The background of the slide features a repeating pattern of agricultural icons. These include yellow wheat stalks, green apples, black and white cows, and tractors. The icons are arranged in a way that they appear to be floating around a central white rectangular area.

**Welcome by  
the General Director of CRA-W  
Georges Sinnaeve**

# Introduction by the director of CRA-W.

- Georges Sinnaeve



# CRA-W : Overall presentation

SINNAEVE Georges, General Director

Walloon Agricultural Research  
Centre

25 March 2025 - Chaussée de Namur 47 5030 GEMBLOUX

## Program of the day

"Stronger together: Researchers from Wallonia and  
Flanders join hands for organic farming".

# Field of activities of the CRA-W

## According to the competencies of the current Walloon Government

Dolimont A.

Neven C.

Coppieters Y.

Dalcq A-C

Jeholet P-Y



Scientific  
Research

Climate

Environment

Rural affairs

Agriculture  
Supervisory minister

Economy

Animal  
welfare

Energy

Nature

Forest

# Walloon Agricultural Research Centre

A few facts and figures ...

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440

Employees



120

Scientists



60

Services



23

Laboratories



15

Collections



3

Site (Gembloux,  
Libramont et Mussy-  
la-Ville)



230

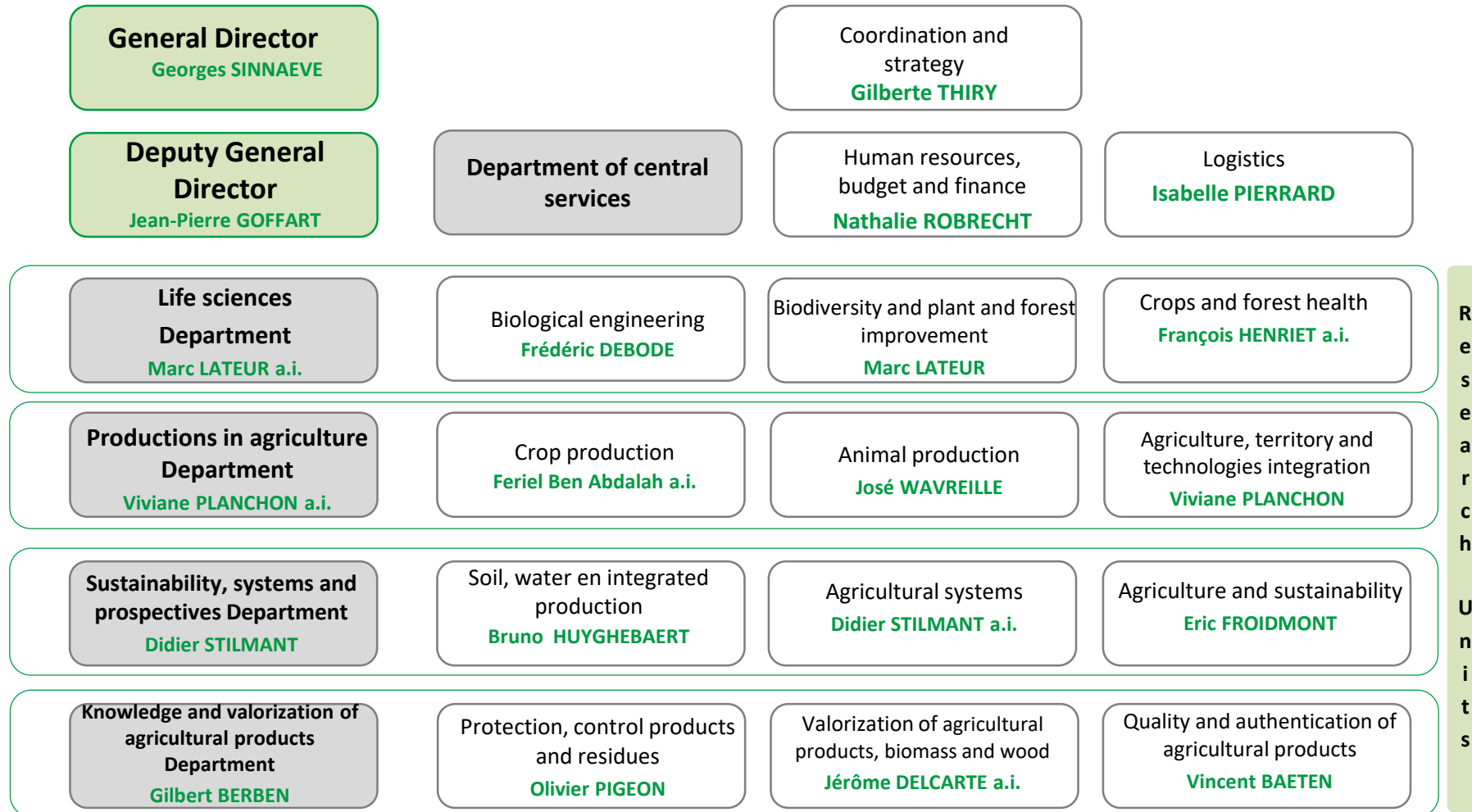
Hectares of cropland



73

Hectares used for  
organic agriculture

# Walloon Agricultural Research Centre



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01/01/2022

# Walloon Agricultural Research Centre

The CRA-W provides together **scientific research**, **service** and **support** functions to Walloon farmers, stockbreeders, horticulturists, forestry producers and operators in the agri-food sector.

