



# SETTING THE SCENE ON THE EUROPEAN FOOD SAFETY SYSTEM –

## ONE HEALTH

Stef BRONZWAER

2 December 2024

Rome, CNR HQ

# EUROPEAN COMMISSION 2024 - 2029



## MISSION LETTER

Brussels, 1 December 2024

Ursula von der Leyen  
President of the European Commission

**Olivér Várhelyi**

**Commissioner for Health and Animal Welfare**

## Your mission

**I would like to entrust you with the role of Commissioner for Health and Animal Welfare.**

Europe has taken historic steps following the COVID-19 pandemic and the challenges that it brought for our health systems and societies and economies. As we overcame the pandemic, new health threats and challenges have emerged and we must continue to strengthen our prevention, resilience and competitiveness through our health policies.

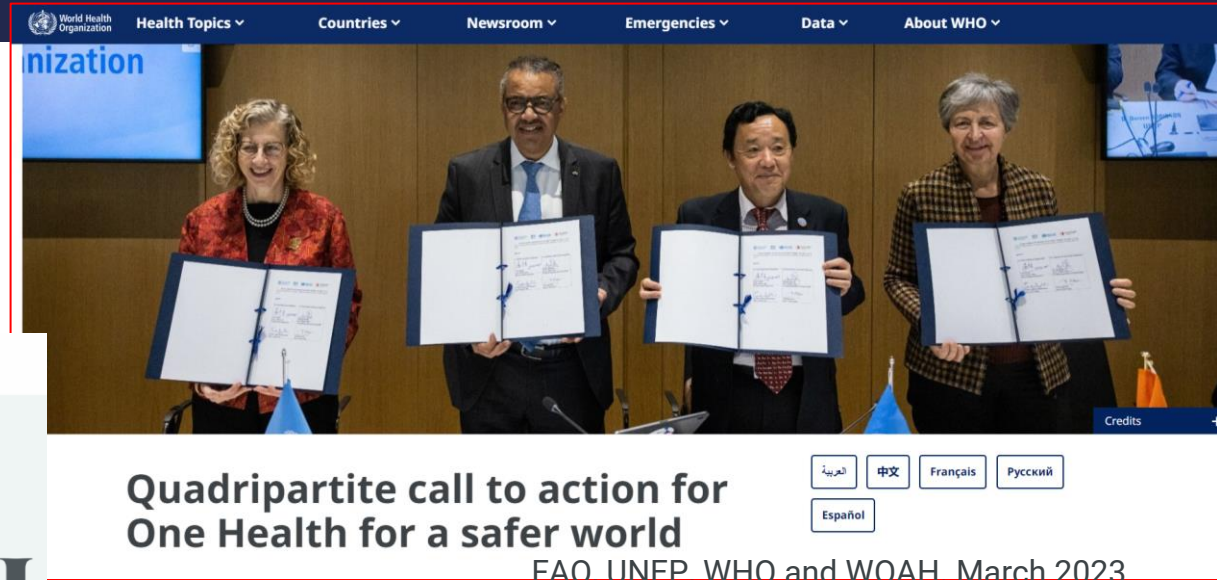
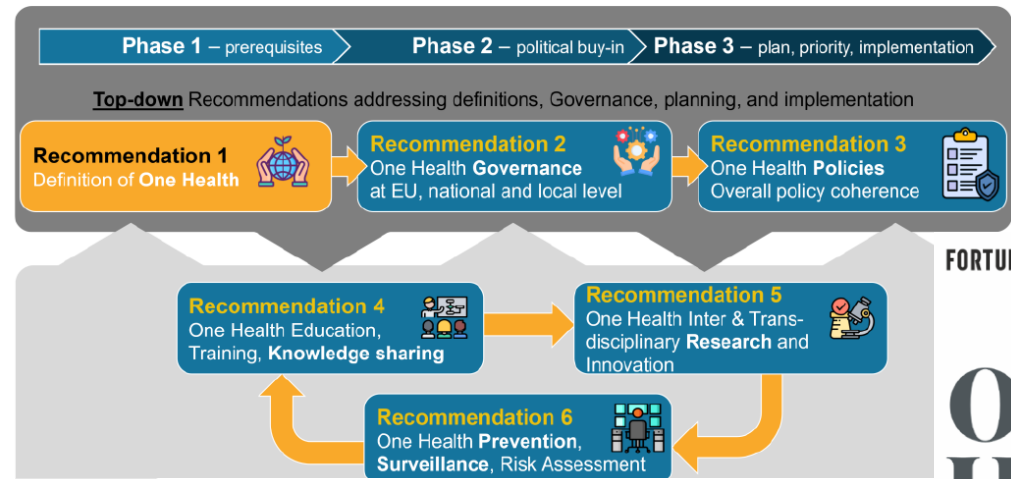
You will focus on **completing the European Health Union**, by further diversifying supply chains, improving access to the most advanced treatments, boosting the competitiveness, resilience and security of health systems and working on strategic inventories.

