



# Zero Pollution Stakeholder Platform

2<sup>nd</sup> Meeting



# Agenda



10:00	Welcome and Introduction
<b>10:15</b>	<b>Work Programme 2022-2024</b>
<b>11:00</b>	<b>Reducing health inequalities through zero pollution</b>
13:00	Lunch break
<b>14:00</b>	<b>Towards zero pollution from production and consumption</b>
<b>15:15</b>	<b>Information Points – Fostering research and innovation for Zero Pollution</b>
<b>16:00</b>	<b>Information Points – Flagship 7 – Digital solutions for Zero Pollution</b>
<b>16:15</b>	<b>Conclusion and next steps by Co-Chairs</b>
16:30	End of meeting



# Welcome and Introduction

10-10:15



# Work Programme 2022-2024

10:15-11



# Zero Pollution Stakeholder Platform

Work Programme 2022-2024



# Aims & objectives

The **Zero Pollution Stakeholder Platform** aims to:

- Implement the objectives of the zero-pollution ambition of the European Green Deal through stakeholder engagement;
- Share good practices on cross-cutting topics;
- Establish synergies with other relevant initiatives, such as Climate Pact, the Circular Economy Stakeholder Platform (CESP), the Business@Biodiversity Platforms, the Chemicals Roundtable.

Through these synergies, the Zero Pollution Stakeholder Platform will act as a **multiplier for knowledge exchange and best practices** among relevant actors in a variety of sectors.





# Input from Stakeholder Platform

Feedback from ARC, Copa-Cogeca, ENOLL, Eurelectric, HEAL, Water Europe, EESC and the German Environment Agency (UBA) – earlier input from several Member States

Overall support and most comments accepted, sometimes shortened.

Comments not included are:

- Those of general nature not requiring a change of the activities;
- Specific contributions on the details of the implementation of a particular flagship / action.

Most substantial addition, new activity under flagship 5 proposed by UBA





# WP 2022 – 2024 - topics

## Improving our Health and Well-being

- Reducing health inequalities through zero pollution
- Supporting urban zero pollution action

## Living within Planetary Boundaries

- Promoting zero pollution across regions

## Towards zero pollution from production and consumption

- Facilitating zero pollution choices

## Enabling and cross-cutting actions

- **Exploring a more effective implementation**
- Showcasing zero pollution solutions for buildings
- Living Labs for green digital solutions and smart zero pollution
- Zero Pollution Monitoring and Outlook
- Research and innovation







# WP 2022 – 2024 - tools

- Stakeholder Platform meetings
- Steering committee meetings with the Member States
- Thematic workshops
- Zero Pollution Talks
- Zero Pollution Conference
  
- **ZPSP Secretariat** (DG ENV, CoR ENVE and Technopolis/Arctik)





## Zero Pollution Stakeholder Platform - Actions

Find out how the flagship initiatives of zero pollution action plan are being implemented.

The [Zero Pollution Action Plan](#) set out **9 flagship initiatives** listed below and **33 actions** (see the list [here](#)). Active stakeholder involvement will be essential to implement them. We will provide you with regular information on their implementation here and through the newsletter.

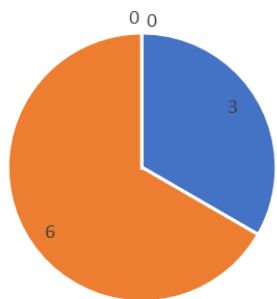
If you are interested in contributing to any of these initiatives, please register for the [newsletter](#).

The Zero Pollution Stakeholder Platform will also develop a Work Programme for 2022 to 2024, as discussed at the [first meeting of the Platform](#). Once agreed, updated information on the activities listed in the Work Programme will be available here.



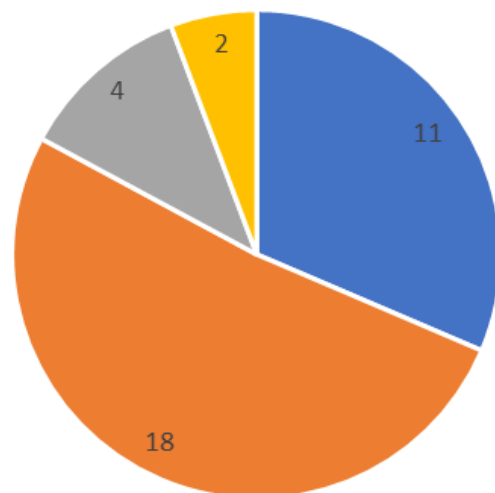
# Regular progress update

Status of flagships



■ Not started ■ Ongoing (early stage) ■ Ongoing (advanced)

Status of actions



■ Not started ■ Ongoing (early stage) ■ Ongoing (advanced) ■ Completed

## Flagships

### — Flagship 1 - Reducing health inequalities through zero pollution

#### Ongoing (early stage)

The first version of the [Cancer Inequalities Register](#) was released on 2/2/2022 already including some air quality data. Also the [Atlas of Demography](#) is available. The intention is to further develop these tools and include more pollution relevant data by 2024. This will help identify trends, disparities and inequalities across EU regions is also assessed for other pollution-related diseases, to help target interventions at EU, national and local level. This will also enable people to compare how much pollution affects their health across the different regions where they live, study and work.

#### + Flagship 2 - Supporting urban zero pollution action

#### + Flagship 3 - Promoting zero pollution across regions

#### + Flagship 4 - Facilitating zero pollution choices

#### + Flagship 5 - Enforcing zero pollution together

#### + Flagship 6 - Showcasing zero pollution solutions for buildings

#### + Flagship 7 - Living Labs for green digital solutions and smart zero pollution

#### + Flagship 8 - Minimising the EU's external pollution footprint

#### + Flagship 9 - Consolidating the EU's Knowledge Centres for Zero Pollution

## Actions

— Lorem ipsum dolor sit amet, consectetur adipiscing elit sed do eiusmod tempor incididunt

**Examples:  
Online tool coming soon**



# Conclusions

- The Zero Pollution Stakeholder Platform Work Programme 2022-2024 is an informal document which helps plan and prioritise the work.
- It is a living document that will be reviewed in the light of policy discussions and interest of the Stakeholder Platform.

We seek your feedback and support!





## Contact us

[ENV-ZERO-POLLUTION@ec.europa.eu](mailto:ENV-ZERO-POLLUTION@ec.europa.eu)

[zero.pollution.stakeholders@technopolis-group.com](mailto:zero.pollution.stakeholders@technopolis-group.com)

[https://ec.europa.eu/environment/zero-pollution-stakeholder-platform\\_en](https://ec.europa.eu/environment/zero-pollution-stakeholder-platform_en)





