



Sindacato Italiano Veterinari di Medicina Pubblica

AGENDA 2030, ONE HEALTH, IA

PROSPETTIVE E SVILUPPO DELLA MEDICINA VETERINARIA DEL FUTURO

*Sicurezza alimentare, nutrizione
e sanità pubblica veterinaria
quale evoluzione*

Umberto Agrimi
Istituto Superiore di Sanità



In collaborazione con:



Con il patrocinio di:



www.iss.it/sicurezza-alimentare-nutrizione-e-sanità-pubblica-veterinaria



DIPARTIMENTO
SICUREZZA ALIMENTARE, NUTRIZIONE
E SANITÀ PUBBLICA VETERINARIA

 **SUSTAINABLE DEVELOPMENT GOALS**



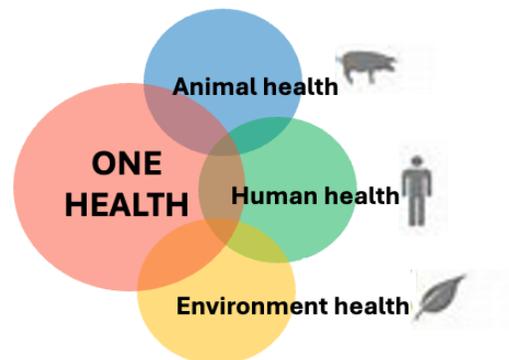
There is no plan B as there is no planet B (Ban Ki-moon, climate week NYC, 2014)



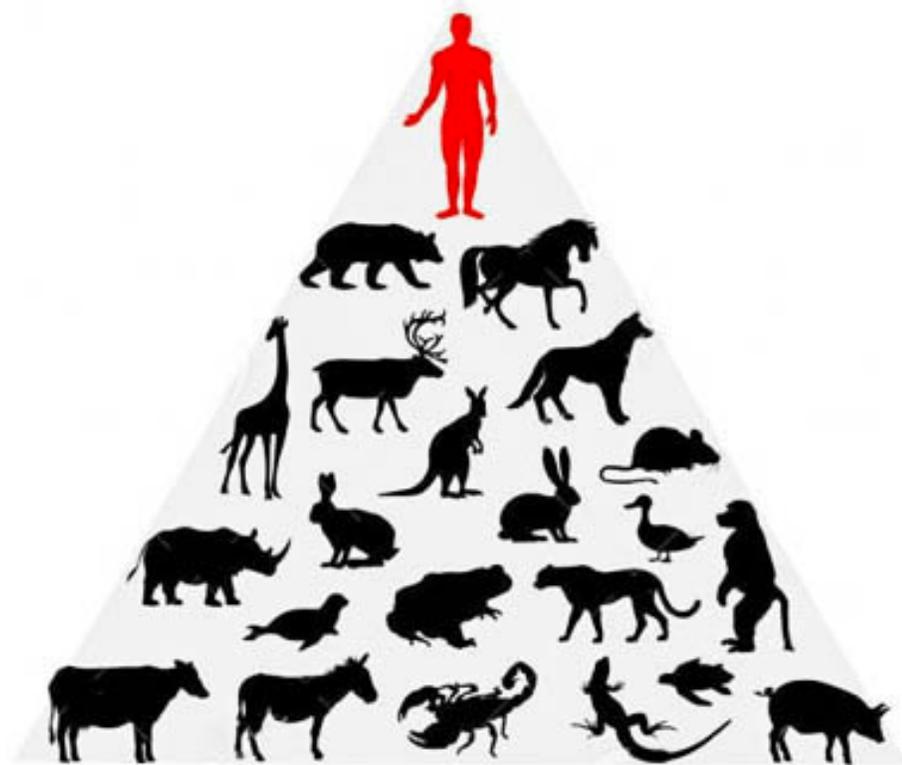
One Health is an integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals and ecosystems.

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

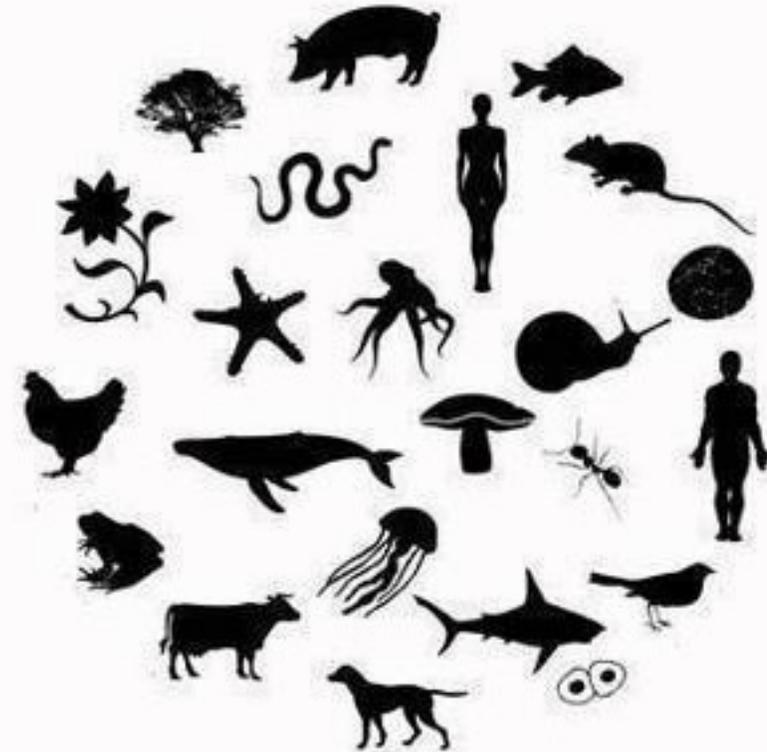
The approach mobilizes multiple sectors, disciplines and communities at varying levels of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for healthy food, water, energy, and air, taking action on climate change, and contributing to sustainable development.



