



Agriculture  
and Rural  
Development

# Insight into livestock related EU funded R&I landscape relevant to EFSA

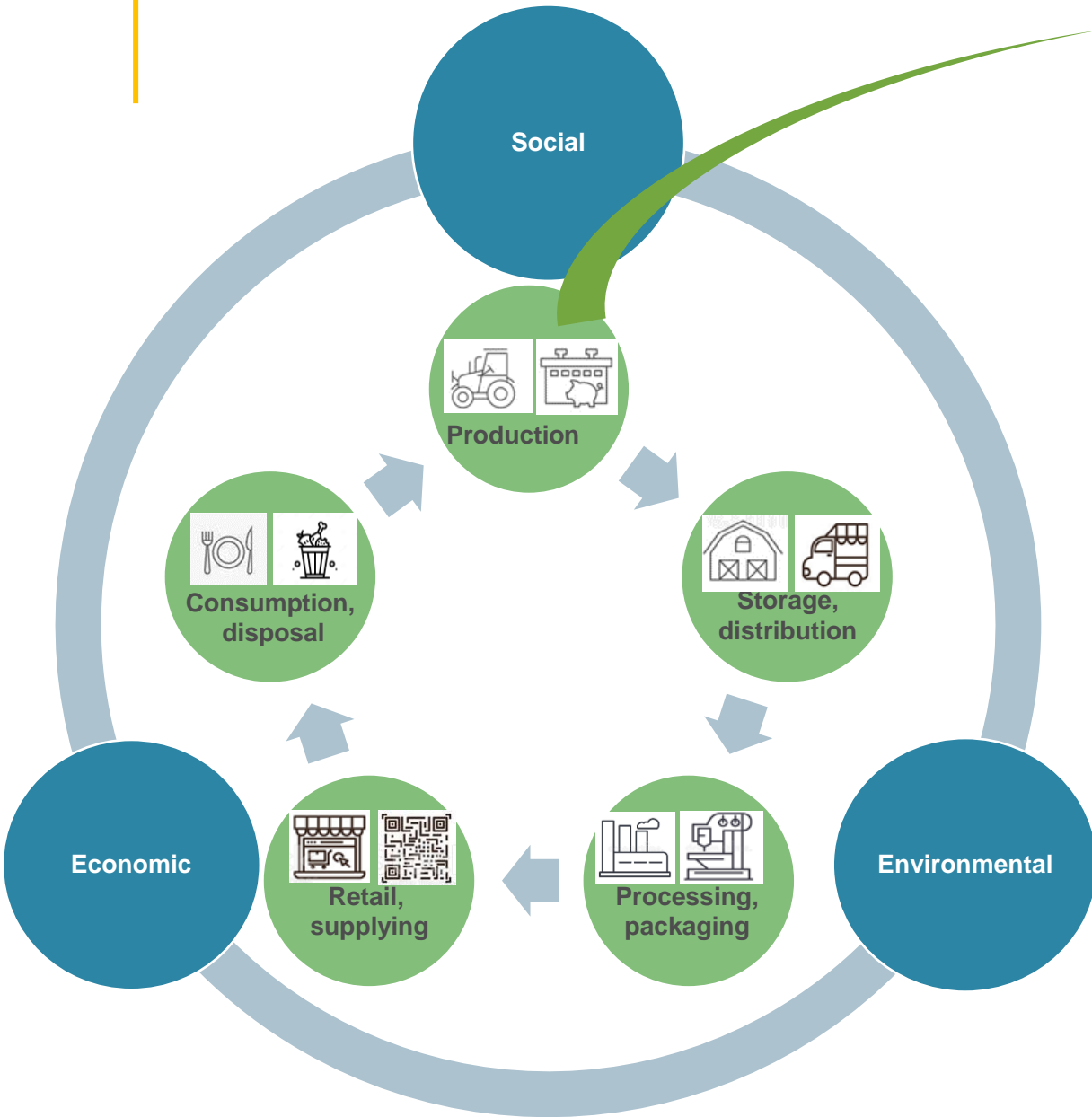
*EFSA Advisory Forum  
2 December 2021*

*Jean-Charles CAVITTE  
DG Agriculture and Rural Development – Unit B2  
European Commission*



