

A large field of discarded tomatoes, mostly red and some yellow, scattered across the ground. In the background, there is a line of trees under a cloudy sky.

# ILVO

Flanders Research Institute for  
Agriculture, Fisheries and Food

**From waste to value**

## How can mobile processing save surplus tomatoes?

Dr. ir. Bart Van Droogenbroeck

Focus Food Save – Bern, 24.06.2026



# GAP

What is the challenge?

## How can we turn variable surplus of tomato into consistent value?

### Key barriers:

- Irregular supply (seasonal, market-driven)
- High variability in time, space type & quality
- Lack of available processing capacity, when needed
- Difficult to standardise processing & products

=> **Need for flexible recipes and processes**



### Why it matters?

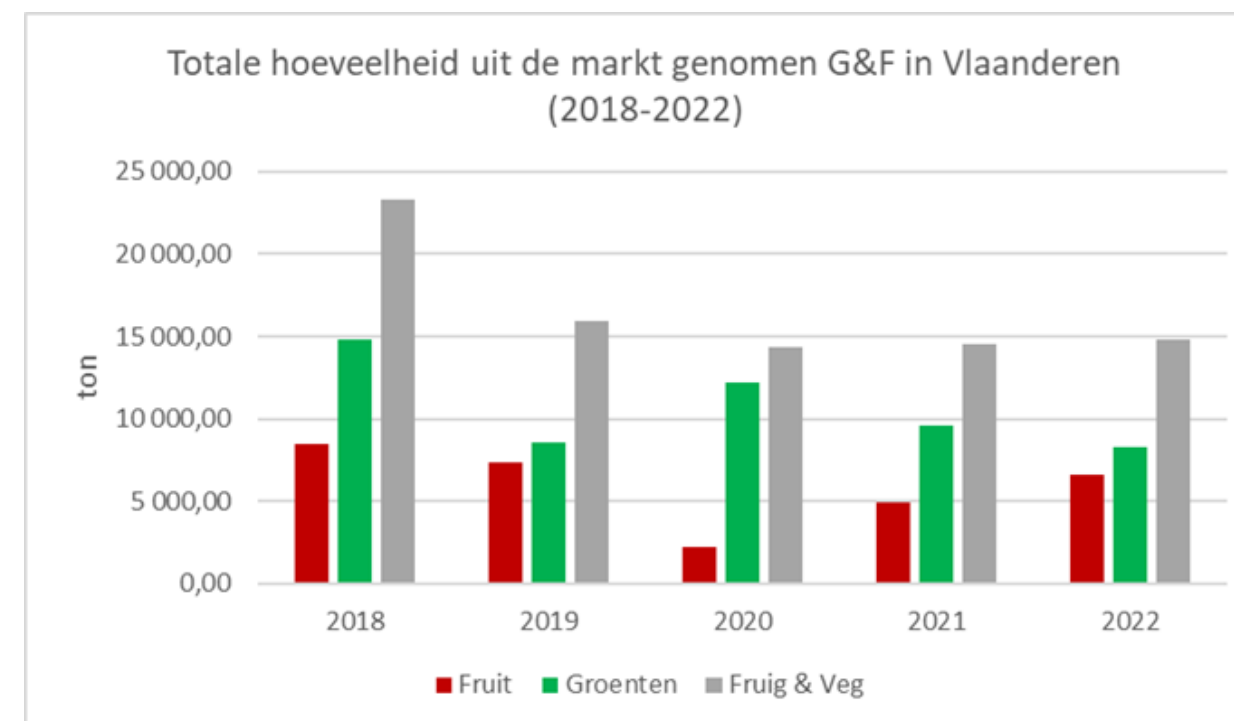
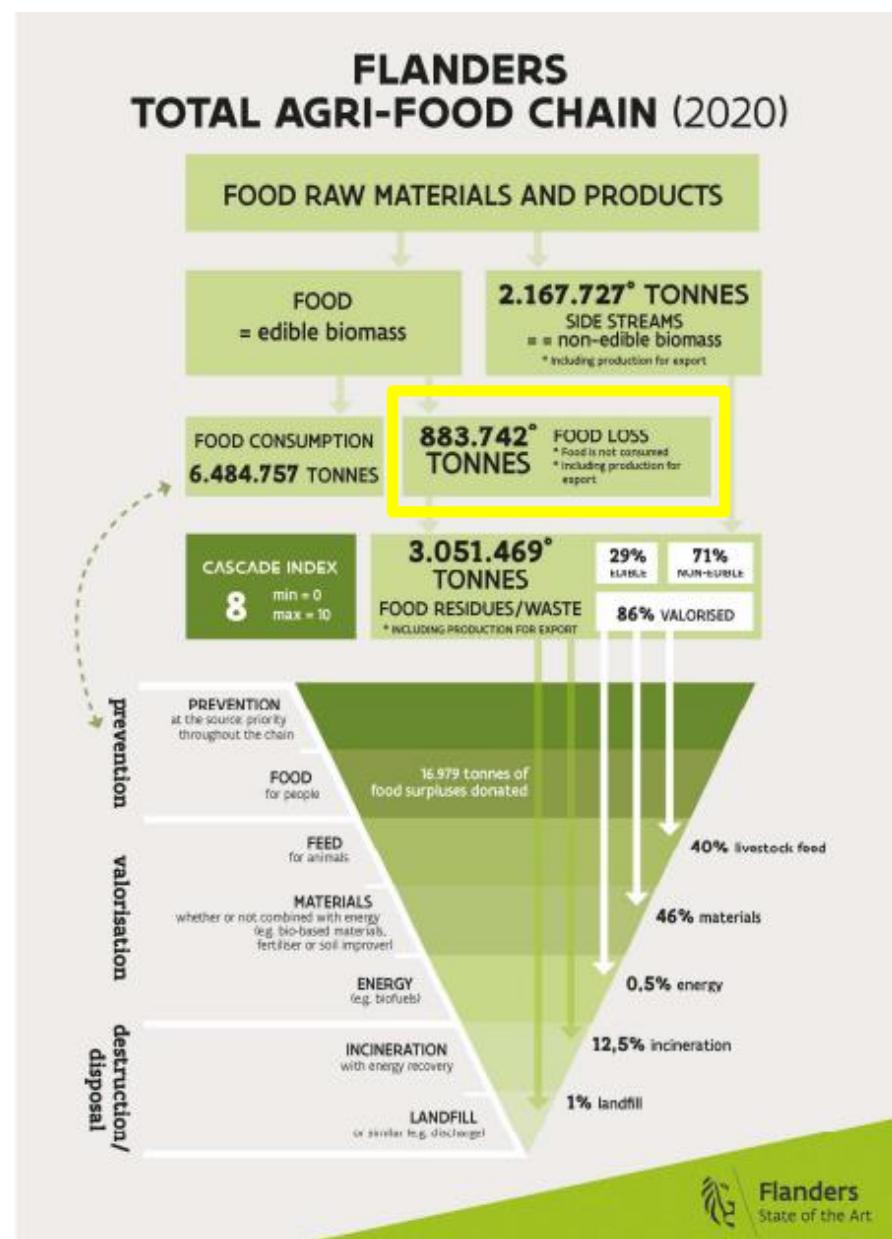
- Large volumes exit the food chain at low value – feed, compost, biogas
- Untapped potential for:
  - Food waste reduction – upcycling!
  - New revenue streams
  - Lower environmental impact



