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Zero Pollution Stakeholder Workshop

“Zero Pollution Monitoring and Outlook”

Day 2, 25 January 2024



Agenda

8:45	Registration and welcome coffee
9:15	Welcome and introduction
9:30	Zero Pollution Outlook
<i>11:00</i>	<i>Coffee break</i>
11:30	Link to other Monitoring frameworks – 8th EAP, biodiversity, circular economy and chemicals
12:15	Conclusions and next steps

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slido.com
#ZPMO2024



Stakeholder Workshop on Zero Pollution Monitoring and Outlook

Synergies with other monitoring
frameworks



ZERO POLLUTION
MONITORING AND
OUTLOOK

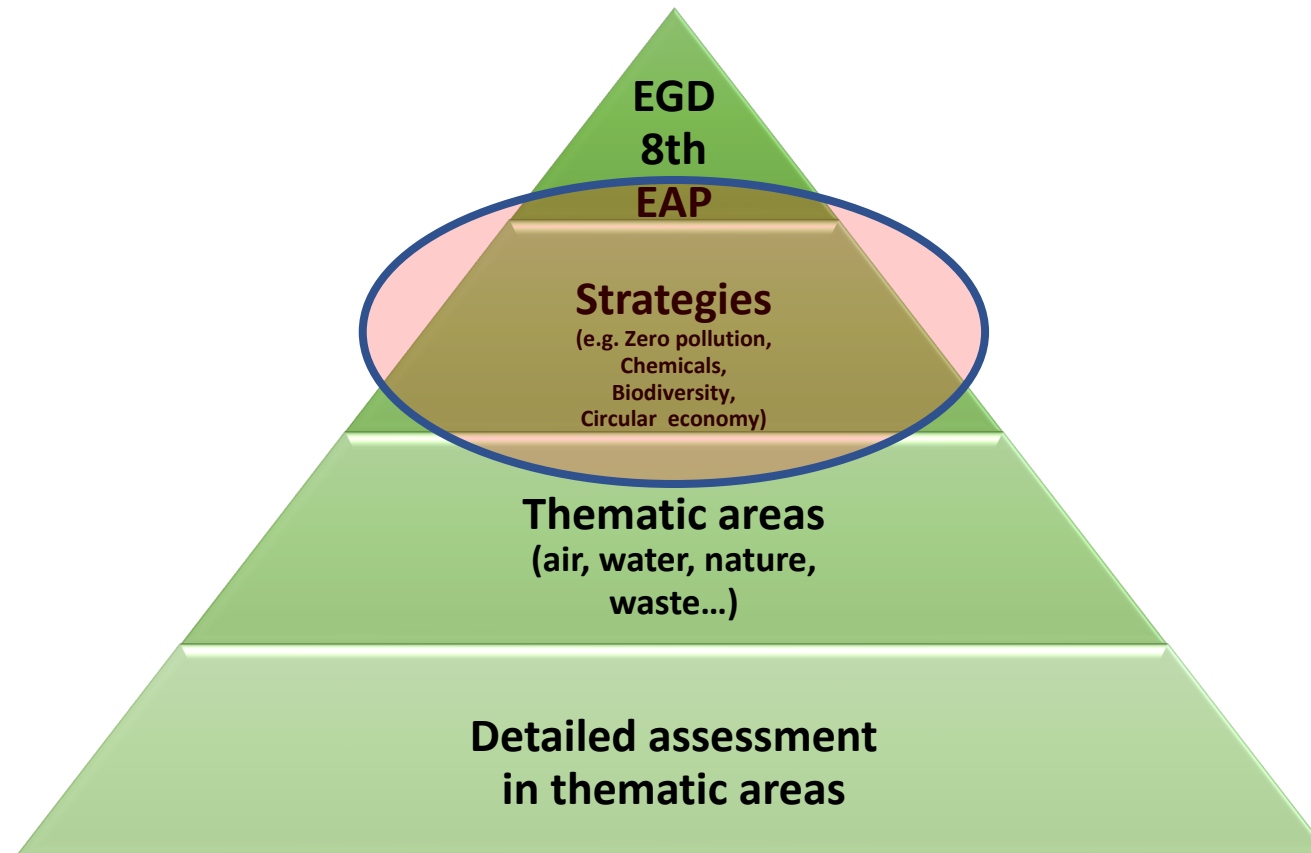
24/25 January 2024



Defining purpose and level of detail



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Tiered/layered approach building on one another. Stories across the levels are coherent.



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Presentations from

- **Unit ENV.01:** 8th Environment Action Programme (EAP) and Circular Economy Monitoring Frameworks
- **Unit ENV B2:** Chemicals Strategy for Sustainability (CSS) Monitoring Framework
- **Unit ENV D2:** Biodiversity Monitoring Framework



Zero Pollution Outlook

Ocean and Water Unit
Joint Research Centre Ispra (IT)

Joint Research Centre Science for policy



ANTICIPATE



INTEGRATE



IMPACT

Our purpose

The Joint Research Centre provides independent, evidence-based knowledge and science, supporting EU policies to positively impact society.

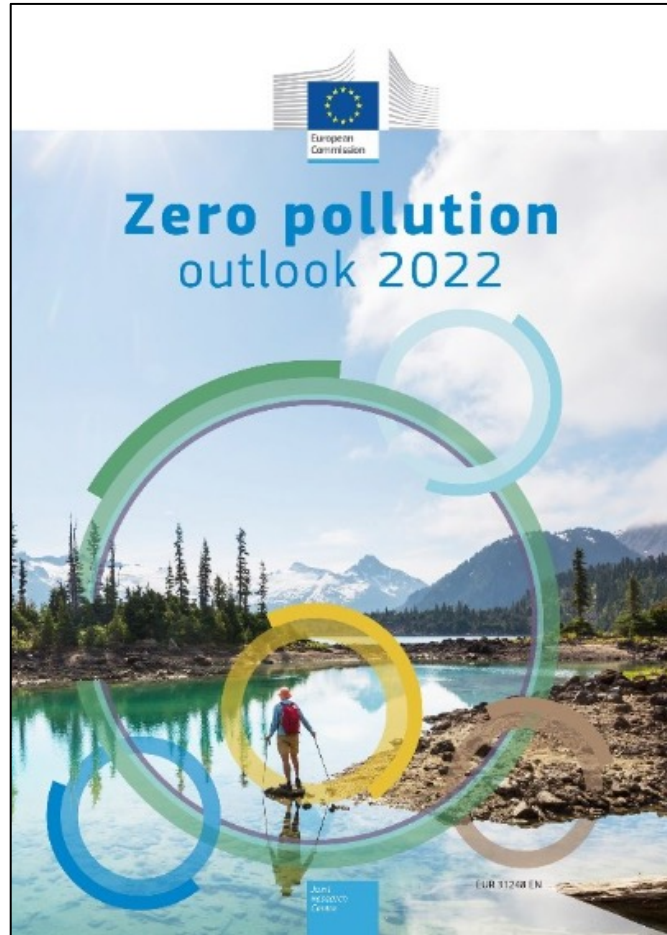




The Zero pollution outlook 2022



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Modelling and foresight, assessing the expected pollution reduction benefits of EU policies

- Addressing a selection of objectives and targets with sufficient data and information.
- Focus on air AND water AND soil.
- Also:
 - Nutrients,
 - Consumption footprint,
 - Transport noise
 - EU Environment Foresight System.



ZP Monitoring and Outlook 2024

A joint synthesis report



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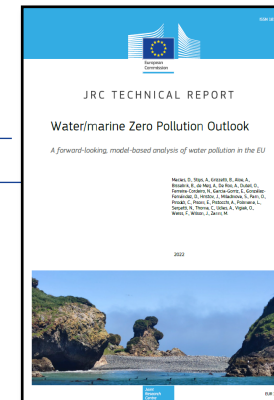
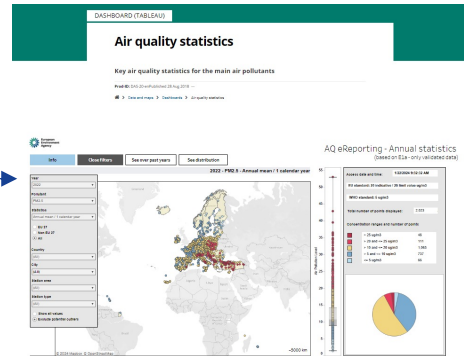
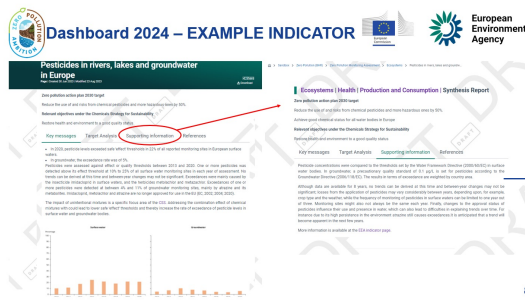
Indicator fiches

EEA/JRC Dashboards

JRC Knowledge Hub for Water

Technical reports

Peer reviewed scientific articles





ZP Monitoring and Outlook 2024 Outline



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1. Introduction

2. Zero Pollution Target Analysis – past trends, current status and future outlook

3. Pollution from Production and Consumption Systems

Pollution from Resource Extraction, Production. Consumption and Waste Management

4. Pollution impacts on Human Health

Air, Noise, Water, Soil Pollution and Health, including Human Biomonitoring

4. Pollution impacts on Ecosystems

Air, Freshwater, Marine and Soil Pollution;
Pollution impacts on Europe's biota

4. Key Gaps

5. Conclusions and next steps

Cross cutting stories:

- Pollutants: Heavy metals, PFAS, Nutrients, Microplastics, Pesticides
- Antimicrobial resistance
- Light pollution
- Health inequalities
- Synergies with other monitoring frameworks
- Digitalization, Artificial Intelligence and Copernicus Data for ZP