You will also continue to **build on the One Health approach**, recognising the connection between people, animals, plants and their shared environment. You will be responsible for **animal welfare**. The last few years highlighted the importance of this approach and demonstrated the need for a true European Health Union.



# A LOT HAPPENING – AT ALL TIERS

Scientific Opinion  
One Health Governance in the European Union



One Health Strengthening Europe

neHEALTH EJP

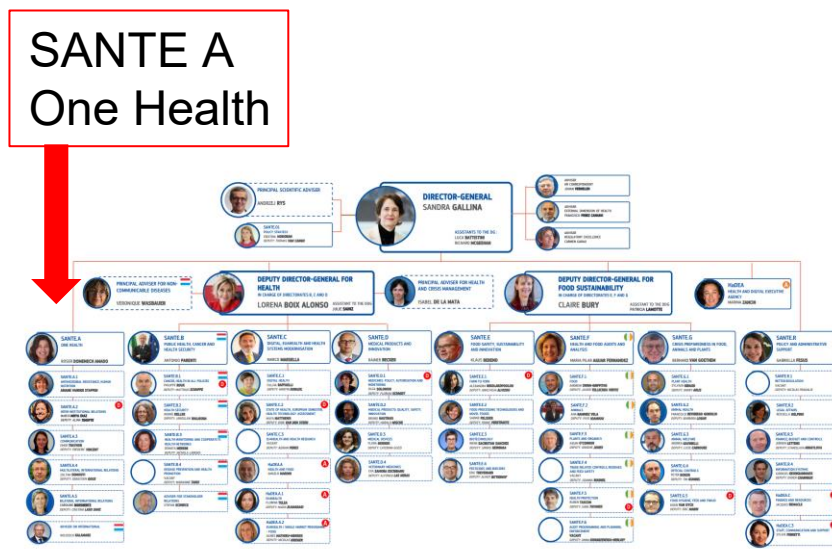
EPHA European One-Health Association



One Health  
Volume 15, December 2022, 100464

One Health collaboration with and among EU Agencies – Bridging research and policy

Stef Bronzwaer<sup>a</sup>, Mike Catchpole<sup>b</sup>, Wim de Coen<sup>c</sup>, Zoe Dingwall<sup>d</sup>, Karen Fabbri<sup>e</sup>, Clémence Foltz<sup>a</sup>, Catherine Ganzleben<sup>f</sup>, Robert van Gorcom<sup>g</sup>, Anthony Humphreys<sup>h</sup>, Pikka Jokelainen<sup>i</sup>, Ernesto Liebana<sup>j</sup>, Valentina Rizzi<sup>k</sup>, Bernhard Url<sup>l</sup>





# ONE HEALTH DEFINITION

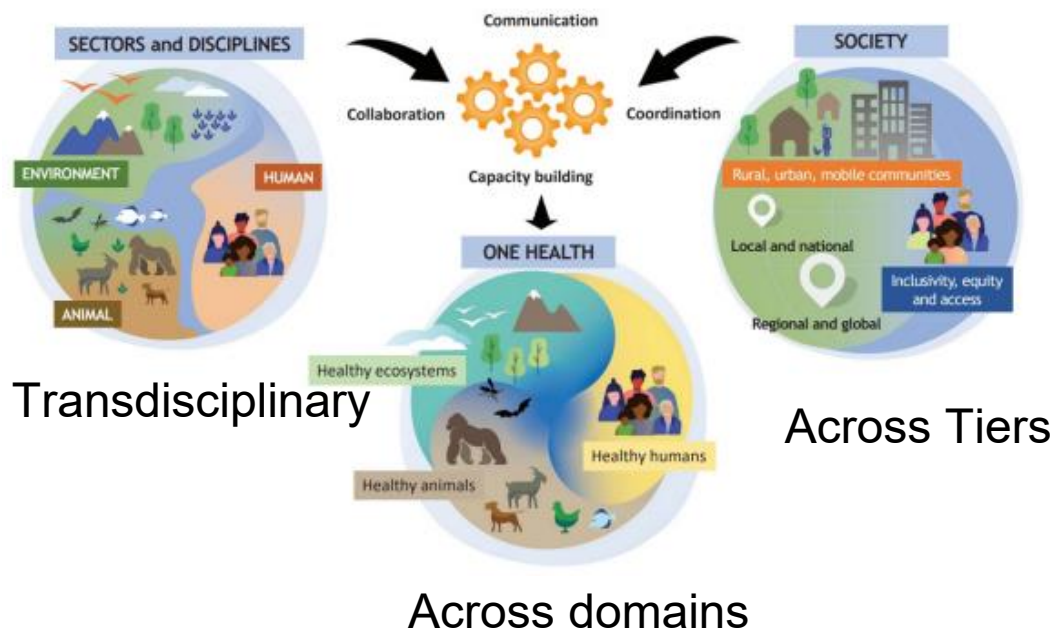
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems.

