



AIPIA Smart Food Chain

Erik Teunissen & Joran van den Berg

27 FEBRUARY 2023

KDT JU

"De Key Digital Technologies Joint Undertaking (KDT JU) is public-private partnerschap supporting research, development and innovation in electronic components and systems (ECS)"

Global call according to SRIA* 2023

SRIA vision 2028-2032:

- *"Food traceability over the whole value chain"*
- *Improved electrochemical sensors for natural resources quality monitoring*
- *AI for automatic decisions based on agronomic models and algorithms*

Global call according to SRIA

Intelligent logistic systems including sensing and monitoring for food chains

Logistics are a critical component of the food chain. It does not only determine the reach of distribution, but logistics delays and conditions profoundly affect the quality and safety of the products received by consumers and can result in food loss and waste in the supply chain. To avoid this, we address the following issues to be developed and implemented in the supply chain:

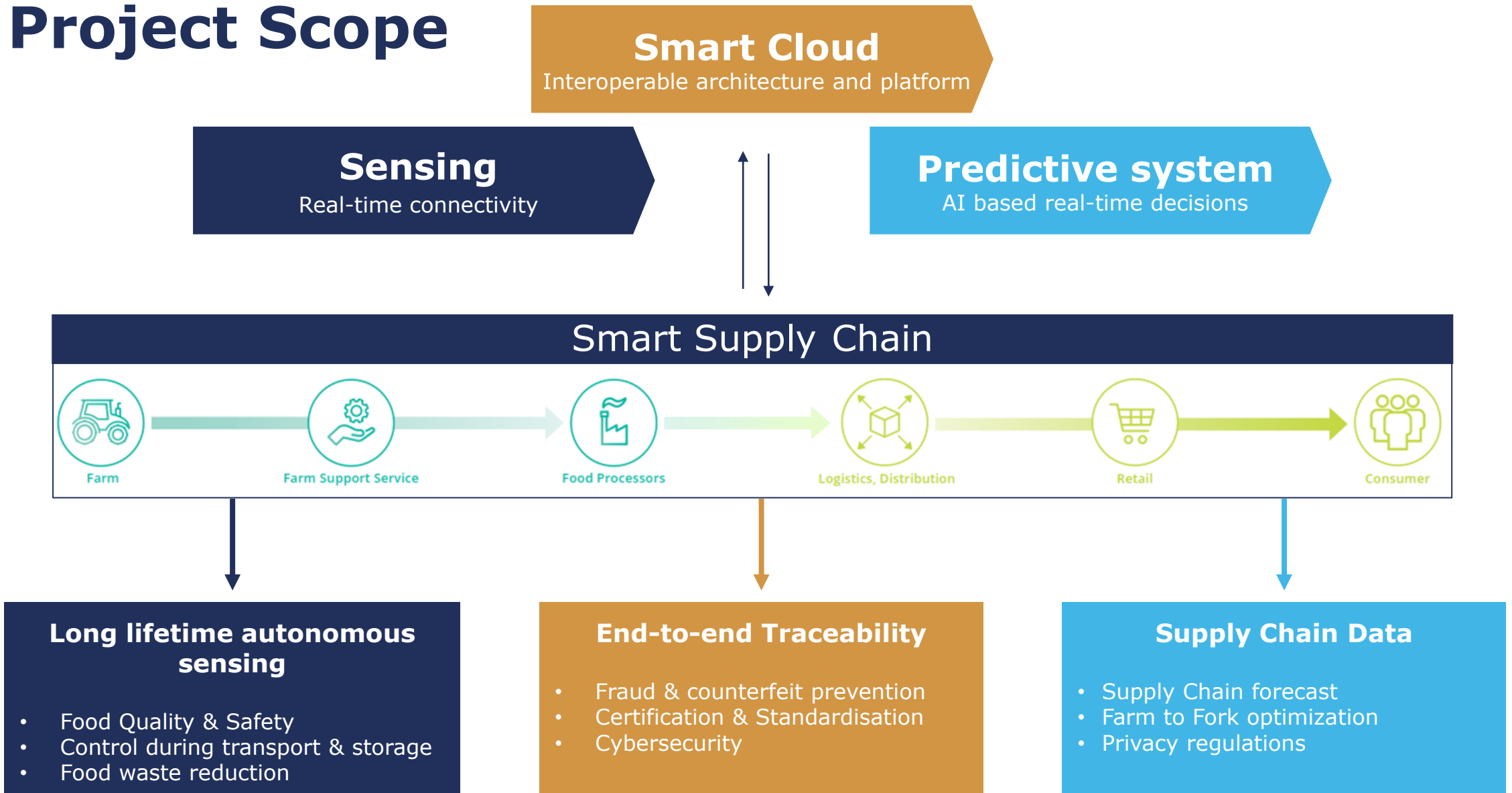
Smart real-time sensing, monitoring and control systems for:

