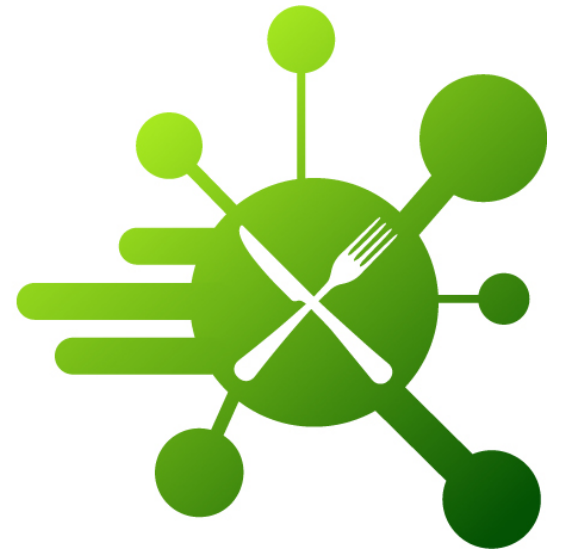


SMART FOOD CHAIN

MINIMIZE WASTE IN FOOD SUPPLY



Developing and implementing effective smart packaging technologies to restructure conventional food supply chains.

Food supply chains have come under increased scrutiny in recent years. Food safety, food security and waste reduction in food as well as in packaging are now central issues which have to be addressed at every stage. New smart packaging technologies can offer vital data all along the value chain, to ensure stakeholders make the right decisions at the right time. AIPIA and its partners will bring together a group of experts from **every stakeholder in the chain** in order to develop a complete new supply chain.

- Generate and better use of **data** generated by smart packaging
- Use of (active) and sustainable packaging to increase **shelf life**
 - Integration of **sensors** for better quality control





The Smart Food Chain

Goal & funding scheme

Goal

The goal of the Smart Food Chain project is to develop and integrate the following technologies:

- Sensors & condition indicators
- Connectivity components & modules
- An interoperable data system
- Advanced data-analytics for supply chain management

The Smart Food Chain aims to significantly reduce food loss throughout the supply chain, improve overall food quality and safety and provide end-to-end traceability.

In accordance with the European Roadmap

Our goal directly coincides with the aim of the Electronic Components and Systems (ECS) Strategic Research and Innovation Agenda (SRIA), which is the main subject for a European (Chips-JU) subsidy call. On the next slide an overview is found of the envisioned technological developments (top) of the Food supply chain (middle) with the expected results (bottom).