# Reducing health inequalities through Zero Pollution

11-13:00



# Veronique Wasbauer

DG SANTE



# Hans Bruyninckx

EEA

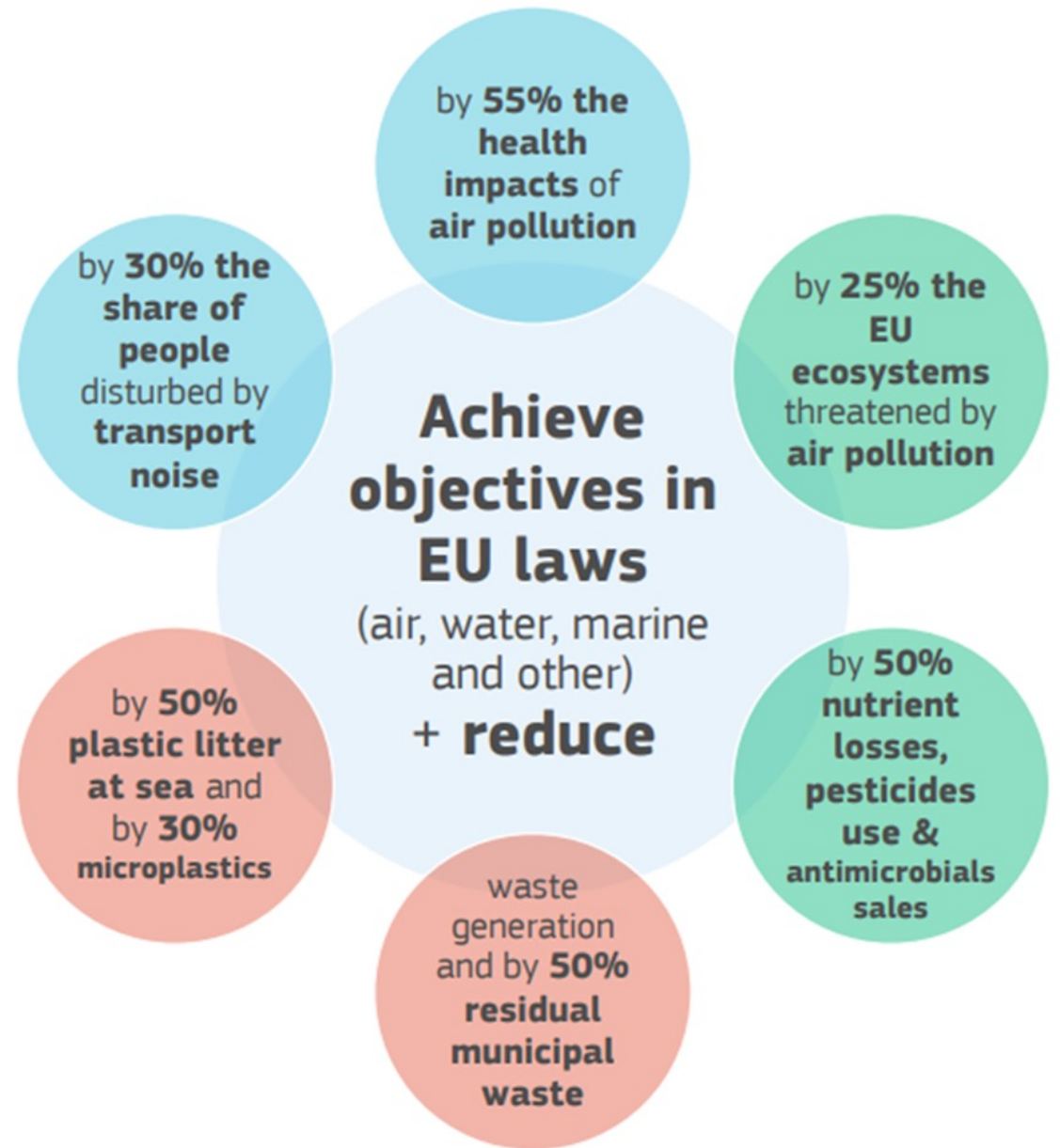


# The road to zero: Pollution, inequality and health

Hans Bruyninckx | 2<sup>nd</sup> Zero Pollution Stakeholder Platform | 25 April 2022



# Zero pollution: the road ahead (to 2030 and beyond)



by **30%** the share of people disturbed by transport noise

by **55%** the health impacts of air pollution

by **25%** the EU ecosystems threatened by air pollution

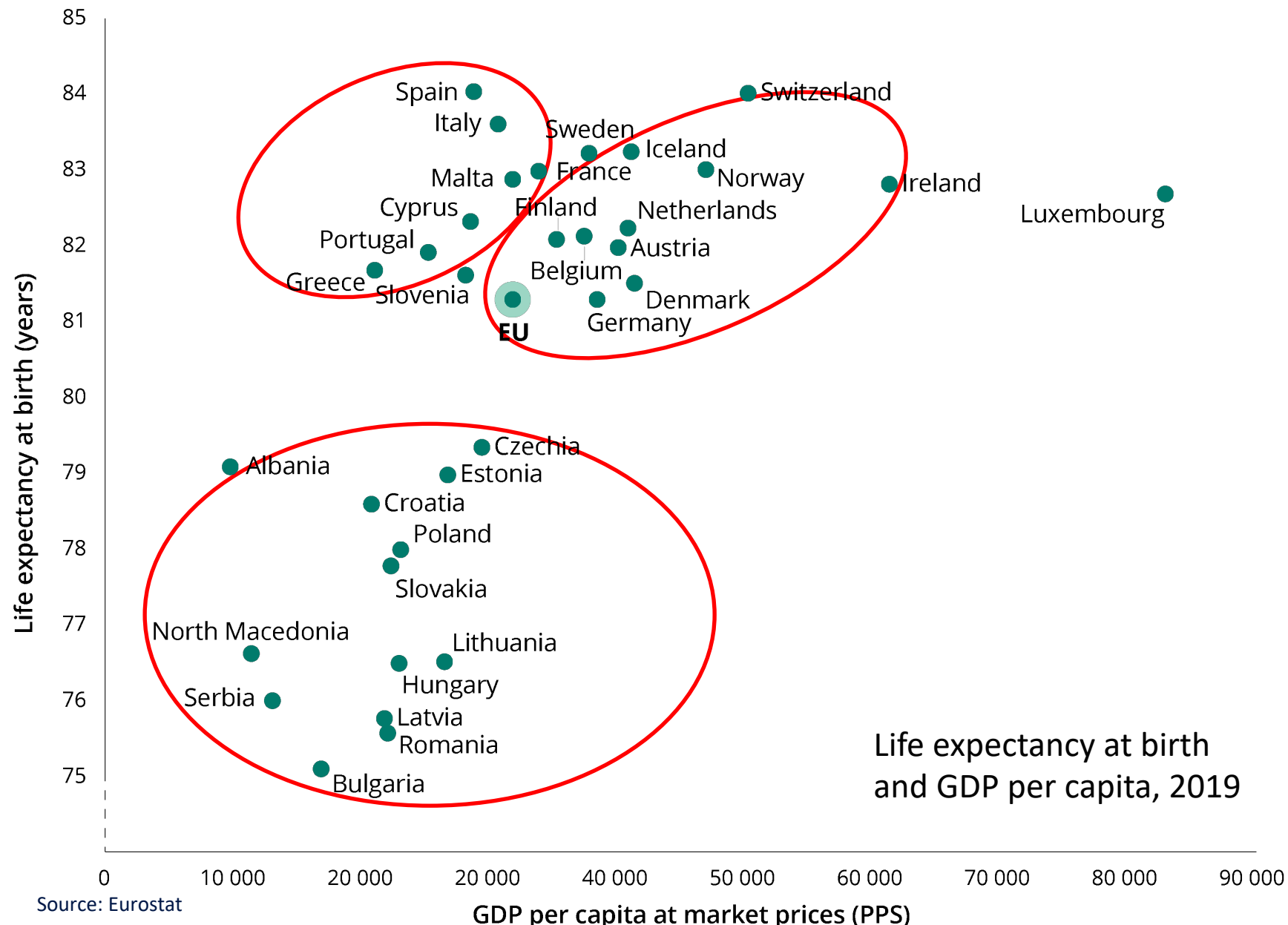
**Achieve objectives in EU laws**  
(air, water, marine and other)  
**+ reduce**

by **50%** nutrient losses, pesticides use & antimicrobials sales

waste generation and by **50%** residual municipal waste

by **50%** plastic litter at sea and by **30%** microplastics

# Health inequities across Europe



8 years difference in life expectancy across EU Member States

Poorer people live:

- shorter lives
- fewer healthy life-years

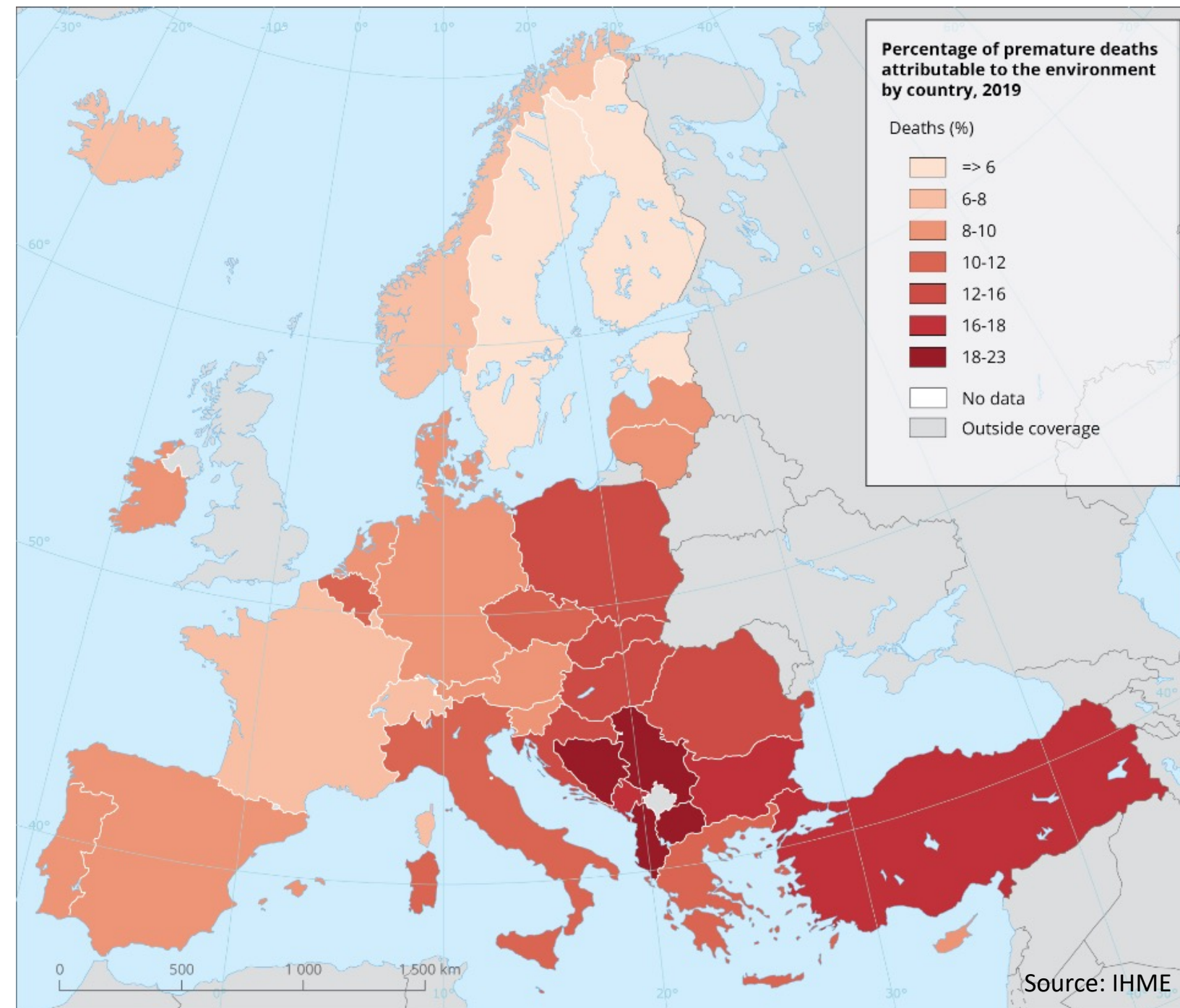
They have:

- poorer perceived health
- more long-term health problems

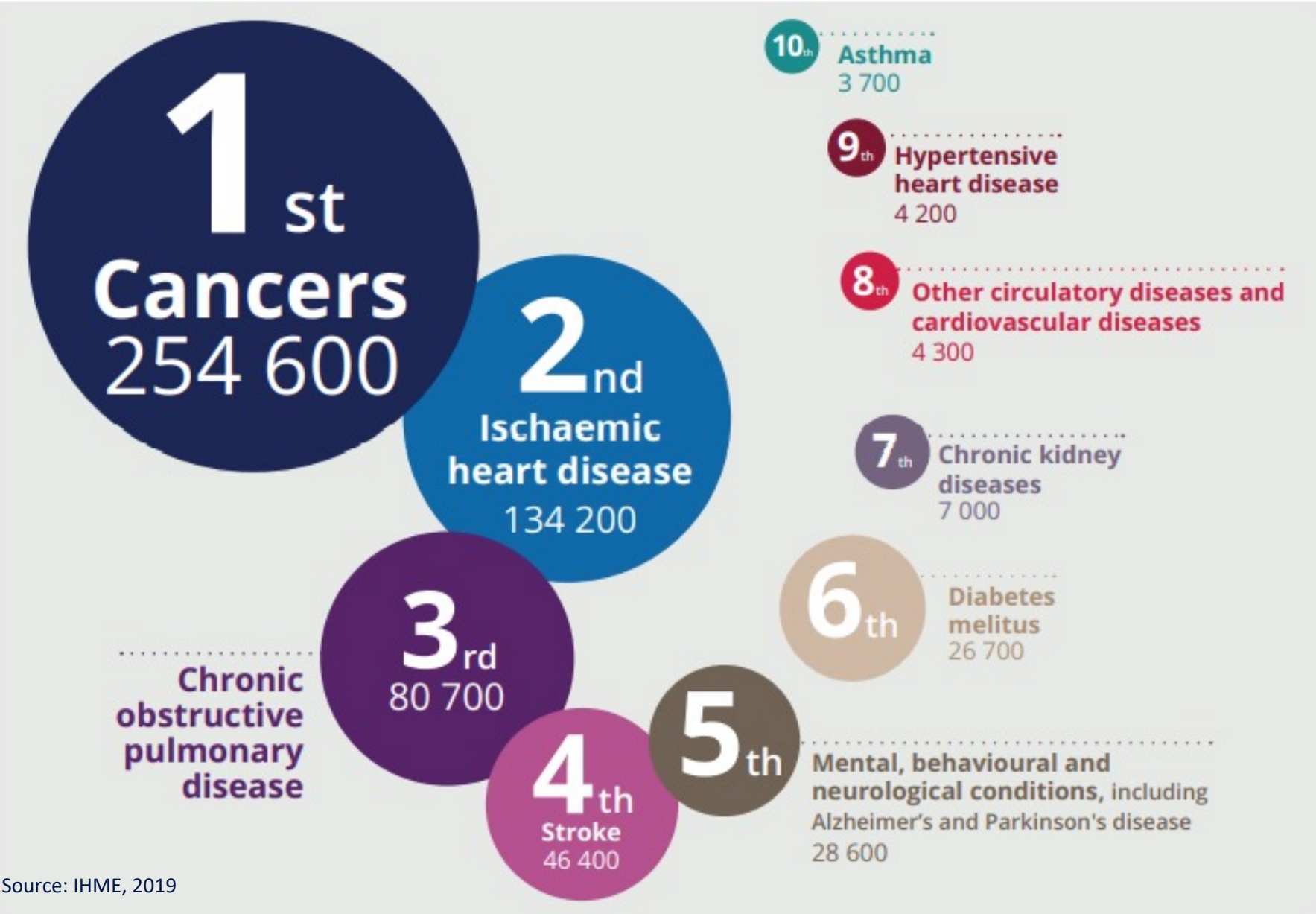
Life expectancy at birth and GDP per capita, 2019

# Health (in)justice: premature deaths casued by the environment

- Average **11.3%** of all deaths in **2019** attributable to **environment**
- From air pollution, occupational risks, other environmental risks (lead & radon) and water sanitation



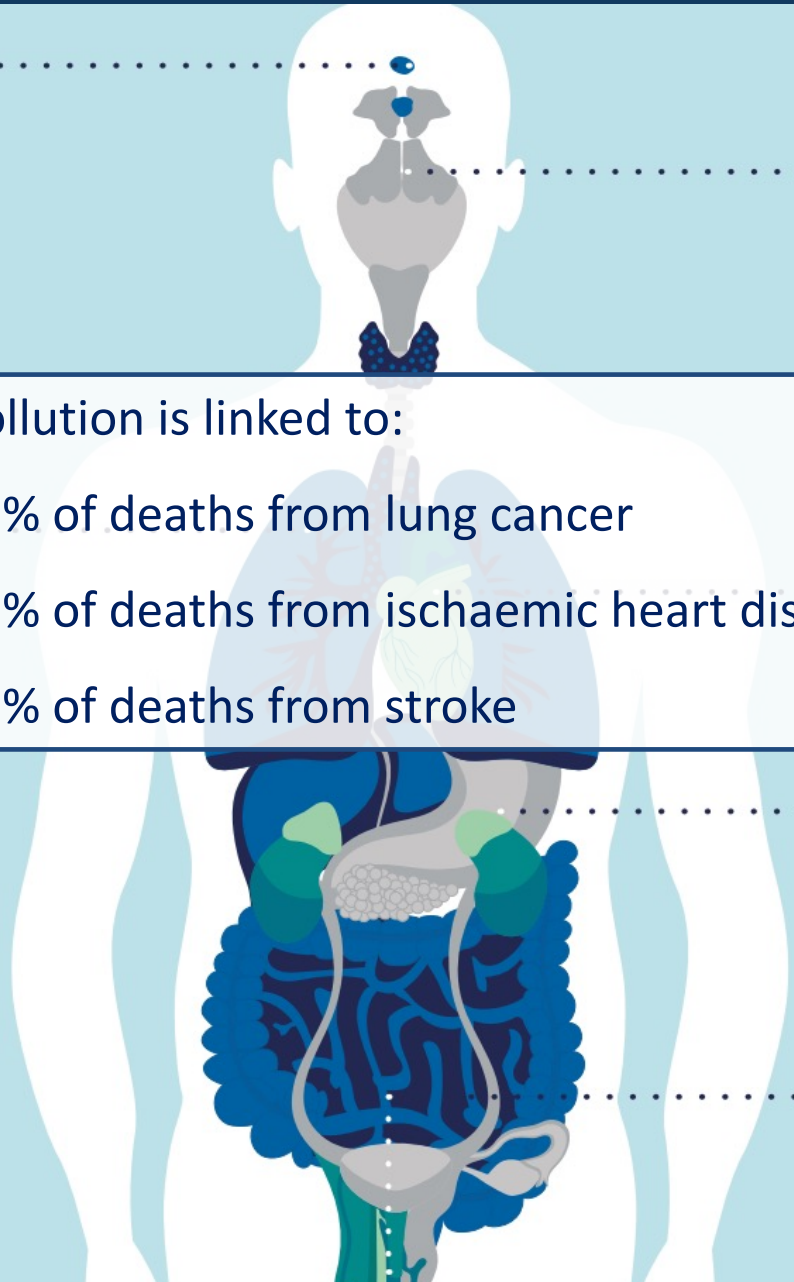
# 90% of EU deaths attributed to the environment: non-communicable disease