It recognizes the health of **humans**, domestic and wild **animals**, **plants**, and the wider **environment** (including ecosystems) are closely linked and inter-dependent.

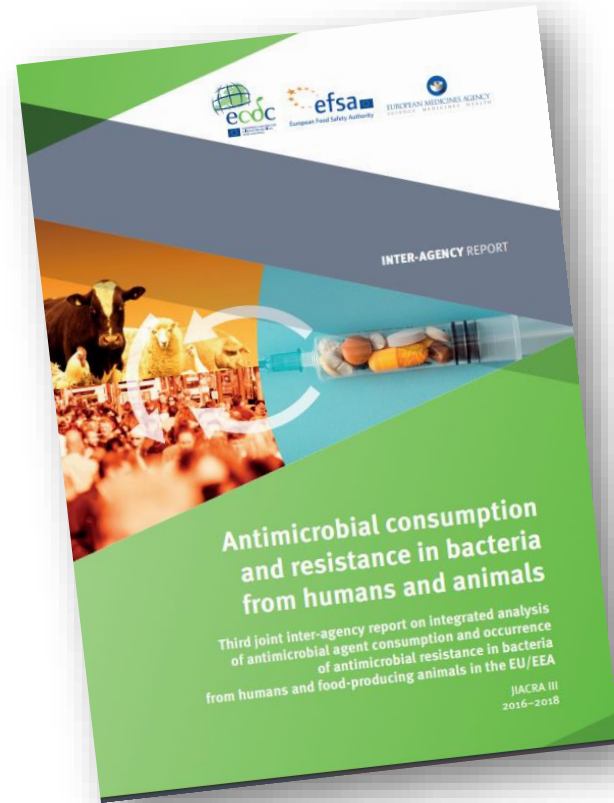
Regulation (EC) No 178/2002 - mission EFSA



*The Authority shall contribute to a high level of protection of **human life and health**, and in this respect take account of **animal health and welfare, plant health and the environment** ...*



# INTEGRATED ANALYSIS OF CONSUMPTION OF ANTIMICROBIAL AGENTS AND OCCURRENCE OF ANTIMICROBIAL RESISTANCE IN BACTERIA FROM HUMANS AND FOOD-PRODUCING ANIMALS – JIACRA



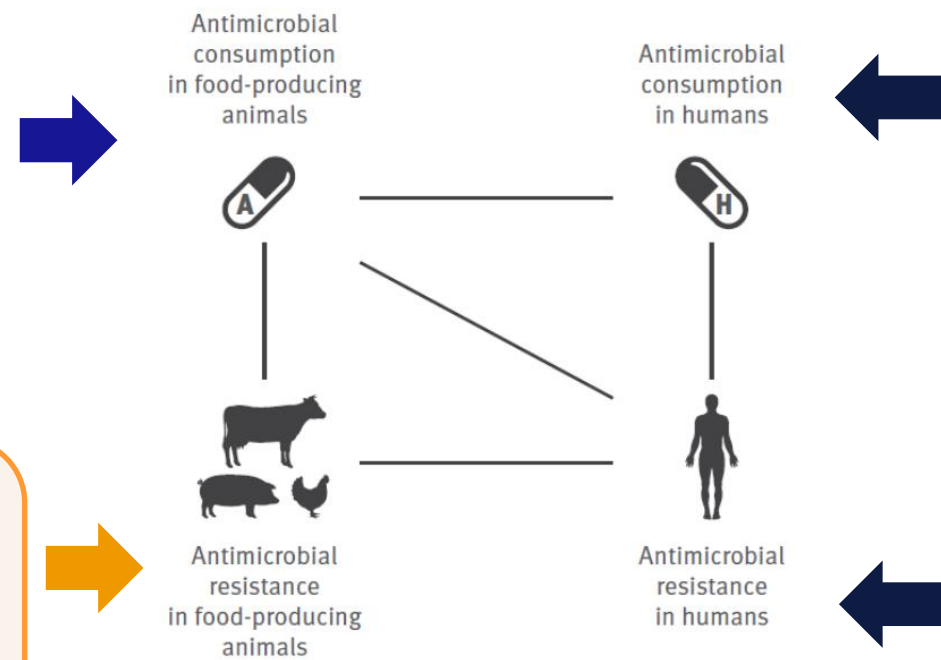
 EUROPEAN MEDICINES AGENCY  
SCIENCE. MEDICINES. HEALTH.

