End year of the project
Group's R&D personnel in Finland (number of employees)						
Group's R&D expenditure in Finland (EUR million)						

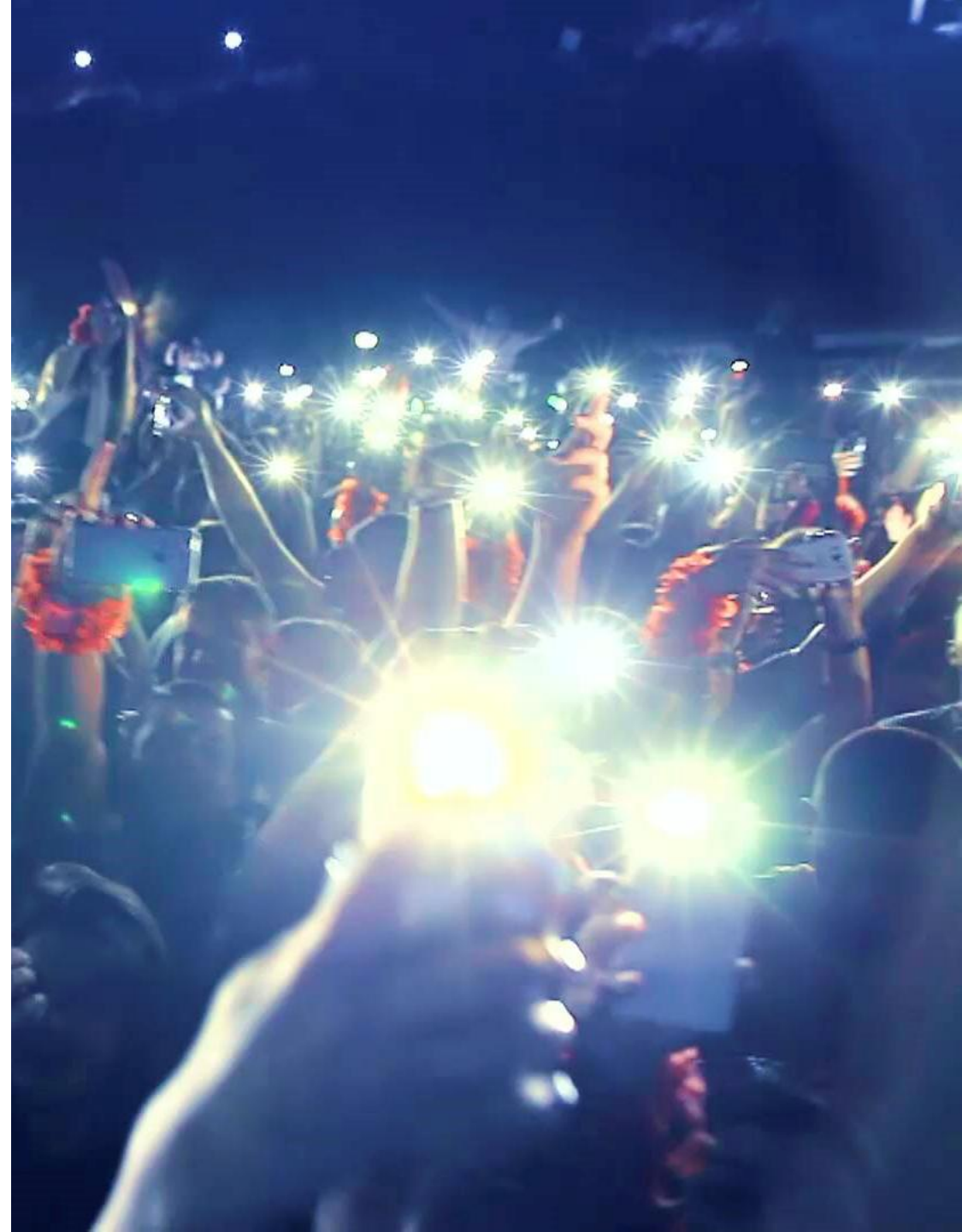
2nd competition phase focuses on project plan

Early in October, we will communicate results of the 1st phase to the competitors

Negotiations with the companies selected for the 2nd phase will take place in October-December, and will focus on

- The quality and feasibility of the company's draft own R&D project plan. The company must demonstrate that it has sufficient resources and a committed team to manage the project.
- Planned measures and commitment to ecosystem development (roadmap). The applicant must describe how it will build and manage the ecosystem, and what the ecosystem's significance is in solving the mission.
- A plan for utilizing other domestic and international R&D funding.

Funding decisions during 1Q2026



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Further information

Kimmo Kanto (ICT ja digitalization)

Ella Kylmäaho (Health and consumer business)

Jarkko Piirto (Energy and built environment, process industry)

Juha Suuronen (Electronics, manufacturing, shipbuilding)

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