Consortium

SMART FOOD CHAIN MINIMIZE WASTE IN FOOD SUPPLY



BOSCH



DIGIMARC



Huhtamaki



HORIBA Scientific

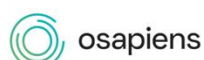
umec



KOENIG & BAUER



masterpress®



Solidus

tracXon

T Systems

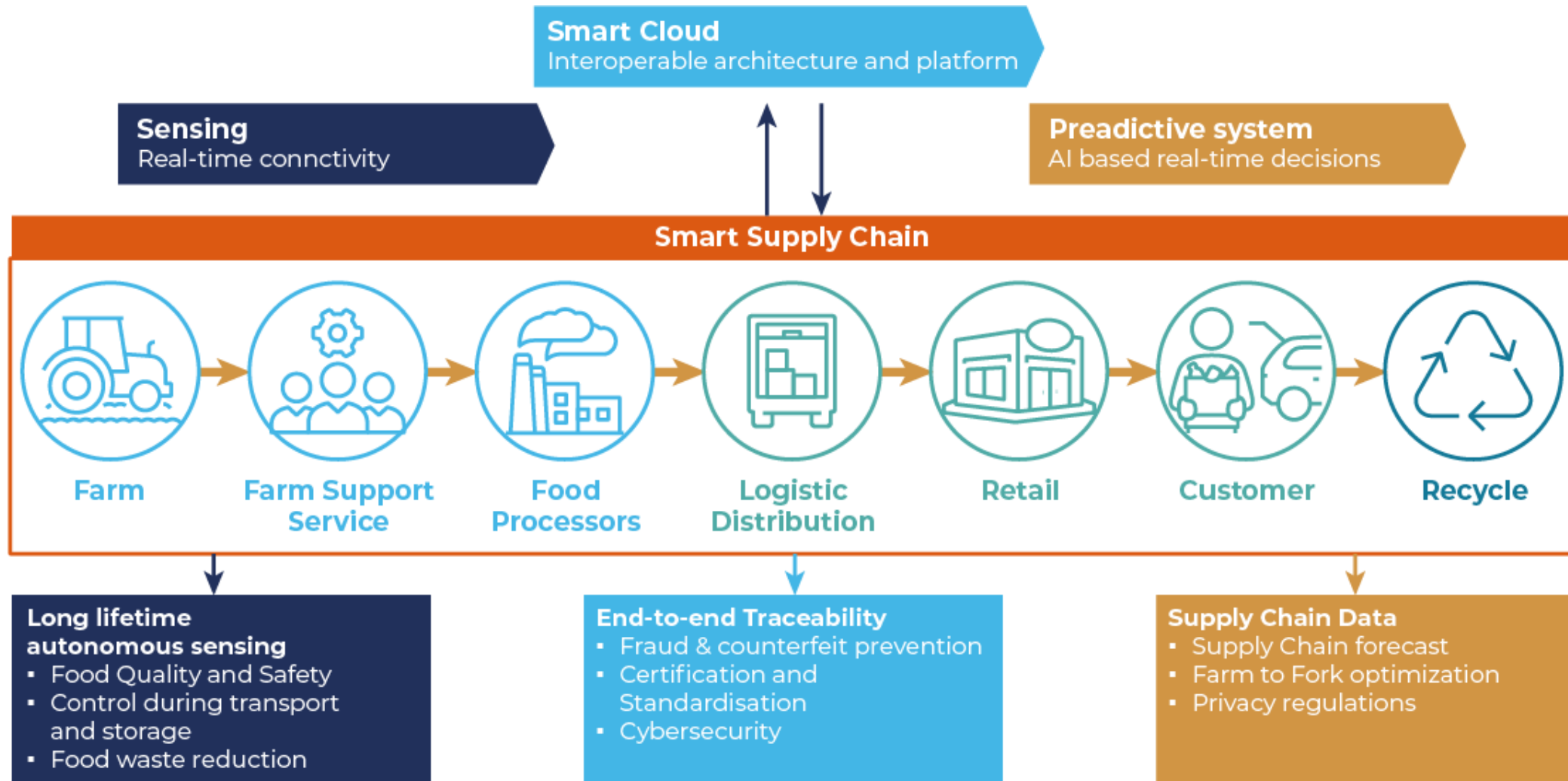


Associates





Project Scope



Work packages



WP1 Food and Beverage Product supply chain demo's (5 chains)

- Red Meat, Fish, Dairy, Fresh Produce, Vegetables
- Product Type and Parameters plus Logistic system (Transport, DC's, smart journey)
- System overview and methodology

WP2 Smart Packaging of Products

Sensing and components

- Location, ID
- Temperature
- Moisture, O₂

Connectivity

- Smart Labels
- IoT, NFC

Industrialisation

- Materials, Circularity
- Mass production

WP3 Smart Measuring of Volumes

Sensing

- Location, ID, Temp
- Trace gasses like ethylene, N₂, O₂, CO₂

Connectivity & AI

- Photonics, NIR
- Edge, LoRa, NFC

Industrialisation

- Materials
- Integration

WP4 Data Systems and Smart Cloud

- Interfaces and communication
- Blockchain
- Communication devices (IoT)
- Standardisation