ANTHROPOCENTRISM



ECOCENTRISM



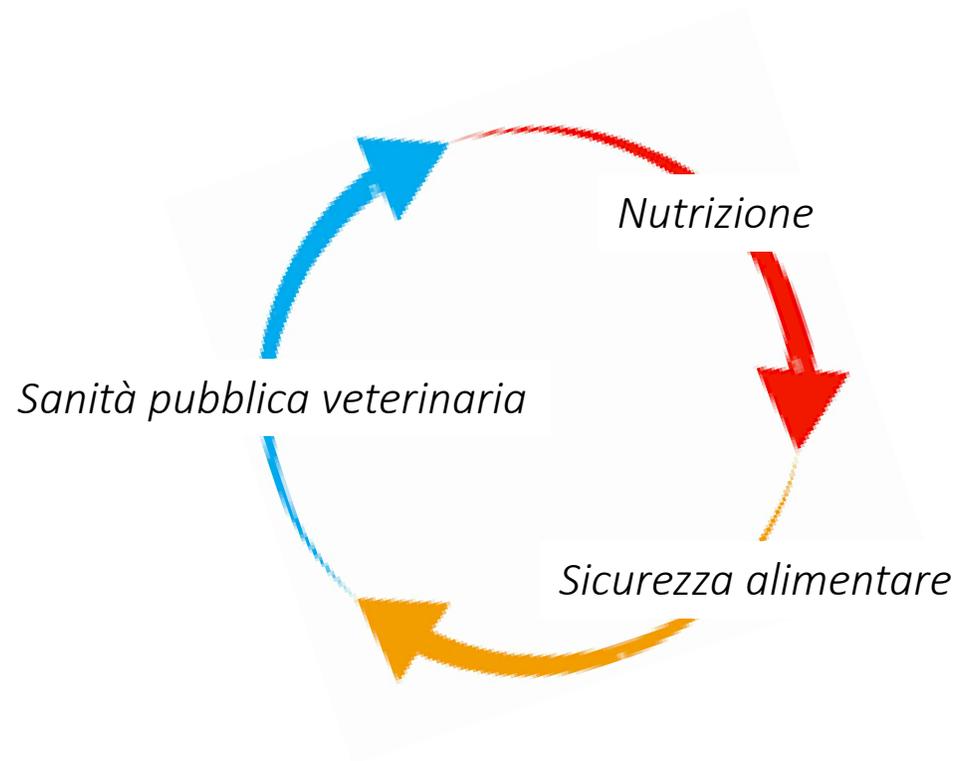


Barriera corallina del Mar Rosso (Egitto)

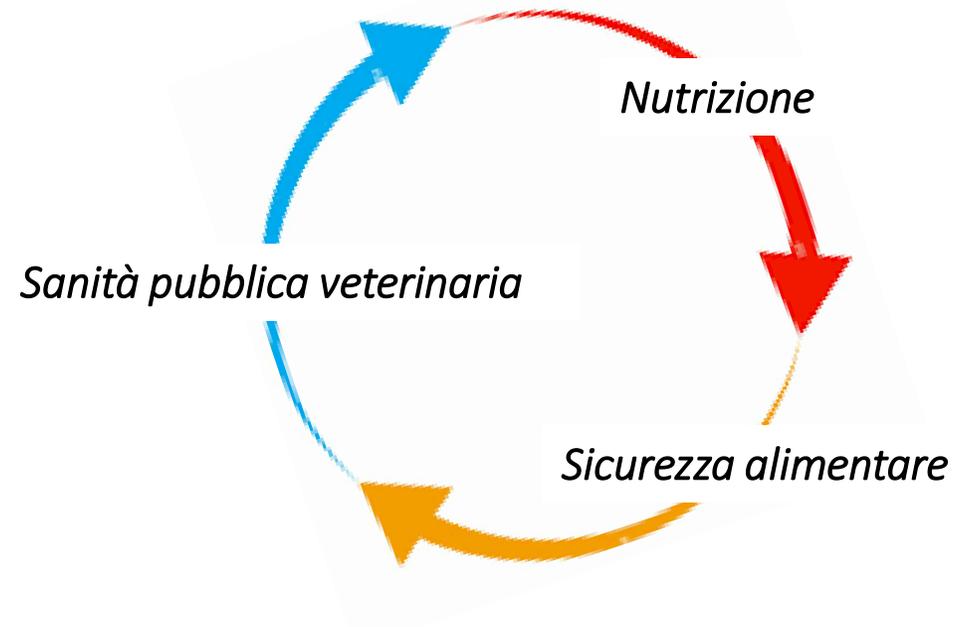


Deserto della Bassa California (Messico)

Un **ecosistema** può essere considerato l'unità funzionale dell'ambiente.
E' costituito dall'insieme degli organismi viventi che interagiscono tra loro e con l'ambiente fisico, scambiando energia e materia e generando processi ecologici.



- Evoluzione del mondo produttivo
- Evoluzione dei consumi
- Innovazione tecnologica
- Digitalizzazione, big data, interoperabilità, condivisione standard
- Spostamento uomini, animali, merci
- Intelligenza artificiale
- Evoluzione delle condizioni di benessere e salute animale
- Cambiamenti climatici e ambientali
- Evoluzione del rapporto dell'uomo con animali/ambiente
- Sostenibilità
- Integrazione sistemi e competenze
- Evoluzione del profilo di salute della popolazione umana
- Formazione e competenze
- Comunicazione e *community engagement*
-