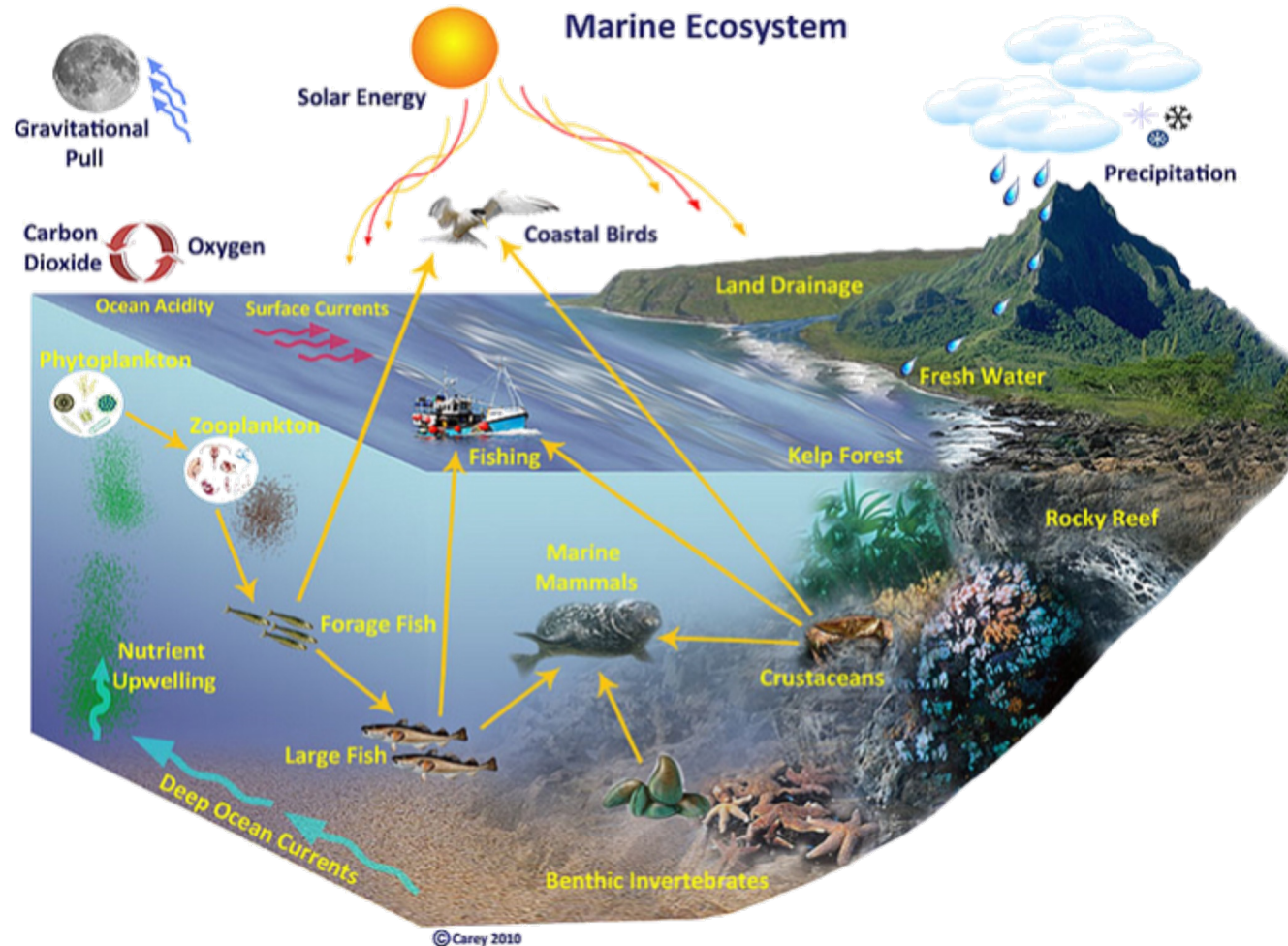


Blue2 Modelling framework



European Environment Agency

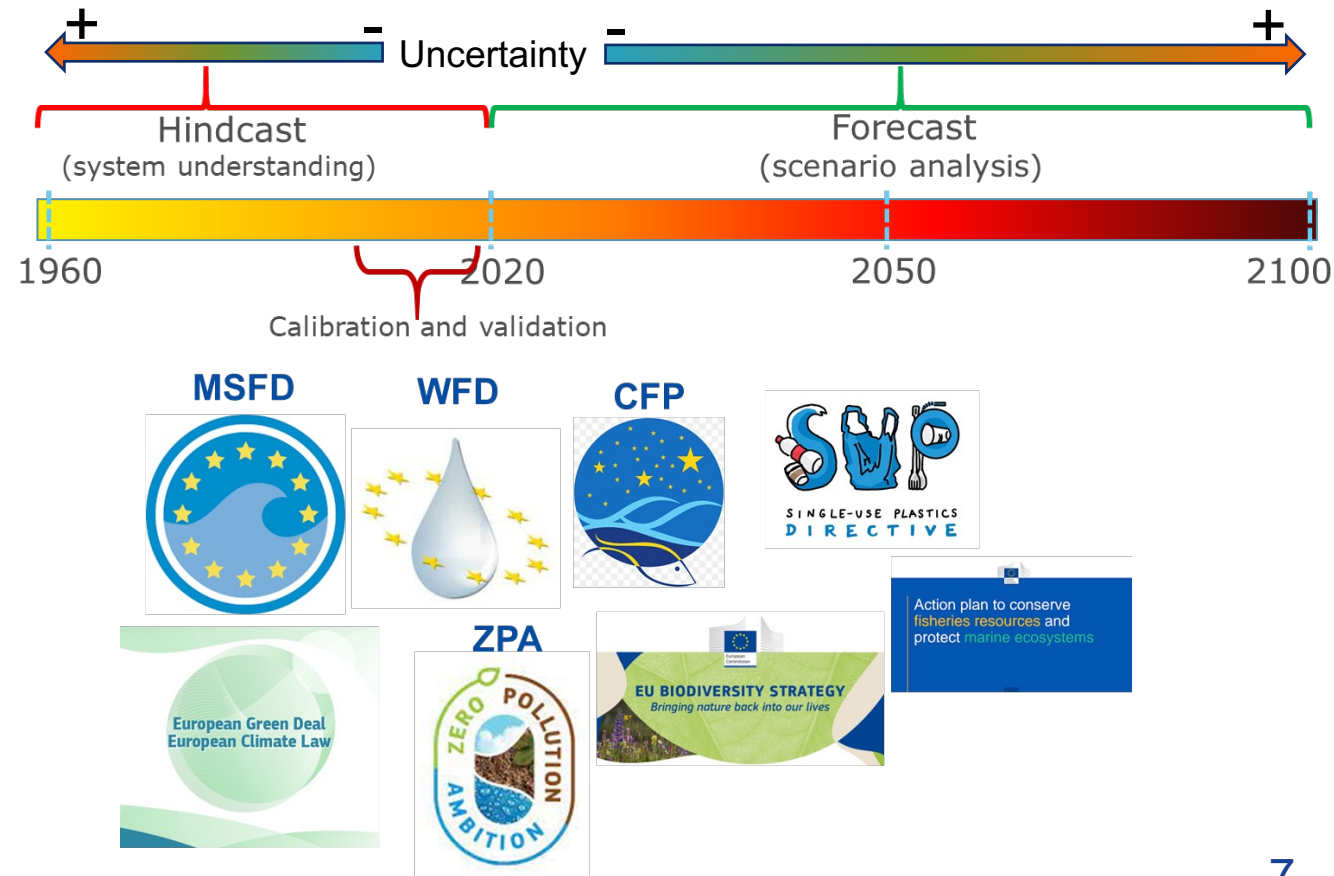
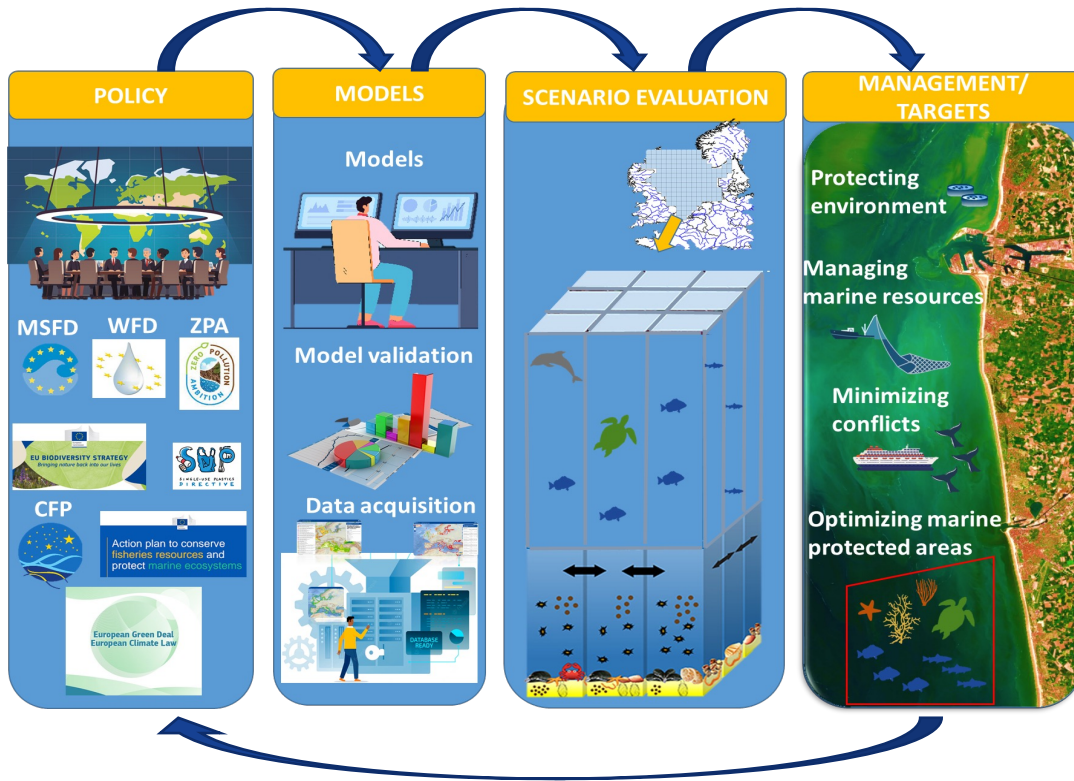
A digital twin of the hydrosphere to evaluate policy options





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Modelling to support policy decisions

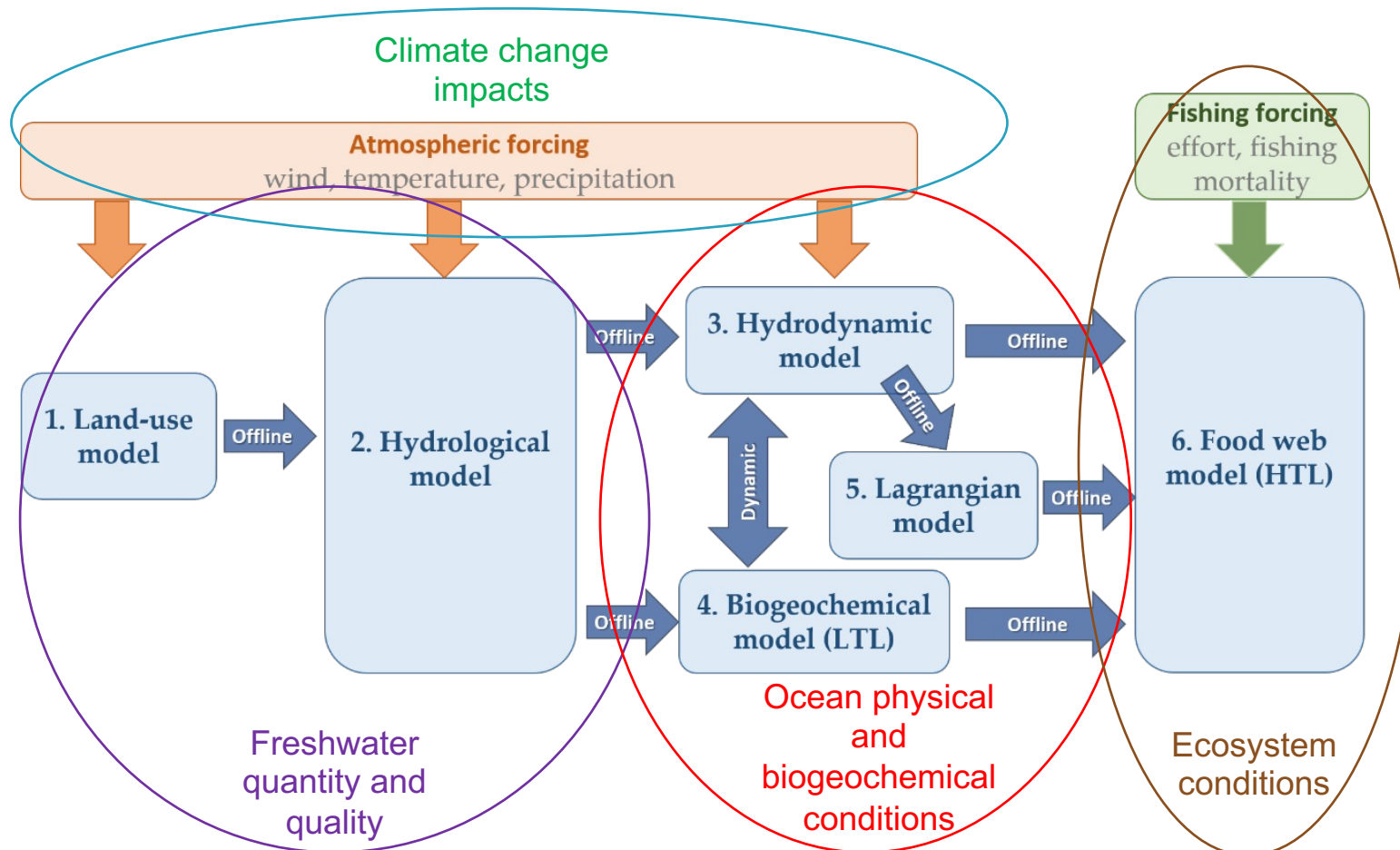




The Blue2 Modelling Framework



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Integrated modelling tool to simulate the impact of management options on the environmental status of EU water/marine ecosystems:

- Land and water use
- Diffusive and point source of pollution (freshwater)
- Atmospheric forcing
- Hydrological models (quantity & quality)
- Marine models (hydrodynamic, biogeochemical, food-web, Lagrangian)



Monitoring and Modelling Plastic Litter



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The problem: floating litter in marine waters (mainly plastic) is now a global disaster (ecological, economical and health implications)

Objective:

Use the capability of Blue2MF to simulate dispersion and accumulation patterns of floating litter in European Regional Seas by using Lagrangian models.





Plastic and Microplastic Targets



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→ 5a. Reduce plastic litter at sea by 50 %



Target: 50% reduction



Downward trend
Provisional trend analysis between 2016 and 2020 (assessment available in 2023)



Outlook: **Not on track - 14% to 25% reduction**
(quantitative assessment carried out for Mediterranean Sea only based on a number of measures)

→ 5b. Reduce by 30 % microplastics released into the environment

no assessment is available yet



MSFD - EU Coastline Macro Litter Baseline and Threshold Value



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Collection and evaluation of all available EU beach litter data from 2012-2020, decision to develop baseline(s) for 2015/2016

- 331 beaches
- 6126 surveys (100 m linear coastline)



Threshold in EU agreed at:

20 Macro Litter Items (Total Abundance)/100 m Coastline



Assessment against Threshold Value after aggregating data at Country-Region level

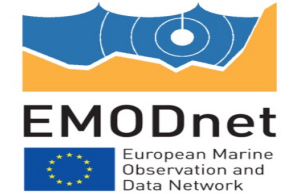
MSFD coastline macro litter data will be used as a proxy to track progress towards ZPAP target 5a 'Plastic litter at sea'



MSFD - EU Floating Marine Microlitter



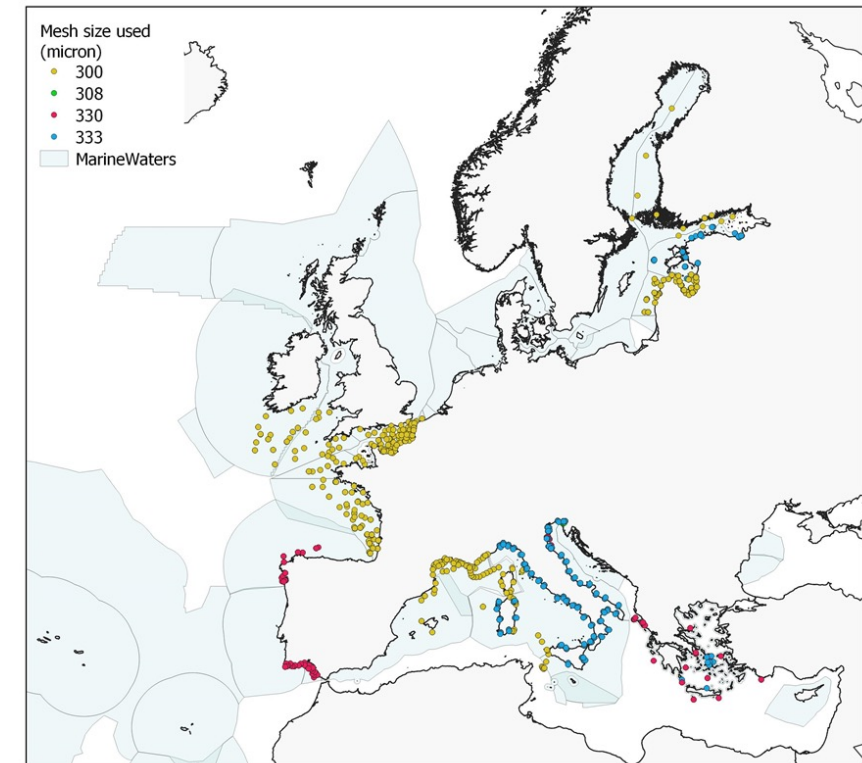
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Collection of all available EU floating marine microlitter data since 2015

