# SMART SENSOR SYSTEMS 4 AGRIFOOD

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FLANDERS INNOVATION & ENTREPRENEURSHIP

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Clusters for Growth

# SOME FACTS

Agri-food

- Traditional sector + trends towards artisanal, local
- SME-driven
- Economical important sector in EU…

**The world is changing … opportunities …**

**Lets interconnect and integrate our chain!**

# TRANSITION IS NECESSARY BECAUSE . . .

We live in an interconnected world

Future: Smart, interconnected and resilient agri-food system

# OUR AMBITIOUS GOAL

Prepare **all** the food companies to make the leap towards industry 4.0:

- Introduce new technologies and inspire and enable the companies to use these
- Connect to the cloud
- Use the available data in the agrifood system

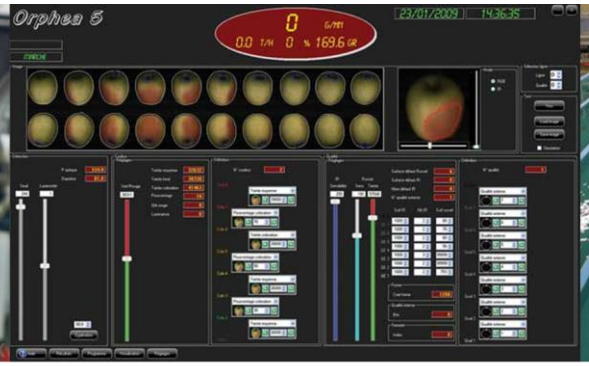
…and in the end …

**Become a more interconnected, resilient and smart agri-food system in Europe**

# POTENTIAL OF DIGITISATION IN FOOD PRODUCTION?

- Better control and inspection of food quality
- Prediction of food quality
- Smaller batch-size
- In the end: machine learning and artificial intelligence to ‘steer’ the food processing

Transport belt of apples
Apples will be imaged one by one




classifications by skin tightness, width and height

classifications in 3 categories before packaging

# POTENTIAL OF DIGITISATION IN DISTRIBUTION?

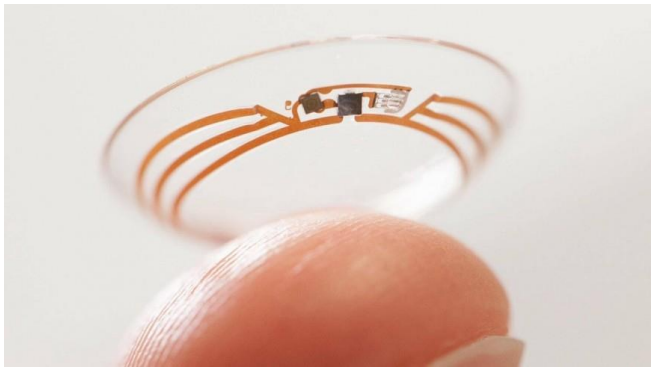
- Discover the potential of blockchain: transparency and data-information from plant to fork
- Support the development of intelligent (smart) packaging


CheckPack

# POTENTIAL OF DIGITISATION IN NUTRITION?

- Consumer has ‘tools’ to check the nutritional value or allergic risk (cfr. food scanner horizon 2020 – prizes)
- Consumer has ‘tools’ to check own health parameters to decide on daily diet


