



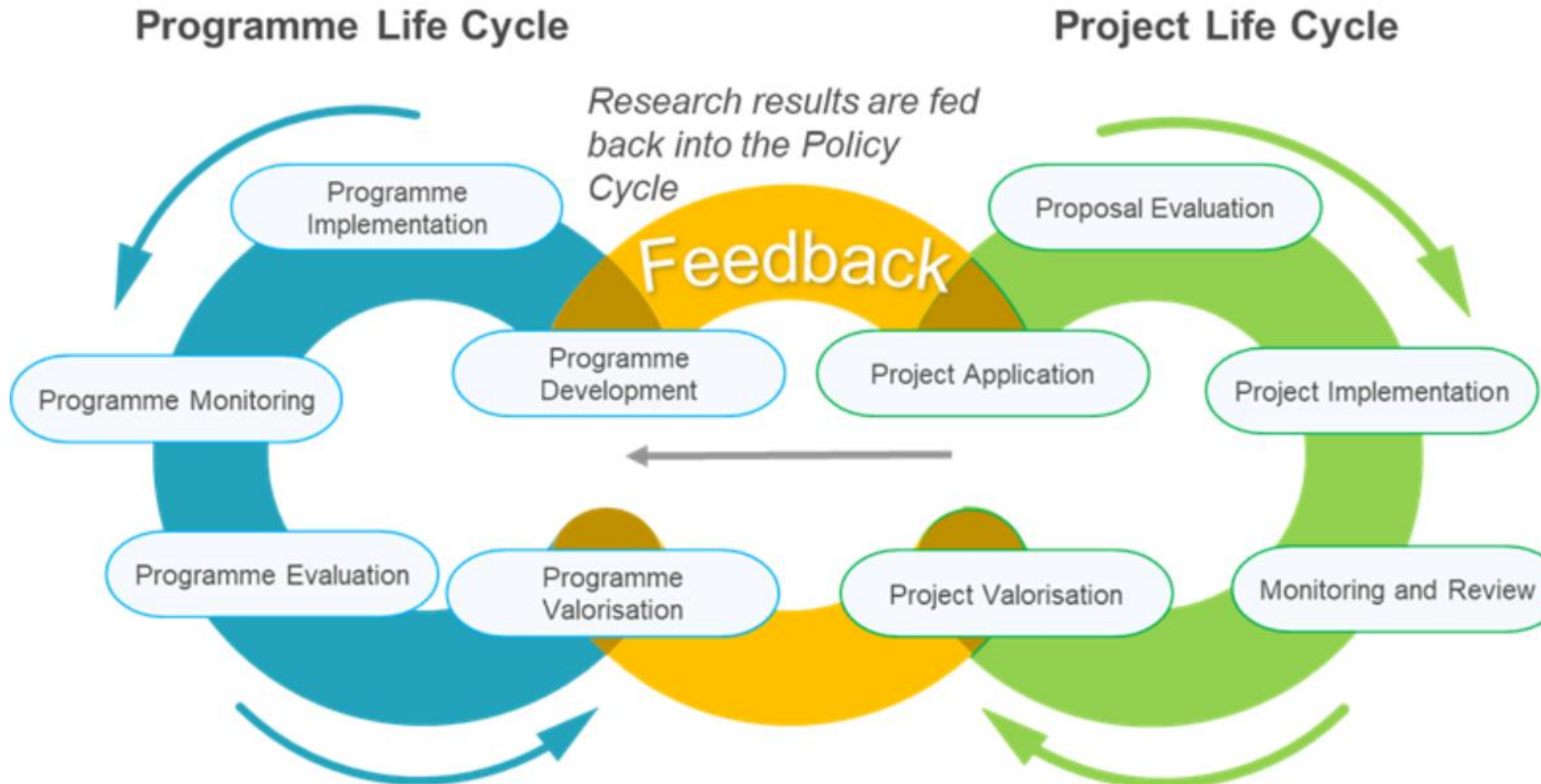
Science to Policy

Valerio Abbadessa

EC, DG Agriculture and Rural Development, Unit F2 Research and Innovation