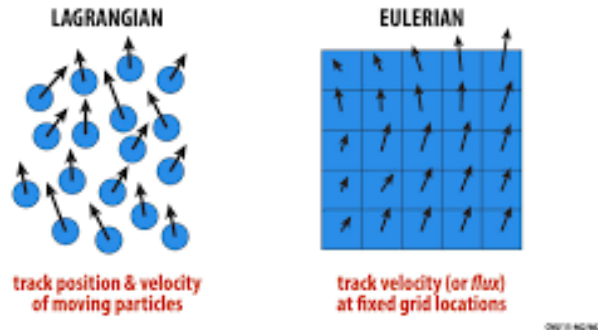
In total:

- 1765 MS data already ingested by EMODnet since 2015
- Timespan: 2015-2021
- EU Member States Dataset provided by EMODnet
- Analysis and development of the baseline is in progress

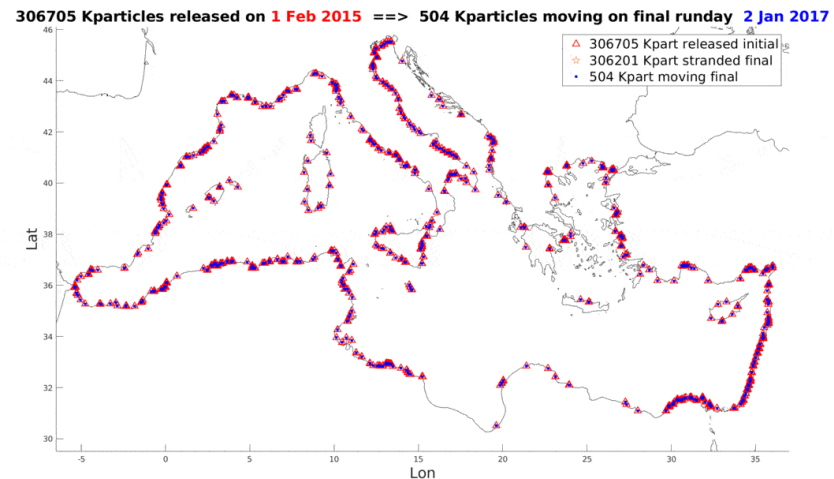
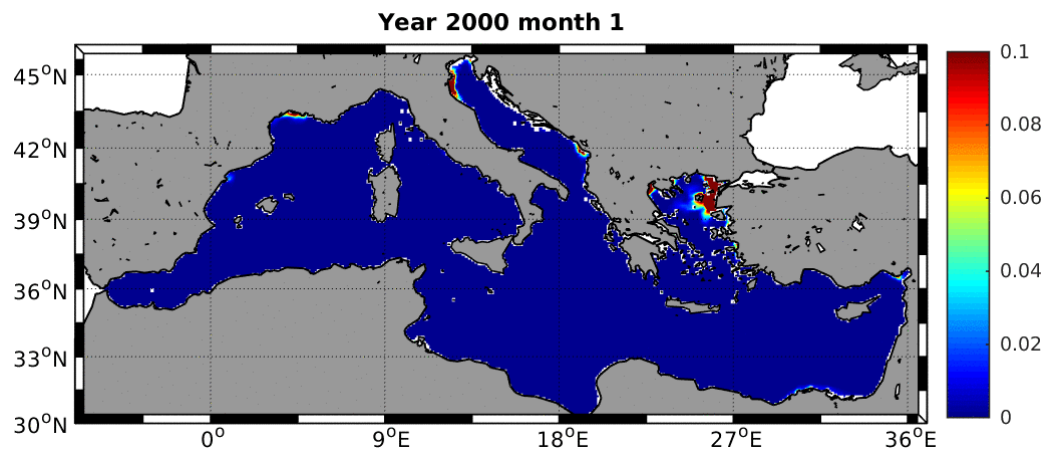


Lagrangian vs. Eulerian

- Two basic ways to discretize space: Lagrangian & Eulerian
- E.g., suppose we want to encode the motion of a fluid



- A Lagrangian model moves individual particles according to the current/wind forcing provided
- Extensive work has been carried out to understand the dynamic (dispersion/accumulation) of floating macro-litter in the Mediterranean Sea and Black Sea

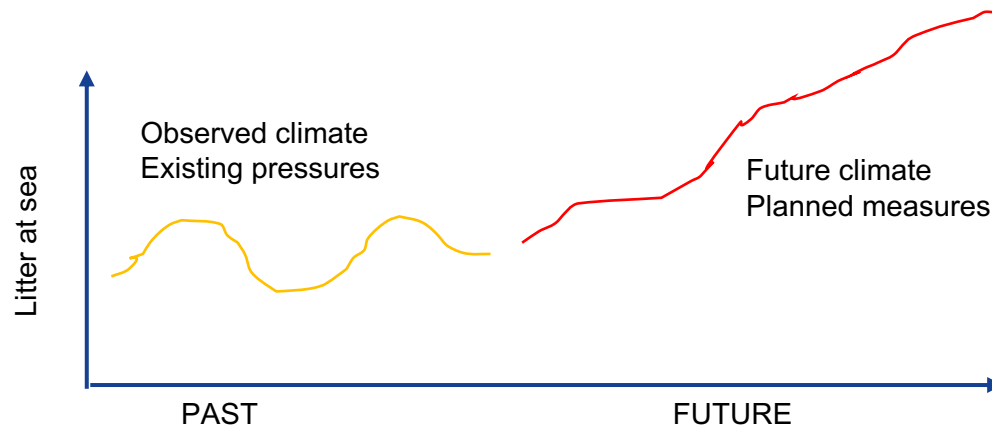




Exploring impact from Climate Change and Policy Options



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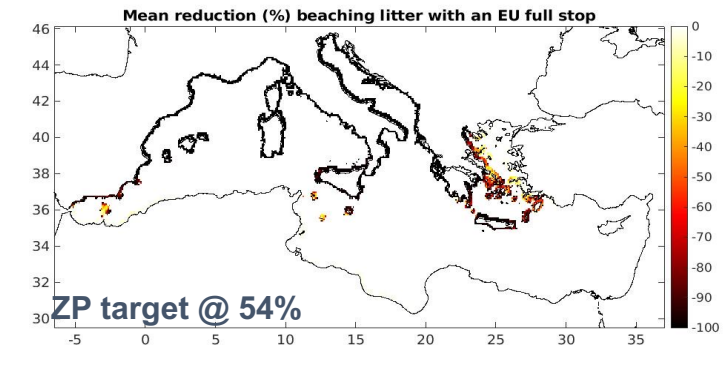
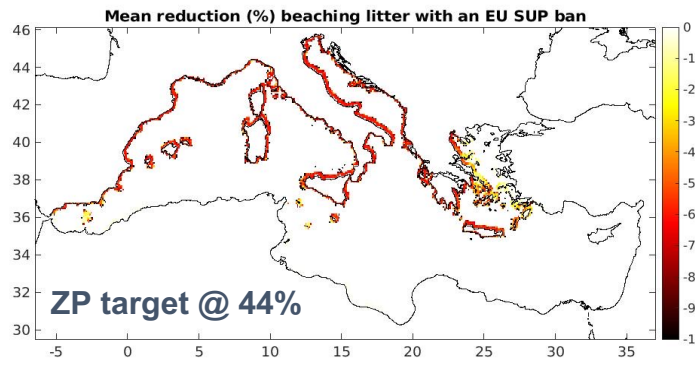
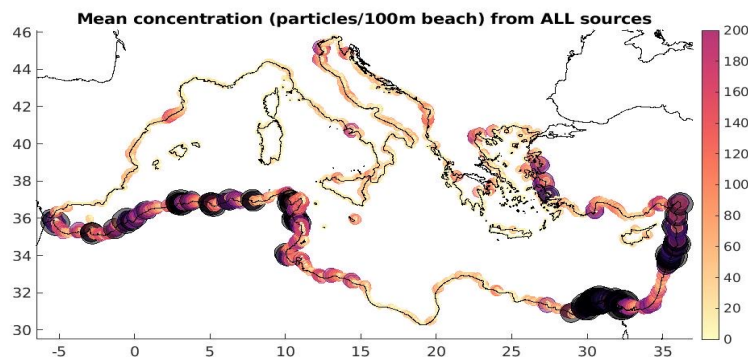
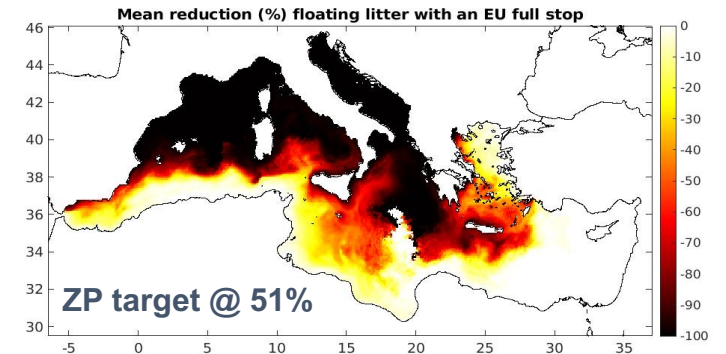
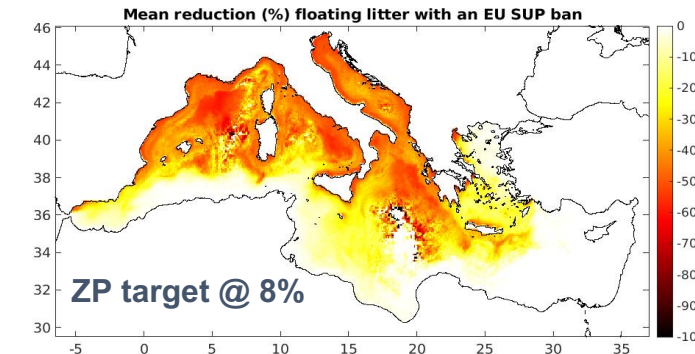
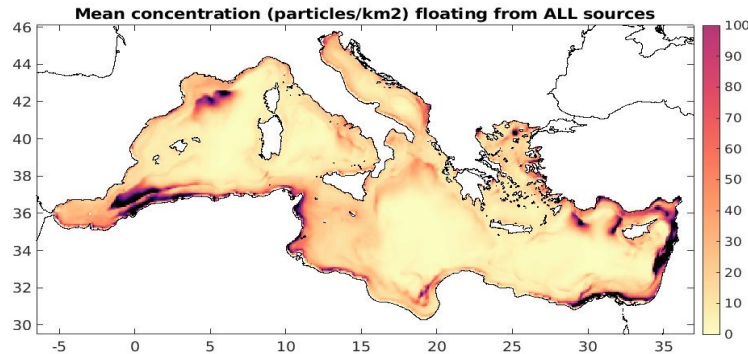


Impact of policy options



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EU by itself cannot reach the ZP goals!!



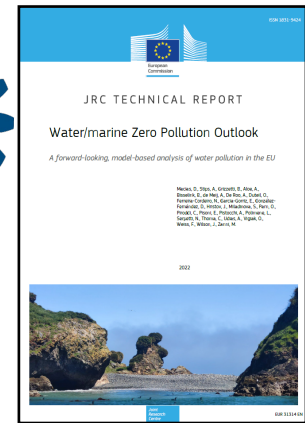
Reference (2016 – 2018)

SUP ban in EU

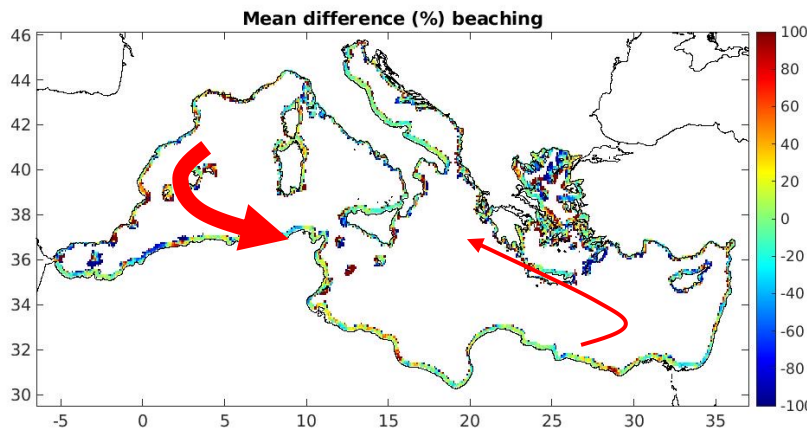
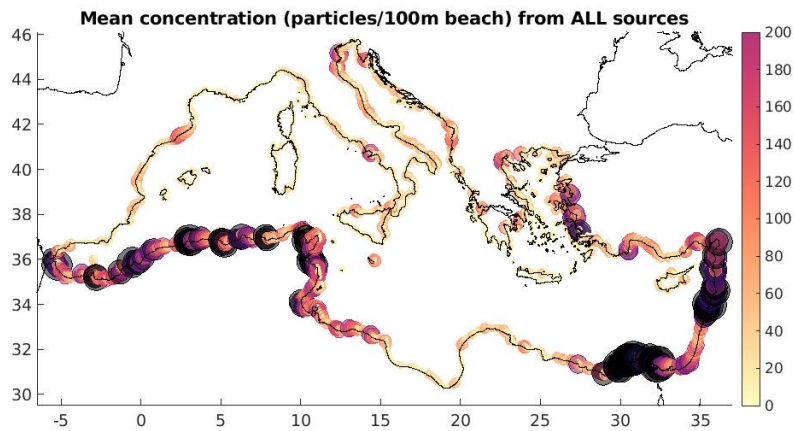
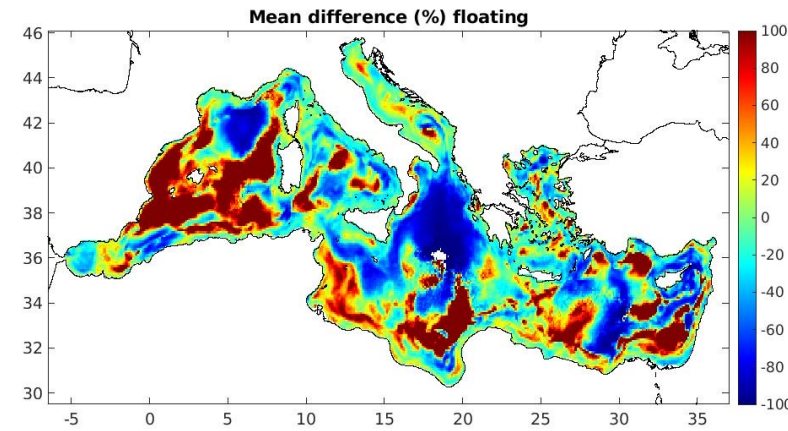
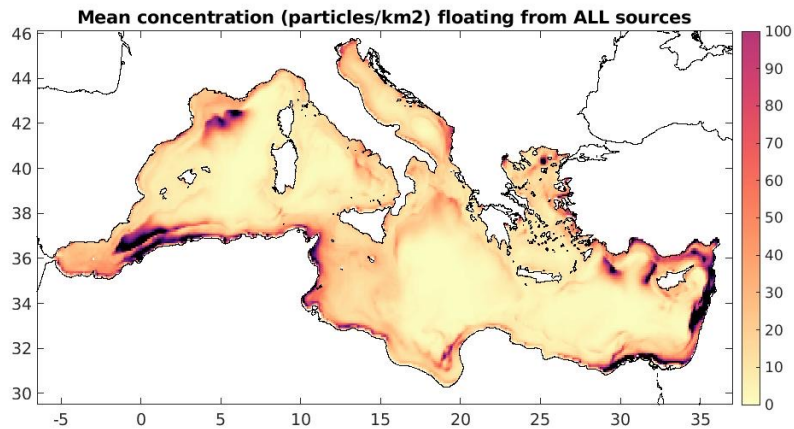
Plastics ban in EU