# GAP What is the challenge?

## How can we turn variable surplus of tomato into consistent value?

- Large volumes exit the food chain at low value – feed, compost biogas



Flemish fruit & veg cooperations alone already have 15 **million kgs each year** of high quality fruit & veg that leaves food chain & goes to feed or bioenergy...



# SOLUTION

What is a possible solution?

Small-scale, flexible but highly efficient mobile processing units!



**ZERO** 

<https://www.zerow-project.eu/>



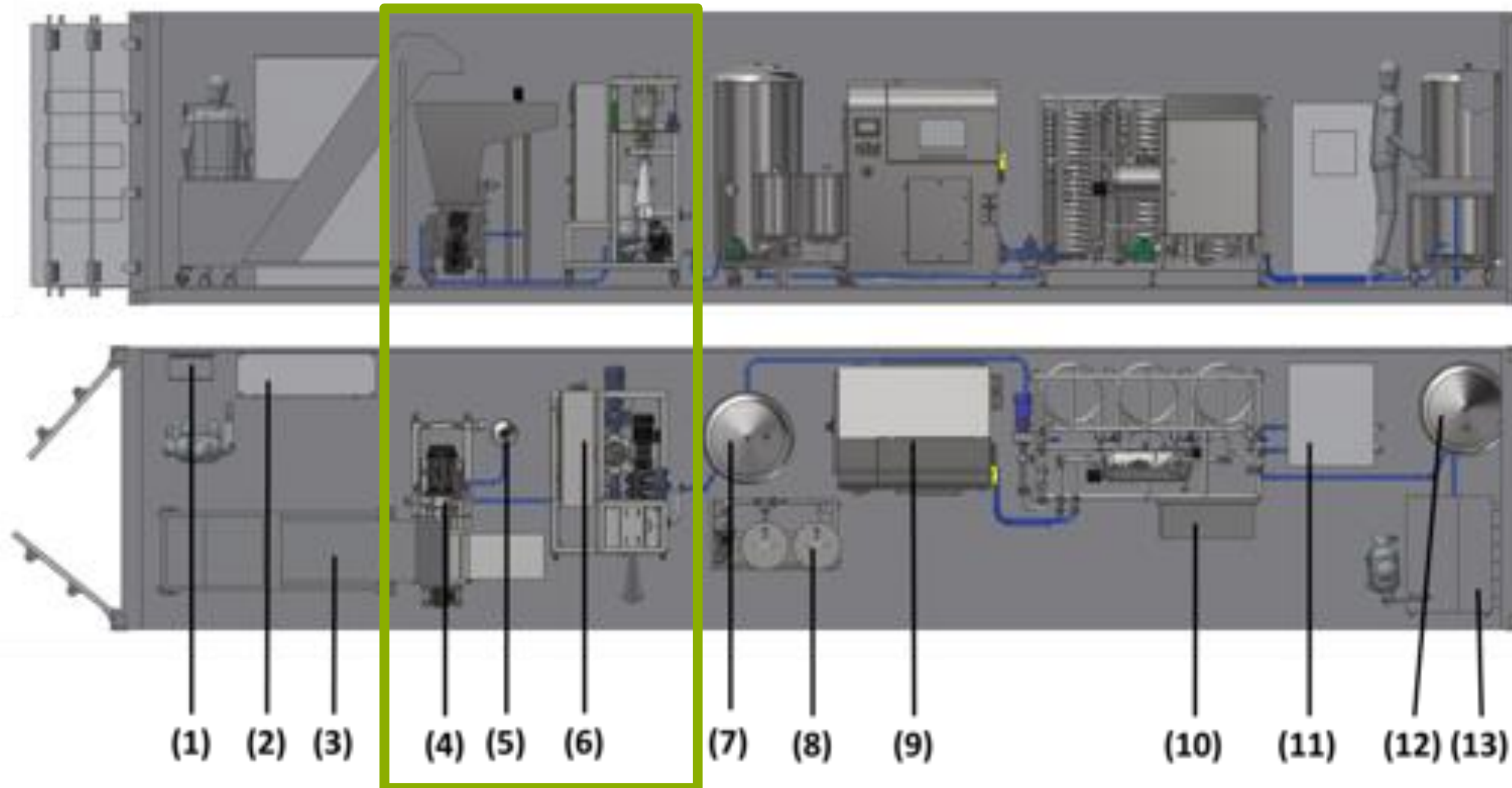
<https://www.fox-foodprocessinginabox.eu/>

**ILVO**

# SOLUTION

What is a possible solution?