# Walloon Agricultural Research Centre

Scientific research is focused in four main areas



## **Precision farming**

to produce more sustainably



## **Precision livestock farming:**

for more sustainable production



## **Risk management**

to stabilise production outcomes while protecting the environment and consumers



## **Understanding products**

to ensure the quality of the production processes and the products derived from them

# Walloon Agricultural Research Centre

Some **130** scientific research projects :

- 1** Curbing the use of synthetic inputs and mitigating the climate change impact of agriculture
- 2** Producing quality products in a more sustainable way by maintaining farmers' standards of living and promoting animal welfare and the protection of the environment and biodiversity
- 3** Boosting production profitability, thus ensuring a decent income for Walloon farmers
- 4** Helping to enhance the value of agricultural production in conventional or local sectors (organic or otherwise)

# Walloon Agricultural Research Centre

## Partnerships and Beneficiaries

- Society
- Farmers, horticulturalists and other stakeholders in these sectors
- Individuals
- Government departments and authorities
- Business
- Universities and other research institutions  
(international, European, federal, regional levels)

# Recovery plan for Wallonia



- Resilient forests
- Soil preservation
- Carbon sequestration
- Smart farming
- Specific research activities
- Improving research facilities

# Introduction by the representative of the Walloon government.

- Georges Sinnaeve, CRA-W

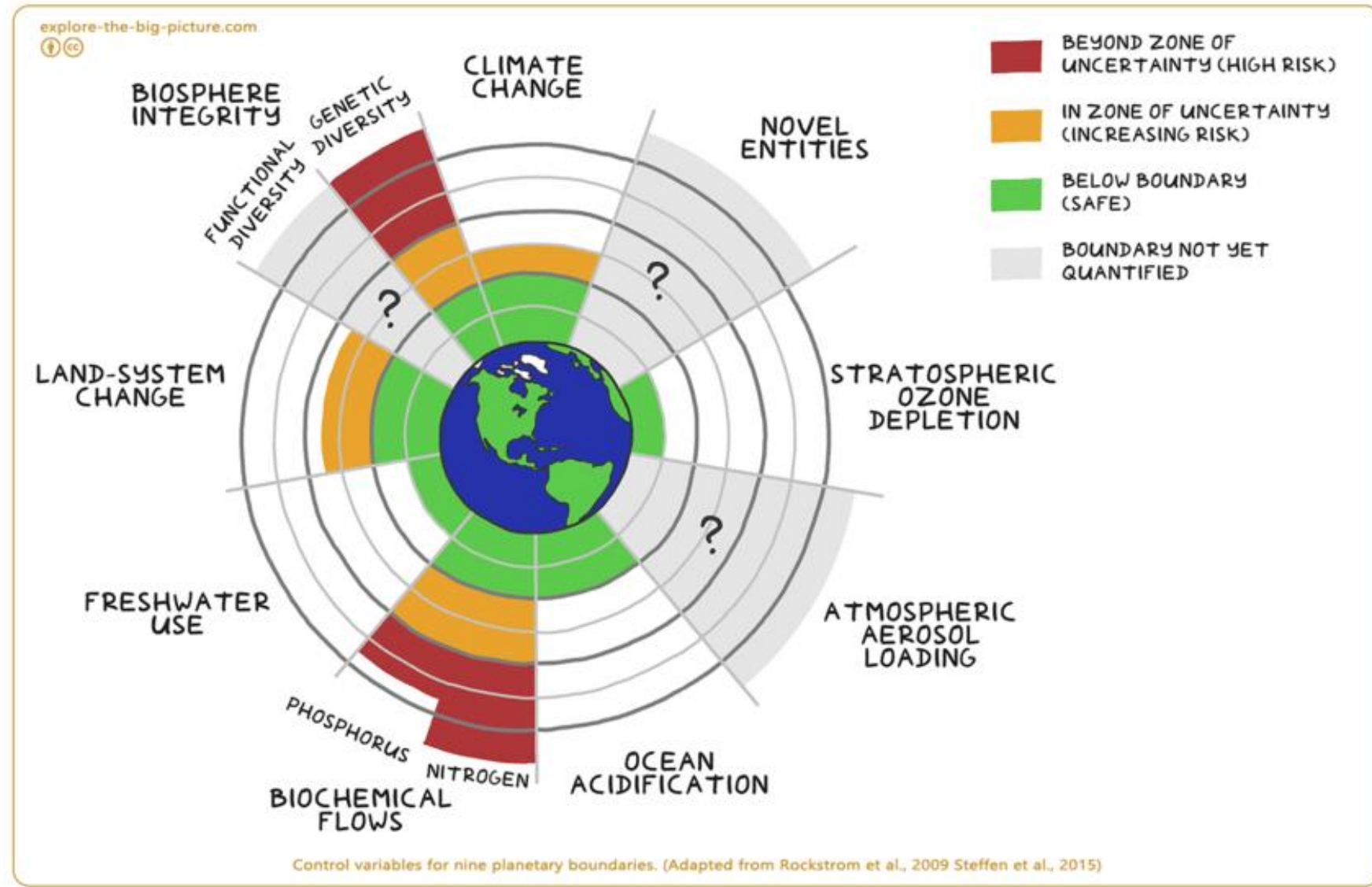




## CRA-W's research actions in response to the needs of organic farmers and horticulturists

# Global context - Control levels for 9 planetary boundaries

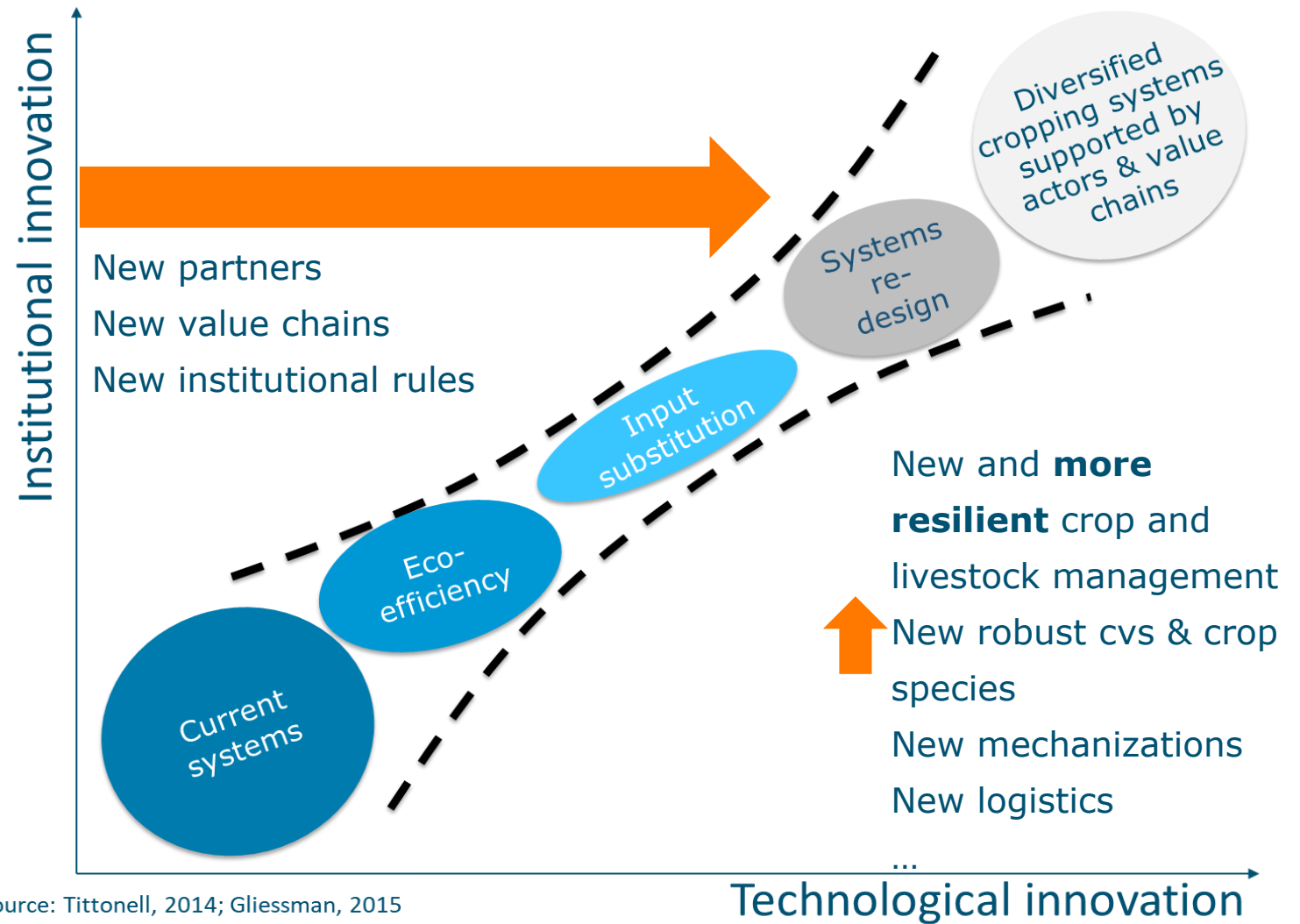
As a result of human activity, our planet is no longer able to maintain its homeostasis, imbalances appear on many levels!



# Global context – Changement of paradigm

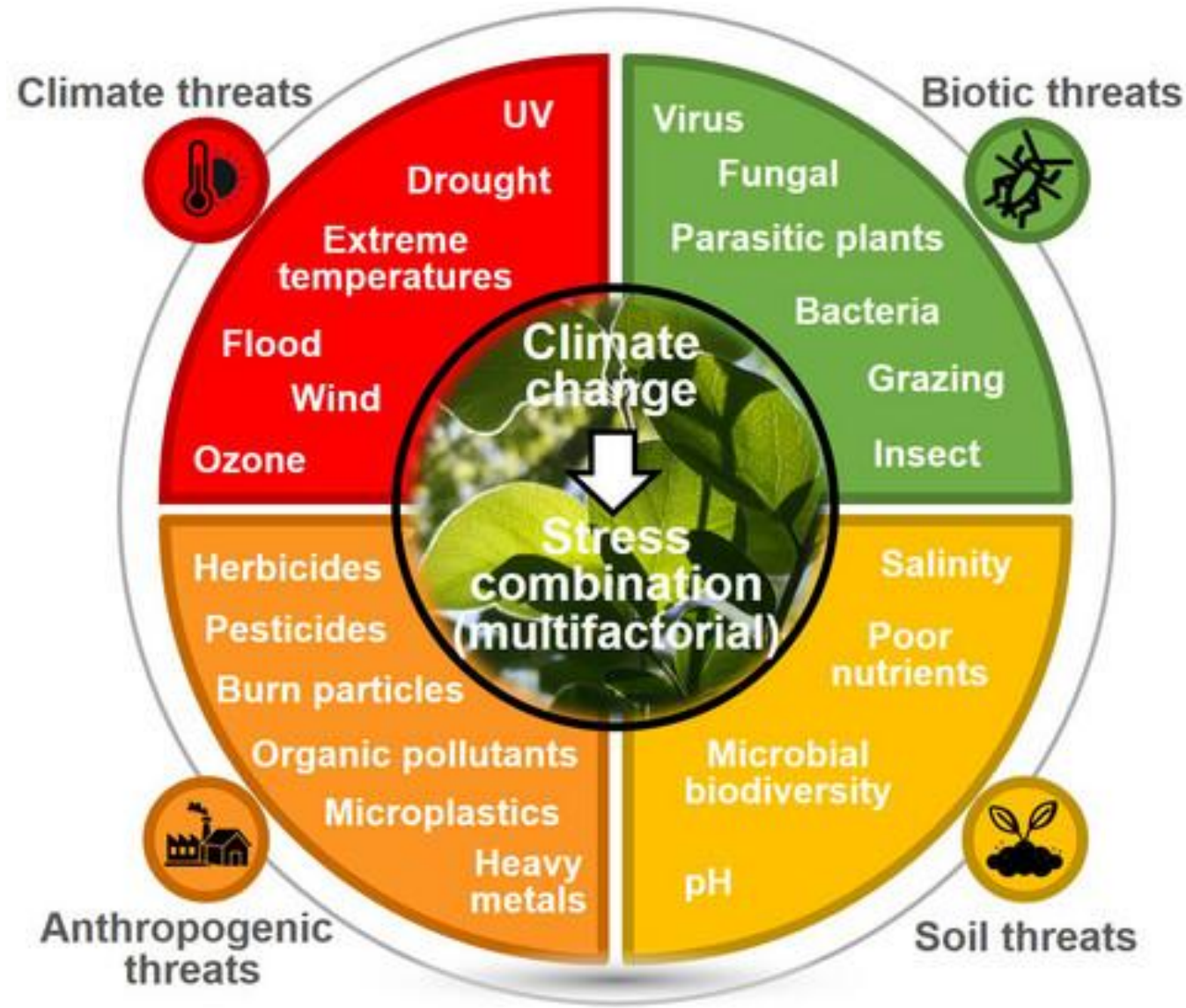
In order to get back out of the **red zones** it is necessary to change our ways of producing and consuming our resources == > innovations in rupture that require technical but also institutional changes