Top 10 non-communicable diseases driven by environmental pollution

Source: IHME, 2019

# Air pollution: No. 1 environmental risk



Headache and anxiety (SO<sub>2</sub>)  
Impacts on the central nervous system (PM)

Irritation of eyes, nose and throat  
Breathing problems (O<sub>3</sub>, PM, NO<sub>2</sub>, BaP)

Air pollution is linked to:

- 17% of deaths from lung cancer
- 12% of deaths from ischaemic heart disease
- 11% of deaths from stroke

Irritation, inflammation and infections  
Asthma and reduced lung function (NO<sub>2</sub>)

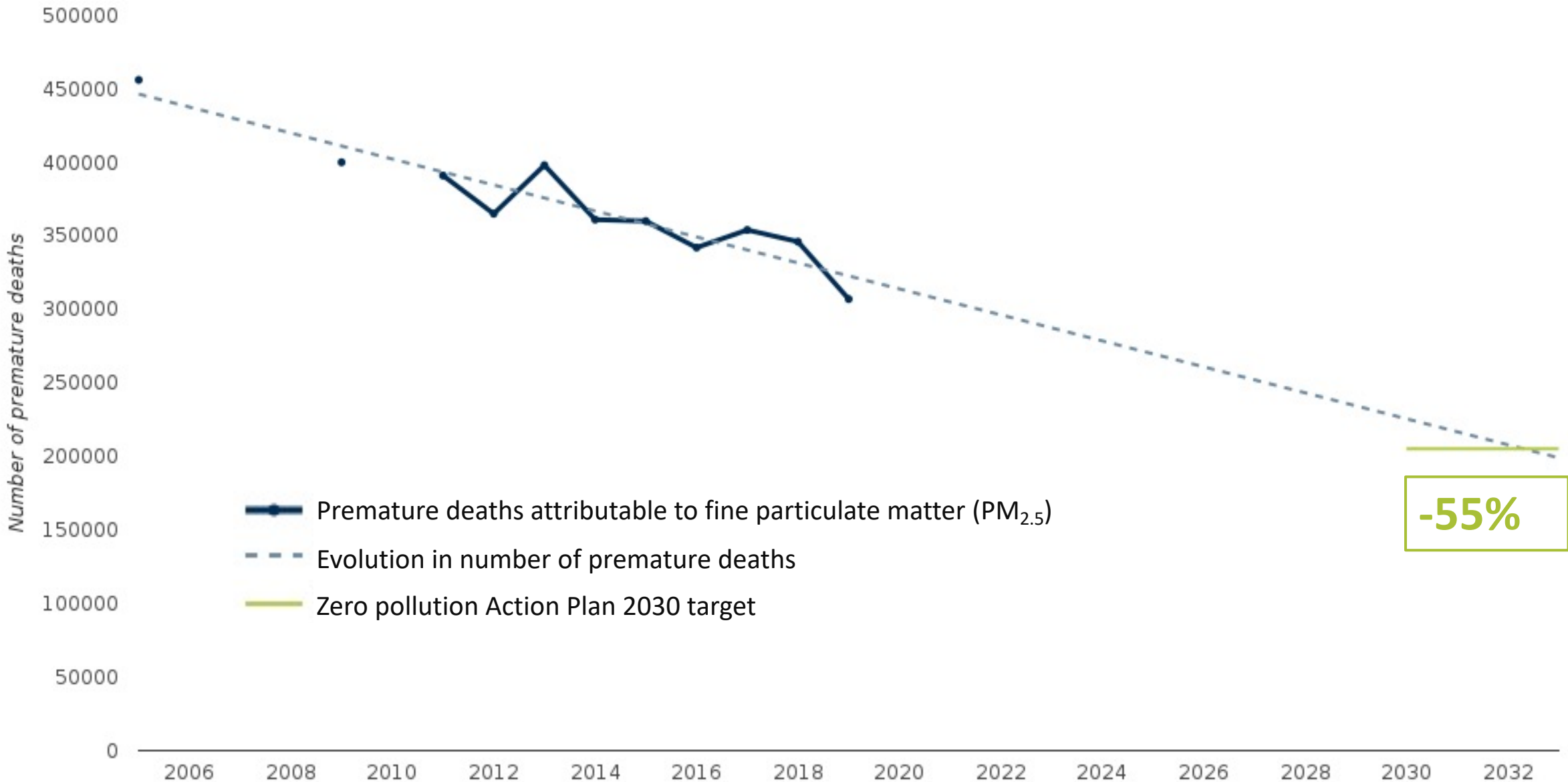
Cardiovascular diseases (PM, O<sub>3</sub>, SO<sub>2</sub>)

Chronic obstructive pulmonary disease (PM)  
Lung cancer (PM, BaP)

Impacts on liver, spleen and blood (NO<sub>2</sub>)

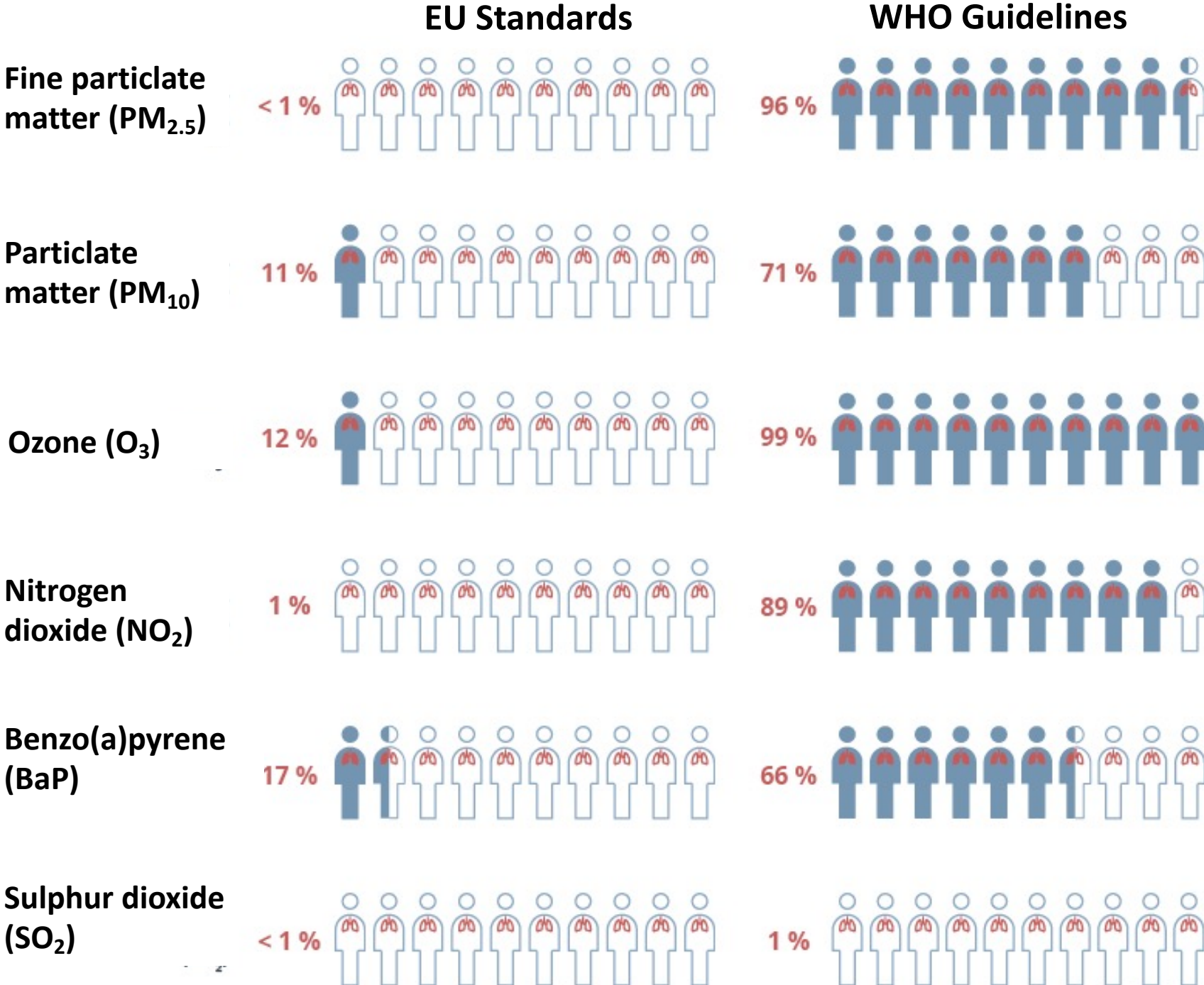
Impacts on the reproductive system (PM)

# Progress towards ZPAP 2030 target: significant but far from zero



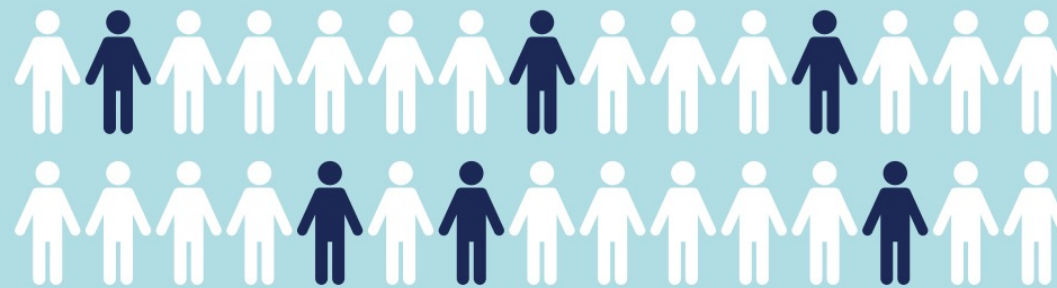
# Current standards not demanding enough

%age of urban population exposed to unsafe levels 2020



# Noise: an underestimated risk

20 % of the EU population — one in five people — live in areas where noise levels are considered harmful to health.