LRG Annual Meeting, Berlin 24/10/2024

Science to Policy Cycle

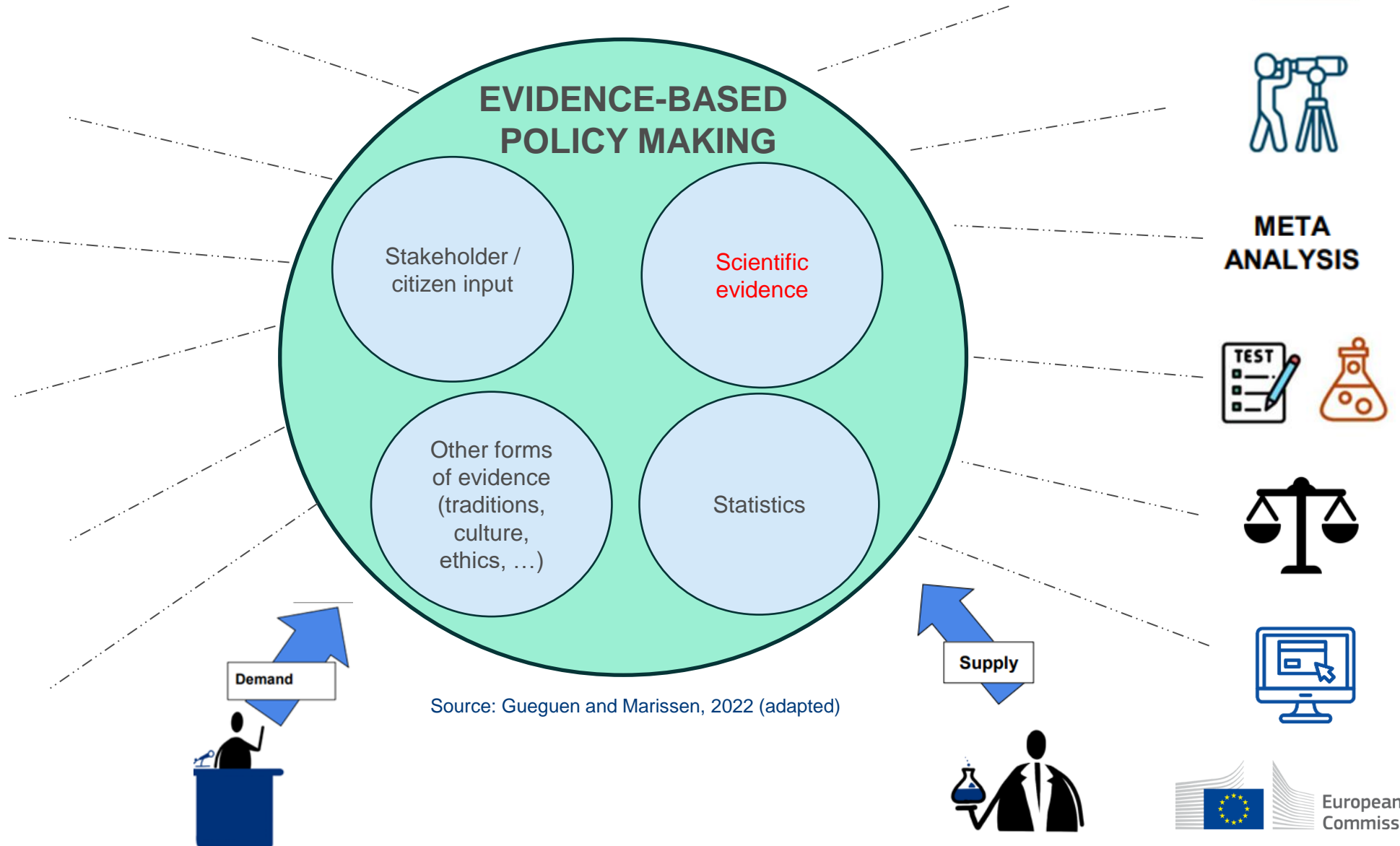


Different timelines
Scientific information comes too late..