European Surveillance of Veterinary Antimicrobial Consumption (ESVAC)

 EUROPEAN FOOD SAFETY AUTHORITY

Network on Zoonoses Data Collection

EU Summary Report on AMR in zoonotic and indicator bacteria from humans, animals and food



European Surveillance of Antimicrobial Consumption Network (ESAC-Net)

 EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

European Antimicrobial Resistance Surveillance Network (EARS-Net)  
Food- and Water-borne Disease Network (FWD-Net)



# COVID-19 PANDEMIC: LESSONS LEARNED AND RECOMMENDATIONS FOR THE FUTURE (2022/2076(INI))

2022/2076(INI)

14.4.2023

245. **Calls for the EU to integrate One Health, as defined by the WHO, in its public health policies;**

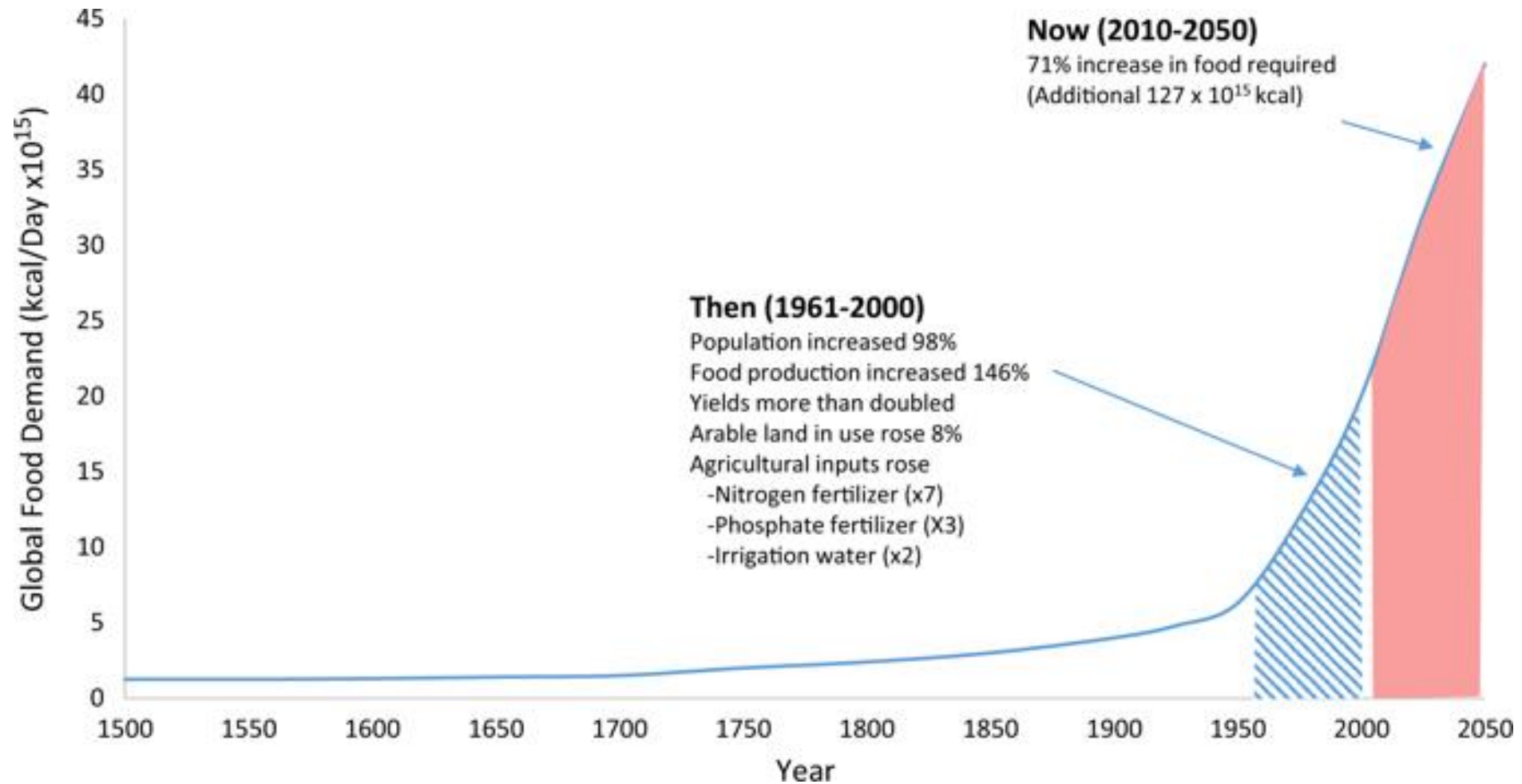
**highlights the need to further expand knowledge in this field and promote public scientific research in order to better understand and reflect the interdependencies between human, animal, plant and environmental health ...;**