- Evoluzione del mondo produttivo





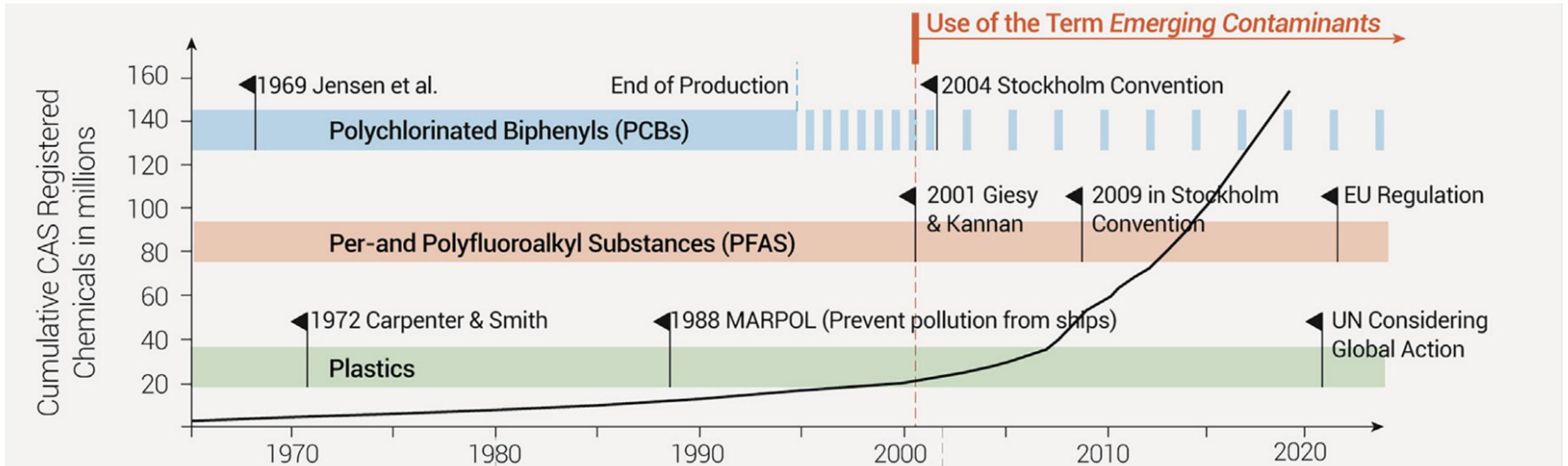
Novel foods

- Crescita della popolazione e incremento della domanda di proteine
- Risposta alla necessità di sostenibilità ambientale delle produzioni alimentari
- Nuovi approcci alla valutazione del rischio



Sicurezza chimica degli alimenti: i contaminanti ambientali

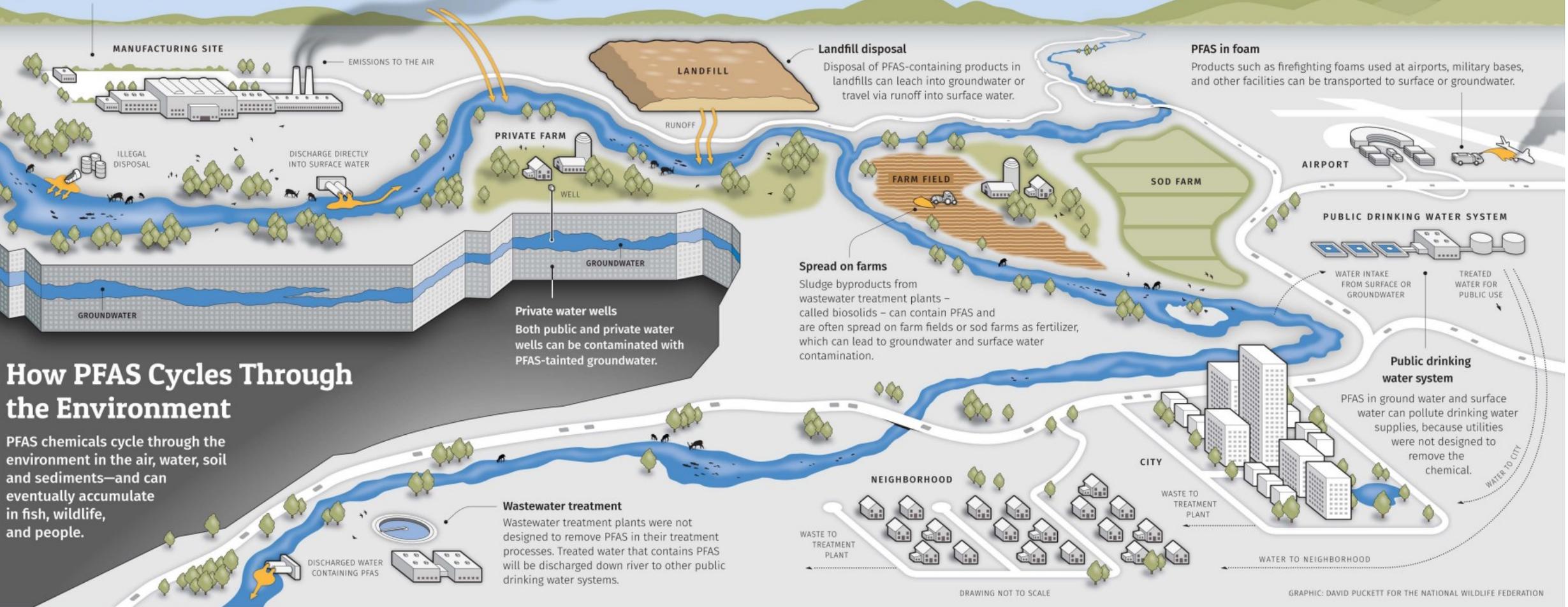
Dall'uso industriale all'emergenza come contaminanti, alla regolamentazione:
l'esempio di PCB, PFAS e plastiche



PFAS cycle

PFAS contamination at manufacturing sites

Primary sources of PFAS contamination include manufacturing sites that produce PFASs or use PFASs in industrial processes and release the chemicals into the environment through wastewater discharges into surface water or municipal sewer systems, on-site or illegal disposal that can leach into groundwater or surface water, and emissions to the air that can deposit in waterways.