**Small-scale**, flexible but highly efficient mobile processing units!

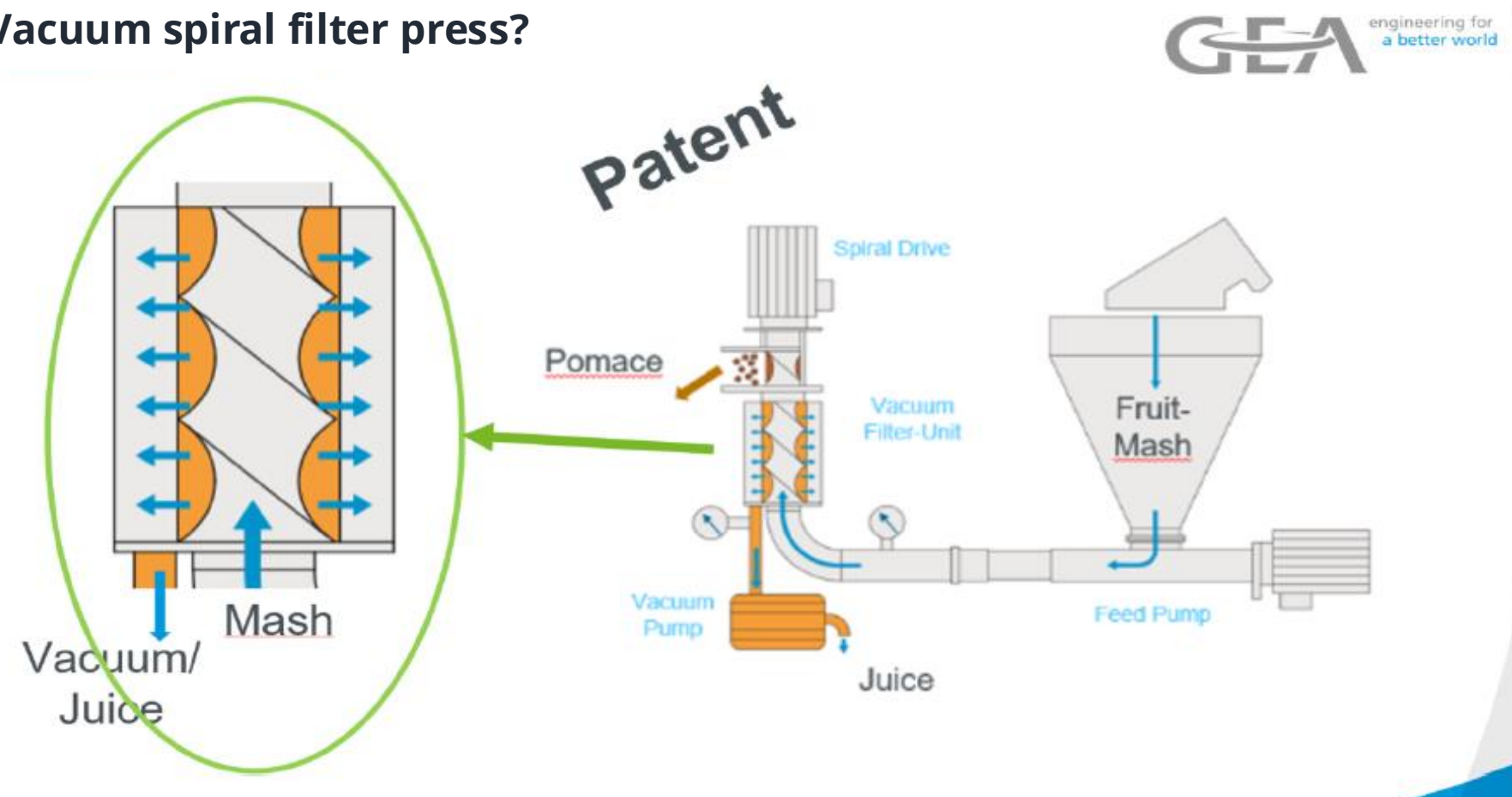


# SOLUTION

What is a possible solution?

Small-scale, **versatile**, but **highly efficient** mobile processing units!

Vacuum spiral filter press?



- The GEA VacullQ system is a **low-oxygen** spiral filter press system
- **Versatile**
- Proven to be able to process a **wide diversity of feedstocks**
- **Small footprint, high throughput**