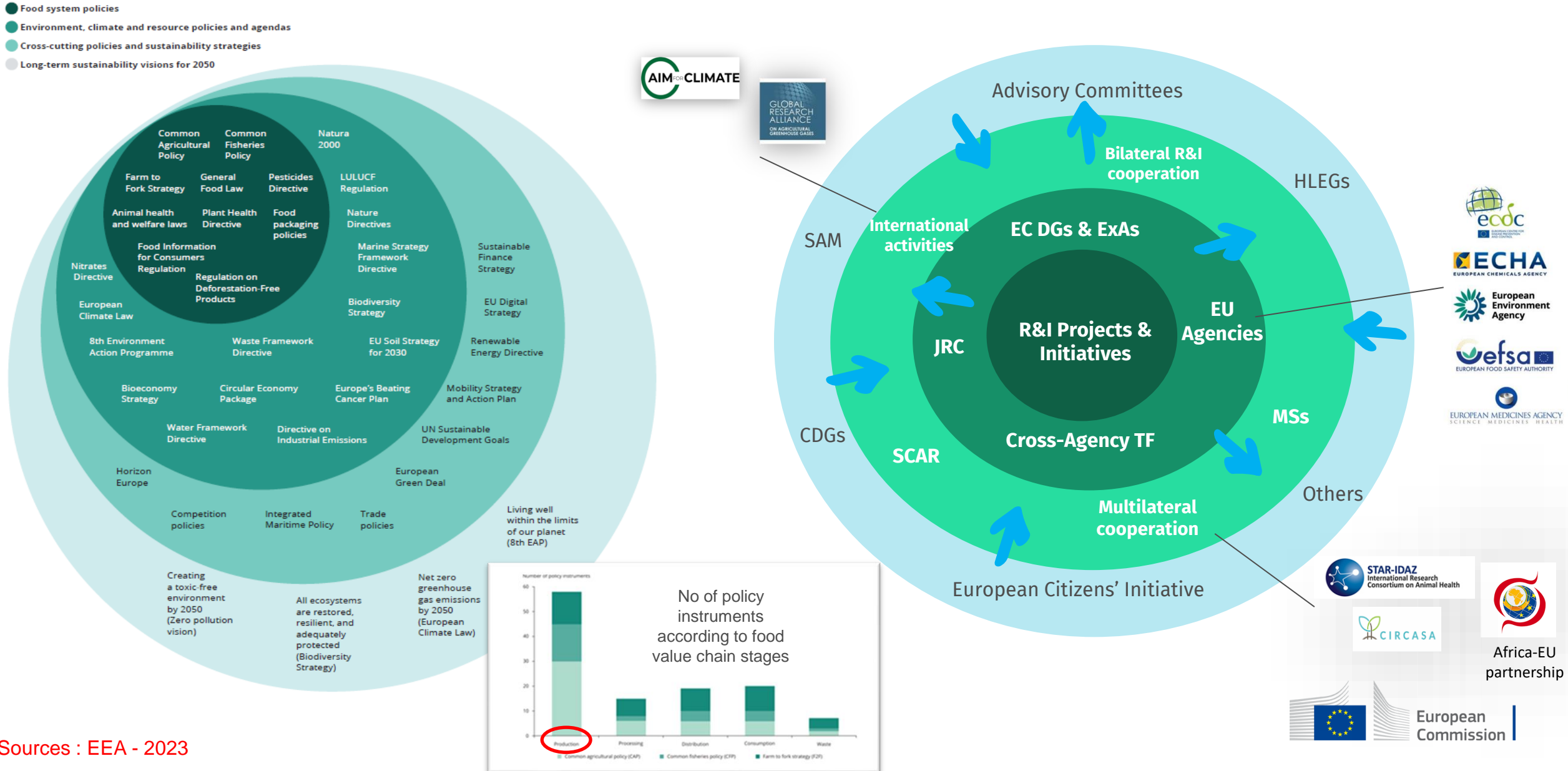


Different use
Is science under attack?