251. **Calls for establishment of a European cross-agency task force dedicated to the One Health approach to advance transdisciplinary research and cross-sectoral scientific advice;**

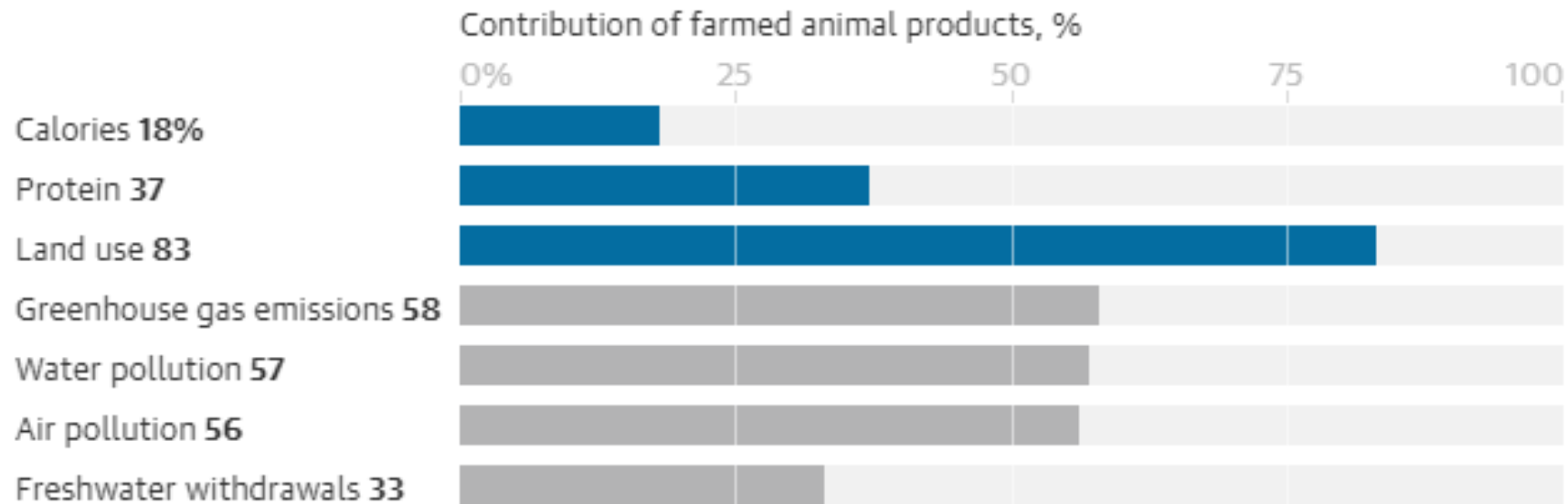


# EXPONENTIAL GLOBAL FOOD DEMAND



# 80% FARMLAND PRODUCES 37% PROTEINS

**More than 80% of farmland is used for livestock but it produces just 18% of food calories and 37% of protein**



Guardian Graphic | Source: Poore and Nemecek, Science

Meat and dairy provide just 18% of calories and 37% of protein, it uses the vast majority – 83% – of farmland and produces 60% of agriculture’s greenhouse gas emissions.  
<https://science.sciencemag.org/content/360/6392/987/tab-pdf>