**HIGH ANNOYANCE**



**22 000 000**

**HIGH SLEEP DISTURBANCE**



**6 500 000**

**HEART DISEASE**



**48 000**

**PREMATURE MORTALITY**



**12 000**

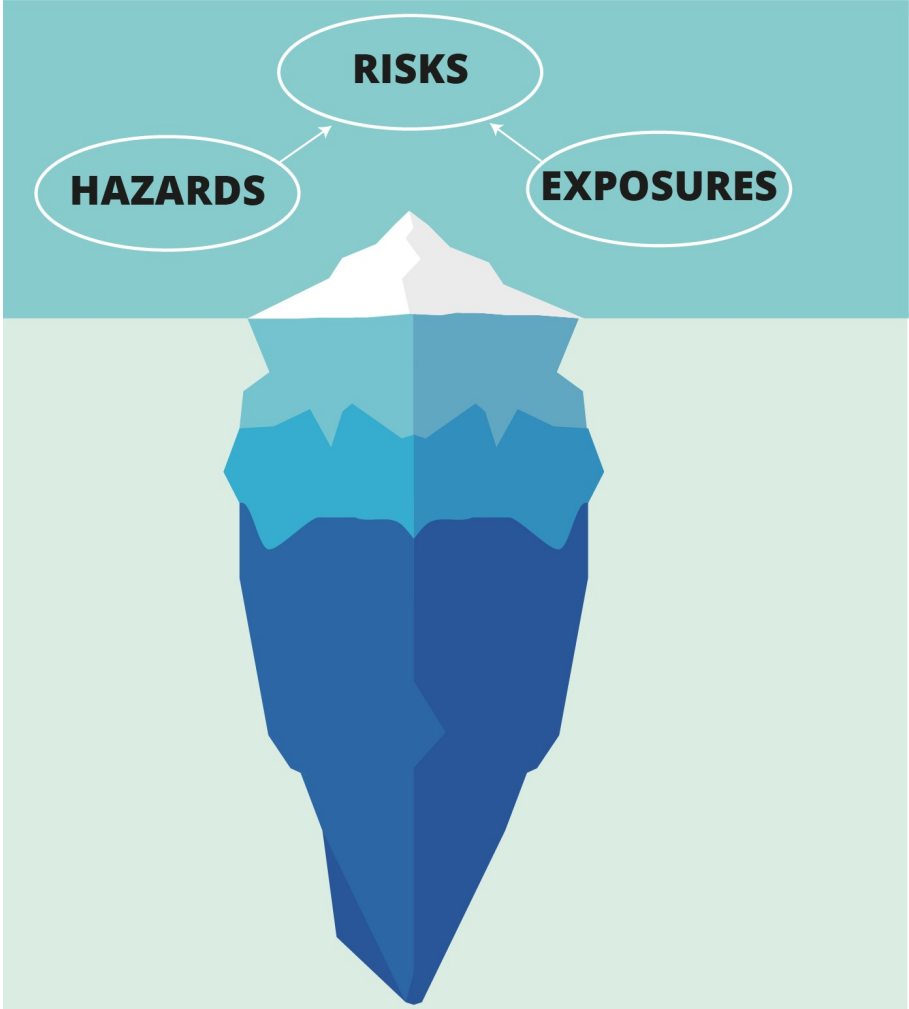
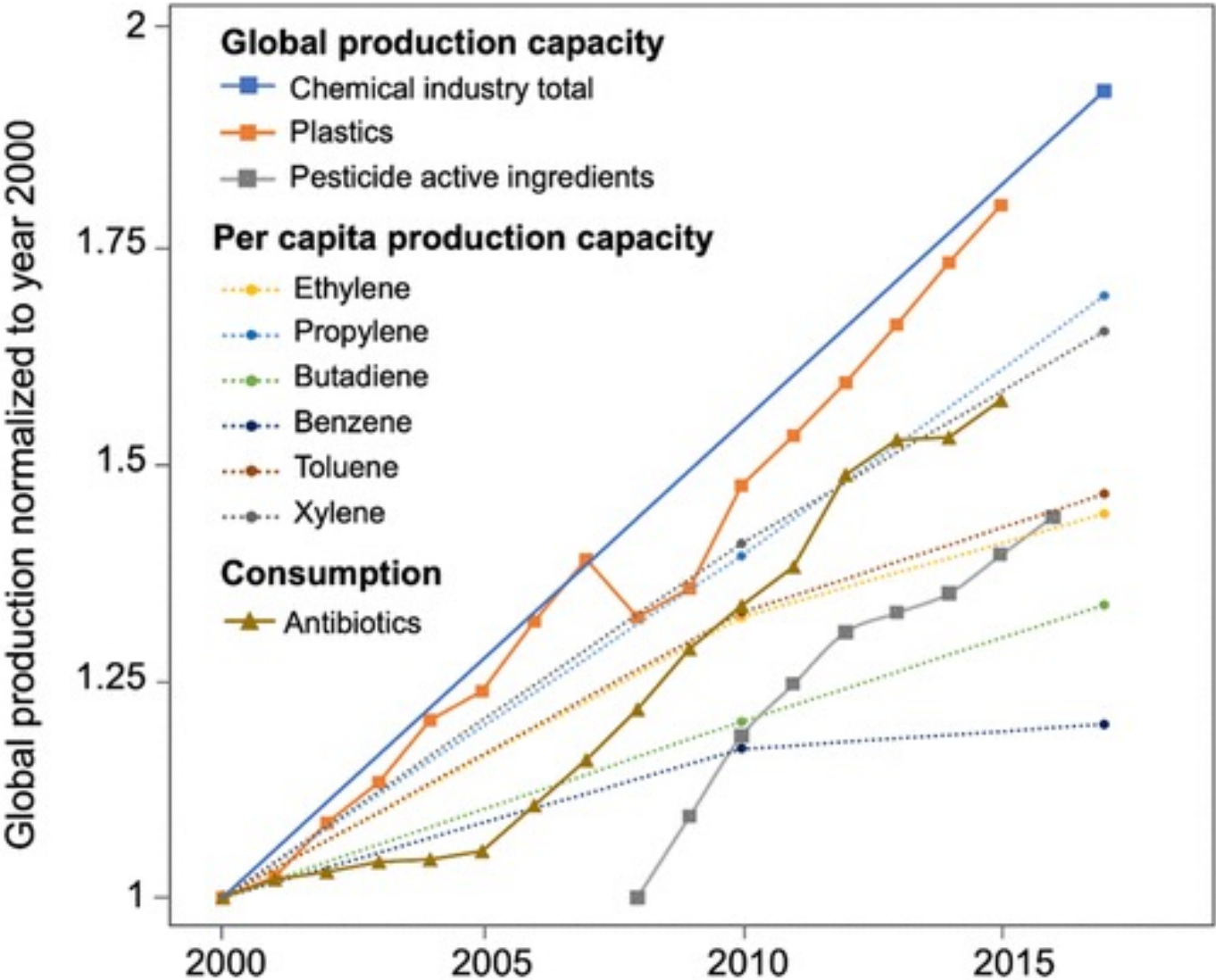
**COGNITIVE IMPAIRMENT IN CHILDREN**