- *Food safety*
- *Reducing (food) losses*
- *Supply chain optimization*

Technological solutions

- *Systems for **monitoring and controlling food supply** during production, transport, storage and retail*
- *Predictive systems for food quality and supply, providing **real-time decision-support** based on actual sensor measurements, **supply chain data** and **AI models**.*
- ***Transport route optimization**, considering not only **time and cost**, but also external conditions and the intrinsic properties of the products being transported.*

Project Scope



Work packages

Smart Cloud

Blockchain – AI – VR – AR – SCM – Digital Twin

Demo products

- Food & Beverage
- Transport container

Value

- Low value
- Middle value
- High value

Sensors

- Location
- Temperature
- Moisture
- Ethylene

Connectivity

- Smart Labels
- IoT

Smart packages

- Product level 1
- Package level 2
- Shipping level 3

Industrialisation

- Materials
- Assembly, Integrate

Smart Supply Chain

- Cloud analytics
- AI based decisions
- Production-consumption alignment

Transport

- DC's – last mile
- Robotics

Supply Chain



Business case!

Which problem do we solve?

Intelligent Packaging costs versus product value: Multi level solutions

Increase knowledge on product conditions through the value chain

Less waste of resources resulting in more profit

Renew the Supply Chain!
Replace the existing Supply Chain by a Smart alternative.

Shorter routes and lower throughput times, sustainable logistics

Increase Supply Chain properties:

- Efficiency
- Predictive models

Multi standard system:

- Faster
- Smarter
- Cheaper

KDT JU program details

Budget per project

- €10M to €100M
- We aim for ~€40M

Number of partners

- Up to 100
- We aim for ~30

Deadlines

Project outline - 3 May 2023

Full proposal - 19 Sept. 2023

Funding	EU IA TRL 5-8	EU RIA TRL 3-4	NL (RIA & IA)	Other countries
Large Enterprise	20%	25%	20%	?
SME	30%	35%	30%	?
Knowledge Institution	35%	35%	25%	?

Submission process and costs

Project proposal characteristics

Partners	20 – 40
Budget	30 – 50 M€
Subsidy KDT	25-35 %
Subsidy National	15-30%*

*varies per country

Proposal preparation costs

Package deal:

Project Outline phase: 1k€/partner

Full Project Proposal: 4k€/partner

Program Management by AIPIA after approval

Costs are: 5% of the subsidy/partner

Participating countries

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Germany, Denmark, Estonia, Greece, Spain, Finland, France, Hungary, Ireland, Israel, Iceland, Italy, Lithuania, Luxembourg, Latvia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Sweden, Slovenia, Slovakia, Turkey

The team



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



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



Johan Glaser
j.glaser@packz.org
+31 6 29 45 50 69



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



John Eisses
j.eisses@berenschot.nl
+31 6 51 58 42 78



Joran van den Berg
j.vandenberg@berenschot.nl
+31 6 51 50 54 19



Berenschot

Berenschot

www.berenschot.nl

linkedin.com/berenschot