Impact of climate change



Impacts of climate change on macroplastics distribution



Total plastic is not affected (by definition)

Cross-boundary pollution is altered:

- EU pollutes more non-EU coasts
- Non-EU pollutes less EU coasts

Reference (2016 – 2018)

IPCC rcp4.5 (2027 – 2030)

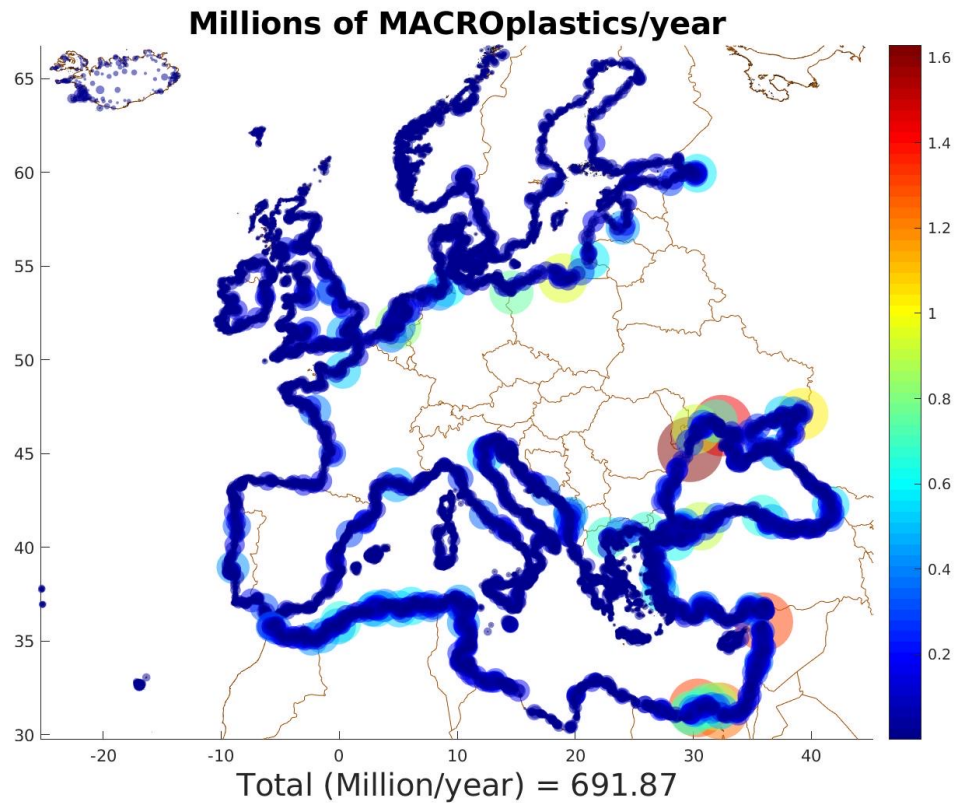


Ongoing and future work



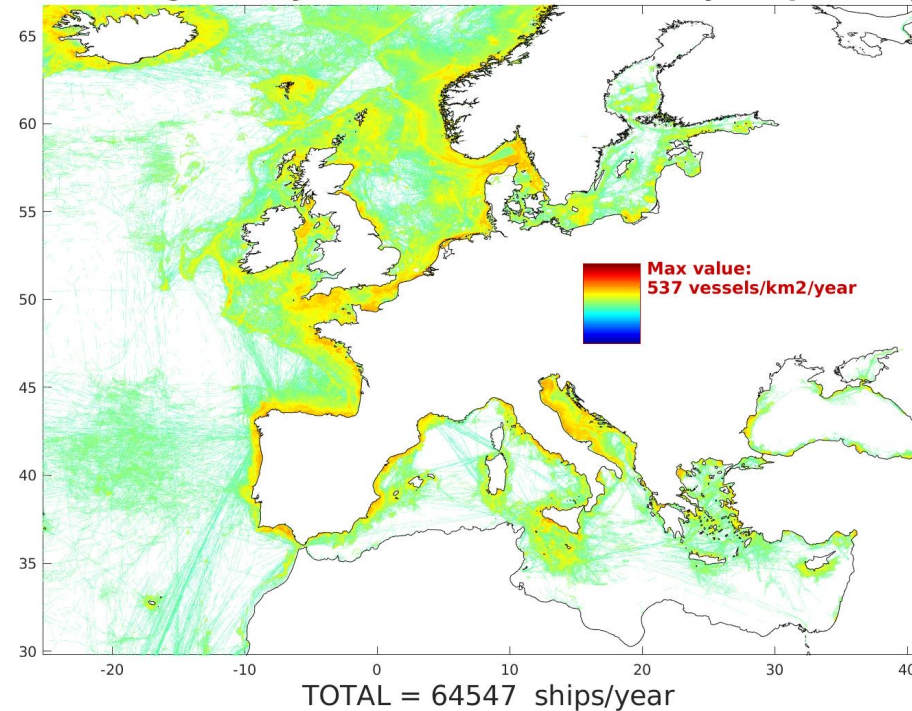
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Ongoing work



Expanding the approach to all EU marine regions

2021 Fishing activity: EMODnet VESSEL Density (ships/km2/year)



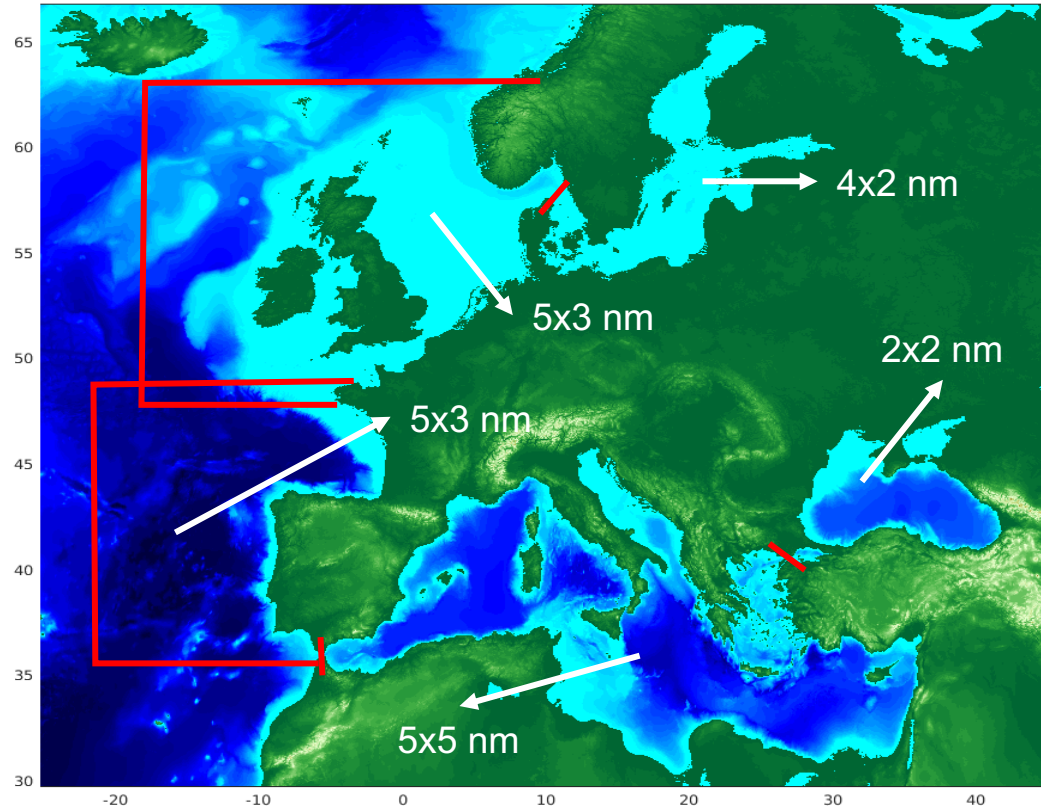
Adding 'marine' sources



The Blue2 Modelling Framework



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Covering all five EU marine regions
Independent set-ups (not a single model)
Spatial resolution of few km²
From early 1970s to 2100
From hourly to monthly and yearly

Different level of development:

- Mediterranean + Black Sea: all models
- Baltic Sea: Higher Trophic Level (HTL) model in development
- Atlantic domains: HTL not (yet) available (collaboration with scientific partners)



State of the Art – Soil Pollution



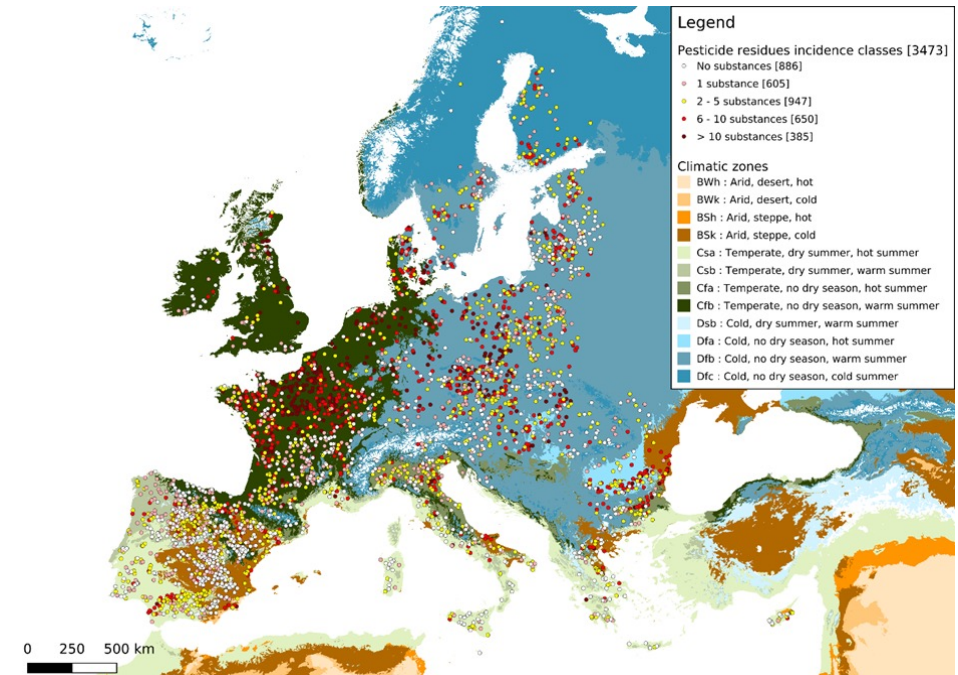
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- **EU scale assessment emerging from LUCAS soil**
- Metals (Cadmium, Copper, Mercury, Zinc)
- Pesticides (118 substances)
- Contaminated Sites (650,000 registered sites)

- **Main Drivers**
- Industry and mining
- Urban areas and transport
- Agricultural practices

Check our maps
at [EUSO
Dashboard](#)

Pesticides
report [available](#)





ZP Monitoring and Outlook 2024 Outline



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1. **Introduction**
2. **Zero Pollution Target Analysis – past trends, current status and future outlook**
3. **Pollution from Production and Consumption Systems**
Pollution from Resource Extraction, Production, Consumption and Waste Management
4. **Pollution impacts on Human Health**
Air, Noise, Water, Soil Pollution and Health, including Human Biomonitoring
4. **Pollution impacts on Ecosystems**
Air, Freshwater, Marine and Soil Pollution;
Pollution impacts on Europe's biota
4. **Key Gaps**
5. **Conclusions and next steps**

Cross cutting stories:

- Pollutants: Nutrients, Microplastics, Pesticides, Heavy Metals, PFAS,
- Antimicrobial resistance
- Light pollution
- Health inequalities
- Synergies with other monitoring frameworks
- Digitalization, Artificial Intelligence and Copernicus Data for ZP



ZP Monitoring and Outlook 2024



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- Integrate the monitoring and outlook
- Update and better integration of models (soil-water-air)
- Expand the environmental areas and pollutants covered
- Strengthen the link to climate monitoring and modelling
- Demonstrate better synergies and possible trade-offs between policies
- Consistent and clear baselines
- Coherence of key messages on targets throughout the report(s)
- Look at synergies between targets
- Robustness check of 2022 results