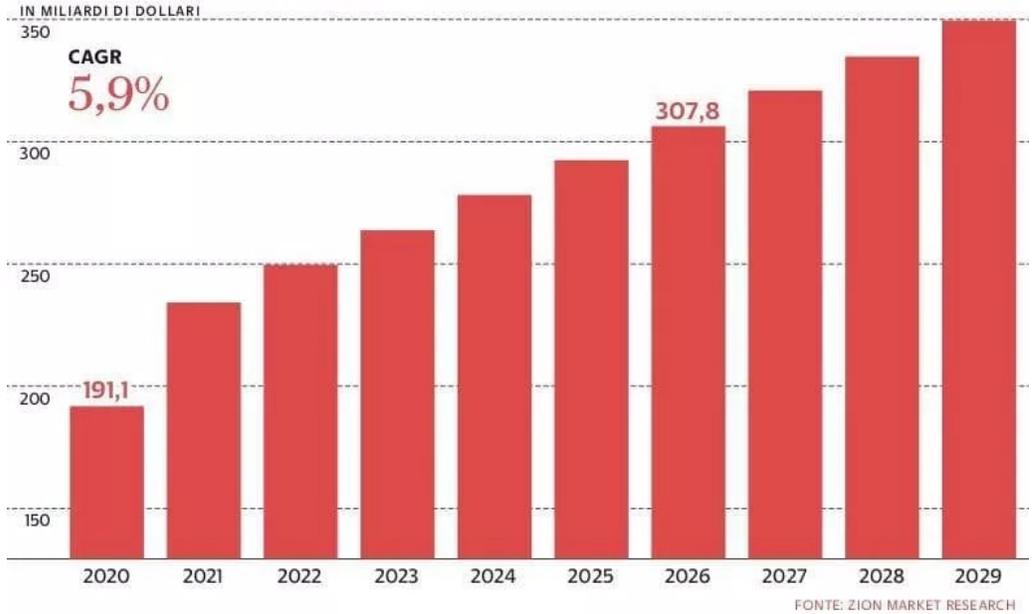


Evoluzione dei consumi

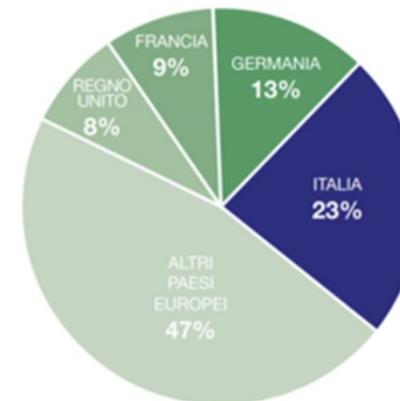
- Alimenti funzionali e salute integrata
- Riduzione sprechi e circolarità
- Etica e benessere animale
- Sostenibilità ambientale
- Proteine alternative & biotech alimentare
- Personalizzazione e tecnologia digitale
- Esperienza / piacere