Feed to Policy



EU Policies sustainable agri-food systems- examples F2P



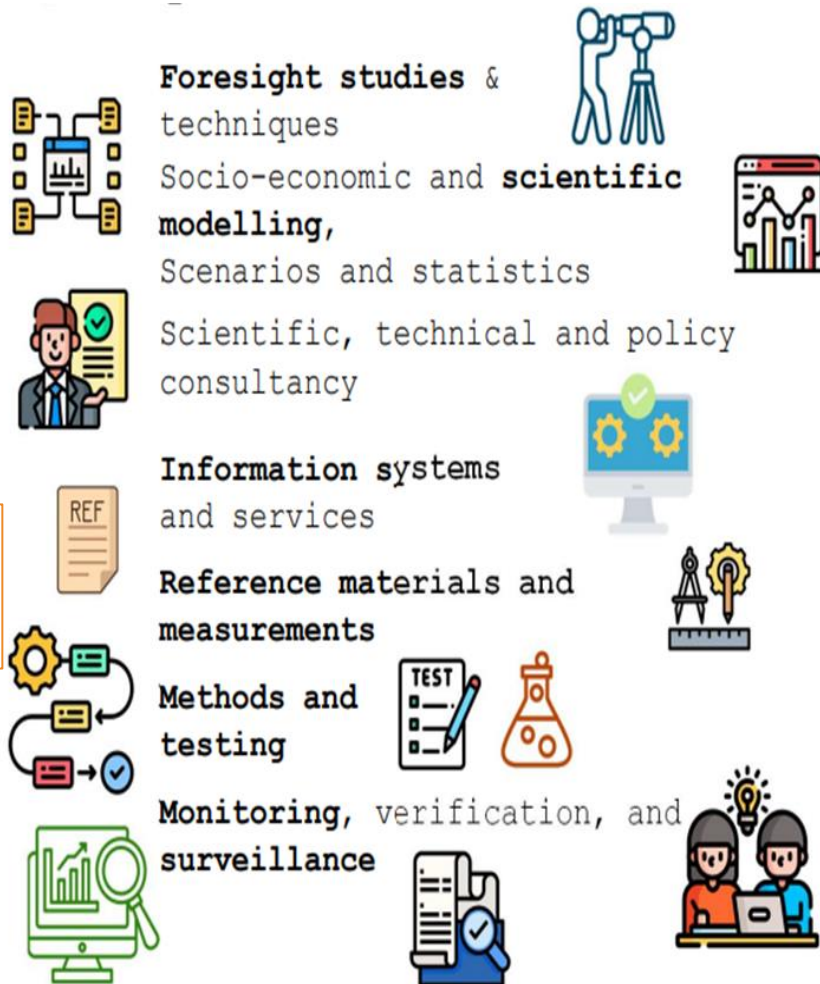
Different paths of science-policy interface



Provides independent scientific advice to support EU action at all stages of the policy cycle in different areas

Provides transdisciplinary, anticipatory, and integrative vision

Assists policymakers to track and assess the impact of their policies



Provides independent scientific advice and support for EU risk managers and policy makers on food and feed safety (& AHW)

Provides independent, timely risk communication

Promotes scientific cooperation

EFSA does not do

Develop food safety policies & legislation

Adopt regulations, authorise marketing of new products

Enforce food safety legislation



General procedure for processing applications for regulated products (except pesticides)

Legend:

- Potential Applicant / Applicant
- European Commission (EC) / Member State Competent Authority (MS)
- EFSA

Pre-submission phase

Potential applicant requests general pre-submission advice (optional)

Potential applicant notifies studies commissioned or carried out as of 27 March 2021

For renewals: potential applicant notifies list of intended studies and receives renewal pre-submission advice

Applicant submits the application via e-submission system to EC / MS

EC / MS tasks (mandate) EFSA and makes the application available to EFSA

Submission phase & completeness check

EFSA performs completeness / suitability check of the application

EFSA / EC / MS validates the application

EFSA launches public consultation on the application dossier

EFSA performs thorough risk assessment

EFSA Panels adopt the scientific output

EFSA publishes the scientific output

Based on EFSA's advice the risk managers take the decision on granting authorisation of substances, products, claims, processes or organisms for their placing, or use on the European Union market