APPLE



PEAR



SPINACH



BLACK  
CURRANT



ILVO

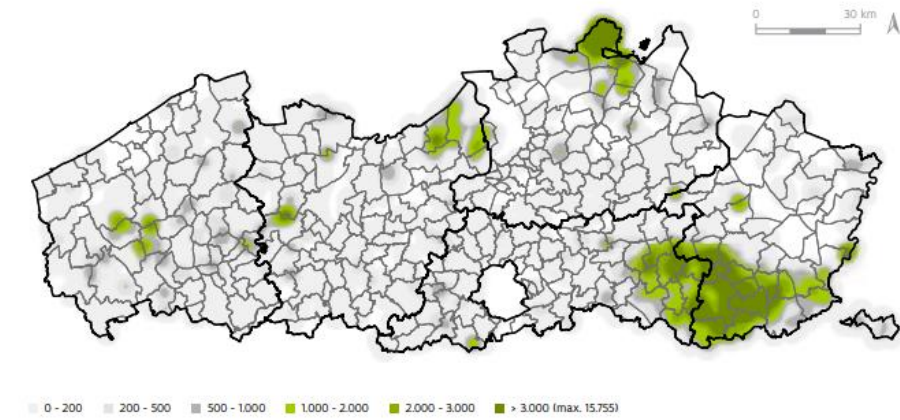
# SOLUTION

What is a possible solution?

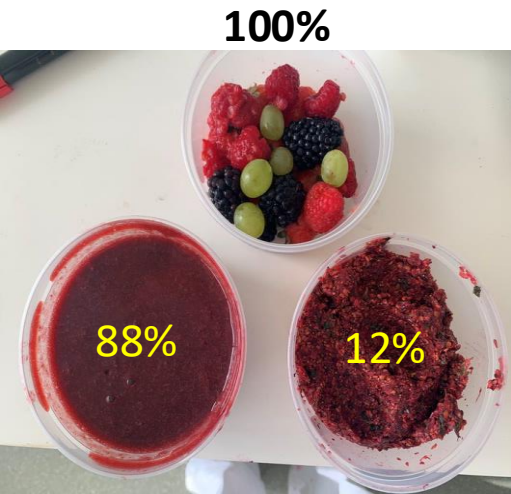
Small-scale, flexible but highly efficient mobile processing units!



Figuur 3. Intensiteitskaart van de fruitsector, euro standaardoutput per ha, 2017



Fruit production areas in Flanders



Mixed fruit



Mixed veg

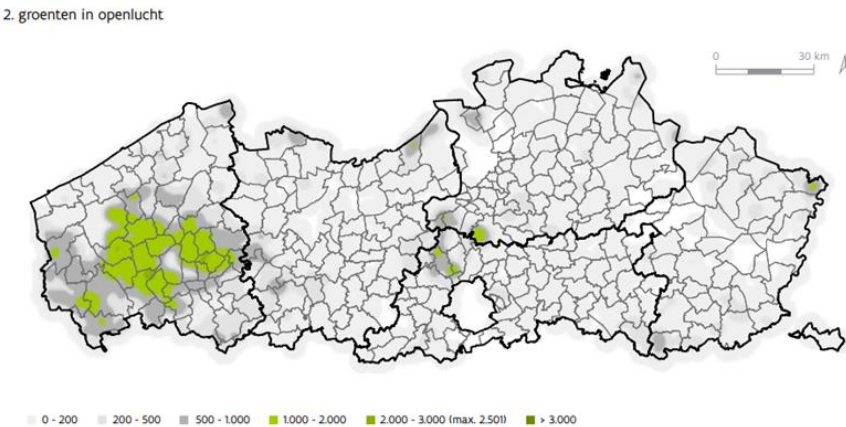
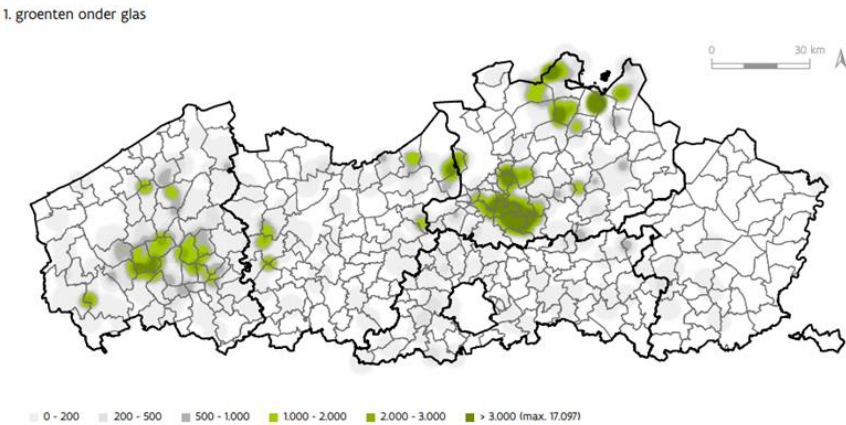
Year-round availability of underutilized fruit & veg  
=> year-round operational thanks to versatility of processing unit



mono



Greenhouse vegetable production areas in Flanders



Open air vegetable production areas in Flanders



ILVO

# IMPACT

What impact does the potential solution have?