# ONE CONFERENCE 2022



Editorial | Open Access | CC BY-NC-ND

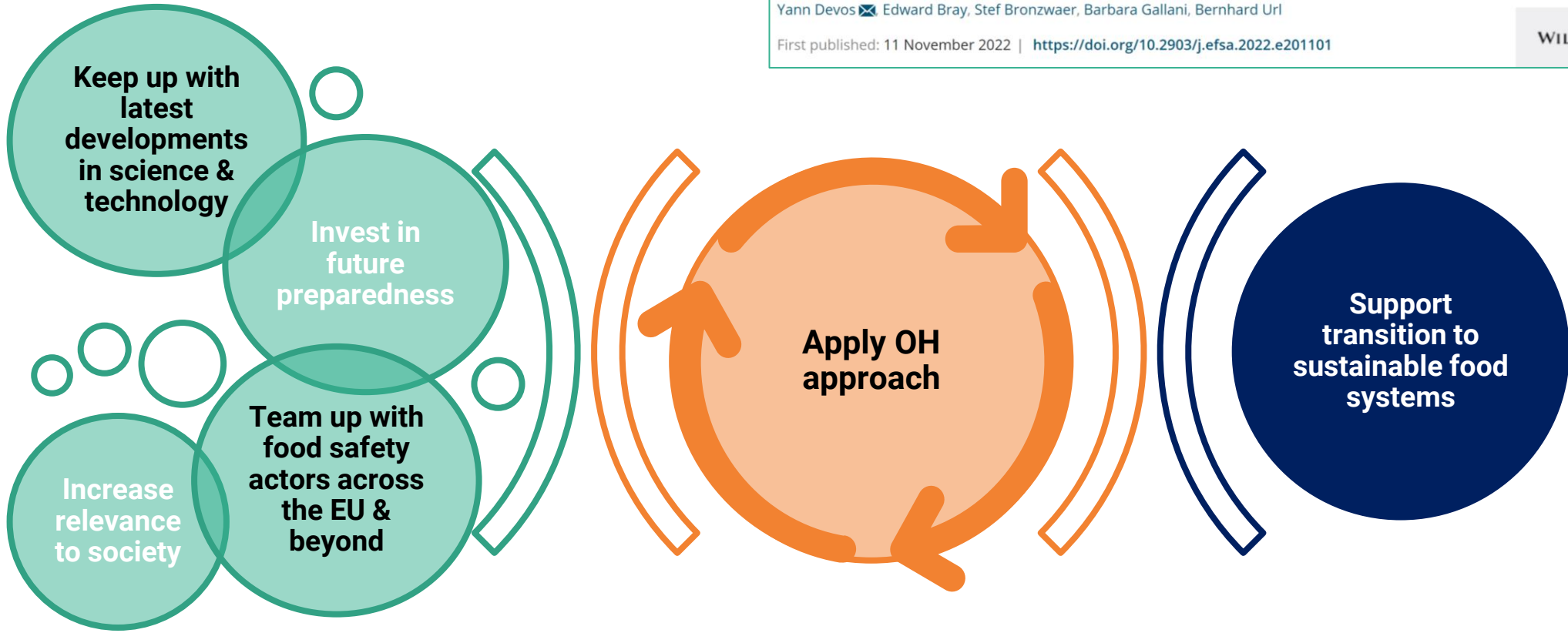
## Advancing food safety: strategic recommendations from the 'ONE – Health, Environment & Society – Conference 2022'

Yann Devos ✉ Edward Bray, Stef Bronzwaer, Barbara Gallani, Bernhard Url

First published: 11 November 2022 | <https://doi.org/10.2903/j.efsa.2022.e201101>

Advertisement

WILEY



Safe food

One Health (OH)