**12 500**

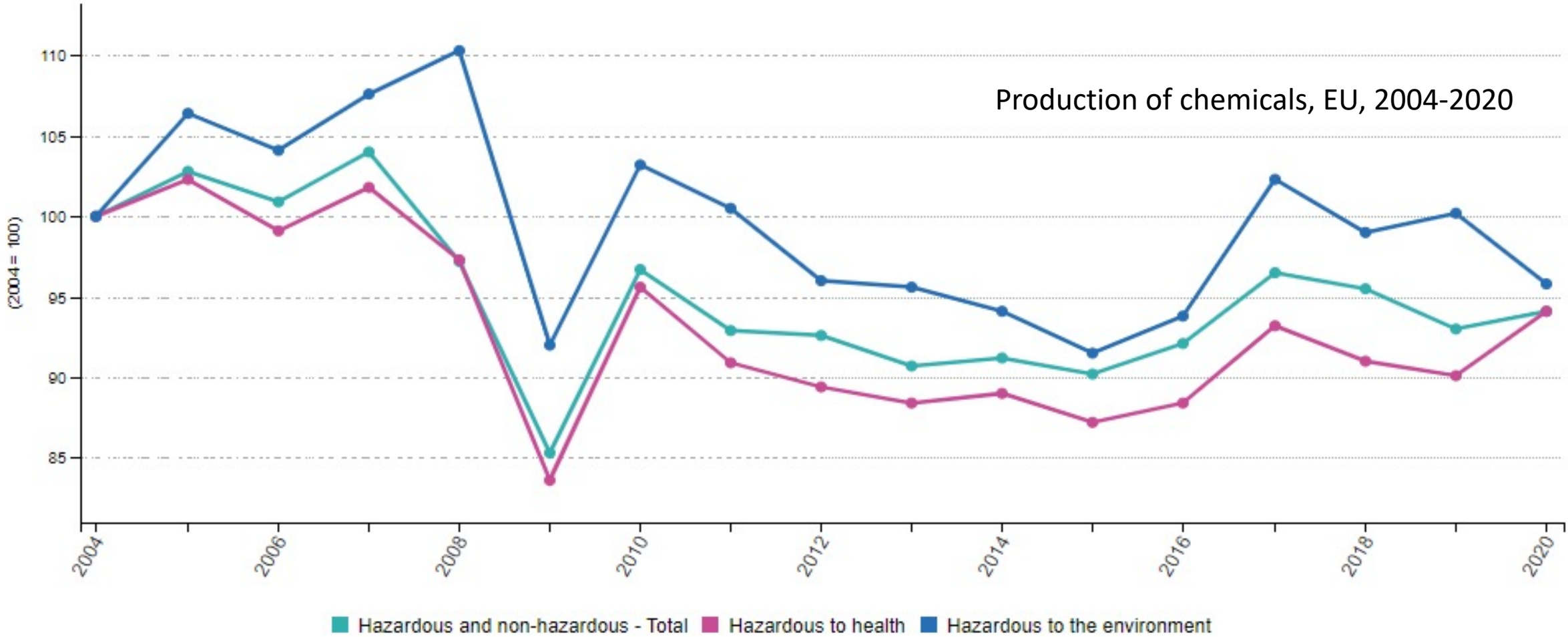


# Chemical production and releases – beyond planetary boundaries



[Persson et al, 2022](#)

# Chemicals hazardous to health on the rise in Europe in recent years



Note: the y-axis is cut.

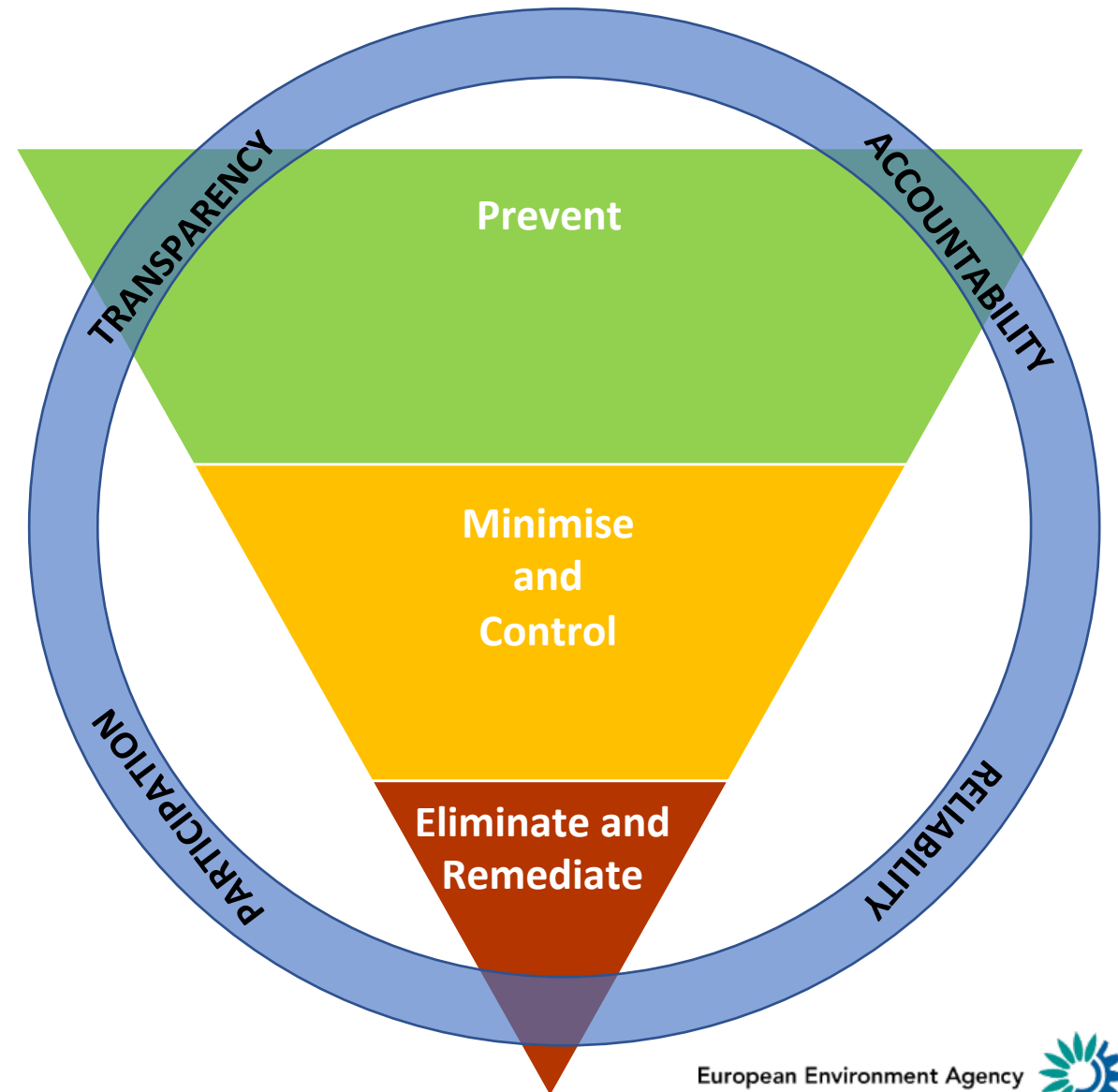
Source: Eurostat (online data code: env\_chmhaz)

# Building resilience, improving health, reducing inequality



# Zero Pollution: prevention is better than cure

- Integrated approach to addressing environmental issues
- Knowledge based actions and policies
- Addressing inequalities
- Use of digitalisation
- Addressing Global issues



# The Green Deal: Zero pollution objectives across the board

- First **climate-neutral** continent
- **Biodiversity** Strategy 2030
- New **Circular Economy** Action Plan
- **Zero pollution** strategy
- **Farm to fork** strategy
- **Just transition**
- **Sustainable** European **Investment** Plan
- Future ready economy – new **industrial strategy**

**Health  
concerns as  
connected/ting  
priority**





**Thank you**

**Hans Bruyninckx | 2<sup>nd</sup> Zero Pollution Stakeholder Platform | 25 April 2022**



# European Cancer Inequalities Registry

2<sup>nd</sup> meeting of the Zero Pollution Stakeholder Platform

25 April 2022

*Christine Redecker, DG SANTE.C2*

# The EU Cancer Inequalities Registry



*“will identify trends, disparities and inequalities between Member States and regions. Alongside regular qualitative assessments of the country-specific situation, the Registry will identify challenges and specific areas of action to guide investment and interventions at EU, national and regional level under Europe’s Beating Cancer Plan.”*

- *Not a monitoring tool for the Cancer Plan*
- *Not restricted to socio-economic inequalities*



# Main Outputs



## LAUNCHED FEB 2022 Data tool of the Cancer Inequalities Registry

- functions as the front end of the Cancer Inequalities Registry
- Currently brings together data from EUROSTAT and will include data from the European Cancer Information System (ECIS), and other sources
- This work is done in collaboration with JRC