Organic farming has been and is pioneering in giving the ability to explore, implement innovative systems that make profit of ecosystem services delivered by nature



Source: Titttonell, 2014; Gliessman, 2015

# Global context – Specific risks induced by climatic changes



# Coordinated research actions in line with the pluri-annual ***Walloon Organic Production Development Plan 2030***

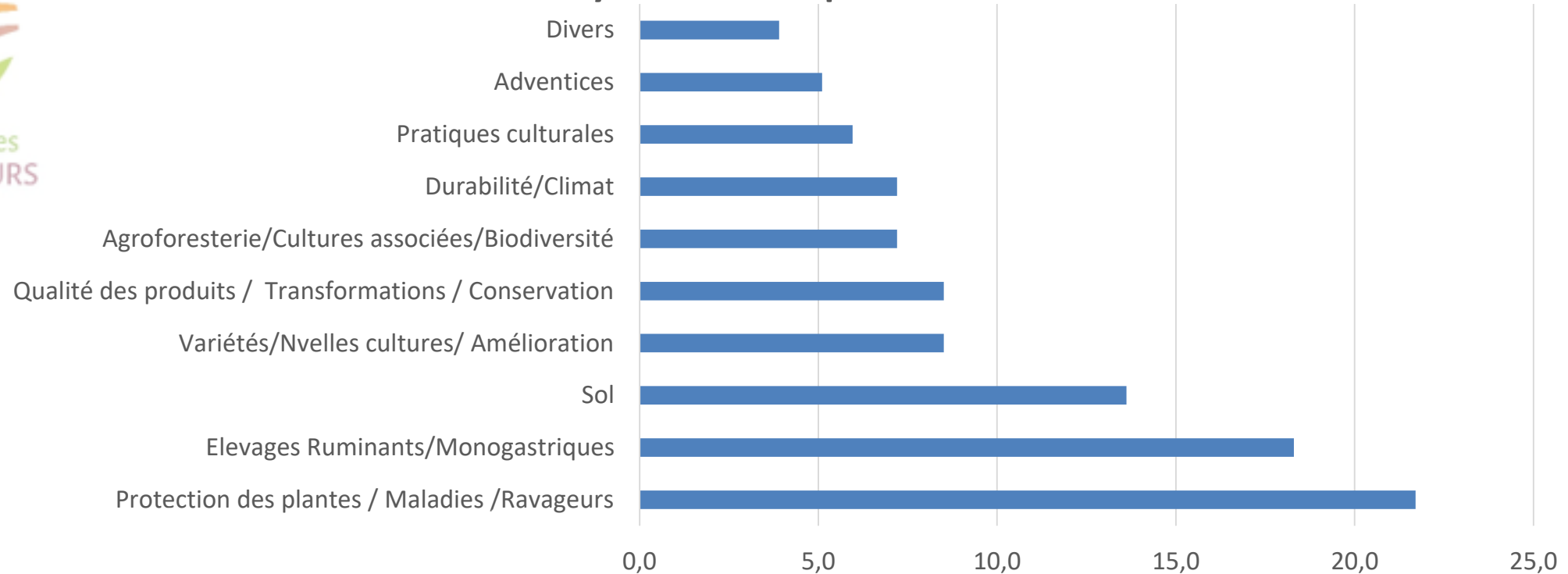


*« Develop more sustainable and more resilient agro-food systems to meet future global and local challenges (scarcity of resources, preservation of the biosphere (water, air, soil, biodiversity)... ) and society's expectations (healthy food, quality, quantity, a good income for the actors involved) »*

# Annual survey update of the Organic professional demands



## Priority Research Topics 2022 -2023



**Research  
Priority Topics  
2024**

**Variety Organic Testing, new varieties, Mix of  
species and/or varieties**

**Organic alternatives to Pest & Diseases**

# Organizational Research actions

## Long term Organic Production Research at CRA-W :

### 1. *Long term organic systems comparison trials on*

- 1.1. **Arable crops** – SYCBIO (5 ha) - 3 contrasted systems
- 1.2. **Vegetables** – SYCMA (5 ha) - 5 contrasted systems
- 1.3. **Mixed farming and livestock systems** – SPOT (25 ha)

### 2. *Organic Soil fertility studies :*

- 2.1. **Temporal monitoring** of the physical, chemical and biological fertility of soils
- 2.2. 'MICROSOILSYSTEM' project : impact studies on soil **microbiomes consortia & mycorrhizes**

### 3. *Organic Plant Breeding for more robust & disease tolerant cvs.*

- 3.1. **Participative organic fruit breeding** using old local cvs as more robust parents (NOVAFRUITS & GAWI)
- 3.2. **Participative organic wheat breeding:** CCP's
- 3.3. **Breeding spelt, wheat, durum wheat, potato** for organic production

# Organizational Research actions

## Long term Organic Production Research at CRA-W :

### 4. *Multilocal organic variety testing trials :*

- 4.1. Network trials comparing **cereal** cvs. : **wheat, spelt, triticale, durum wheat**
- 4.2. Trial comparing 30 **more robust potato** cvs.
- 4.3. Trans-border trial of 125 **apple & 30 pear** cvs.
- 4.4. Testing **more robust apple & pear** rootstocks
- 4.5. Testing **more robust fruit** cvs in **diversified non sprayed systems** : agroforestry, orchard meadows, poultry/orchards,...