*The presentation shall neither be binding  
nor construed as constituting  
commitment by the European Commission*

# Sustainable livestock systems: challenges ...and opportunities



|                                |   |   |                               |
|--------------------------------|---|---|-------------------------------|
| Reducing emissions, excretion  |    |    | Breeding, Genetics            |
| Alternative source of proteins |    |    | Feeding techniques            |
| Microbial ecosystems           |    |    | Antimicrobials                |
| Grazing                        |   |   | Legume production             |
| Animal Health & Welfare        |  |  | Manure management and storage |

# Topics most relevant to livestock in Cluster 6 WP 2021-2022



**Destination 1** Biodiversity and ecosystem services

- HORIZON-CL6-2022-BIODIV-02-03-two-stage: Resilient **beekeeping**



**Destination 2** Sustainable food systems from farm to fork

HORIZON-CL6-2021-FARM2FORK-01-05: **Animal welfare 2.0** (€8Mio)

HORIZON-CL6-2021-FARM2FORK-01-06: **Vaccines** and diagnostics for priority animal diseases (2x€6Mio)

HORIZON-HORIZON-CL6-2021-FARM2FORK-01-18: **One Health approach** for Food Nutrition Security and Sustainable Agriculture (**FNSSA**) (3x6€Mio)

HORIZON-CL6-2022-FARM2FORK-01-03: Enhancing **biosecurity** in terrestrial livestock production (2x€5Mio)

HORIZON-CL6-2022-FARM2FORK-01-15: Support for **international research** on infectious animal diseases (€3Mio)

HORIZON-CL6-2022-FARM2FORK-02-03-two-stage: **Ecology** of infectious animal diseases (2x€6Mio)



**Destination 3** Circular and bioeconomy



**Destination 4** Clean environment and zero pollution



**Destination 5** Land, oceans and water for climate action

- HORIZON-CL6-2021-CLIMATE-01-06: **Resilient livestock** farming systems under climate change (€12Mio)



**Destination 6** Resilient, inclusive, healthy and green rural communities

# Candidate European Co-Funded Partnership on Animals Health and Welfare (PAHW)

- **Scope:**

- Animal infectious diseases, including impact on public health; animal welfare
- Livestock (terrestrial and aquatic animals); wildlife and companion animals where relevant

- **Aim:**

- Reinforce preparedness against upcoming and emerging threats for both animals and humans
- Promote and strengthen animal welfare
- Generate innovative methodologies and products
- Support evidenced based policy making
- Strengthen ERA and leverage resources in animal health and welfare



- **Impact:**

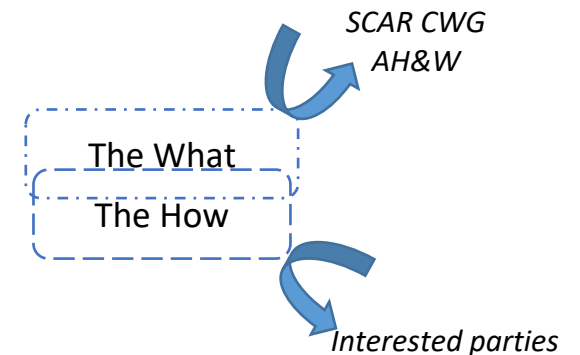
- Help reduce socio-economic and environmental impact of animal infectious diseases
- Improve animal welfare
- Protect the economic viability of farms
- Produce safe food and be beneficial for public health