WP5 Data Analytics and Smart Supply Chain Management

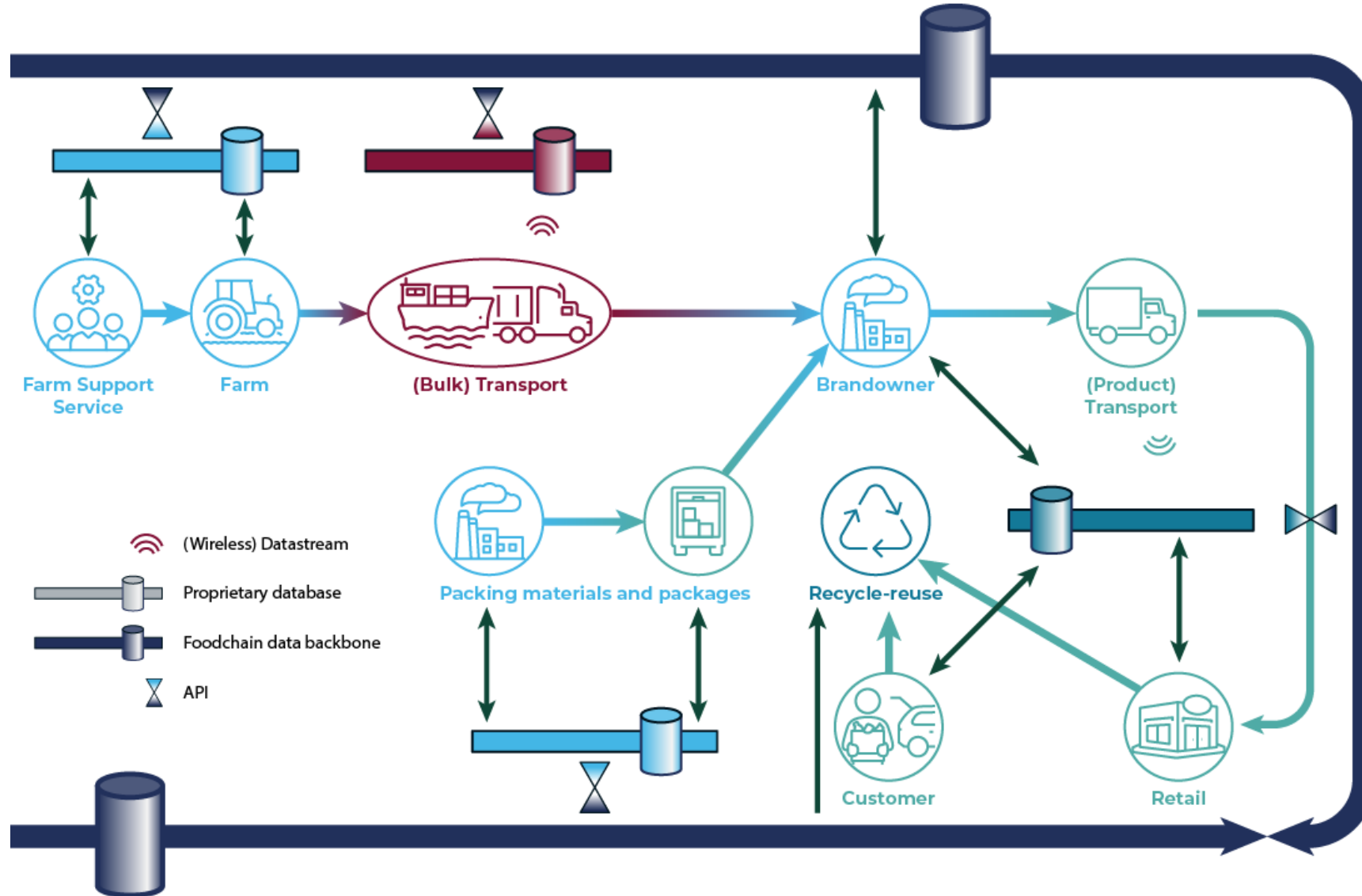
- Cloud analytics
- AI based decisions
- Digital Twin
- VR, AR
- Distributed Intelligence