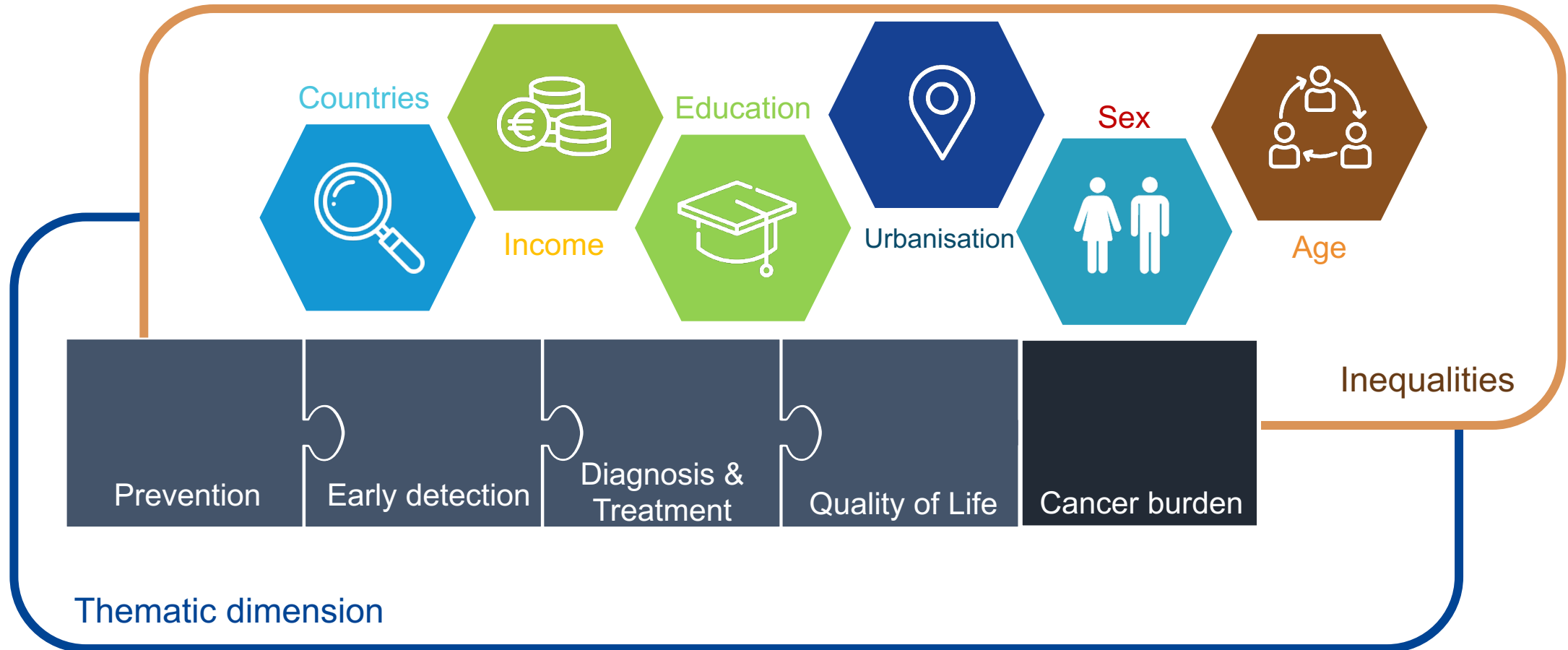
## AS FROM END OF 2022 Biennial country profiles

- trends and inequalities in cancer care in each EU Member State
- This work is done in collaboration with OECD

## AS FROM END OF 2023 Biennial horizontal reports

- trends and inequalities in cancer care across Europe
- This work is done in collaboration with OECD

# The data tool



# The core of the data tool

Data tool <https://cancer-inequalities.jrc.ec.europa.eu>



## Explore indicators

What States and/or Regions are doing better in cancer prevention, screening and care? See maps and graphs that clearly present indicators related to cancer, revealing existing inequalities.



## Compare indicators

Which indicators are the main sources of inequalities? Select multiple indicators and compare data among countries.

**Other data sources**

# Explore indicators by country

## Inequality dimensions

Select inequality dimension

Inequalities between countries

## Europe's Beating Cancer Plan pillars

Select indicator

Particulate matter 2.5

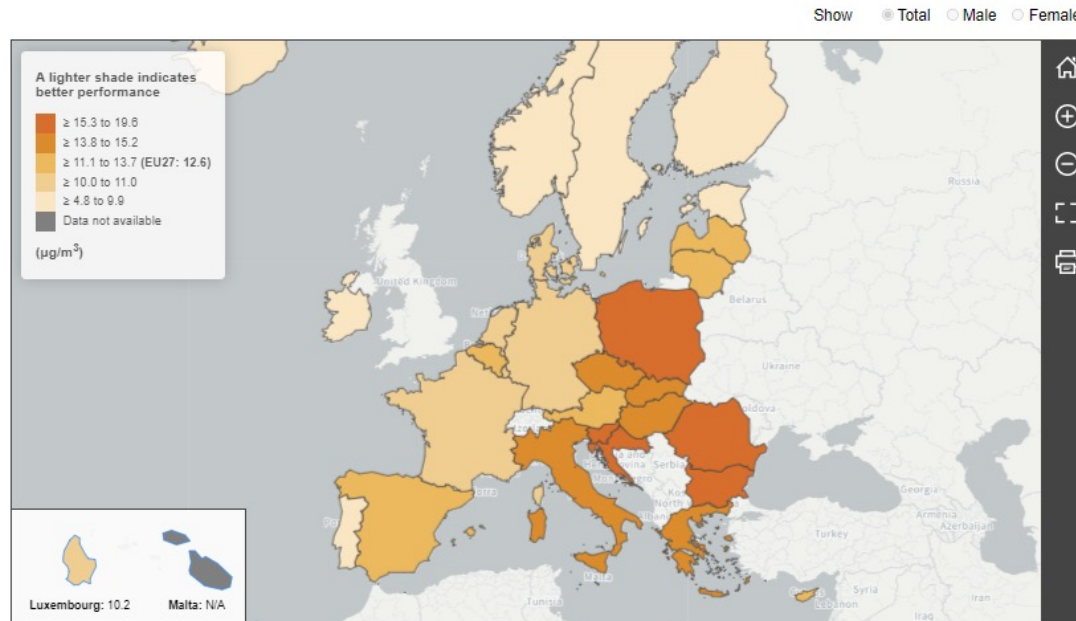
### Particulate matter 2.5

The indicator measures the population weighted annual mean concentration of particulate matter 2.5 (PM 2.5) at urban background stations in agglomerations.

Particulate matter is a major component of ambient air pollution. Outdoor air pollution has been linked to lung cancer (IARC-WHO).

Fine particulates (PM2.5) are those whose diameter is less than 2.5 micrometers and are a subset of the PM10 particles. Their deleterious health impacts are more serious than PM10 as they can be drawn further into the lungs and may be more toxic.

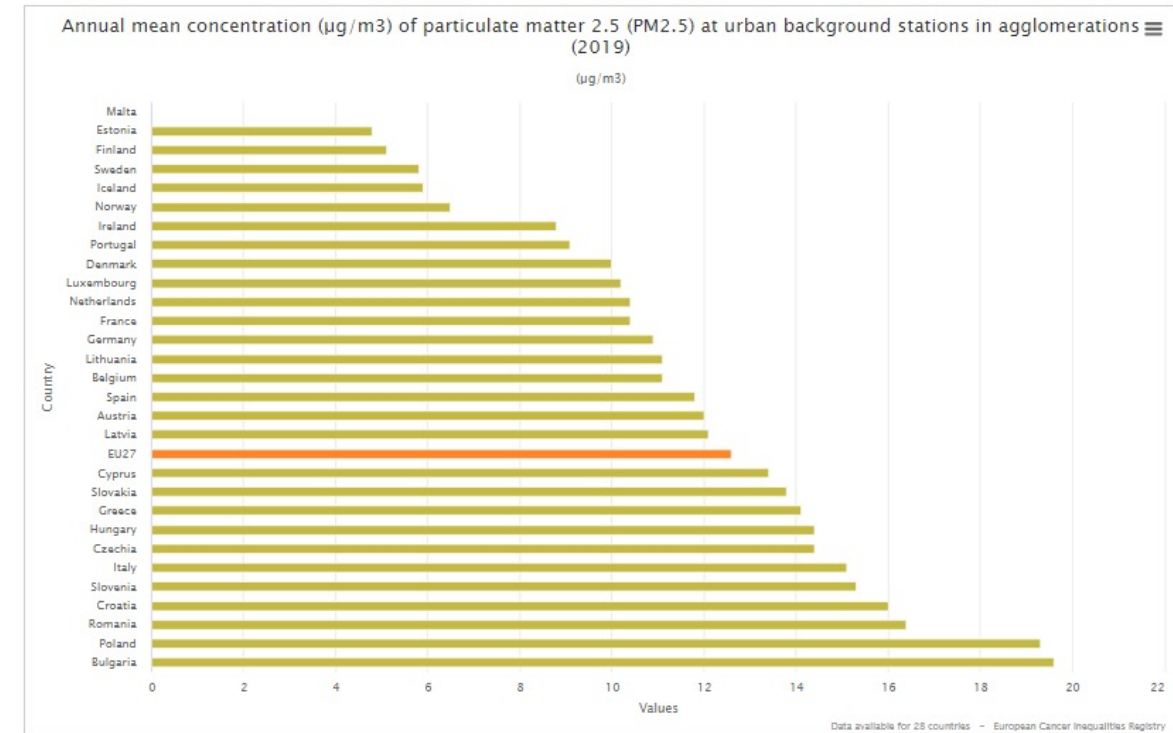
### Annual mean concentration ( $\mu\text{g}/\text{m}^3$ ) of particulate matter 2.5 (PM2.5) at urban background stations in agglomerations (2019) by country



Webtools + Leaflet | © OpenStreetMap contributors © GISCO Credit: EC-GISCO, © EuroGeographics © UN-FAO for the administrative boundaries | Disclaimer

28 values displayed

The shade of colour relates to the ranking of the data, according to the data range for each indicator in five categories. The countries coloured with the lightest shade were among the 20% of highest-performing countries for a given indicator in terms of cancer inequality.