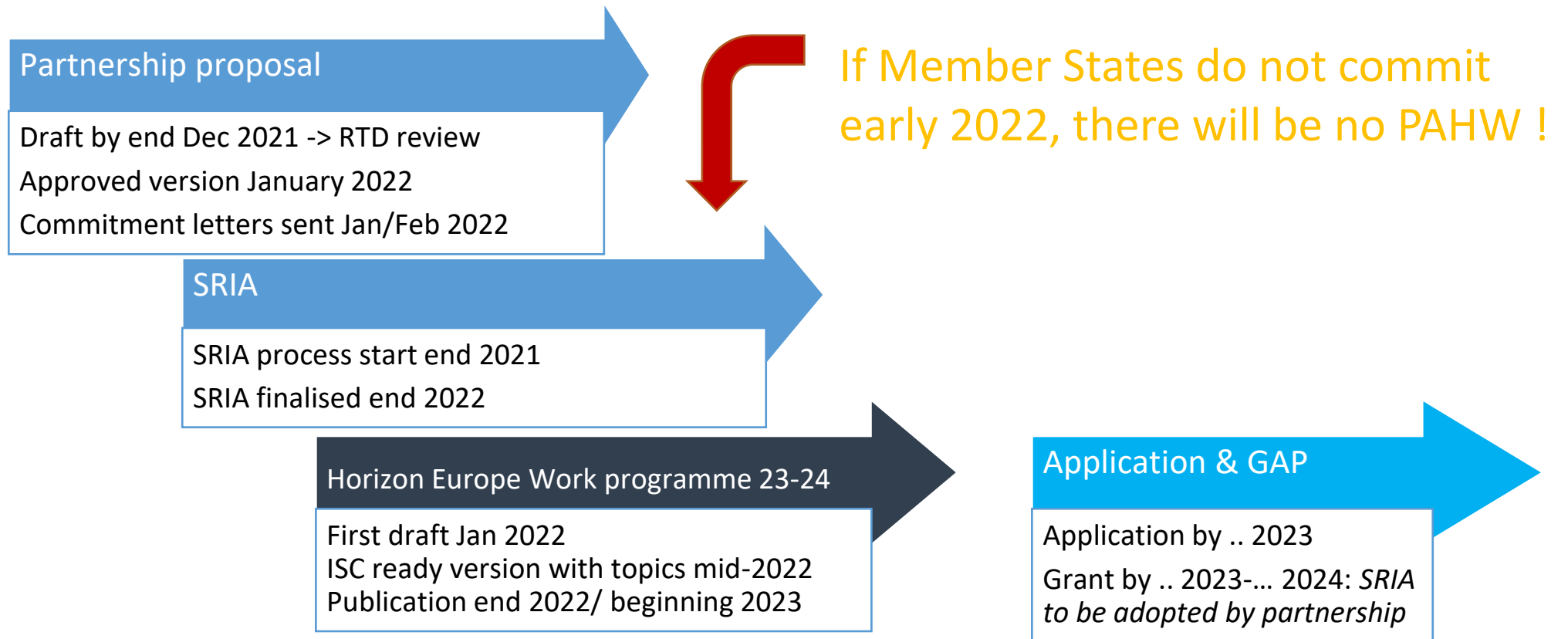
# PAHW : co-creation under umbrella of SCAR CWG AHW

- 4 Working Groups on ‘What’ (themes, activities), to feed into PAHW Dossier + SRIA
  - **WG Surveillance:** Y Van der Stede (EFSA) and W van der Poel (EPIZONE)
  - **WG Diagnostics:** P Jokelainen (OHEJP) and M Beer (CWG)
  - **WG Farming Practices:** K Möller (ICRAD, farming) and V Michel (Animal Welfare)
  - **WG Treatment & Vaccines:** S Arnouts (Industry perspective) and A Morrow (IRC)
  - Plus **transversal working groups:** **WG AMR** (see One Health EJP and JPIAMR): A Käsbohrer and R La Ragione (OHEJP); **WG Fish** (see SCAR Fish): M Bagni and G Arcangeli
- Interested parties working on ‘How’ (organization)
- Draft Dossier version May 2020:

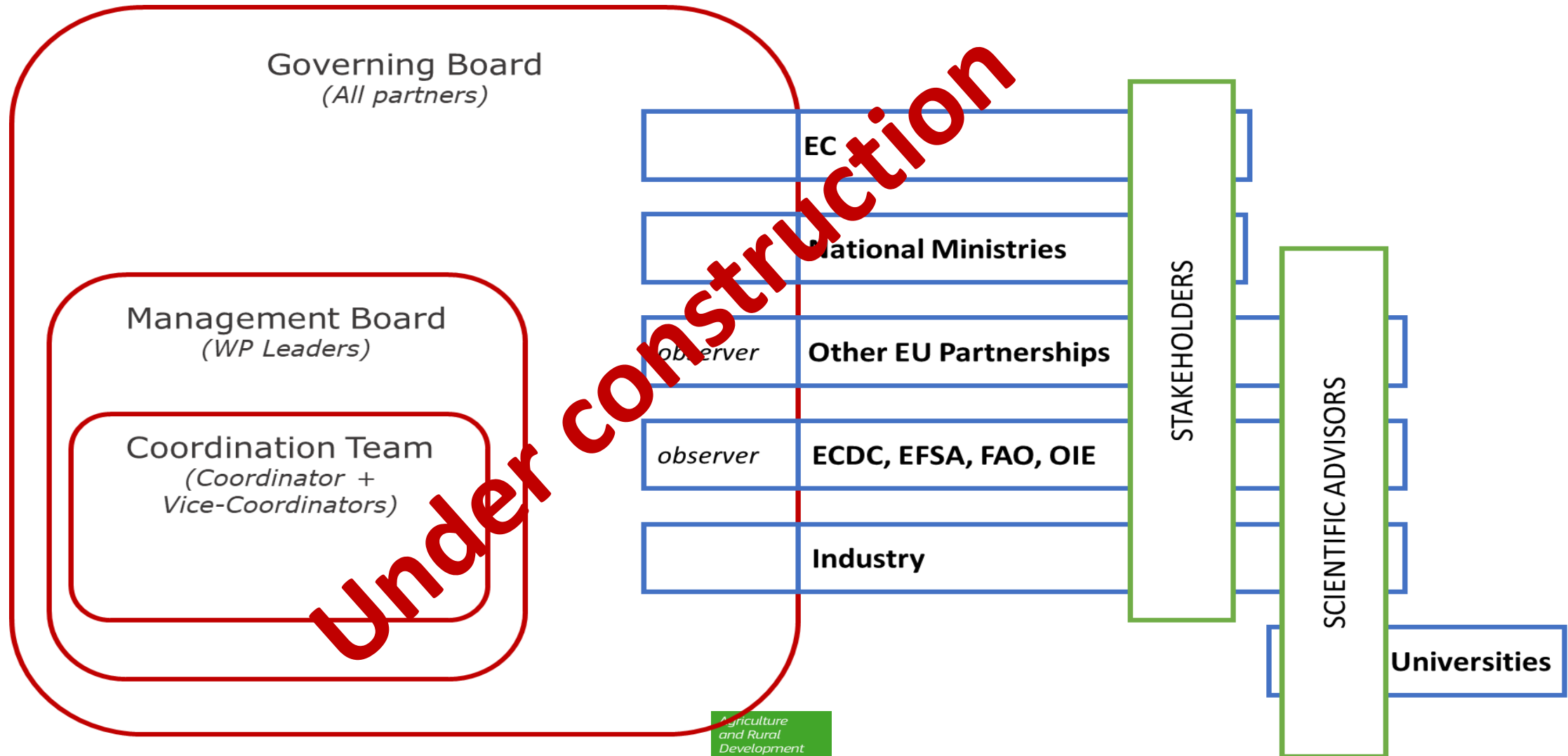
[https://scar-europe.org/images/AHW\\_CWG/Documents/Partnership\\_Animal-Health-Welfare.pdf](https://scar-europe.org/images/AHW_CWG/Documents/Partnership_Animal-Health-Welfare.pdf)