WP6 Project Management

WP7 Dissemination and Ecosystem Development

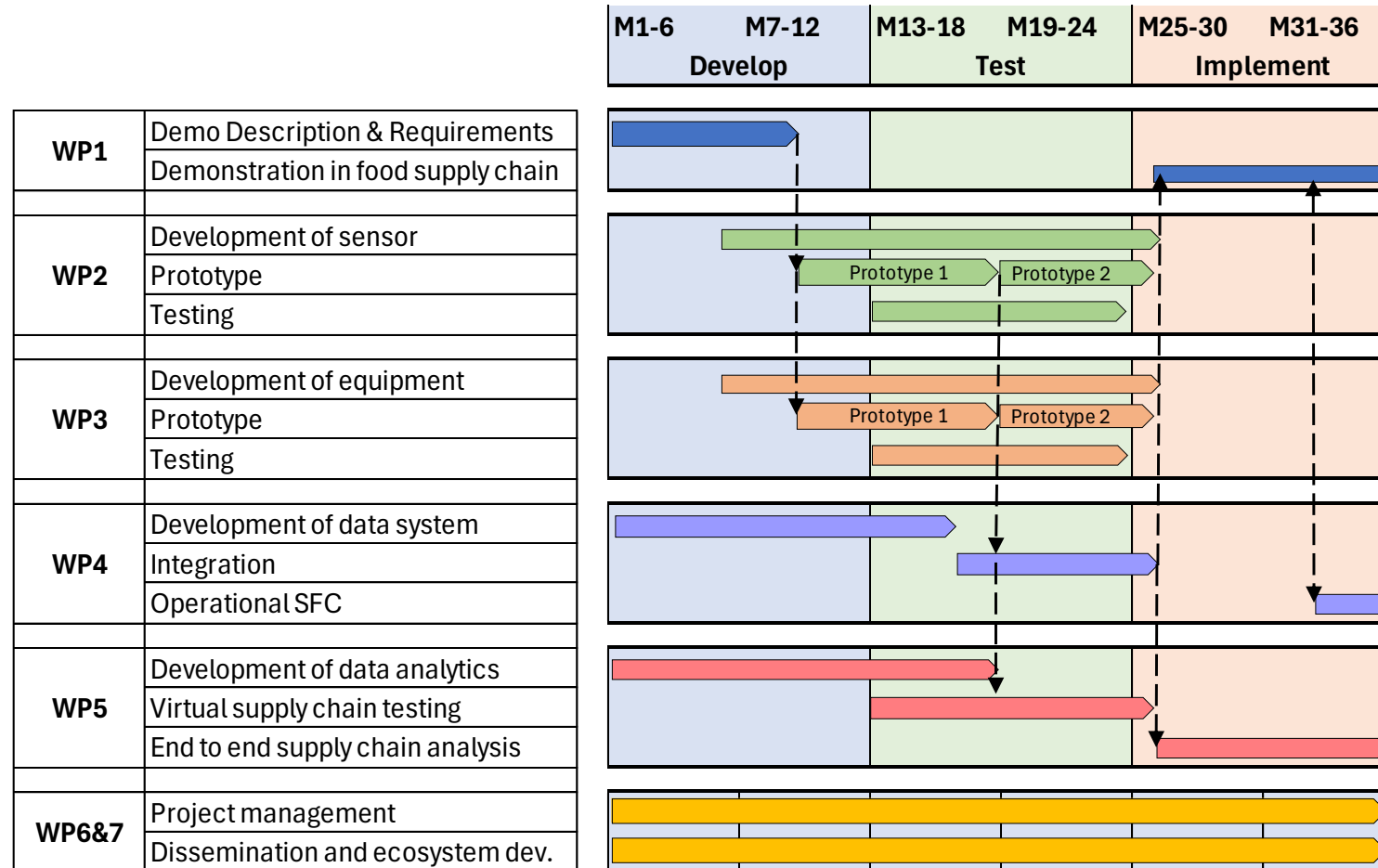


Envisioned Smart Food Chain





Planning





Funding

Subsidy Program: Chips-JU

The proposal will be submitted in the Chips-JU program

- Chips-JU is the new name for the existing Key Digital Technologies-JU program from 2024
 - Focus of the program remains hardware & software innovation
- Total available subsidy for the Global SRIA call (IA) = € 103M EU + member state financing ~ € 200M

Chips-JU info

- Countries: EU + Israel, Iceland, Norway and Turkey
- Project size: €10M - €100M (**we aim for 40M total budget with 20M subsidy -> ~ 1M budget per partner**)
- Duration: ~ 3 years
- Deadlines
 - Project outline 14 May 2024
 - Full proposal 17 September 2024



Funding

Subsidy percentages for the Chips-JU

Subsidy percentages Chips-JU	EU RIA / IA TRL 3-4 / 5-8	NL (National) RIA & IA
Large Enterprise	RIA 25% / IA 20%	20%
SME	RIA 35% / IA 30%	30%
Knowledge Institution	RIA 35% / IA 35%	25%

Example:

A Dutch Large Enterprise, working at TRL 5-8 will receive 40% total funding (20% European + 20% national)



Next steps

Towards the full-proposal: please try to continue, do not wait!



Participation conditions

As shared in the invitation for joining the Smart Food Chain project

The participant hereby agrees with the following:

1. Each participant nominates one other party that will join the project.
2. Each participant will participate in the AIPIA world congress in Amsterdam (once per year) to present their progress in the project, the costs are eligible for subsidy.

Per participant the costs are:

3. The cost for the Project Outline phase is 3.500 Euro.
4. The cost for the Full Project Proposal is 2% “no cure no pay” of the subsidy assigned.
5. The costs for Project Management and Valorization (AIPIA) is 3% of the total project costs for that participant.



Management Team



Initiator,
Network Organisation



Eef de Ferrante
eef@aipia.info
+31 6 54 33 14 58



Coordinator



Mark van Boxsel
Mark.van-Boxsel@t-systems.com
+31 6 11 45 01 87



Program Management



Erik Teunissen
e.teunissen@berenschot.nl
+31 6 53 51 49 01



Technology advisor



Dick de Koning
d.dekoning@packz.org
+31 6 31 01 46 08



Berenschot

www.berenschot.nl

[linkedin.com/berenschot](https://www.linkedin.com/company/berenschot)