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Thank you!
ZPMO editorial board
ZPMO authors



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Contact us

ENV-ZERO-POLLUTION@ec.europa.eu

https://ec.europa.eu/environment/zero-pollution-stakeholder-platform_en



COFFEE BREAK - we will reconvene at 11:30

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EU monitoring frameworks for the 8th EAP and for the circular economy

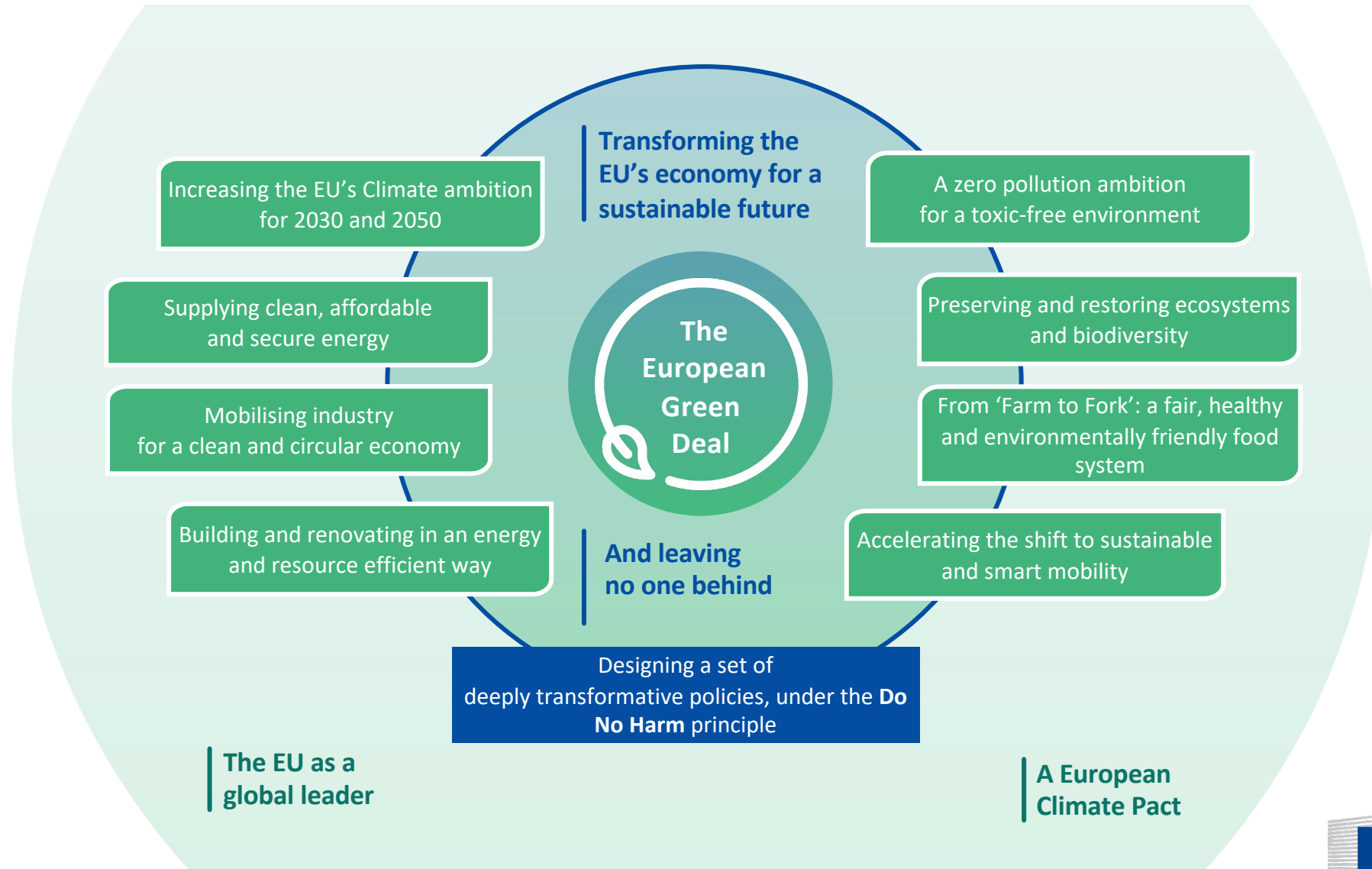
**Stakeholders workshop on the
Zero pollution monitoring and outlook**
25 January 2024

*DG Environment 01
European Commission*

Outline

- 8EAP monitoring framework
- Circular economy monitoring framework
- Overlapping of indicators on Zero pollution

The European Green Deal



Governance

The 8th Environment Action Programme



A “deal” between the institutions

- 2021 – 2030 timeframe
 - A long-term priority objective for 2050 to *live well, within planetary boundaries*
 - 6 thematic priority objectives
 - 34 enabling conditions to achieve these objectives
- ✓ Decision on a [General Union Environment Action Programme to 2030 \(8th EAP\)](#) published on 12 April 2022.

Monitoring

The 8th Environment Action Programme



The 8th EAP monitoring framework

- Monitoring main trends in a coherent way with the right indicators towards the EU's environmental and climate objectives
 - Based on a limited number of headline indicators, including systemic indicators
 - High-level strategic political oversight
 - Annual reporting by the Commission to the European Parliament and the Council on actions taken and to outline possible future actions.
- ✓ Communication from 26 July 2022 on the [Monitoring Framework for the 8th Environment Action Programme](#) to measure progress towards the attainment of the 2030 and 2050 objectives.

Monitoring the 8th EAP - Principles

Purpose:

Impact/Outcome and link to 2030 target

Focus:

Environment and Climate policy,
pressures

including

Narrative/key question:
targets,

In light of the 2050 vision and 2030

priority

*what is the progress towards the 6
objectives of the programme*

Target audience:

ENVI ministers & general public

Granularity:

EU, MS, Regional, Local (where possible)

Reporting:

Annual stocktake and more in-depth
assessments mid-programme (2024) and
end-programme (2029)

Headline indicators for the 8th Environment Action Programme (1/3)

INDICATOR	TARGET	SOURCE ²⁰
Climate change mitigation (Article 2(2)(a))		
1. Greenhouse gas emission (GHG, index 1990=100, tonnes of CO ₂ equivalent)	Climate neutrality: reduce net GHG emissions by at least 55% by 2030 from 1990 levels ²¹	EEA
2. GHG emissions from land use, land use change and forestry (LULUCF ²² , tonnes of CO ₂ equivalent)	Climate neutrality: increase net GHG removals by carbon sinks from the LULUCF sector to -310 million tonnes CO ₂ equivalent by 2030 ²³	EEA
Climate change adaptation (Article 2(2)(b))		
3. Climate-related economic losses (in EUR billion)	Economic impact of climate change: reduce overall monetary losses from weather and climate-related events	EEA ²⁴
4. Drought impact on ecosystems (area affected in km ²)	Ecosystem resilience: decrease the area impacted by drought and loss of vegetation productivity	EEA
A regenerative circular economy (Article 2(2)(c))		
5. Raw material consumption (tonnes per capita)	Material footprint: significantly decrease the EU's material footprint ²⁵ , by reducing the amount of raw material needed to produce the products consumed in the EU by reducing the amount of raw material needed to produce the products consumed in the Union	Eurostat
6. Total waste generation (kg per capita)	Waste prevention: significantly reduce the total amount of waste generated by 2030 ²⁶	Eurostat
Zero pollution and a toxic free environment (Article 2(2)(d))		
7. Premature deaths due to exposure to fine particulate matter (PM2.5) (number of premature deaths)	Environmental impact on health: reduce premature deaths from air pollution by 55% (from 2005 levels) by 2030 ²⁷	EEA
8. Nitrates in groundwater (mg of NO ₃ /l and % monitoring stations with value above 50 mg NO ₃ /l)	Clean water: reduce nutrient losses by at least 50% in safe groundwater resources	EEA ²⁸

Source: COM/2022/357 final

Headline indicators for the 8th Environment Action Programme (2/3)

Biodiversity and ecosystems (<i>Article 2(2)(e)</i>)		
9. Designated terrestrial and marine protected areas²⁹ (% of total area)	Nature protection: legally protect at least 30% of the EU's land area and 30% of the EU's sea area by 2030 ³⁰	EEA
10. Common bird index (index: 1990 = 100)	Biodiversity preservation: reverse the decline in populations of common birds ³¹	EBCC/ ³² BirdLife/ RSPB/CSO
11. Forest connectivity (0-100 % ³³)	Healthy ecosystems: increase the degree of connectivity in forest ecosystems, with a view to creating and integrating ecological corridors ³⁴ and increase climate change resilience	Joint Research Centre
Environmental and climate pressures related to EU production and consumption (<i>Article 2(2)(f)</i>)		
12. Energy consumption (in million tonnes of oil equivalent)	Energy efficiency: reduce (primary and final) energy consumption by at least 13% by 2030 compared to 2020 ³⁵	Eurostat
13. Share of renewable energy in gross final energy consumption (in %) ³⁶	Sustainable energy: at least [45%] of energy from renewable sources in gross final energy consumption by 2030 ³⁷	Eurostat
14. Circular material use rate (in % to the overall material use)	Sustainable industry: double the ratio of circular material use by 2030 compared to 2020 ³⁸	Eurostat
15. Share of buses and trains in inland passenger transport	Sustainable mobility: Increase the share of collective transport modes (buses, coaches and trains)	Eurostat
(% of total inland passenger transport, expressed in passenger-kilometres)		
16. Area under organic farming (% of utilised agricultural area in km ²)	Sustainable agriculture: 25% of EU agricultural land organically farmed by 2030 ³⁹	Eurostat

Source: COM/2022/357 final

Headline indicators for the 8th Environment Action Programme (3/3)

Enabling conditions (Article 3)		
17. Share of environmental taxes in total tax revenues (in %)	Making polluters pay: increase the share of environmental taxes in total revenues from taxes and social contributions	Eurostat
18. Fossil fuel subsidies (EUR million)⁴⁰	Making polluters pay: reduce environmentally harmful subsidies, in particular fossil fuel subsidies, with a view to phasing them out without delay	European Commission
19. Environmental protection expenditure (EUR billion and % GDP)	Financing the transition: increase spending by households, corporations and governments on preventing, reducing and eliminating pollution and other environmental degradation	Eurostat
20. Green bonds (% of total bonds issued)	Sustainable investments: increase the issuance of green bonds to boost public and private financing for green investments	EEA ⁴¹
21. Eco-innovation index⁴² Member States' performance compared to EU average (EU = 100) and trend	Innovation for sustainability: increasing eco-innovation as a driver for the green transition	Eco-Innovation Observatory
Living well, within planetary boundaries (Article 2(1))		
22. Land take (km² per year)	Planetary boundaries/sustainable use of land: no net land take by 2050 ⁴³	EEA
23. Water exploitation index plus⁴⁴ (in %)	Planetary boundaries/sustainable use of water: reduce water scarcity ⁴⁵	EEA
24. Consumption footprint⁴⁶ (based on life cycle assessment)	Sustainable consumption: significantly decrease the EU's consumption footprint ⁴⁷ , i.e. the environmental impact of consumption	Joint Research Centre
25. Employment and gross added value of environmental goods and services sector (% of total economy)	Sustainable competitiveness: increase of the shares of the green economy and of green employment in the whole economy ⁴⁸	Eurostat
26. PLACEHOLDER Environmental inequalities⁴⁹	Environmental wellbeing: reduce environmental inequalities and ensure a fair transition	

Source: COM/2022/357 final

First progress report on The 8th Environment Action Programme

Published on 6 December 2023

By the European Environment Agency

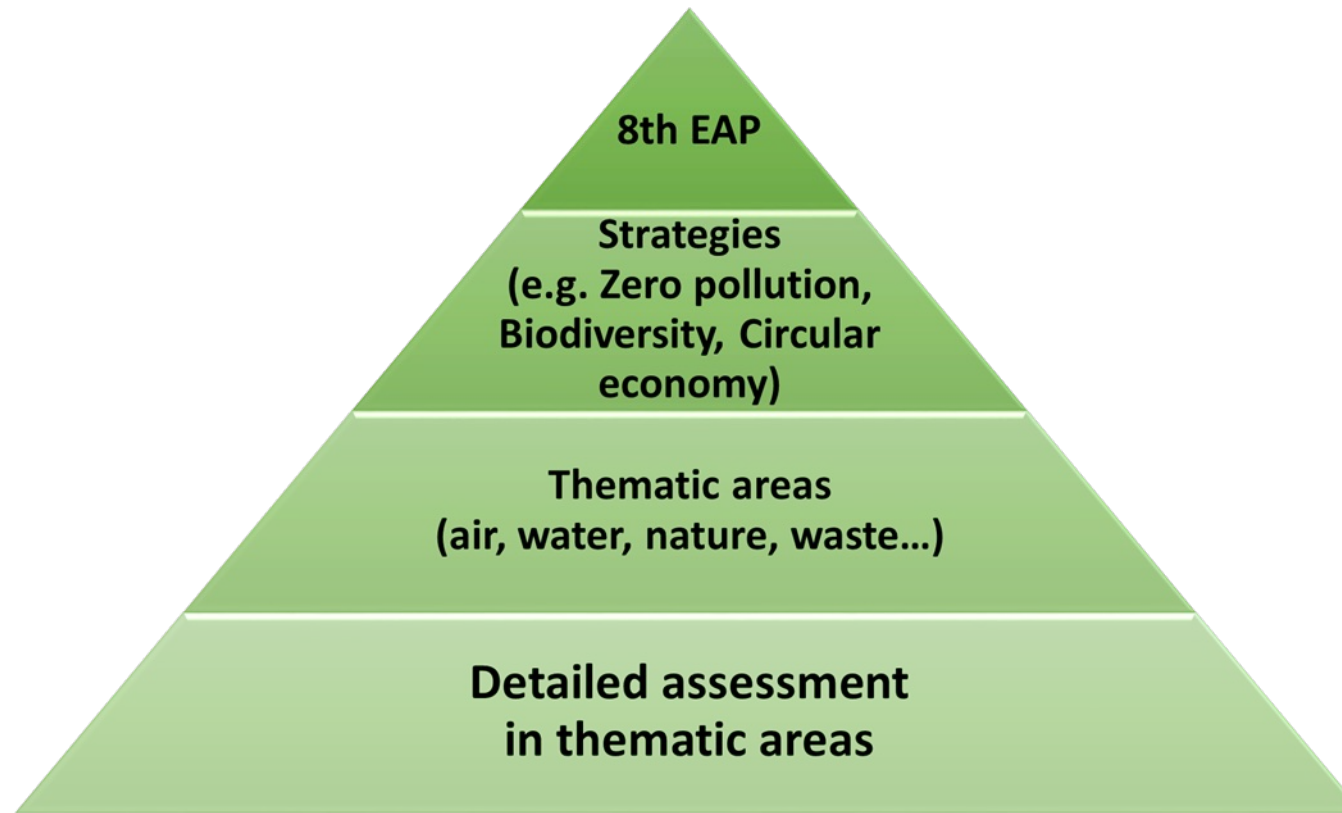
**Monitoring report on progress towards the 8th EAP objectives
2023 edition**