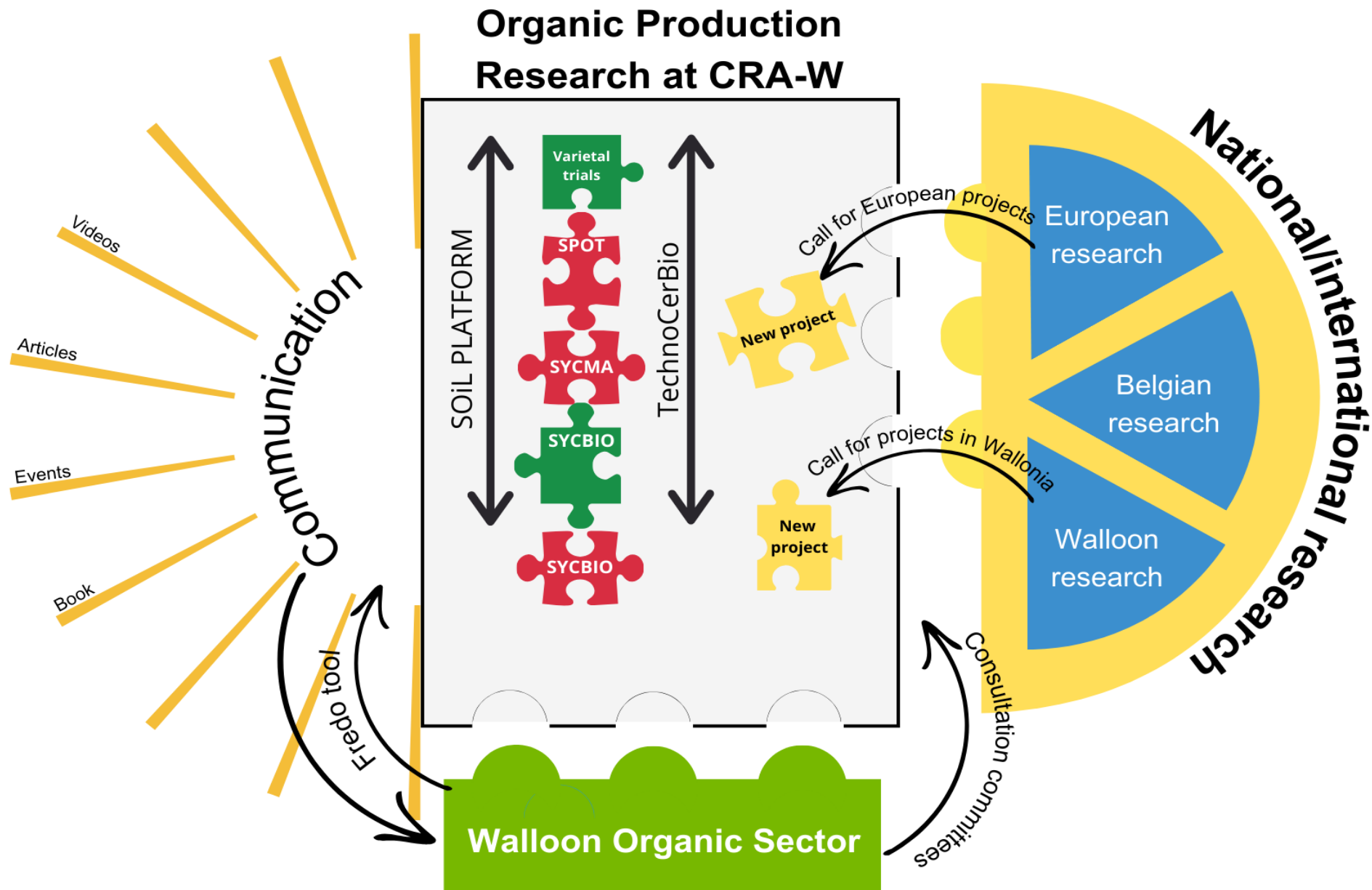
### 5. *Research on socio-economical & durability factors*

- 5.1. User-friendly software for economical & environmental factor monitoring – <https://tresoferme.be>
- 5.2. **Life Cycle Analysis** of different **meat** chains
- 5.3. User-friendly **software** for farm '**Greenhouse Gaz**' – GHG - monitoring: "DECIDE".

### 6. *Alternative organic plant health control research projects*

# Organizational Research actions

## Long term Organic Production Research at CRA-W



# Walloon Region Call for organic research projects 2024

- **5 New starting research projects (CRA-W)**

**ABC Soil2weed:** Systemic evaluation of the effects of organic agriculture (OA) and conservation organic agriculture ("ABC") on weed flora and its impact on crop development.