Post-adoption phase

Confidentiality decision-making and proactive disclosure

Please note that this chart is for general information purposes only. Depending on the relevant sectoral legislation certain details may or may not be applicable. For further information on the legislative framework please consult DG SANTE Health and Food Safety | European Commission (europa.eu) website: https://ec.europa.eu/info/departments/health-and-food-safety_en

Example: impact of livestock dietary manipulation

– synthesis table

Impact	Metric	Intervention group	Intervention	Control	Positive	Negative	No effect	Uncertain*
Decrease GHG emissions	CH ₄	Diet formulation	Dietary legumes	Grass pasture/silage	0	0	0	1 (1)
			Forage with higher digestibility	Forage with lower digestibility	0	0	0	1 (1)
			High concentrate level in diet	Low concentrate level in diet	0	0	1 (1)	1 (1)
			Low CP diet	No reduction of dietary CP	0	0	1 (1)	1 (0)
			Tannin-rich forages	No tannin-rich forage	0	0	0	1 (1)
		Feed additives	Coccidiostats and histomonostats	No feed additive	3 (3)	0	1 (1)	1 (1)
			Lipids	No lipid	4 (3)	0	3 (2)	1 (1)
			Non specified feed additives	No feed additive	0	0	0	1 (0)
			Nutritional additives	No feed additive	0	0	0	1 (1)
			Sensory additives	Monensin ^a	0	0	1 (1)	0
			Sensory additives	No feed additive	6 (5)	0	5 (5)	3 (3)
			Technological additives	No feed additive	1 (1)	0	3 (3)	0
			Zootechnical additives	No feed additive	8 (6)	0	2 (2)	2 (2)
	GHG	Diet formulation	High concentrate level in diet	Low concentrate level in diet	0	0	1 (1)	0
		Feed additives	Nutritional additives	No feed additive	1 (1)	0	0	0
	N ₂ O	Diet formulation	Low CP diet	No reduction of dietary CP	0	0	1 (1)	1 (0)
			High concentrate level in diet	Low concentrate level in diet	0	0	0	1 (1)
		Feed additives	Coccidiostats and histomonostats	No feed additive	0	0	0	1 (1)
			Non specified feed additives	No feed additive	0	0	0	1 (0)
			Technological additives	No feed additive	0	0	1 (1)	0
			Zootechnical additives	No feed additive	0	0	0	1 (1)

	Meta-analyses
Total n°	30
N° on GHG emissions	23 (1147 single studies)



Integrated Modelling platform
for Agro-economic and
resource Policy analysis

Review of farming practices - JRC



- Agroforestry
- Organic systems
- Fallowing
- Landscape features
- Fertilisation strategies
 - Organic fertilisation
 - Green manure
 - Enhanced efficiency fertilisers
 - Nitrification inhibitors
 - Low ammonia emission techniques
- Soil amendments
 - Lime or gypsum
 - Biochar
- Pesticide reduction strategies