# Timeline CoF partnerships for WP 2023-24



# Possible Governance scheme: role of EFSA?

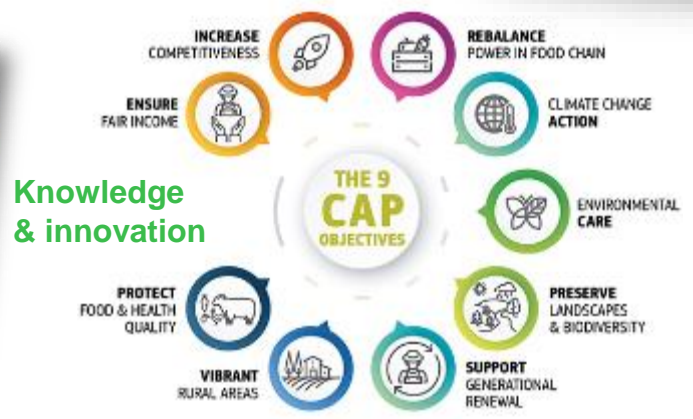


# ANNEX

*Background slides for information that will not be presented during meeting*



# Policy framework



## Key EU targets & objectives to be achieved by 2030

- 50% chemical pesticides
- 20% chemical fertilizers
- 50% sales of antimicrobials to livestock
- ...and many others

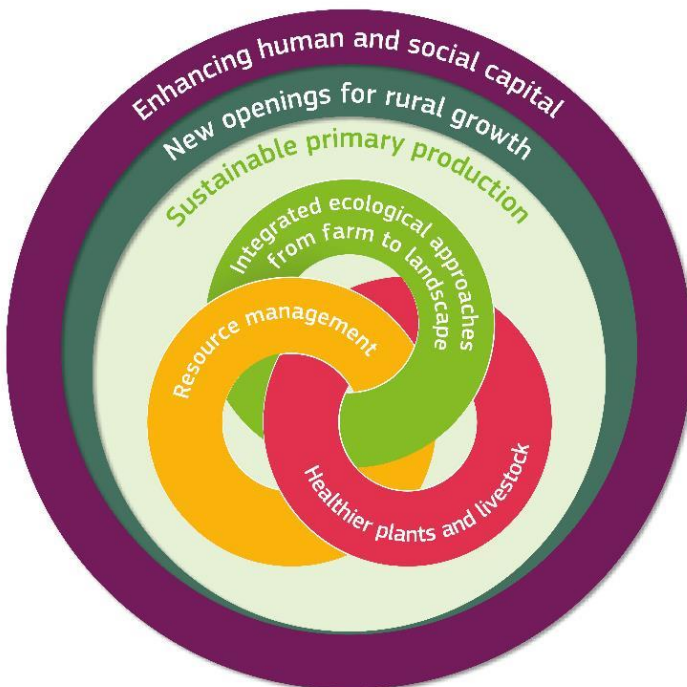
Proposal for a revision of the existing animal welfare legislation, including on transport and slaughter (2023)

Proposal for a revision of the feed additives Regulation to reduce the environmental impact of livestock farming (2021)

Revision of Sustainable Use of Pesticides Directive and enhancement of IPM (2022)



# Sustainable livestock in AGRI R&I strategy and H2020



Also:



<https://ec.europa.eu/programmes/horizon2020/en/news/final-paper-strategic-approach-eu-agricultural-research-and-innovation>

[https://ec.europa.eu/agriculture/research-innovation/documents-links\\_en](https://ec.europa.eu/agriculture/research-innovation/documents-links_en)



# PAHW: WHY addressing Animal Health and Welfare

- AH&W a **Global Public Good**
- Livestock play a **major economic role** (€168 billion annually for EU)
- **20% of animal production loss** due to animal diseases worldwide (OIE)
- Increasing threats from **exotic diseases**, notably vector-borne diseases
- Increasing rate of emergence of **novel (zoonotic) pathogens**; jumps between species (SARS, SARS-Cov2)
- Major crises **disturbing trade** and jeopardising **consumer confidence** (BSE, ASF).
- **One Health**: Zoonoses and Antimicrobial resistance (AMR) are serious health threats
- **Societal concerns** about the conditions under which animal production takes place and the level of **animal welfare**

# PAHW: policy/regulatory environment

SDGs:

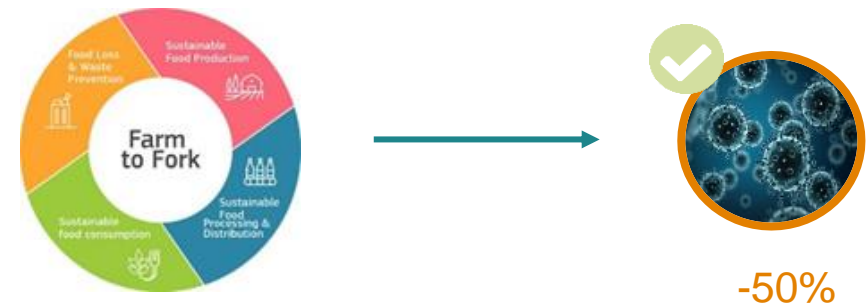


Green Deal, notably Farm to Fork strategy:

sustainable agriculture

target on reduction AM sales

review of animal welfare legislation



EU Animal Health and Welfare regulatory framework

EU One Health Action Plan against AMR

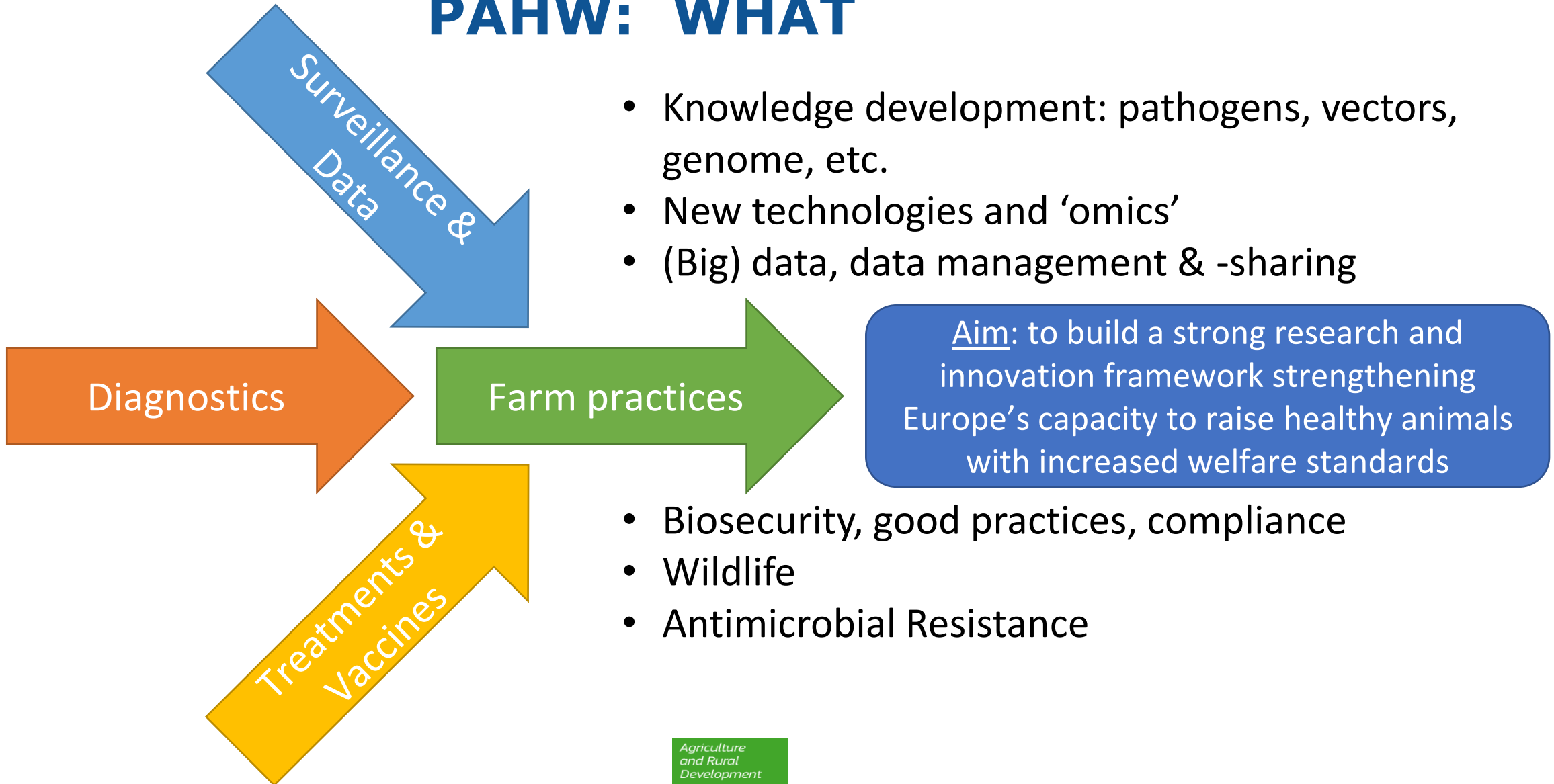
# Vision of the Partnership

*The European Partnership Animal Health & Welfare aims **to build a strong research and innovation framework** strengthening Europe's capacity to raise **healthy animals with increased welfare standards**, in order to enhance the societal, economic and environmental sustainability of livestock and the secure production of safe, nutritious food, thus contributing to the **protection of the health of animals** and, where appropriate, **of humans**.*

*The Partnership will **coordinate public-public and public-private collaboration of all major actors** involved in animal health and animal welfare in Europe by coordinating high-quality research, developing innovative methodologies, tools and animal health and welfare products, and supporting science based policy making.*

*PAHW dossier v3.0, October 2021*

## PAHW: WHAT



# PAHW: draft Intervention Logic

DRIVERS

**Societal:** Vulnerable sector with a societal recognition to be improved

**Technological:** New technologies and innovation opportunities, but need to overcome practical locks

**Environmental:** Negative impact of climate change, chemical contaminants incl. antimicrobials to be considered

**Economic:** Return on investment to be enhanced to stimulate funding

**Political:** Animal health, welfare and food regulations at EU level, Tripartite Action Plan AMR, Green Deal, new CAP, etc. enforce rigid restrictions

GENERAL OBJECTIVES