**Progrès:** Identification and understanding of late blight resistance gene processes for more sustainable organic potato production

**SoLAB:** Soil management in the Walloon Region: What practices optimize soil services?


**CropFightsWeeds:** Multi-performance evaluation of weed management systems in organic field crops.

**Lipomme-bio 2.0:** Multi-levers research of alternatives to copper use to control apple diseases including scab in Organic Production


# CRA-W's European Research projects linked with Organic Production

**INNOBREED** 


Innovative Organic Fruit Breeding and Uses : Sowing seeds for organic farming of the future  
2023-2026 <https://www.cra.wallonie.be/fr/innobreed>  
HORIZON CL6 (21 partners)  
Coordinator : CIHEAM (IT)  
Contact CRA-W : b.dumont@cra.wallonie.be

**PPILOW** 


Poultry and Pig Low-input and Organic production systems' Welfare  
2019-2024 [www.ppilow.eu](http://www.ppilow.eu)  
H2020 (22 partners)  
Coordinator : INRAE (FR)  
Contact CRA-W : v.decruyenaere@cra.wallonie.be

**INVITE** 


INnovations in plant Variety Testing in Europe  
2019-2024 [www.h2020-invite.eu](http://www.h2020-invite.eu)  
H2020 (28 partners)  
Coordinator : INRAE (FR)  
Contact CRA-W : p.vermeulen@cra.wallonie.be

**REFLECHI** 


Strengthening the resilience and adaptation of regions to the risks associated with climate change  
2024-2027  
INTERREG F-W-V (9 partners)  
Coordinator : INAGRO (BE-VI)  
Contact CRA-W : a.jorion@cra.wallonie.be

**MIGFOREST** 

Assisted Migration to increase Forest Resilience in NWE  
2023-2028  
INTERREG NORTH-WEST EUROPE (6 partners)  
Coordinator : Royal Forestry Society of Belgium (SRFB-KBBM) (BE)  
Contact CRA-W : m.lateur@cra.wallonie.be

**SIMONE** 

Lessons learnt from the use of agri-environmental indicators for the assessment of network-related activities  
2024-2027  
INTERREG IV-NEW  
Coordinator : ARVALIS (F)  
Contact CRA-W : s.hennart@cra.wallonie.be

**PATHOFLAX** 


Integrated control of flax diseases  
2020-2024 <https://www.cra.wallonie.be/fr/pathoflax>  
Interreg (11 partners)  
Coordinator : INAGRO (BE)  
Contact CRA-W : a.chandelier@cra.wallonie.be

**TRANS-PATHOFLAX 2.0**

Sustainable management of fungal pathogens in flax  
2024-2028  
INTERREG (10 partners)  
Coordinator : INAGRO (BE)  
Contact CRA-W : a.chandelier@cra.wallonie.be


**PHENET** 

Tools and methods for extended plant PHENotyping and EnviroTyping services of European Research Infrastructures  
2023-2027 [www.phenet.eu](http://www.phenet.eu)  
HORIZON-RIA (29 partners)  
Coordinator : INRAE (FR)  
Contact CRA-W : p.vermeulen@cra.wallonie.be

**WHEATWATCHER** 



Safe Wheat Agriculture Towards Sustainable Health : Innovative Sensing Techniques, and Holistic Spectroscopy Tracability for Improved Soil, plant Health and safe wheat grain  
2024-2028 <https://www.cra.wallonie.be/fr/wheatwatcher>  
HORIZON-IA (14 partners)  
Coordinator : Wageningen University (BE)  
Contact CRA-W : j.fernandez@cra.wallonie.be

**European projects at CRA-W**  
(2024)




Centre wallon de Recherches agronomiques



With the support of :