Sustainable food

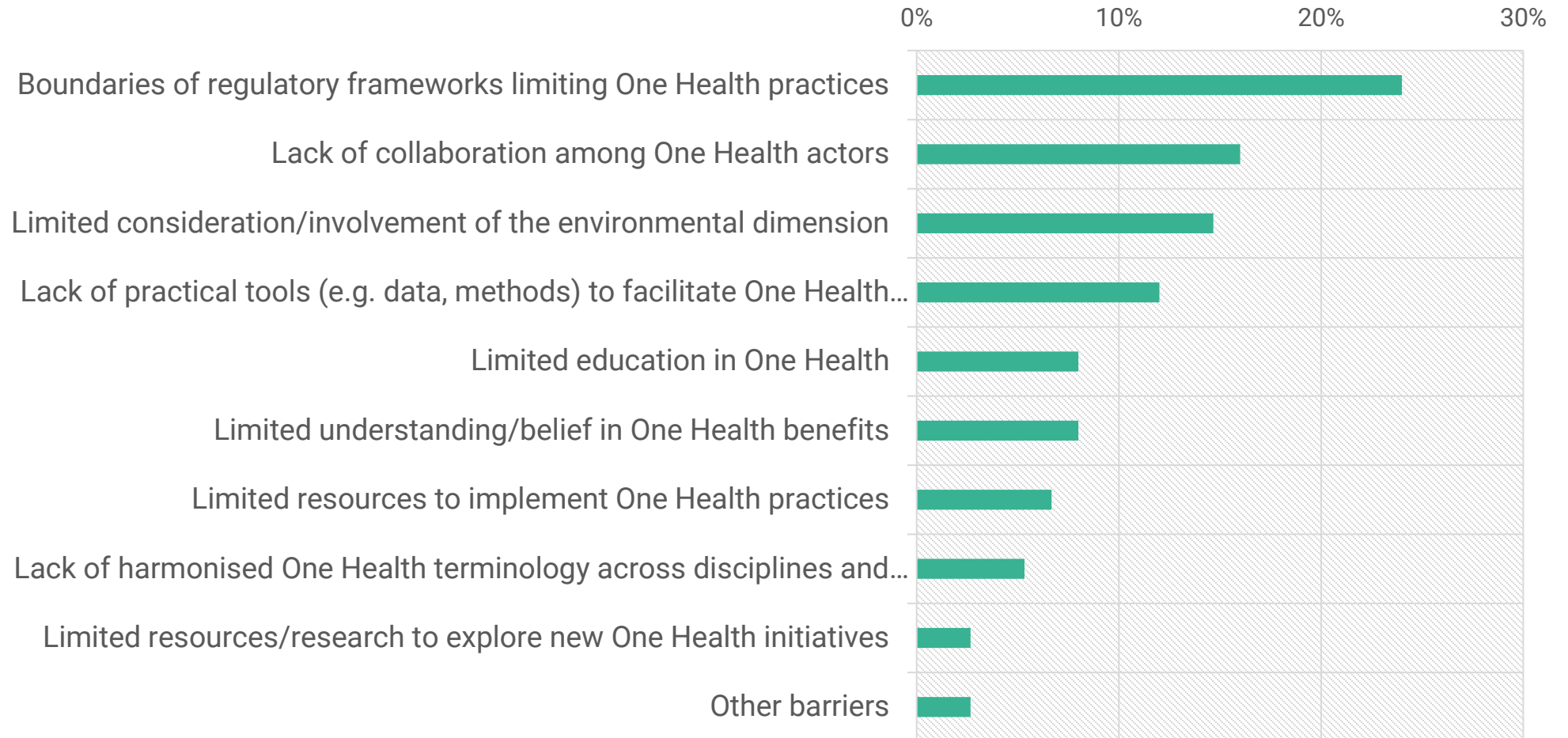


# MILESTONES

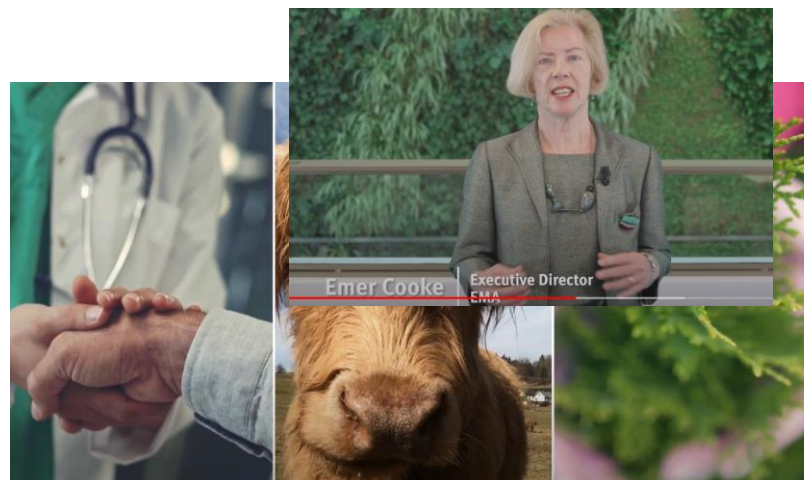


# MAIN OH BARRIERS (EFSA SURVEY)

## Barriers to the One Health approach (n = 75)



# CROSS-AGENCY ONE HEALTH TASK FORCE - FRAMEWORK FOR ACTION JOINT VIDEO STATEMENT BY 5 EXECUTIVE DIRECTORS - MAY 2024



<https://www.youtube.com/watch?v=eSIKEUVDRDA>



# CROSS-AGENCY ONE HEALTH TASK FORCE - FRAMEWORK FOR ACTION


<https://www.ecdc.europa.eu/sites/default/files/documents/cross-agency-one-health.pdf>



Strategic objective 2: Table with operational objectives, actions and timeline


Objectives	Actions	Timeline		
		2024	2025	2026
2.1. Coordinate cross-agency research engagement	2.1.a. Facilitate the consultation on research & work programme planning, in line with the 'Guidance to Commission Directorates-General on the involvement of EU decentralised agencies in Horizon Europe'.	●	●	●
	2.1.b. Coordinate the engagement of the agencies in relevant European Partnerships (e.g. OHAMR, AH&W, SFS, PARC).	●	●	
	2.1.c. Organise staff exchange / workshop of research coordinators across agencies and interact with DG RTD and partner DGs.	●		
	2.1.d. Coordinate the engagement in external research projects to foster uptake of research outputs into the work of the agencies.	●	●	●
2.2. Promote public scientific research on interdependencies between human, animal, plant and environmental health	2.2.a. Identify transdisciplinary knowledge gaps, formulate One Health research needs and contribute to develop a joint One Health R&I agenda.	●	●	
	2.2.b. Organise an (internal) cross-agency workshop to develop the methodology and the approach on how to define cross-agency One Health research needs.	●		
	2.2.c. Organise a conference (e.g. One Health Research Assembly) to collect stakeholders inputs on One Health research needs.			●
<b>OUTCOMES OF RESEARCH COORDINATION</b>				
<ul style="list-style-type: none"> <li>Common knowledge hub to inform Europe's One Health research agenda.</li> <li>Research to better understand the interdependencies between human, animal, plant and environmental health using a transdisciplinary and integrated approach.</li> <li>Efficient engagement of agencies in relevant One Health research projects and European Partnerships.</li> </ul>				

Box 1. Examples of multi-sectoral topics to which the cross-agency One Health task force framework for action can add value:




**1. Climate change and degradation of ecosystems can create favourable conditions for the emergence and spread of infectious diseases such as vector-, food- and water-borne diseases, with a profound impact on animal and public health.**

The framework for action will improve the ability of the agencies to better assess the impact of climate change on the occurrence of emerging and (re-)emerging infectious diseases by promoting joint scientific networks and partnerships, supporting information sharing between agencies, expanding research on the impact of climate change on the occurrence of disease, and facilitating the transition to more integrated scientific advice and risk assessment in this area.