IL MERCATO GLOBALE DEGLI INTEGRATORI ALIMENTARI

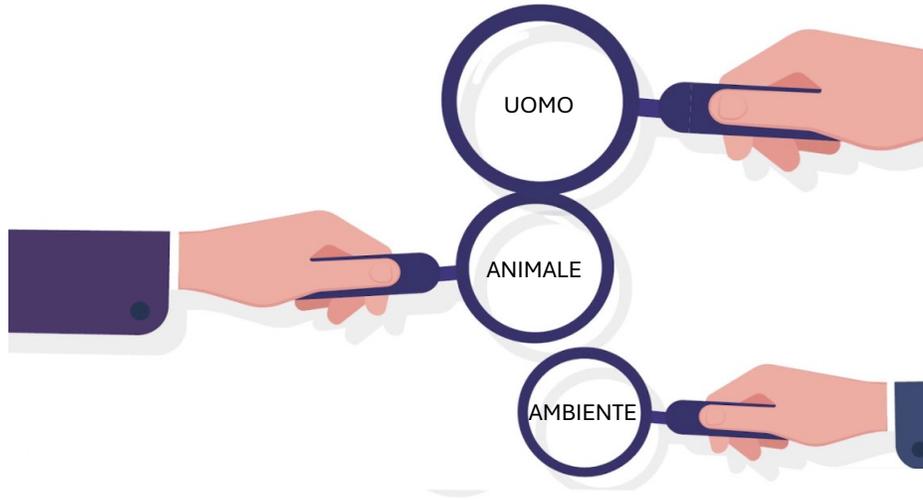


Mercato Europeo



Totale:
14,1 miliardi di euro

SORVEGLIANZA INTEGRATA ONE HEALTH ALLE MALATTIE INFETTIVE

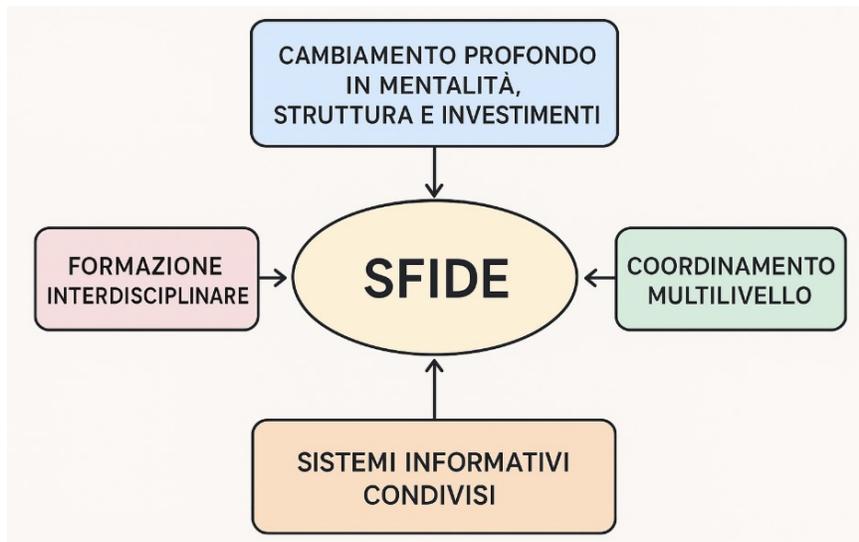


I driver della diffusione di agenti infettivi

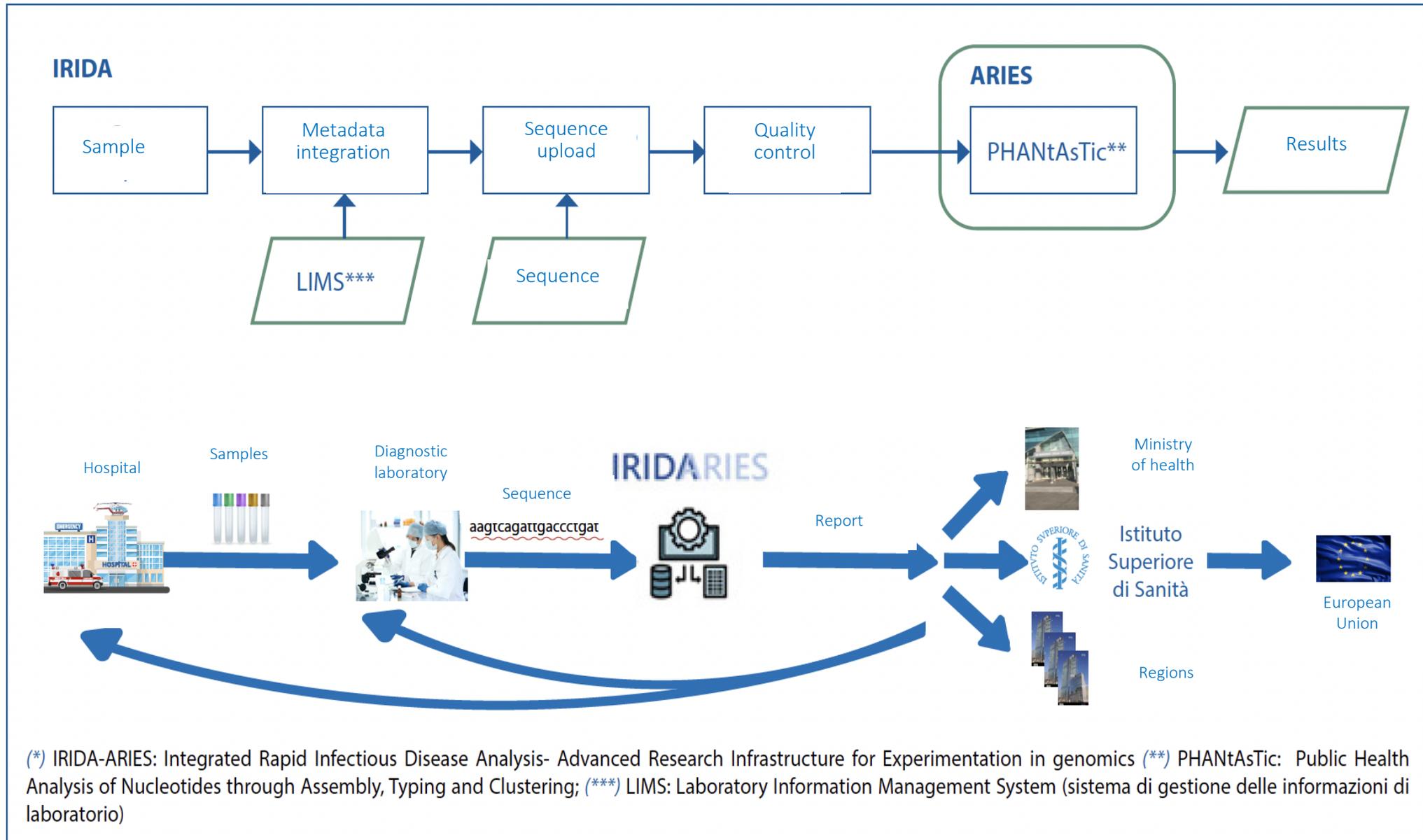
- Spostamento persone, animali, merci
- Cambiamenti climatici
- Perdita di biodiversità (?)
- Evoluzione del rapporto tra uomo e animali (domestici/selvatici)
- Evoluzione del rapporto tra uomo e ambiente
- ...

Le sfide

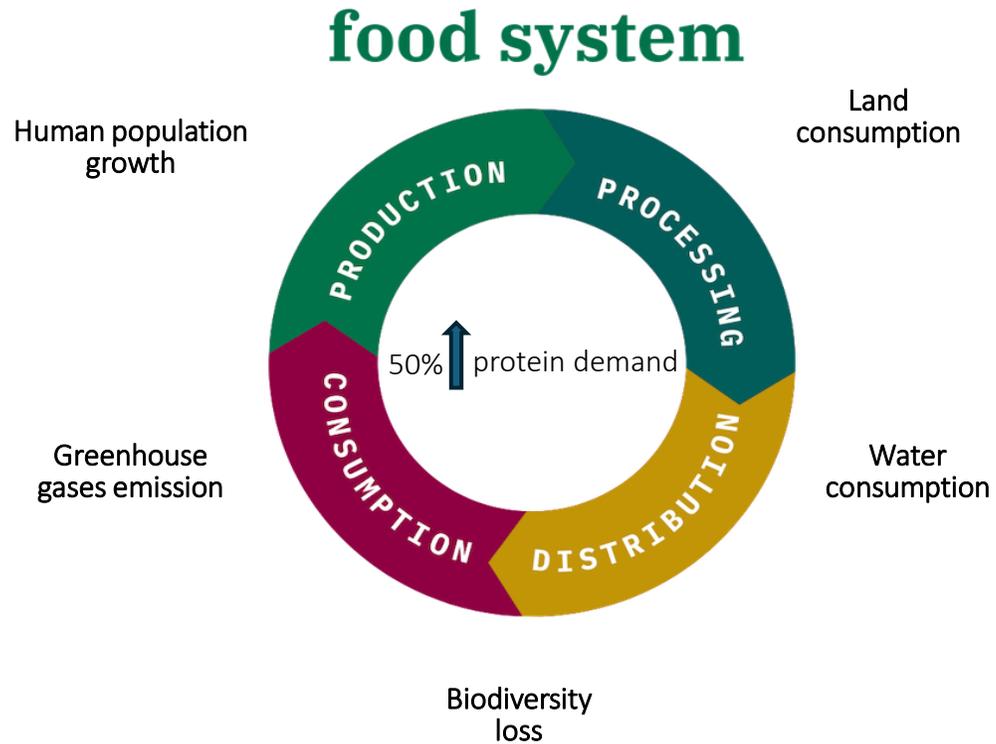
- Silos disciplinari e corporativi difficili da superare
- Diversità dei sistemi di sorveglianza
- Mancanza di interoperabilità
- Differenza di formati e standard
- Ostacoli legali e burocratici
- Incertezze su responsabilità, ruoli e coordinamento
- Disponibilità approcci e metodi innovativi
- ...