LE FONDS EUROPÉEN DE DÉVELOPPEMENT RÉGIONAL ET LA WALLONIE INVESTISSENT DANS VOTRE AVENIR



European Food Safety Authority

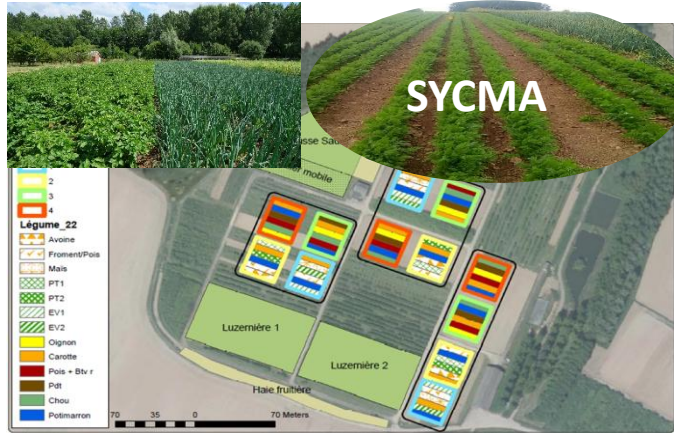



# CRA-W's European Research projects linked with Organic Production

<p><b>AGRICLIMATE</b></p> <p>Supporting sustainable practices for agriculture with a low carbon footprint and resilience to climate change 2025-2028 INTERREG VI - France-Wallonie-Vlaanderen (13 partners) Coordinator : INAGRO (Be) Contact CRA-W : e.froidmont@cra.wallonie.be</p>	<p><b>BROMEDIR</b></p> <p>Broadband MEMS-based InfraRed spectrometers : The core of a multipurpose spectral sensing photonic platform 2023-2026 HORIZON-RIA (9 partners) Coordinator : CYRIC (CY) Contact CRA-W : j.fernandez@cra.wallonie.be</p>	<p><b>EJP SOIL</b></p> <p>EJP SOIL is a European Joint Programme Cofund on Agricultural Soil Management 2020-2025 European Joint Project COFUND (26 partners) Coordinators : INRAE (FR) et WR (NL) Contact CRA-W : b.huyghebaert@cra.wallonie.be</p>
<p><b>AGROBOCONNECT</b></p> <p>Implementing robotised cropping systems through inter-regional cooperation 2024-2028 <a href="https://www.cra.wallonie.be/fr/agroboconnect">https://www.cra.wallonie.be/fr/agroboconnect</a> Interreg FWVL Coordinator : INAGRO (BE) Contact CRA-W : f.rabier@cra.wallonie.be</p>	<p><b>CLIENFARMS</b></p> <p>Supporting the transition to climate-neutral / climate-resilient European farming 2022-2025 H2020 (40 partners) Coordinator : INRAE (FR) Contact CRA-W : m.mathot@cra.wallonie.be</p>	<p><b>EURL-AP</b></p> <p>European Union Reference Laboratory for animal proteins in feedingstuffs 2006- Commission Européenne (27 états membres) Coordinator : CRA-W (BE) Contact CRA-W : o.fumiere@cra.wallonie.be secretary@eurl.craw.eu</p>
<p><b>AGROECOLOGY-TRANSECT</b></p> <p>Trans-disciplinary approaches for systemic economic, ecological and climate change transitions 2022-2026 HORIZON (15 partners) Coordinator : INRAE (FR) Contact CRA-W : a.swarte@agroecology@cra.wallonie.be</p>	<p><b>CLIMATE FARM/DEMO</b></p> <p>A European-wide network of pilot farmers implementing and demonstrating climate smart solutions for a carbon-neutral Europe 2022-2029 HORIZON (74 partners) Coordinator : IDELE (FR) Contact CRA-W : e.froidmont@cra.wallonie.be</p>	<p><b>FARMYNG</b></p> <p>Flagship demonstration of industrial scale production of nutrient Resources from Mealworms to develop a bioeconomy New Generation 2019-2025 HORIZON BBI-JU (21 partners) Coordinator : Ynsect (FR) Contact CRA-W : t.debode@cra.wallonie.be</p>
<p><b>AGROSERV</b></p> <p>Integrated SERVICES supporting a sustainable AGROecological transition 2022-2027 HORIZON (64 partners) Coordinator : CNRS (FR) Contact CRA-W : f.dehareng@cra.wallonie.be</p>	<p><b>CONSERWA</b></p> <p>Evidence-based support for transition to agroecological weed management in diverse farming systems and European regions 2023-2025 HORIZON RIA (26 partners) Coordinator : CYRIC (CY) Contact CRA-W : f.henriet@cra.wallonie.be</p>	<p><b>FRUITDIV</b></p> <p>Exploiting the Untapped potential of Fruit tree Wild Diversity for Sustainable Agriculture 2024-2028 HORIZON CL6 (14 partners) Coordinator : INRAE Unit BFP (FR) Contact CRA-W : f.vanroozendaal@cra.wallonie.be</p>
<p><b>BIOCONTROL 4.0 TRANS-E-BIO</b></p> <p>Decision Support Tools for Improving the Efficiency of Bio-control Solutions 2024-2027 INTERREG F-W-V (9 partners) Coordinator : Multitel (BE-W) Contact CRA-W : a.jorion@cra.wallonie.be</p>	<p><b>DETECTIVE</b></p> <p>DETECTION of NGT products to promote InnoVation in the European union 2024-2027 HORIZON H2020 (20 partners) Coordinator : SLU (SE) Contact CRA-W : f.debode@cra.wallonie.be</p>	<p><b>HOLICOW</b></p> <p>Enable small/med dairy farmers to benefit from big data for holistic decision-making 2023-2026 <a href="https://www.cra.wallonie.be/en/holicow-1">https://www.cra.wallonie.be/en/holicow-1</a> Interreg (6 partners) Coordinator : ELEVEO (BE) Contact CRA-W : c.grelet@cra.wallonie.be</p>

# Some Practical Results

## 1. Four Long term Organic Experimental Platforms



### ORGANIC VEGETABLES

Strategies for maintaining soil fertility in cropping systems



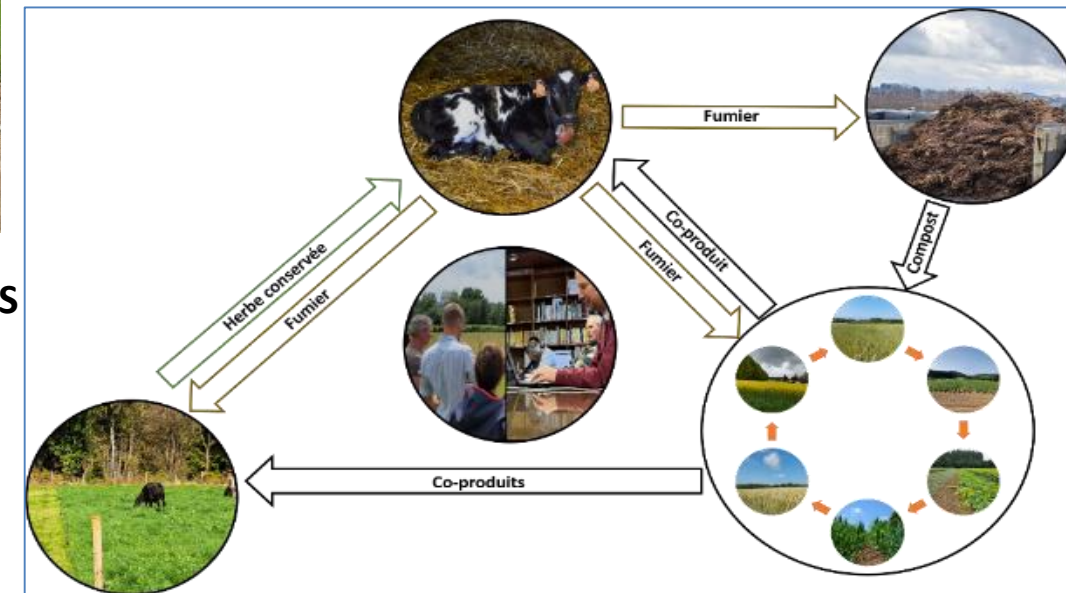
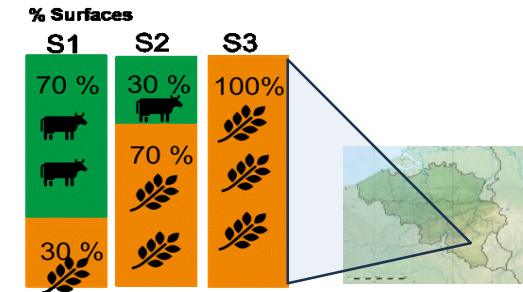
### ORGANIC ARABLE CROPS



### ORGANIC FRUIT TREE EXP. ORCHARDS

- Genetic Resources & Breeding
- Variety & rootstock testing
- Agroforestry

Which systems of mixed farming and agro-ecological practices in response to local and global issues ??