Cargill - scio



Blood glucose contact lenses

# HOW? ROLL OUT STEPWISE APPROACH AWARENESS – PLATFORM CREATION


**Connect and create a trust zone**

# LIVING LAB

## Agrifood Pilot 4.0

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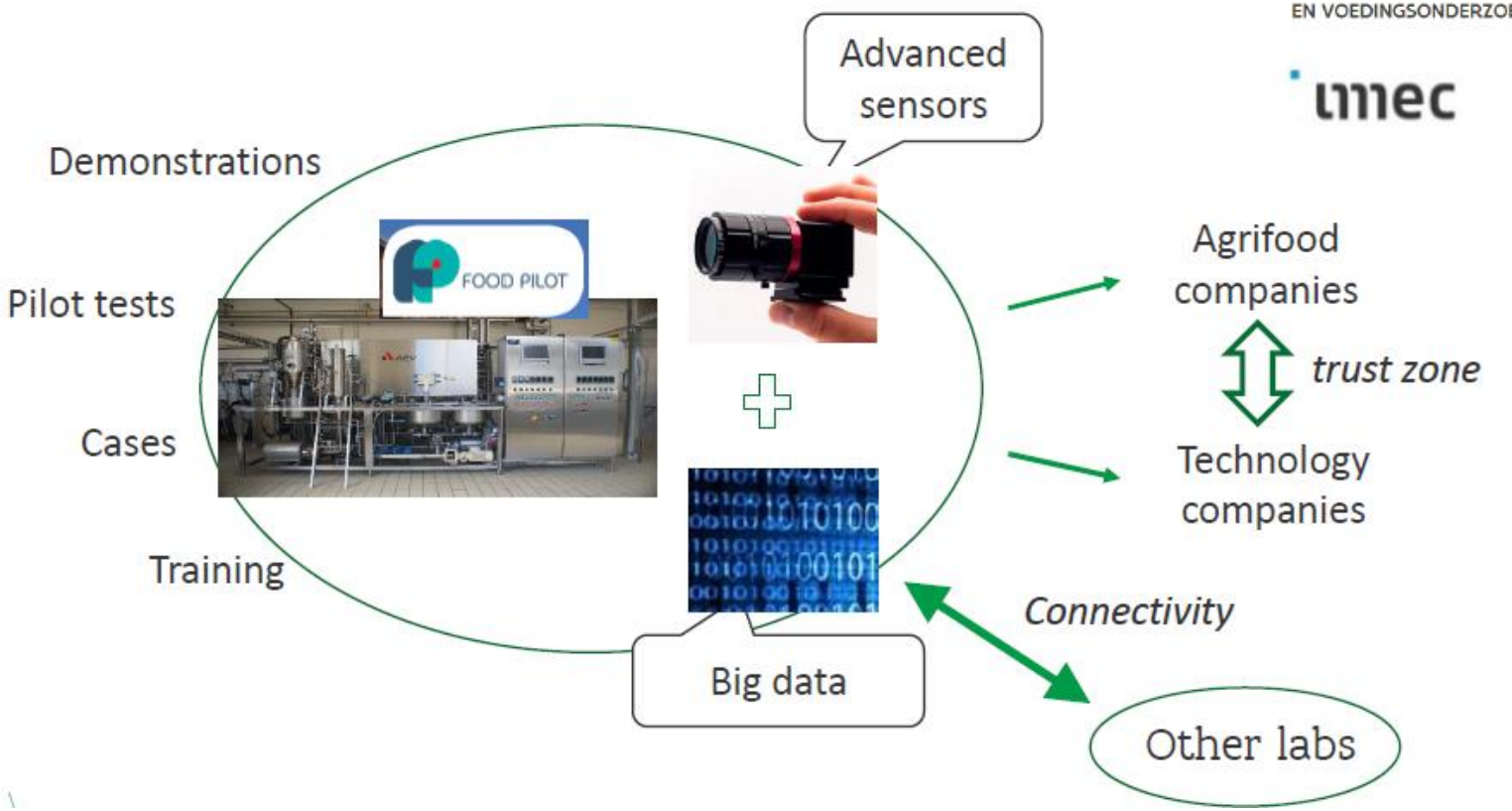
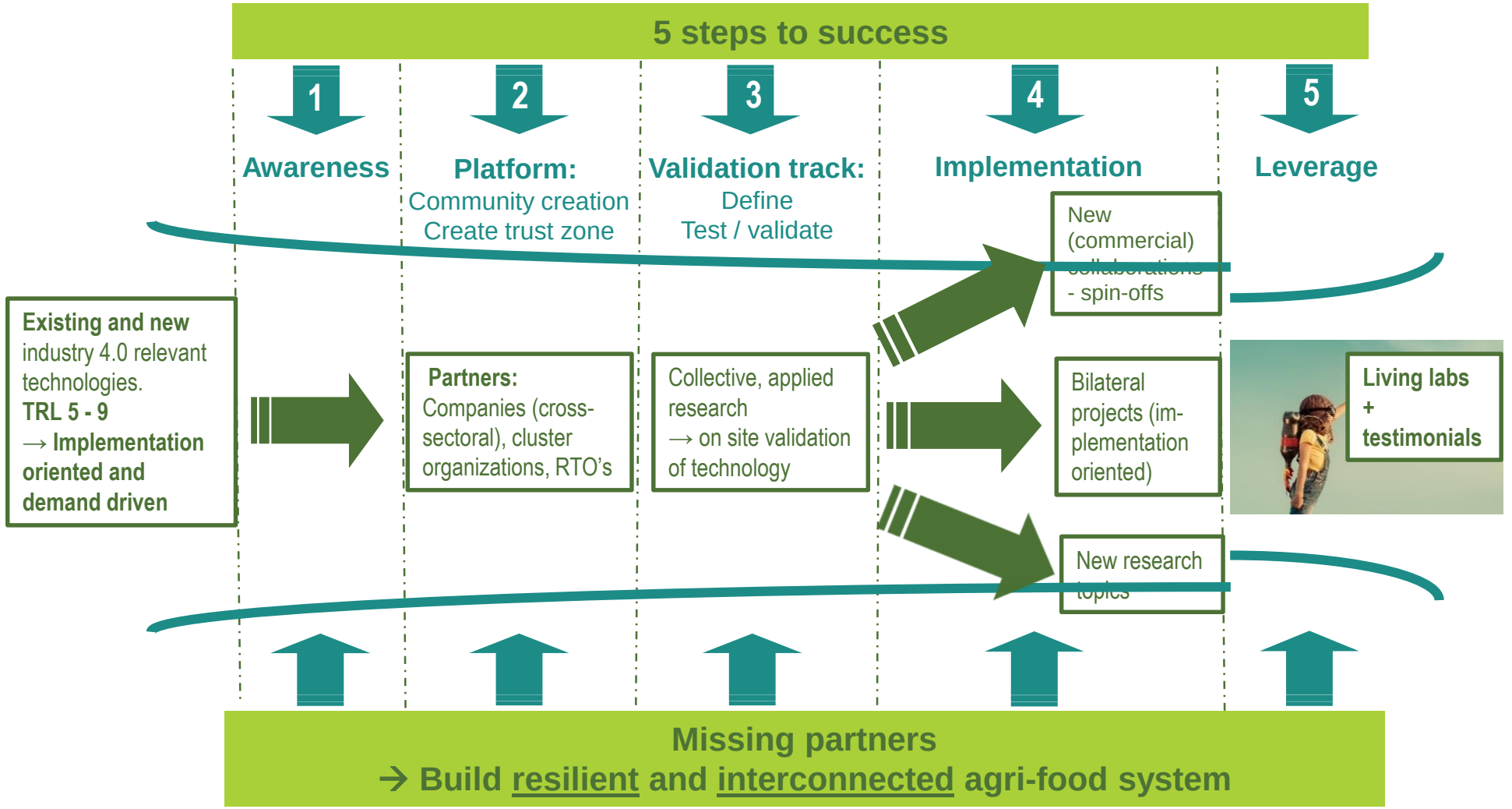
INSTITUUT VOOR LANDBOUW-, VISSERIJ- EN VOEDINGSONDERZOEK