IRIDA-ARIES: the Italian platform for genomic surveillance of infectious diseases



The current global food system is unsustainable and fragile



In 2022, 1 in 8 people in the world were living with obesity.

Worldwide adult obesity has more than doubled since 1990, and adolescent obesity has quadrupled.



Global cost of overweight and obesity will hit \$4.32tn a year by 2035

How can we feed a future population of 10 billion people a healthy diet within Planetary boundaries?



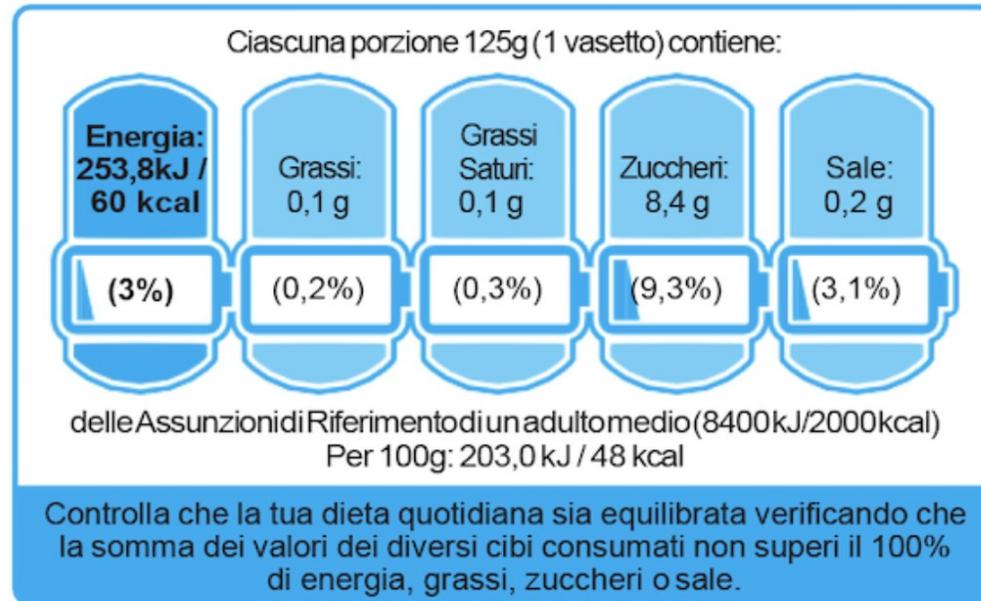
The Planetary Health Diet

The EAT-Lancet Commission presents a global planetary health diet that is healthy for both people and planet.



ETICHETTATURA NUTRIZIONALE FRONT-OF-PACK

YOGURT CON EDULCORANTI



NUTRI-SCORE



ITALY, 2025

A TAX ON SUGAR-SWEETENED BEVERAGES



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DIPARTIMENTO
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Food warning labels from Chile on the front of the packet. This says high in saturated fat. High in sugar. High in calories.

Review Article

Med Diet 4.0: the Mediterranean diet with four sustainable benefits

S Dernini^{1,2,3}, EM Berry^{1,4,*}, L Serra-Majem^{1,5,6}, C La Vecchia^{1,7}, R Capone^{1,8}, FX Medina^{1,9}, J Aranceta-Bartrina^{1,10}, R Belahsen^{1,11}, B Burlingame^{1,12}, G Calabrese^{1,13}, D Corella^{1,14}, LM Donini^{1,6,15}, D Lairon^{1,16}, A Meybeck^{1,3}, AG Pekcan^{1,17}, S Piscopo^{1,18}, A Yngve^{1,19} and A Trichopoulou^{1,20}, on behalf of the Scientific Committee of the International Foundation of Mediterranean Diet

Submitted 19 February 2016: Final revision received 18 October 2016: Accepted 25 October 2016: First published online 22 December 2016

Four sustainability benefits of the Mediterranean diet are presented in parallel: major health and nutrition benefits, low environmental impacts and richness in biodiversity, high sociocultural food values, and positive local economic returns.

Conclusions: By providing a broader understanding of the many sustainable benefits of the Mediterranean diet, the Med Diet 4.0 can contribute to the revitalization of the Mediterranean diet by improving its current perception not only as a healthy diet but also a sustainable lifestyle model, with country-specific and culturally appropriate variations. It also takes into account the identity and diversity of food cultures and systems, expressed within the notion of the Mediterranean diet, across the Mediterranean region and in other parts of the world.