### SPOT – ORGANIC Mixed farming and livestock systems

# Some Practical Results

## 2. Organic variety Testing Trials – Cereals, Potatoes

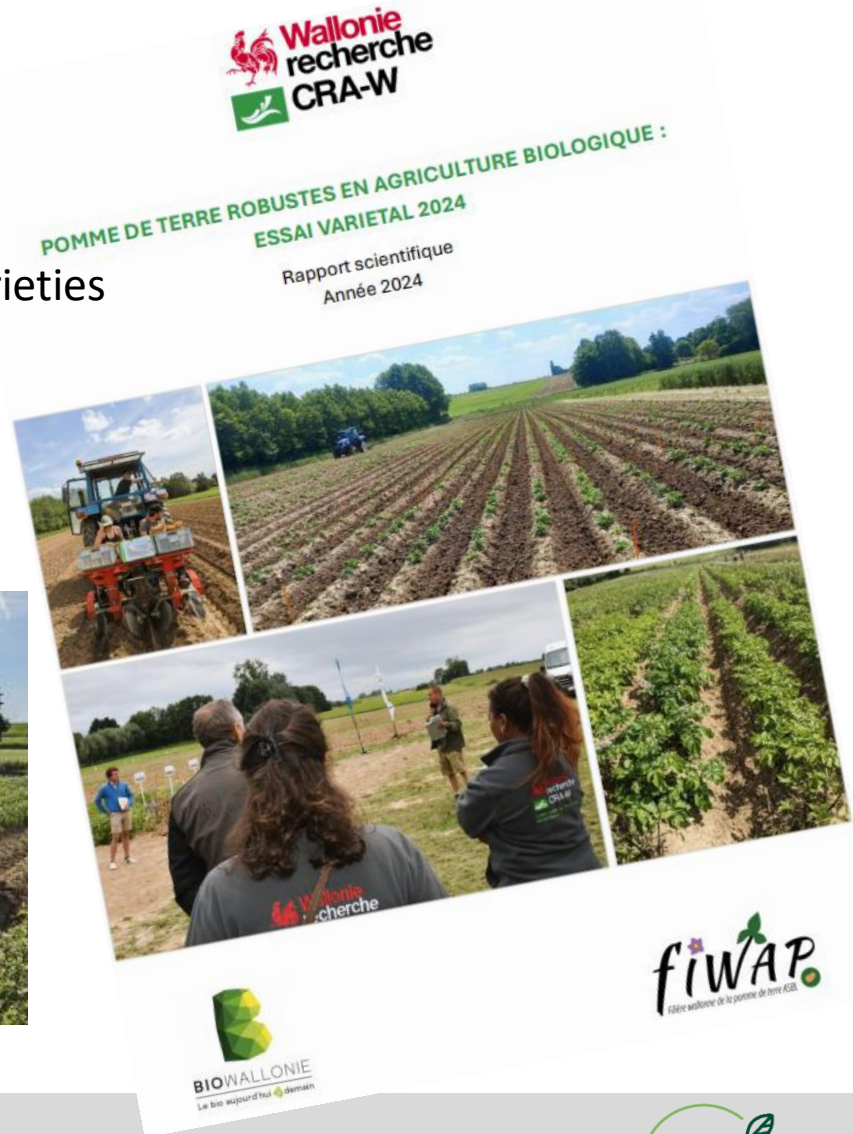
### Collaborative Organic trials

Best organic performant varieties of  
Wheat, Spelt, Hard Wheat, Triticale

<https://www.cra.wallonie.be/fr/varcerbio>



3 released CRA-W  
Late blight resistant potato varieties



**itab**

l'Institut de l'agriculture  
et de l'alimentation biologiques



CPL-Végémar



**Walloon Agricultural Research Centre**

To address today's questions and to prepare tomorrow's challenges

[www.cra.wallonie.be](http://www.cra.wallonie.be)



# Some practical Results

## 3. Participatory Organic Fruit Breeding & Variety & rootstocks Testing Trials



Crosses – hand pollination



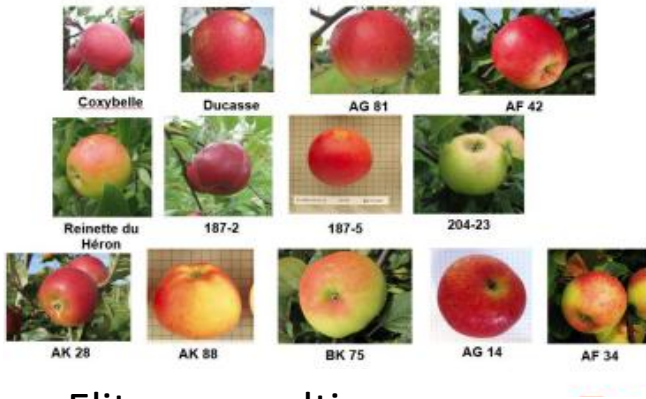
Seedling nursery



Experimental orchard



36 organic growers



Elite new cultivars



Testing by & with growers



**Merci bramin p'o m'awès choutè**

Bedankt voor uw aandacht  
Merci pour votre attention