Key messages: [news article](#), [EEA news article](#) and [indicators assessment](#)



Next in 2024: 8th EAP Mid-term review (O1) and 2nd progress

Monitoring the 8th EAP and the environmental policies



The key Environmental Policy Priorities



[Circular economy action plan](#) For a cleaner and more competitive Europe (March 2020)

- Focus on production, key value chains and waste prevention
- 35 actions, including the revision of the monitoring framework



[EU Biodiversity Strategy 2030](#) Bringing nature back into our lives (May 2020)

- Ambitious EU targets and commitments for 2030 to achieve healthy and resilient ecosystems
- More than 100 actions, including a monitoring framework and a knowledge centre



[Zero-pollution action plan](#) Towards zero pollution for air, water and soil (May 2021)

- Ambition: Air, water and soil pollution is reduced to levels not harmful to health and natural ecosystems and within planetary boundaries
- 33 actions, including Zero Pollution Monitoring and Outlook Reports

Monitoring circular economy - Policy context

- EUROPEAN COMMISSION: *“revision of the monitoring framework for a circular economy to add new indicators (interlinkages between circularity, climate neutrality and the zero pollution ambition)”*,....*“development of indicators on resource use, including consumption and material footprints to account for material consumption and environmental impacts associated to our production and consumption”* (Circular Economy Action Plan, 2020)
- EUROPEAN PARLIAMENT: (...) calling upon the Commission to improve the monitoring framework for circular economy (...)(EP ENV Committee draft motion for a Resolution in 2018; own initiative report on the new CEAP in 2020)
- EU COUNCIL: (...) the need for an improved monitoring framework to assess the progress towards circular economy (...)(Environment Council conclusions of June 2018 and of December 2020)
- EUROPEAN ECONOMIC AND SOCIAL COMMITTEE: (...) the need for an improved monitoring framework for circular economy (opinion in 2018 and in 2020)

Revised monitoring framework for the circular economy

WHEN: Adopted on 15 May 2023

WHO: Commissioners Synkevičius and Gentiloni
in agreement with EVP Timmermans and EVP
Dombrovskis

WHAT:

- Communication – [COM \(2023\) 306](#)
- Staff Working Document – [SWD \(2023\) 306](#)
- Website – [Eurostat dedicated section](#)

Key messages: [news article](#), [Eurostat news article](#) and [factsheet](#)

Key changes in monitoring circular economy



2018 version

- **10** individual indicators
- **4** dimensions
 - production and consumption
 - waste management
 - secondary raw materials
 - competitiveness and innovation
- Covering the **entire loop**
- Capturing **main** CE elements
- Also presented on a **website**, continuously updated



2023 version

- **11** individual indicators
- **5** dimensions
 - production/consumption
 - waste management
 - secondary raw materials
 - competitiveness and innovation
 - global sustainability and resilience
- Covering the **entire loop**, more balance
- **Holistic view**
- **Website**

Circular economy monitoring framework

1 A-B MATERIAL CONSUMPTION

Material footprint and resource productivity

2 GREEN PUBLIC PROCUREMENT

Share of major public procurement that includes environmental requirements

3 A-F WASTE GENERATION

Total waste generation, total waste generation (excluding major mineral waste) per GDP unit, municipal waste generation, food waste, generation of packaging waste and of plastic packaging waste

6 A-B CONTRIBUTION OF RECYCLED MATERIALS TO RAW MATERIAL DEMAND

Secondary raw materials share of overall materials demand – for the whole economy and for specific materials

7 A-C TRADE IN RECYCLABLE RAW MATERIALS

Imports, exports and intra EU trade of selected recyclable raw materials



4 A-B OVERALL RECYCLING RATES

Recycling rate of municipal waste and of all waste except major mineral waste

5 A-C RECYCLING RATES FOR SPECIFIC WASTE STREAMS

Recycling rate of overall packaging waste, of plastic packaging waste and of WEEE separately collected

8 A-C PRIVATE INVESTMENTS, JOBS AND VALUE ADDED RELATED TO CIRCULAR ECONOMY SECTORS

Private investments, number of persons employed and gross value added related to the circular economy

9 INNOVATION

Patents on waste and recycling

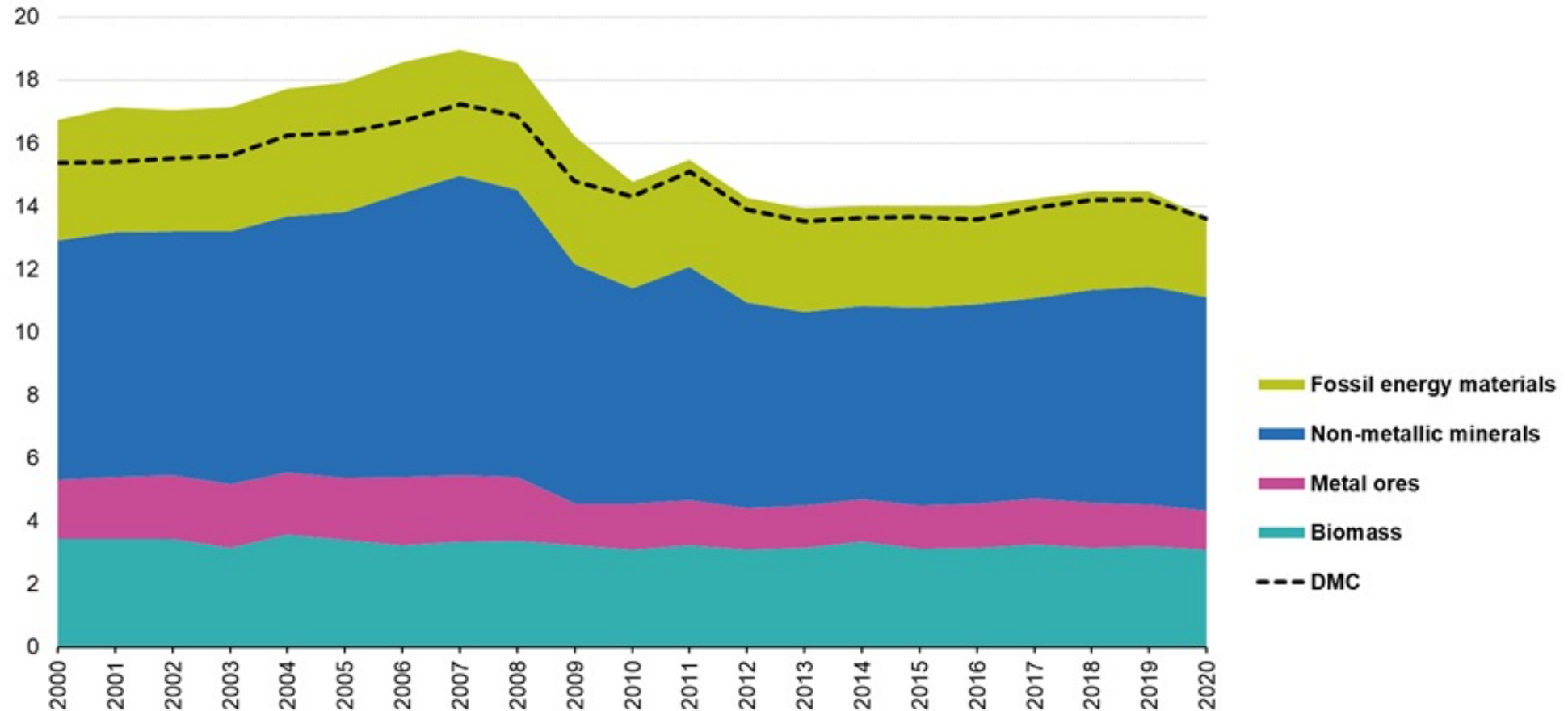
10 A-B GLOBAL SUSTAINABILITY

Consumption footprint and GHG emissions from production activities

11 A-B RESILIENCE

Material import dependency and EU self-sufficiency for raw materials

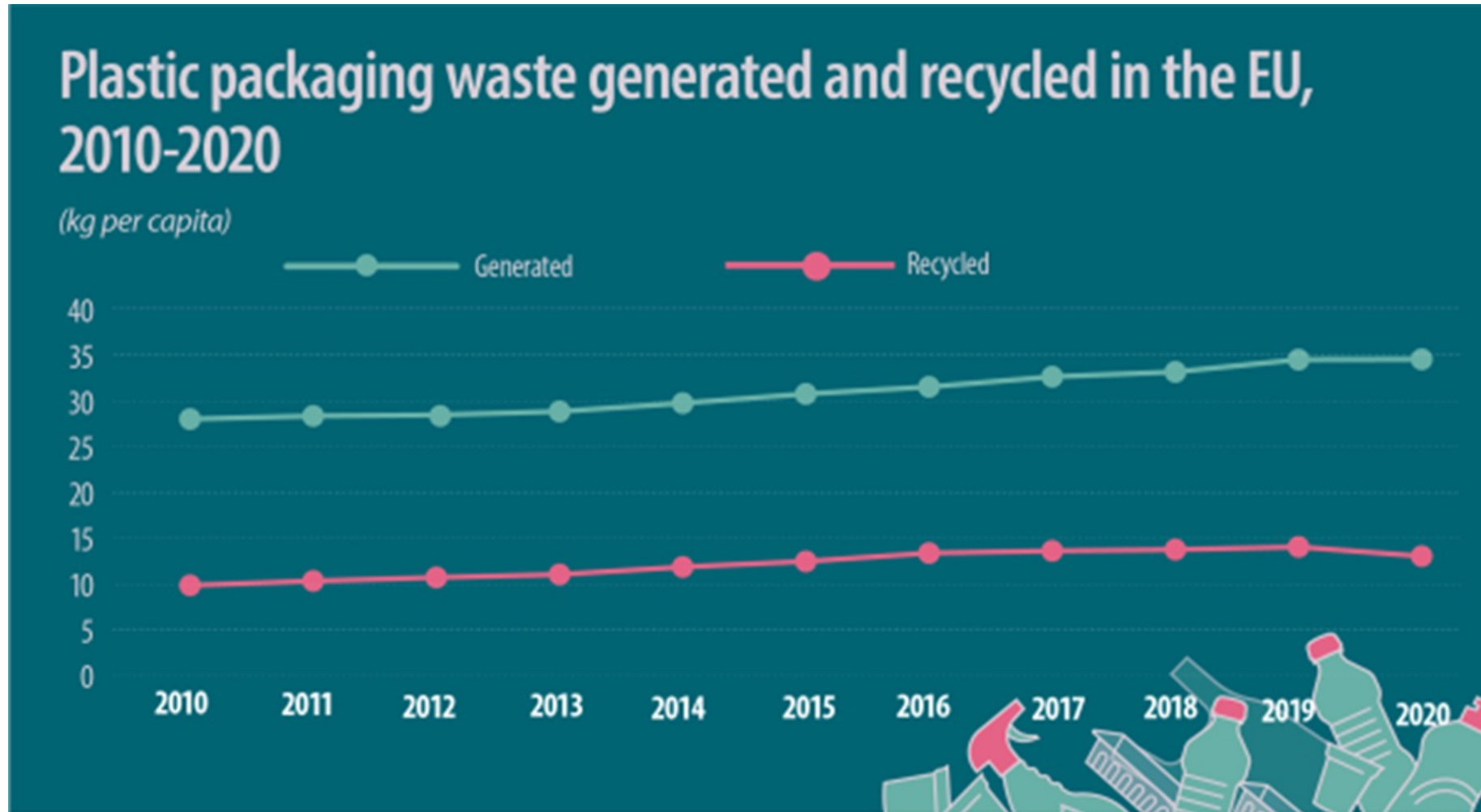
Material footprint (tonnes per capita)