**To better control animal infectious diseases and reinforce the preparedness of all actors**

**To place animal welfare at the foreground of livestock production**

**To enhance cross-sector cooperation and collaboration to prevent the spill-over from animals, food and the environment to humans in a one health perspective**

SPECIFIC OBJECTIVES

**To facilitate the cooperation between all actors on the responsiveness, monitoring, prevention and treatment of animal infectious diseases**

**To boost research and to increase the evidence-base to develop products and tools for animal infectious disease and animal welfare monitoring and control**

**To strengthen the communication and dissemination of project outputs to scientific, societal, political and private stakeholders**

OPERATIONAL OBJECTIVES

Surv. System animal health

Surv. System animal welfare

Support monitoring animal health

Support monitoring animal welfare

Risk Assessment animal health

Risk Assessment animal welfare

Prevention against AID on farm

Prevention regarding animal welfare on farm

Treatment of priority animal infectious diseases

Vaccines

Alternatives for anti-microbial use

Socio-economic initiatives

**Under Construction**

# Output of PAHW thematic Working Group

PAHW Working Group 1  
Surveillance

Yves Van der Stede



# WG1, Surveillance, Epidemiology & Risk Analysis

## *Aims*

- Provide new solutions and strategies for integrated animal and aquatic health surveillance and monitoring -- for different purposes
- Defining practical improvement strategies and reliable on-farm monitoring systems for livestock welfare
- Increase epidemiological knowledge

## *Expert profiles*

- ± 10 experts (BE, NL, IT, SE, ES, EE, DK, EL, DE, FR)