From perishable surplus into premium food products

Efficient tomato processing : 750 kg/h - 90% juice yield

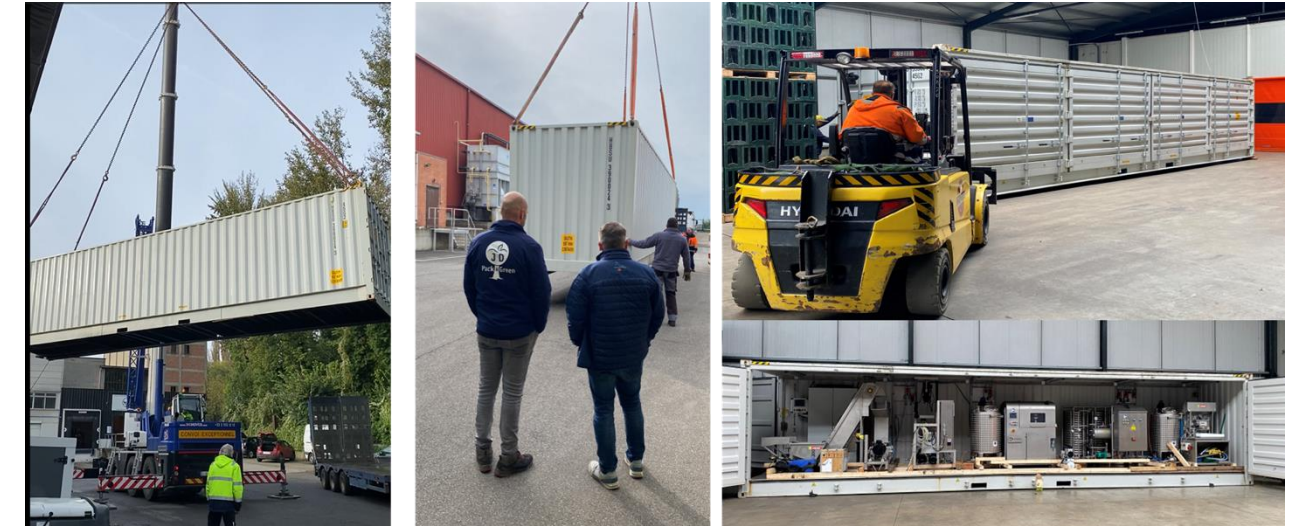
Potential food waste reduction: ~ 60 T/month, year-round

=> Scalable impact across regions with similar surplus patterns

Transformation into **high-quality food products** (juices, soups purées, ingredients...)

Multiple products validated (B2B & B2C)

=> New revenue streams for farmers & cooperatives



# IMPACT

What impact does the potential solution have?