Promuovere la dieta mediterranea significa promuovere politiche coerenti con la visione One Health, per cui l'adozione di una misura si riverbera positivamente su tutte e tre le componenti (uomo, animale, ambiente) di quell'approccio olistico alla dimensione di salute → **CO-BENEFICI**



Communication

Sustainable Food Systems and the Mediterranean Diet

Elliot M Berry

Braun School of Public Health, Hebrew University-Hadassah Medical School, Jerusalem 9222507, Israel;
elliottb@ekmd.huji.ac.il

Abstract: The Mediterranean Diet pattern is a case study for a sustainable diet. It has the best scientific evidence for being healthy, together with economic and socio-cultural benefits. A major challenge is that it is not consumed by the majority of the population in the Mediterranean region, and any solution must involve equity—the socially just allocation of resources. The task now is implementation with multi-stakeholder involvement, in the knowledge that “a well fed nation is a healthy nation is a sustainable and productive nation”.

Comunicazione del rischio e community engagement

One Health

Food safety/Food security

Prevenzione, early warning, early reaction

Ecologia delle malattie inf
interazione uomo, popula

Cambiamento climatici e ambientali

Evoluzione dei consumi

Sostenibilità

Nutrizione

Prevenzione, eradicazione

Sanità pubblica veterinaria

Benessere animale

Innovazione tecnologica

Sicurezza alimentare

Resistenza antimicrobica

Digitalizzazione, big data, interoperabilità, condivisione standard

Sorveglianza integrata

Intelligenza artificiale

Evoluzione del mondo produttivo

Biosicurezza

Formazione e competenze

Valutazione del rischio

Pratiche e tecniche di allev



Cambiamento climatico e risorse naturali

Governance globale e approccio One Health

Disuguaglianze nell'accesso a cibo
e servizi veterinari

Perdita di biodiversità e sistemi fragili

Innovazione tecnologica e biotecnologia

Crescente domanda di proteine

Malattie zoonotiche emergenti

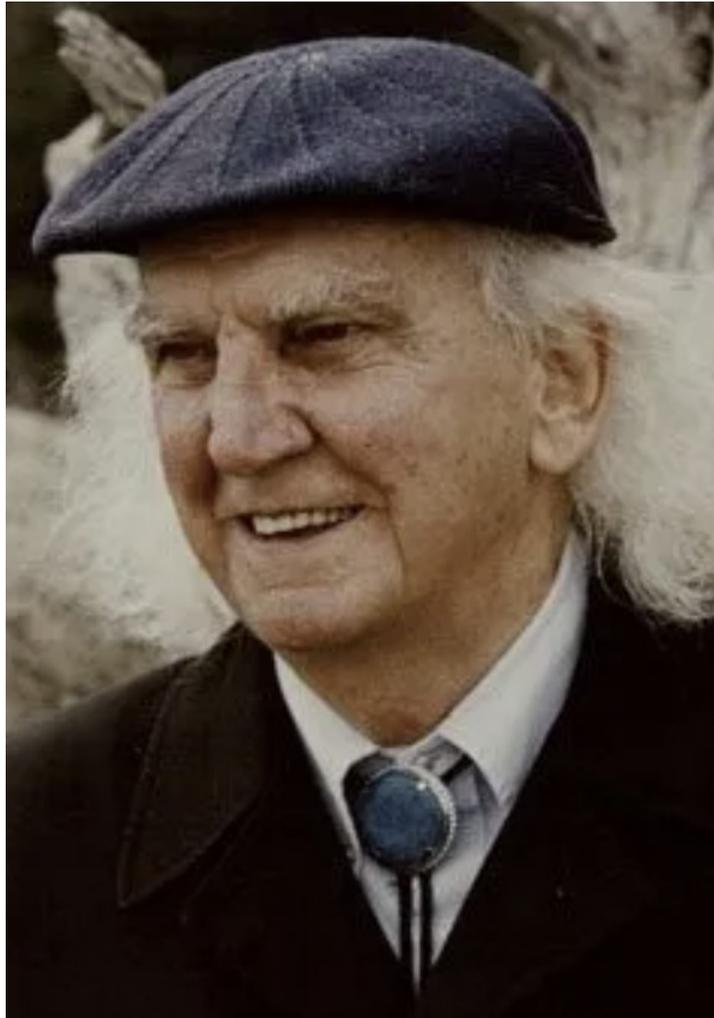
Antimicrobico-resistenza (AMR)

Sicurezza alimentare nelle filiere globali

Transizione verso diete sostenibili e sane



*Sicurezza alimentare,
nutrizione,
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Kenneth Boulding



David Attenborough

“Anyone who believes in indefinite growth on a physically finite planet is either mad, or an economist.”