## *Themes*



- Wildlife Surveillance



- Genomic Surveillance



- AMR surveillance & VMP surveillance



- Horizon Scanning for (re) emerging AH & W issues using FAIR data








- EPI Welfare Surveillance



- Livestock Surveillance


## OO1 Design surveillance systems for AH

## OO5 Adapt risk assessment and risk communication to new needs on AH

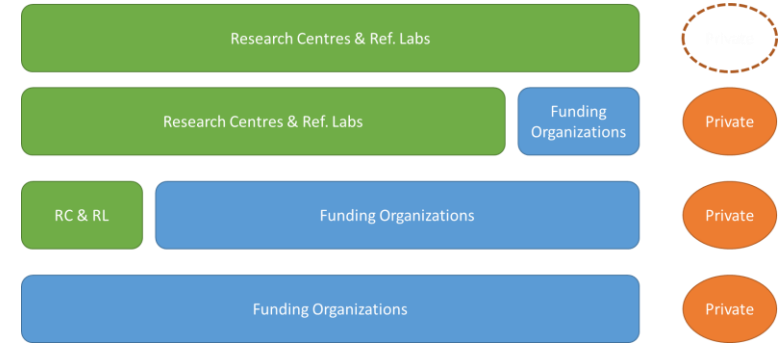
| Needs ('why', EU policy, scientific questions)   | Themes   | Expected output / Short term impact   |
|--|--|---|
| <ul style="list-style-type: none"> <li>✓ Coordinating international action at European level for monitoring surveillance</li> <li>✓ Applying the One Health approach in which the environment, ecosystems and animals are integrated in the overall surveillance and monitoring of animal health and transboundary animal diseases</li> <li>✓ Integrating Next Generation Sequencing (NGS) as a routine “method/tool” for monitoring and surveillance of animal health and TBD in the EU</li> <li>✓ Detecting emerging and re-emerging issues in animal health via an effective <b>early warning system</b></li> </ul> | <ul style="list-style-type: none"> <li> Wildlife</li> <li> Genomic</li> <li> AMR</li> <li> Horizon Scan</li> <li> Livestock</li> </ul> | <ol style="list-style-type: none"> <li>1. Inventory, description and evaluation of data sources</li> <li>2. Build or further develop <b>networks and mapping/coordinating of the activities of these networks</b> (guidelines for reporting AMR)</li> <li>3. Development of analysis methods that integrated data for: <ul style="list-style-type: none"> <li>• Recommendations of wildlife surveillance,</li> <li>• Genomic, clinical and epidemiological data</li> <li>• Used to inform antimicrobial stewardship</li> <li>• Creating a Dashboards including also <b>warnings</b> that allow informed decisions and identification of the hotspots (real time)</li> </ul> </li> </ol> |

## 002 Design & encourage surveillance systems for AW

## 006 Adapt risk assessment and risk communication to new needs in AW

| Needs ('why', EU policy, scientific questions)   | Themes   | Expected output / Short term impact   |
|--|--|---|
| <ul style="list-style-type: none"> <li>✓ Assessing the risks related to different husbandry/farming systems and monitoring animal welfare</li> <li>✓ Providing/establishing a data collection and monitoring infrastructure uniting the information on the monitoring of Animal Welfare (regulations) in the EU</li> <li>✓ Stablishing a harmonised –preferentially standardised- <b>welfare monitoring system</b></li> <li>✓ Creating tools and methods (preferentially quantitative) for distinguishing between good and poor welfare</li> </ul> |  <p>EPI-welfare</p> | <ol style="list-style-type: none"> <li>1. Integrated and updated animal Welfare legislation as foreseen within the legislative framework for sustainable food systems (Farm2Fork strategy as part of the Green Deal)</li> <li>2. Creation of network on animal welfare in the EU</li> <li>3. Design studies to evaluate the relationship between animal welfare (animal-based indicators) and some important hazards</li> <li>4. Development of animal welfare surveillance systems and evaluation</li> </ol> |

# PAHW implementation: Possible scenarios



This only refers to the joint research calls

1. Only organize internal calls  
(only research centres in the consortium, no funding organizations)
2. Mainly organize internal calls, but external, open calls, are possible  
(consortium with large number of research centres; plus funding organizations for open calls )
3. Mainly have external, open calls, but internal calls are possible  
(consortium with funding organizations for open calls; plus restricted number of research centres with specific (e.g. reference) activities)
4. Only organize external, open calls  
(consortium with essentially only funding organizations)