**2. Microplastics are an illustrative example of how emerging pollutants can not only contaminate waterways and soil but also enter the food chain, affecting animal and human health, and impacting food safety.**

The framework for action will contribute to assess in a more integrated way the impact of microplastic and chemical pollution on human, animal and ecosystem health by further building capacity for joint risk assessments in this area, promoting transdisciplinary research on the impacts of microplastics and other emerging chemicals, making use of relevant research outcomes and facilitating the translation of research into actionable outputs.



**3. The COVID-19 pandemic showed the need to coordinate across sectors to better understand the complex drivers of disease and other health threats and to inform effective and sustainable solutions.**

The framework for action will strengthen collective prevention, preparedness and response capacities in the EU by making knowledge more accessible to relevant stakeholders through information sharing and aligned risk communication, contributing to build and enhance preparedness and response capacities; and supporting the implementation of the One Health approach in prevention, preparedness and response planning.

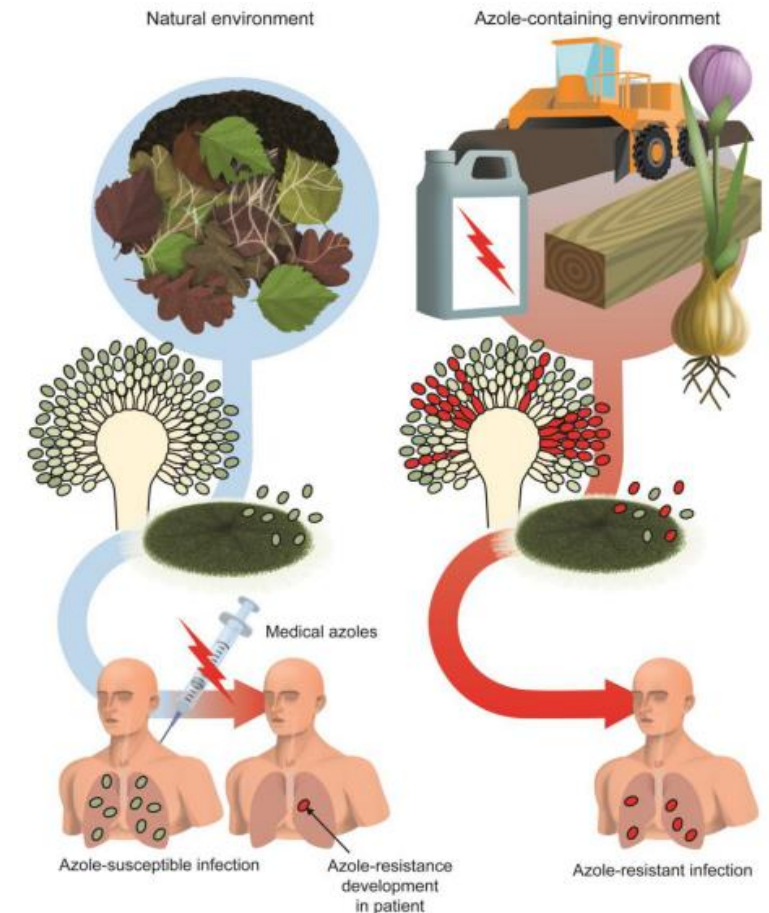


**4. Surveillance systems do not sufficiently integrate data, information, knowledge and expertise from all relevant sectors and actors.**

The framework for action will support the development of integrated surveillance and early warning systems by facilitating and promoting greater availability, accessibility and interoperability of data, improving the quality of information for risk assessment and working towards aligning surveillance and early warning systems in Europe with the One Health approach.

# AZOLE FUNGICIDE RESISTANCE

- Health issue: infection in human with *Aspergillus* spp. resistant to treatment with azoles
- Resistance may develop following:
  - i) therapeutic treatment
  - ii) environmental exposure (for which there is growing evidence)
- Use of azole fungicides in the environment, **four regulatory regimes**:
  - Plant protection products (EFSA)
  - Biocides (ECHA), e.g. wood preservatives
  - Industrial chemicals (ECHA), e.g. intermediates, dyes, cosmetics
  - Veterinary medicines (EMA)



source: Verweij et al., 2020

Courtesy: Pietro Stella (BIOHAW)



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