imec



# HOW?: ROLL OUT STEPWISE APPROACH
# THE FUNNEL!



# INVOLVED CLUSTERS/REGIONS AT THIS POINT

# NEXT STEPS

- Define the roadmap to success: setting up a strategy and implementation plan to increase the development and investments in agrifood industry 4.0
- Creation of a real network of Living labs: Setting up a long term structure with all necessary stakeholders involved
- Funding: seeking for sustainable and stable funding opportunities.
- Broaden up the network: opening up to more EU regions, involve all relevant stakeholders

# LESSONS LEARNED

- Slow process: creation of trust zone → cross-organizations + cross-chain + cross-sector
- Involve all the relevant stakeholders: from 'problem owner' over 'technology supplier' to 'system integrator' and 'machine builder'
  - Make sure that innovations are challenged by real world feedback
- Pareto principle:
  - 20% 'new' technologies
  - 80% existing (but not always known) state-of-the-art technologies → technology watch
- Assets of multidisciplinary team that operates across organization borders:
  - Creation of trust zone - technology watch – benchmark - partner matching

# LESSONS LEARNED

- Funding is crucial:
  - To provide the necessary framework + longterm follow-up
  - Financing of the multidisciplinary team
  - Creation of living labs
  - Funding of applied research: validation, implementation and demonstration
  - Promotion of the platform

# DO YOU WANT TO JOIN?

## Let us know!

## Thank you

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