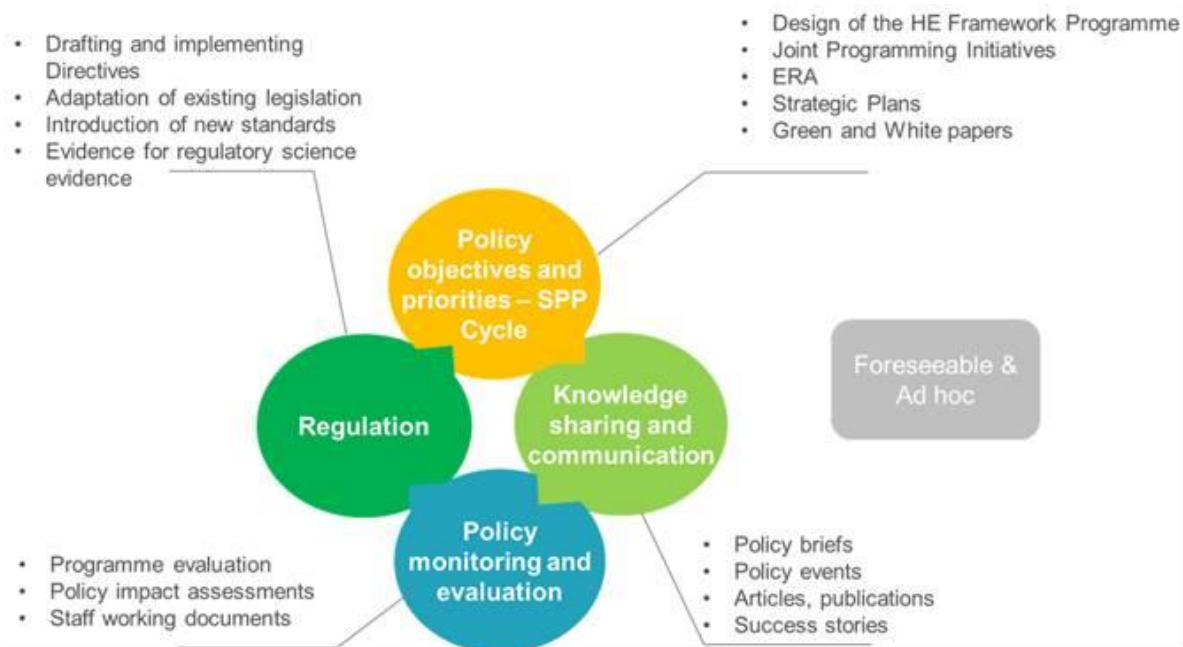
- Crop rotation
- Intercropping
- Cover crop
- No tillage, reduced tillage, conservation agriculture
- Grassland:
 - Grassland management
 - Grassland conservation and restoration
 - Grazing

- Livestock practices
 - Manure land application
 - Manure storage
 - Manure processing
 - Livestock dietary manipulation
 - Livestock housing techniques

- Crop residue management
- Leguminous crop
- Mulching
- No irrigation
- Peatland
 - conservation and restoration
 - management
- Water-saving irrigation practices
 - in flooded lands
 - in non-flooded lands
- Wetland
 - conservation and restoration
 - management



Feedback to Policy



Policy needs

8

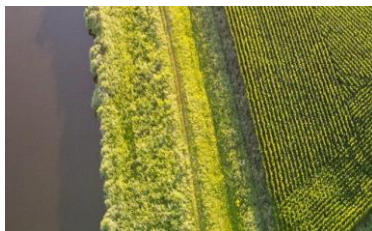


Policy inputs

Concrete examples:



The nitrogen cycle and its influence on the European greenhouse gas balance



**National Emission
reduction
Commitments (NEC)
Directive**

Content: to establish datasets, quantify global change impacts, and model nitrogen fluxes and GHG exchange across European ecosystems

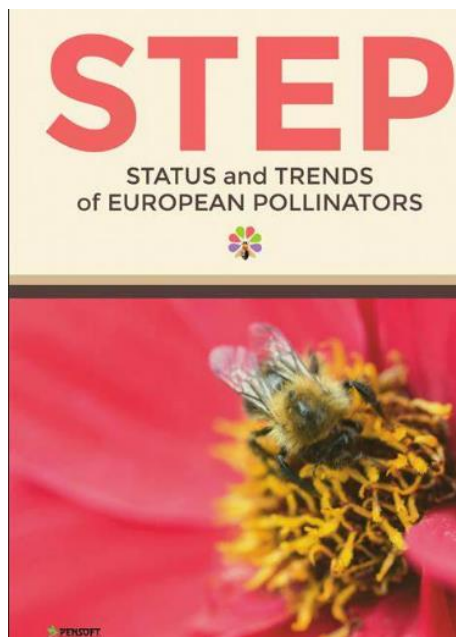
Changes; merging experimental, modelling/assessment and policy advice; large geographical/thematical coverage -> EU nitrogen community

Key achievement: went global: INMS project -> International Nitrogen Assessment (2025)

Consequences:

- Beginning of major nitrogen initiative, key in generating the EU Nitrogen Assessment ([ENA](#)) and the establishment of the [CLRTAP](#) Task Force on Reactive Nitrogen;
- Contribution to the Colombo Declaration (2019) and the UNEA5.2 Resolution on Sustainable Nitrogen Management (2022)