Source: Eurostat (online data codes: env_ac_mfa, env_ac_rme)

eurostat 

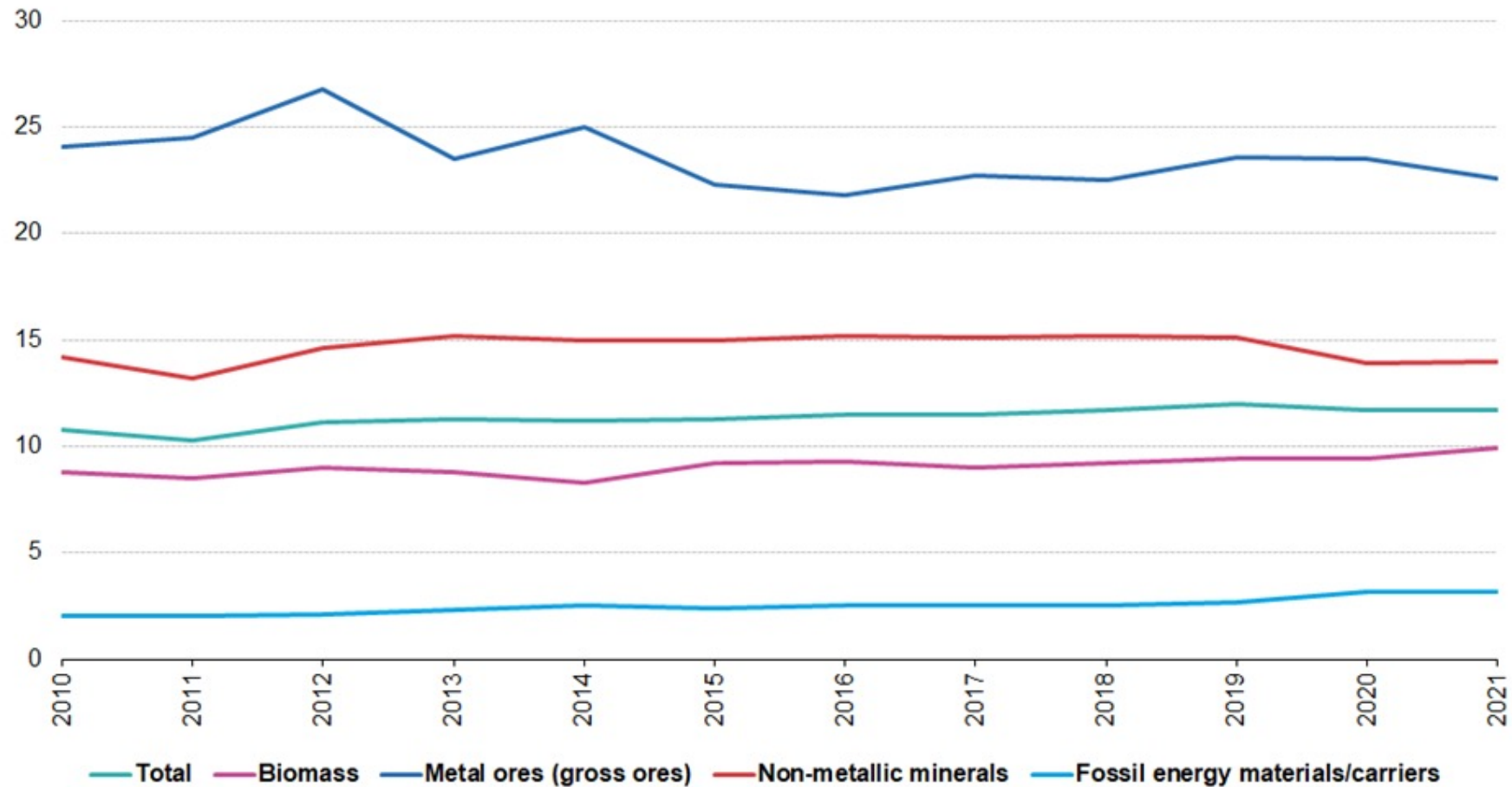
Plastic packaging waste (kg per capita)



2010, 2011 and 2020: data are estimated.

ec.europa.eu/eurostat

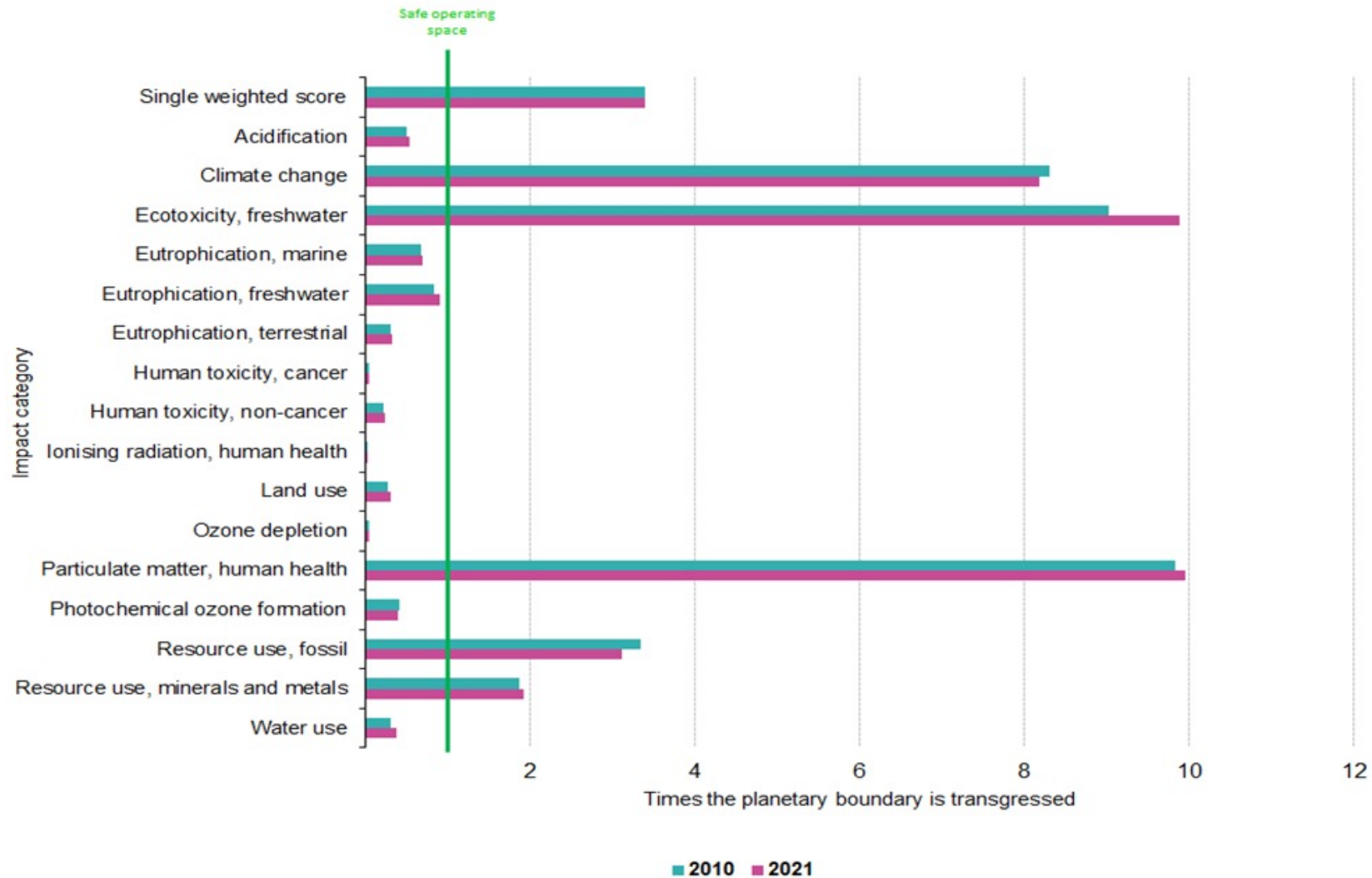
Circular material use rate (%)



Source: Eurostat (online data code: env_ac_curm)

eurostat 

Consumption footprint



Source: Joint Research Centre. Re-published by Eurostat (online data code: cei_gsr010)

Indicators, trends, charts and metadata

eurostat web pages

European Union

Production and consumption

Material consumption

Material footprint
tonnes per capita
Value: 14 (2020)

Resource productivity
index: 2000 = 100
Value: 135.5 (2021)

Green public procurement

Waste generation

Total waste generation per capita
kg per capita
Value: 4 813 (2020)

Generation of waste excluding major mineral wastes per GDP unit
kg per thousand euro, chain linked volumes (2010)
Value: 65 (2020)

Generation of municipal waste per capita
kg per capita
Value: 530 (2021)

Food waste
kg per capita
Value: 131 (2020)

Generation of packaging waste per capita
kg per capita
Value: 177.9 (2020)

Generation of plastic packaging waste per capita
kg per capita
Value: 34.6 (2020)

Waste Management

Secondary raw materials

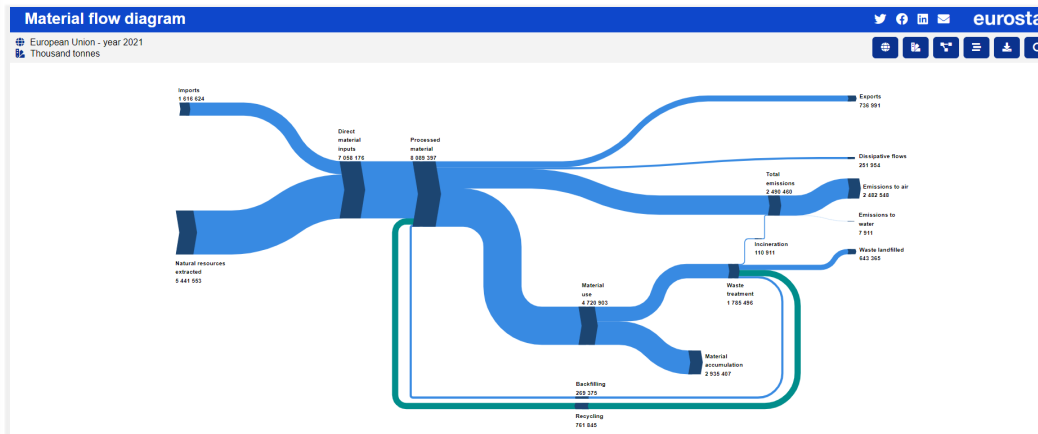
Competitiveness and innovation

Global sustainability and resilience

Waste generation per capita (online data code: CEI_PC034)
Source of data: Eurostat

Table | Line | Bar | Map

	2004	2006	2008	2010	2012	2014	2016	2018	2020
European Union - 27 countries (from 2020)	5 186	5 214	4 881	5 017	5 086	5 062	5 074	5 235	4 815
Belgium	5 068	5 627 (e)	4 540	5 630	4 847	5 171	5 573	5 967	5 899
Bulgaria	26 050	21 429	22 375	22 635	22 072	24 872	16 907	18 470	16 785
Czechia	2 871	2 417	2 448	2 268	2 205	2 223	2 402	3 560 (b)	3 598
Denmark	2 329	2 704	2 759	2 923	2 989	3 687	3 663	3 702	3 453
Germany (until 1990 former territory of the FRG)	4 412	4 416	4 540	4 446	4 576	4 785	4 858	4 891	4 824
Estonia	15 310	14 058	14 647	14 270	16 627	16 587	18 451	17 539	12 163
Ireland	6 019	6 926 (e)	5 012	4 344	2 764	3 256	3 207	2 874	3 248
Greece	3 044	4 657	6 197	6 333	6 549	6 404	6 712	4 215	2 651 (p)
Spain	3 743	3 625	3 248	2 953	2 535	2 378			
France	4 743 (s)	4 923 (s)	5 376	5 478	5 264	4 893			
Croatia	1 673	1 258	968	735	846	879			
Italy	2 424	2 666	3 047	2 676	2 594	2 597			
Cyprus	3 079	1 663	2 343	2 861	2 171	2 321			
Latvia	556	838	687	714	1 135	1 315			
Lithuania	2 076	1 945	1 980	1 881	1 901	2 114			
Luxembourg	18 153	17 728	19 630	20 597	15 816	12 713			
Hungary	2 440 (e)	2 213 (e)	1 688 (e)	1 674	1 644	1 688			
Malta	7 840 (e)	7 060 (e)	5 057 (e)	3 264	3 467	3 849			
Netherlands	5 678	6 067	6 242	7 291	7 233	7 848			



Waste generation per capita (cei_pc034)
ESMS Indicator Profile (ESMS-IP)
Compiling agency: Eurostat, the statistical office of the European Union

Eurostat metadata

Reference metadata

- Contact
- Metadata update
- Relevance
- Statistical Indicator
- Frequency and Timeliness of dissemination
- Coverage and comparability
- Accessibility and clarity
- Comment

Related Metadata
Annexes (including footnotes)

Eurostat Quality Profile

4.5. Source data	ESS
5.1. Frequency of dissemination	Every 2 years
5.2. Timeliness	T=2 years
6.1. Reference area	All EU MS
6.2. Comparability - geographical	All EU MS
6.3. Coverage - Time	> 10 years
6.4. Comparability - over time	> 4 data points

Description of Eurostat quality grading system under the following link.

For any question on data and metadata, please contact: [Eurostat user support](#)

1. Contact

1.1. Contact organisation	Eurostat, the statistical office of the European Union
1.2. Contact organisation unit	E2: Environmental statistics and accounts; sustainable development
1.5. Contact mail address	2920 Luxembourg LUXEMBOURG e-mail contact: ESTAT.CIRCULAR-ECONOMY@ec.europa.eu

2. Metadata update

2.1. Metadata last certified	16/12/2022
2.2. Metadata last posted	16/12/2022
2.3. Metadata last update	16/12/2022



Circular economy in the EU

To know more

- European Commission priority European Green Deal: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en
- DG Environment: https://environment.ec.europa.eu/topics/circular-economy_en
- DG Internal Market, Industry, Entrepreneurship and SMEs: https://single-market-economy.ec.europa.eu/industry/sustainability_en
- Eurostat: <https://ec.europa.eu/eurostat/web/circular-economy/overview>

The screenshot shows a webpage with a navigation menu on the left containing: Overview, Monitoring framework, Database, Visualisations, Publications, Information on data, Policy context, and Related links. The main content area is titled 'Which information can I find here?' and includes a list of thematic areas: production and consumption, waste management, secondary raw materials, competitiveness and innovation, and global sustainability and resilience. Below this is a 'Latest news' section with three articles: 'Improved circular economy monitoring framework now live' (dated 15 May 2023), 'EU's circular material use rate decreased in 2021' (dated 13 December 2022), and 'Characteristics of enterprises that source abroad' (dated 25 November 2022). An 'In focus' section at the bottom features three items: 'Monitor the progress of your country', 'Visualise flows of material resources', and 'Discover statistics for the Green Deal'. The Eurostat logo is visible in the bottom left corner of the page.