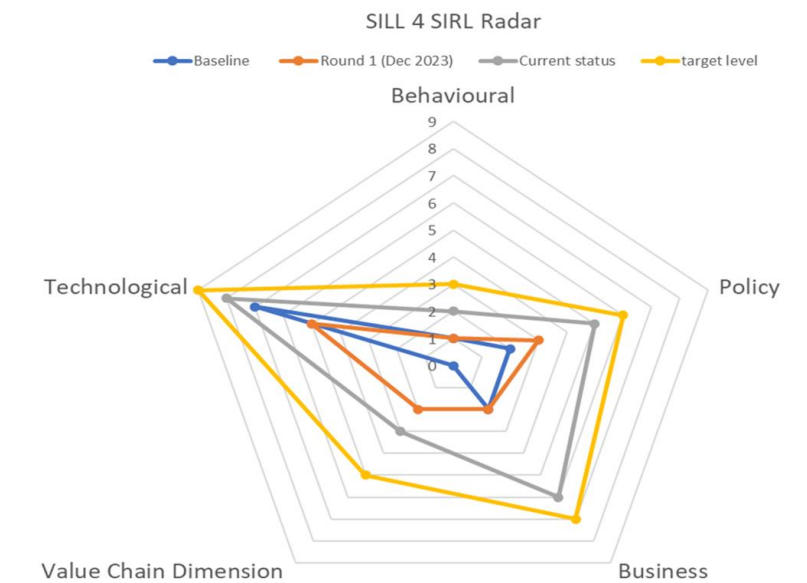
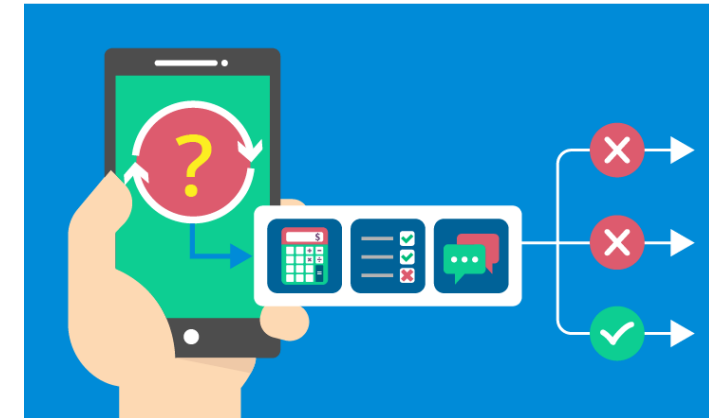
## Scaling potential

Modular, mobile & replicable concept

Plug-and-play deployment in different regions/crops

Year-round use thanks to multi-crop versatility

Integration with digital planning tools (matching supply & processing)



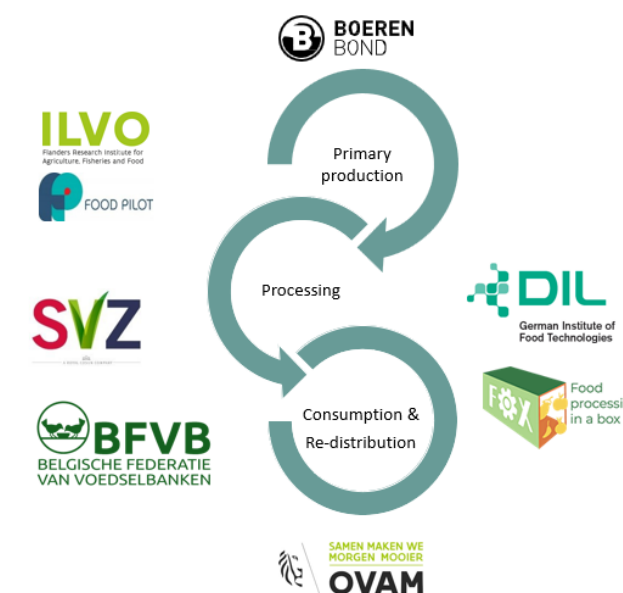
<https://sirl.app/>

## Collaboration in the chain

Easy access to expert processing capacity for farmers/cooperatives

Enables new local value chains & short supply loops

=> stronger regional ecosystems



# KEY MESSAGES

## MOBILE PROCESSING

- Mobile processing units equipped with state-of-the-art technologies, handled professionally, can produce tasteful, healthy and safe food products. Let's save food!
- Involve policy-makers and legislators early on!
- Prepare strategically positioned, adapted plug-and-play production locations
- Make us of AI, digital tools & solutions to 1) unburden farmers, 2) optimize recipes & production planning and 3) inform B2B/B2C clients - (patent pending)

“From reactive waste management to proactive, decentralised valorisation systems.”



Credit: Syros - Wonky



Credit: Harvie



Credit: Van Kneus BV

# Thank you!

QUESTIONS?



Contact: Dr. ir. Bart Van Droogenbroeck  
[bart.vandroogenbroeck@ilvo.vlaanderen.be](mailto:bart.vandroogenbroeck@ilvo.vlaanderen.be)



Flanders Research Institute for Agriculture,  
Fisheries and Food

Brusselsesteenweg 370

9820 Merelbeke-Melle – België

T + 32 (0)9 272 28 00

M +32 (0) 486 127 214

[www.ilvo.vlaanderen.be](http://www.ilvo.vlaanderen.be)