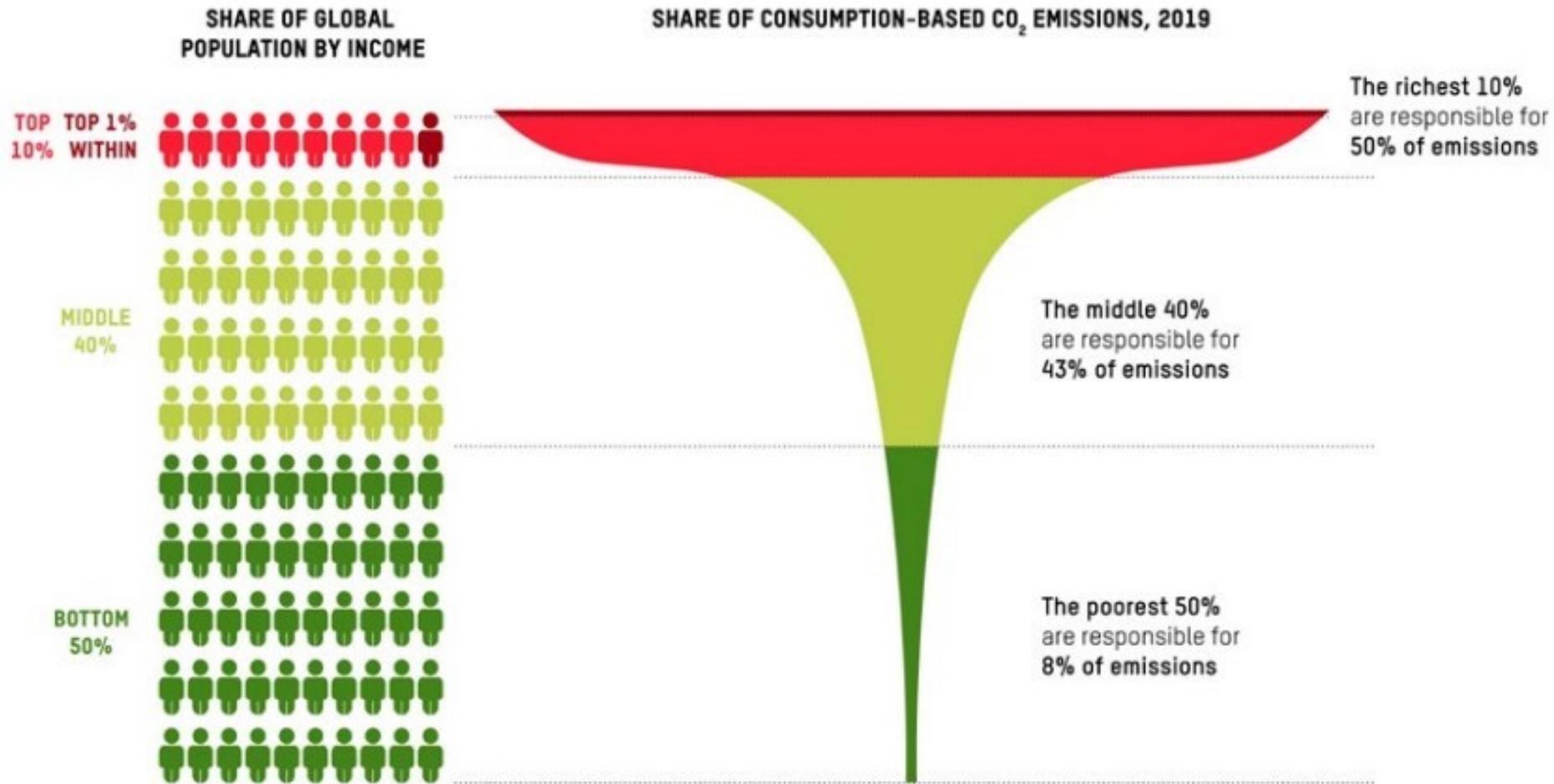
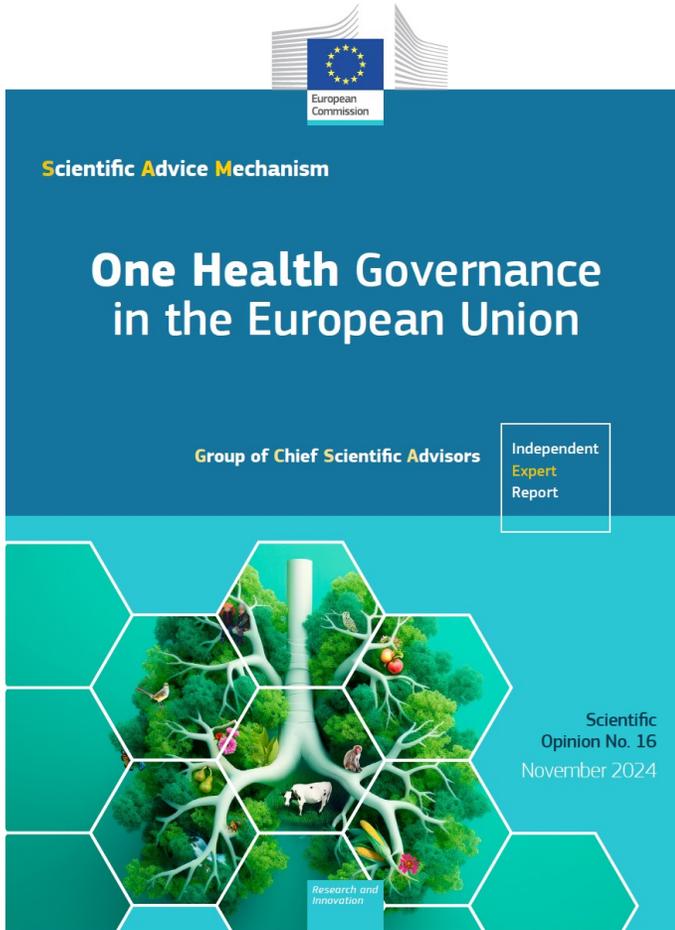
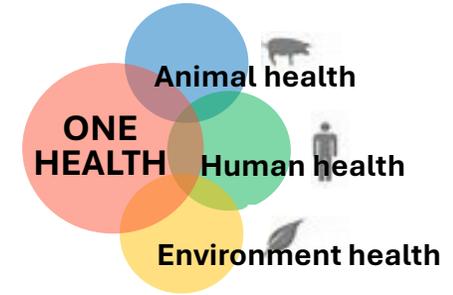


Figure ES.2 Global income groups and associated consumption emissions in 2019. Source: Oxfam/SEI.



A clear, unambiguous definition with consensus on the meaning and implications of the One Health concept is needed to operationalise and coordinate actions in local, regional, national and international policy.



PAST ONE HEALTH DEFINITION

Centers for Disease Control (CDC - USA) - One Health is a collaborative, multisectoral, and transdisciplinary approach — working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment.

World Health Organization (WHO) - One Health is an approach to designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work together to achieve better public health outcomes. The One Health approach is critical to addressing health threats in the animal, human and environment interface.

Food and Agriculture Organization (FAO) - The health of animals, people, plants and the environment is interconnected. One Health is an integrated approach that recognizes this fundamental relationship and ensures that specialists in multiple sectors work together to tackle health threats to animals, humans, plants and the environment.