Overlapping of indicators used for ZP

Zero Pollution Monitoring	8th EAP Monitoring framework	Circular economy monitoring framework	Biodiversity Dashboard
Premature deaths due to exposure to fine particulate matters	Headline indicator for ZP priority objective		
Nitrates in groundwater	Headline indicator for ZP priority objective		
Consumption footprint	Headline indicator for the 2050 vision	Indicator for dimension Global sustainability and resilience	
Total waste generation	Headline indicator for CE priority objective	Indicator for dimension Production and Consumption	

Thank you

More here:

https://environment.ec.europa.eu/strategy/environment-action-programme-2030_en

https://ec.europa.eu/environment/circular-economy/index_en.htm

<https://ec.europa.eu/eurostat/web/circular-economy/overview>



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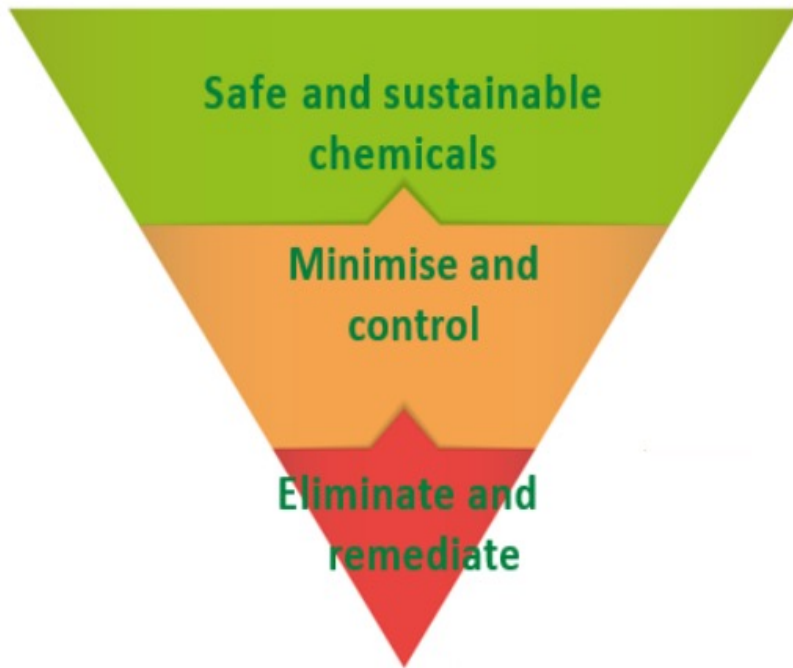
EU Chemicals Strategy for Sustainability – how can indicators help to measure progress?

Stakeholder Workshop on the Zero Pollution
Monitoring and Outlook

25.01.2024

European Green Deal

Vision – towards a toxic-free environment



- Chemicals are produced/used in a way that **maximises their benefits to society** while **avoiding harm to planet & people**
- **Production and use of safe and sustainable chemicals** becomes the EU market norm and a global standard

Chemicals Strategy for Sustainability

Boosting innovation

- Strategic R&I plan for chemicals and materials (Oct 22)
- Commission recommendation on safe and sustainable by design criteria (Dec 22)
- Research funding
- Taxonomy delegated acts (June 23)

Strengthening legislation for better protection

- Water Package (Oct 22)
- Eco-design regulation (Mar 22)
- Industrial Emissions (Apr 22)
- REACH restriction roadmap (Apr 22)
- CLP regulation (Dec 22)
- Maximum levels for food contaminants (Lead, Cadmium, Aug 22); PFAS (Dec 22)
- REACH
 - Essential use
 - Cosmetics product regulation
- Toy safety regulation (July 23)

Simplification & coherence

- Horizontal proposal on (re-)attribution of technical work on chemicals to EU Agencies (Dec 23)
- Horizontal proposal on improving access, sharing and re-use of chemical data (Dec 23)
- Proposal for a basic regulation of the European Chemicals Agency

Knowledge and science

- Strategic research and innovation plan for chemicals (Oct 22)
- European partnership for the assessment of risks from chemicals (PARC) (May 22)
- **Indicator framework**

Global

- Proposal of new hazard classes to UN Global Harmonised System for Classification (Jan 23)
- International Framework on Chemicals (Sep 23)
- Funding for developing countries
- Export ban on chemicals banned in the EU

Policy context for Chemicals Indicator Framework

The EU Green Deal



Zero pollution



Climate neutrality



Circular economy

Chemicals Strategy for Sustainability (CSS)

- Chemicals are produced/used in a way that **maximises their benefits to society** while **avoiding harm** to planet & people
- Production and use of **safe and sustainable chemicals** becomes the EU market norm and a global standard

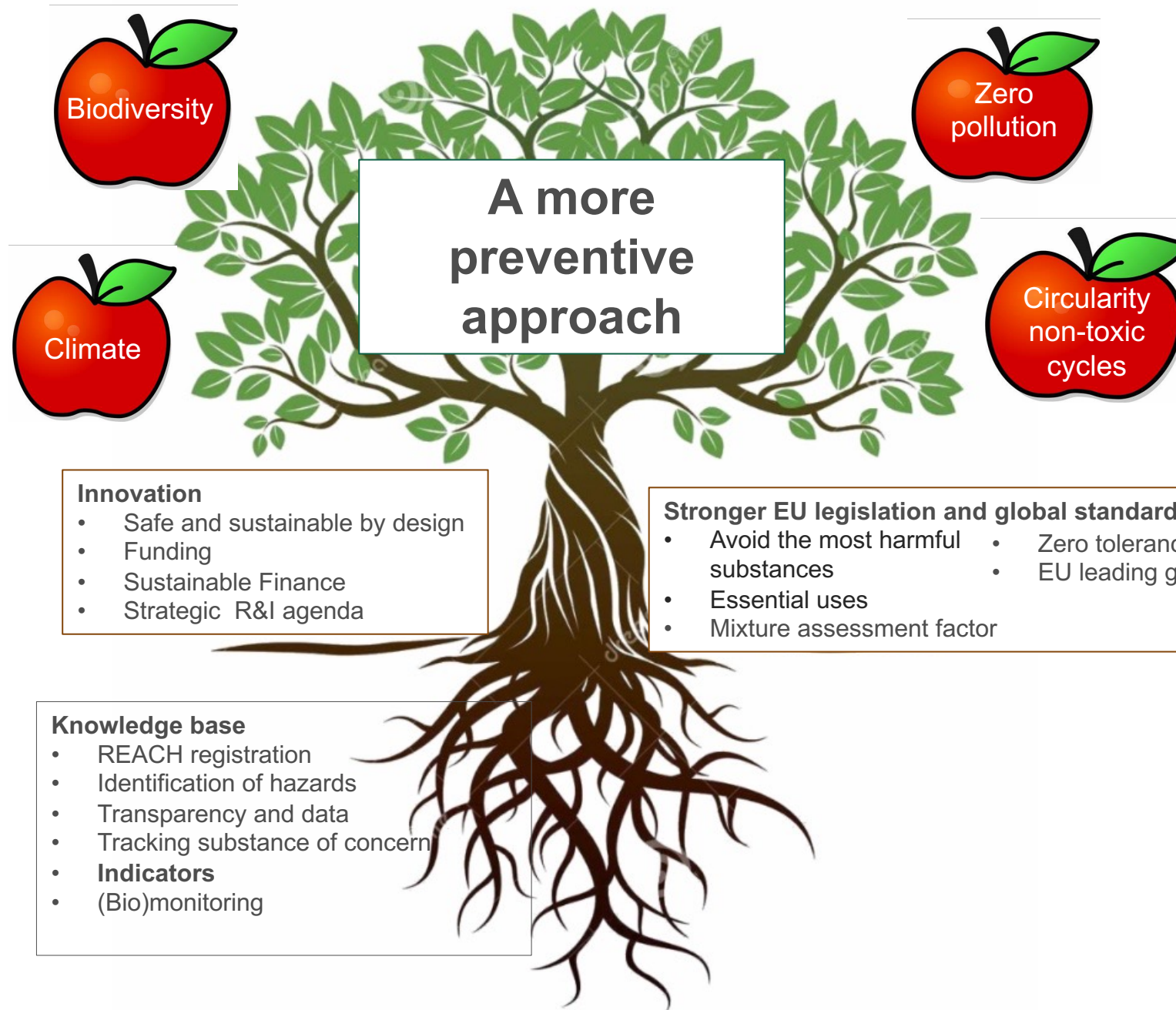
CSS Action Plan

Develop a framework of **indicators** to monitor **drivers and impacts** of **chemicals pollution** and to measure the **effectiveness** of **chemicals legislation**

DG ENV: leading
WG8 ISG
EEA-ECHA
technical co-leads
WG8: DGs, EU
agencies

Scope and structure of the indicators in the framework





Thank you



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Slide xx: [element concerned](#), source: [e.g. Fotolia.com](#); Slide xx: [element concerned](#), source: [e.g. iStock.com](#)





EU Biodiversity Strategy Dashboard

DG ENV

**Zero Pollution Monitoring and Outlook
Stakeholder Workshop
25 January 2024, Brussels**

EU Biodiversity Strategy for 2030 – 4 pillars

Protection targets



Protect Nature

Restoration, sustainable use and pressure reduction targets



Restore Nature

Governance – including monitoring



Enable implementation and transformative change

GBF – global targets and monitoring framework



EU for an Ambitious Global Agenda



Restore Nature

Protect 30% of EU land and 30% of EU seas, **strictly protect** a third of these (10%), establish **ecological corridors** and effective **management**

Reverse the decline of **pollinators**

Significantly progress in the remediation of **contaminated soil sites**

Reduce the **use and risk of pesticides** by at least 50%, and the use of **most hazardous pesticides** by 50%

Restore degraded ecosystems and prevent further damage - targets for agricultural, forest, soil, freshwater, marine and urban ecosystems

Reduce by half number of Red List species threatened by **Invasive Alien Species**

Reduce by 50% **nutrient losses** from fertilisers, and by 20% fertiliser use

Monitoring Tools for the BDS2030

Developed and maintained by the EC Knowledge Centre for Biodiversity (KCBD)



EU Biodiversity action tracker

to monitor the implementation of the EU BDS actions



EU BDS Dashboard

to track the progress of the EU BDS targets using a set of indicators

(See also [slide on BISE](#))

BDS indicators dashboard – state of play

- **10 indicators** published – none on pollution yet
- **5 further indicators** close to publication
- **2 further indicators** proposed for development in 2024
- **1 further indicator** under consideration
- **Placeholders** (options under exploration) to fill gaps



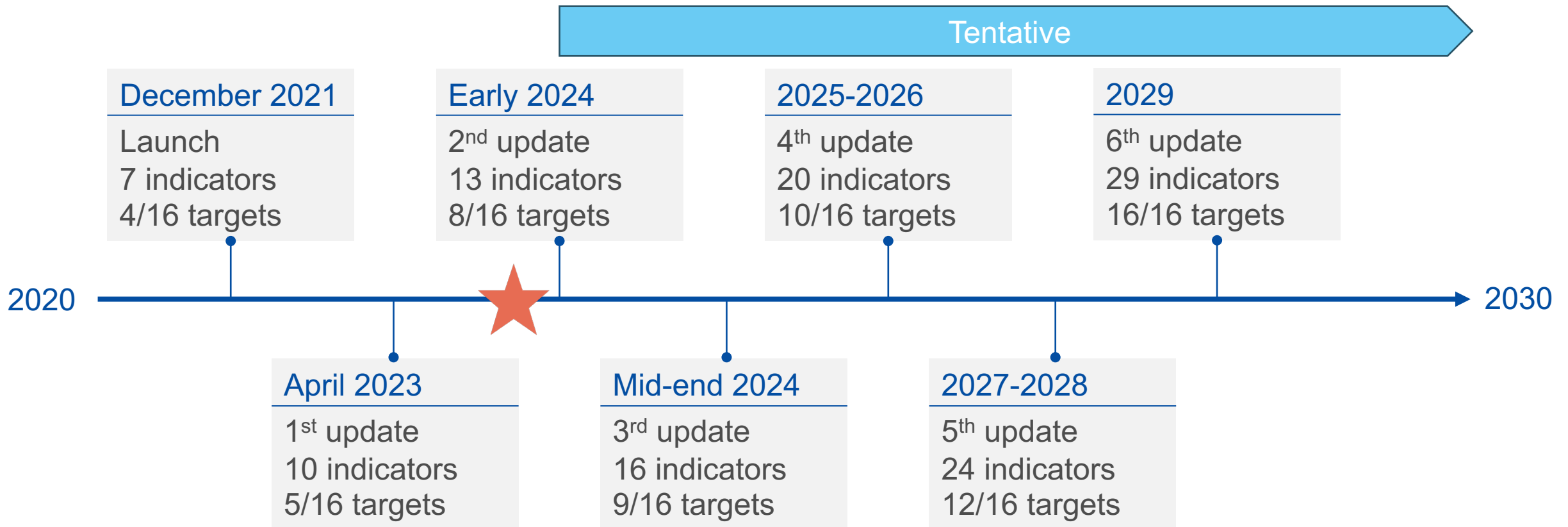
Pollution-related indicators to be added in 2024

Indicator	Corresponding biodiversity target
Consumption of inorganic fertilisers (ESTAT)	Target 13 - The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%
Progress in the management of contaminated sites (EEA)	Target 10 - Significant progress in the remediation of contaminated soil sites
Nutrients in freshwater in Europe (EEA)	Target 13 - The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%

Placeholders (pollution-related indicators)

Placeholders	Corresponding target
Risk and use of chemical pesticides (two on-hold indicators)	Target 6 - The risk and use of chemical pesticides is reduced by 50%, and the use of more hazardous pesticides is reduced by 50% (two on-hold indicators)
NRL indicators (pending adoption)	Target 4 - Legally binding EU nature restoration targets

Tentative timeline 2020-2030





European
Environment
Agency

Conclusions and next steps



Thank you for joining us!

Complete the [sli.do](#) survey and let us know your feedback on the workshop



Keep in touch:

ENV-ZERO-POLLUTION@ec.europa.eu, zero.pollution.stakeholders@technopolis-group.com

https://ec.europa.eu/environment/zero-pollution-stakeholder-platform_en