Concrete examples:



EU Pollinator Initiative

+ Other projects:
e.g., EP – JRC -> Influenced
the pollinator target



**Nature
Restoration
Regulation**

Content: status and trends of managed and wild pollinator species
Changes; in the understanding of pollination services - wild species main pollination providers rather than honeybees
Key achievement: EU Red List of Bees in close collaboration with IUCN
Consequences:
- evidence-base of the mid-term reviews of the EU biodiversity strategy to 2020;
- EU policies on conservation of pollinators/pollination (focused by then on honeybees);
- Farm management options for pollinators through the EU CAP
- Global assessment on pollinators by IPBES (adopted in 2016)

Concrete examples:

**HORIZON
2020**



Improve performance of organic agriculture by boosting organic seed and plant breeding efforts across Europe



**Reg. on organic
production and
labelling of organic
products**

Content: use of organic plant reproductive material, organic heterogeneous material

Changes:

- need to extend use of in-conversion plant reproductive material (produced after one year under organic conditions)
- a feasible approach for the description and identification of organic heterogeneous material

Key achievement: inserted in COM proposals, further discussed with national competent authorities and finally adopted

Consequences:

- Commission Delegated Regulation 2020/1794 amending Regulation (EU) 2018/848 on the use of in-conversion and non-organic plant reproductive material
- Commission Supplementing Regulation (EU) 2021/1189 on the production and marketing of plant reproductive material of organic heterogeneous material

14.6.2018 EN Official Journal of the European Union L 150/1

I

(Legislative acts)

REGULATIONS

REGULATION (EU) 2018/848 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 30 May 2018
on organic production and labelling of organic products and repealing Council Regulation (EC)
No 834/2007

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 43(2) thereof,

Having regard to the proposal from the European Commission,

02021R1189 — EN — 05.07.2022 — 001.002 — 1

This text is meant purely as a documentation tool and has no legal effect. The Union's institutions do not assume any liability for its contents. The authentic versions of the relevant acts, including their preambles, are those published in the Official Journal of the European Union and available in EUR-Lex. Those official texts are directly accessible through the links embedded in this document

►B

COMMISSION DELEGATED REGULATION (EU) 2021/1189
of 7 May 2021

supplementing Regulation (EU) 2018/848 of the European Parliament and of the Council as
regards the production and marketing of plant reproductive material of organic heterogeneous
material of particular genera or species

(Text with EEA relevance)

(OJ L 258, 20.7.2021, p. 18)

Amended by:

Official Journal

No page date

►M1 Commission Delegated Regulation (EU) 2022/923 of 11 March 2022 L 160 28 15.6.2022

Concrete examples:



Xylella Fastidiosa Active Containment Through a multidisciplinary-Oriented Research Strategy



Update the 2015 EFSA risk assessment on *Xylella fastidiosa*

Content: minimize the risk of introduction/impact of emerging pests threatening EU agriculture and forestry: *Xylella fastidiosa*

Changes:

- Both projects provided scientific inputs to policymaking by helping EFSA and building the network of researchers and policymakers

Key achievement: sharing up-to-date data, information, and knowledge from their ongoing research activities

Consequences:

- Update of the Scientific Opinion on the risks to plant health posed by *Xylella fastidiosa* in the EU territory (2019)
- EFSA opinion used by DG SANTE to update regulation for quarantine pests.
- Commission adoption of new measures against *Xylella fastidiosa* (Commission Implementing Regulation (EU) 2020/1201) repealing current Decision (EU) 2015/789

02020R1201 — EN — 11.10.2021 — 001.001 — 1

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► B COMMISSION IMPLEMENTING REGULATION (EU) 2020/1201
of 14 August 2020
as regards measures to prevent the introduction into and the spread within the Union of *Xylella fastidiosa* (Wells *et al.*)
(OJ L 269, 17.8.2020, p. 2)

Amended by:

Official Journal

No page date

► M1 Commission Implementing Regulation (EU) 2021/1688 of 20 L 332 6 21.9.2021



Thank you