Data table

Link to data: <https://ec.europa.eu/eurostat/databrowser/bookmark/18e2ef88-c360-4d6f-81c2-60adde775ebf?lang=en>

Link to metadata: [https://ec.europa.eu/eurostat/cache/metadata/en/sdg\\_11\\_50\\_esmsip2.htm](https://ec.europa.eu/eurostat/cache/metadata/en/sdg_11_50_esmsip2.htm)

Time frequency: Annual

Unit of measure: ( $\mu\text{g}/\text{m}^3$ )

#### Data source and collection:

The data is measured and collected under the Air Quality Framework Directive.

The directive determines rules for the measurements and ensures accuracy of the data.

Data provider: European Environment Agency (EEA) assisted by the Topic Centre on Air Pollution and Climate Change Mitigation (ETC/ACM), based on the annual submissions of Member States measured concentrations (Air Quality e-Reporting (EEA)).

The indicator is updated annually.

Data comparability between EU Member States, and the other presented countries is limited due to Europe-wide differences regarding locations as well as classification of background stations and measuring methods. This has implications in terms of quality of the national monitoring station network. Therefore comparisons across countries are not straightforward.

# Explore indicators by sex/education/employment/urbanisation



## Data tools - Explore indicators by educational attainment level

### Inequality dimensions

Select inequality dimension

Education inequalities

### Europe's Beating Cancer Plan pillars

Select indicator

Smoking

### Country

Select countries to display

EU27, Belgium, Bulgaria, Czechia, De

## Smoking

The indicator presents the proportion of people who smoke (manufactured and hand-rolled) cigarettes daily.

Smoking is the biggest preventable risk factor for cancer, causing at least 15 different cancer types.

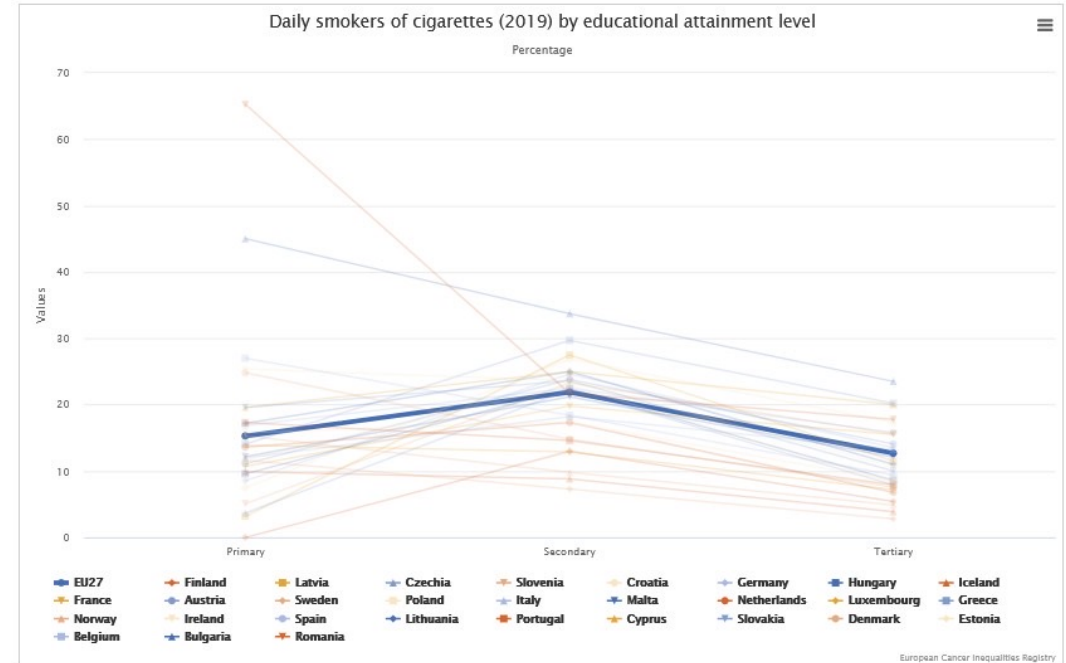
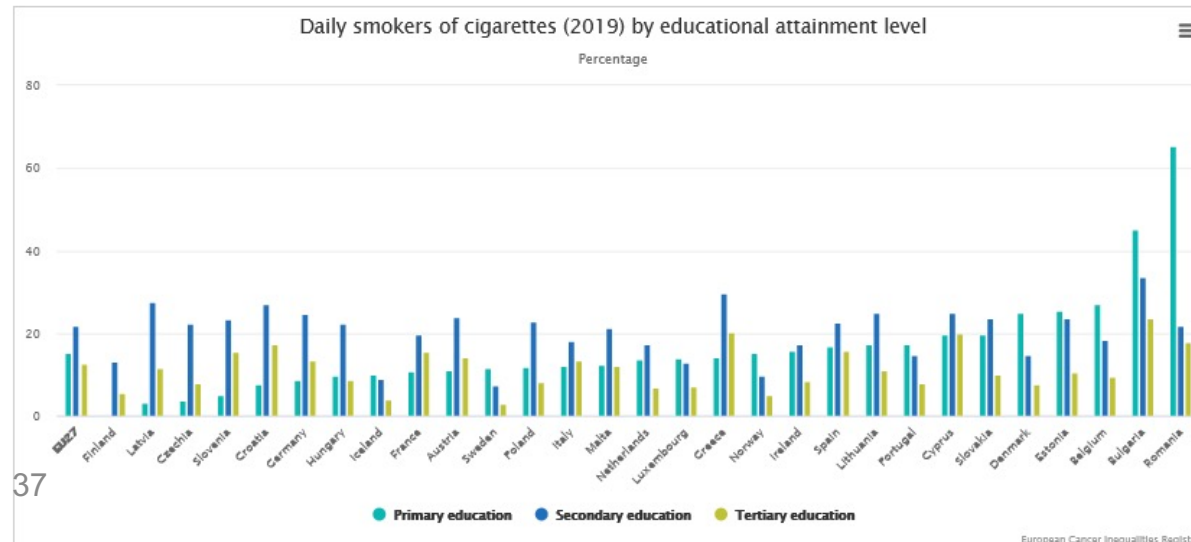
Both the number of cigarettes a day and the lifetime duration of smoking increase cancer risk

(European Code Against Cancer).

You can find out more about this risk factor [here](#).

Sort by Primary Secondary Tertiary Min diff. Max diff.

Diff refers to the minimum or maximum difference between the extreme values of the selected indicator for each country



Educational attainment level: the education attainment levels of individuals are classified according to the International Standard Classification of Education (ISCED) into 3 categories:

- "Primary education" refers to less than primary, primary and lower secondary education
- "Secondary education" refers to upper secondary and post-secondary non-tertiary
- "Tertiary education" refers to tertiary education

Data table

# Explore indicators by sex/education/employment/urbanisation



## Inequality dimensions

Select inequality dimension

Education inequalities

## Europe's Beating Cancer Plan pillars

Select indicator

Smoking
  Obesity
  Fruit & vegetables consumption
  Alcohol consumption
  Physical inactivity
  Breast examination by X-ray
  Cervical smear test
  Colorectal cancer screening
  Colonoscopy

## Inequalities matrix by educational attainment level

Most disadvantaged population group displayed



The matrix displays the disadvantaged population group for education dimension by indicator and country.

# Compare indicators by country



## Data tools - Compare indicators by country

Compare inequalities in cancer prevention and care across Europe and related population groups. Start by selecting the inequality dimension. Then remove/add indicators you wish to display.

The grey colour indicates the data is unavailable for that particular country.

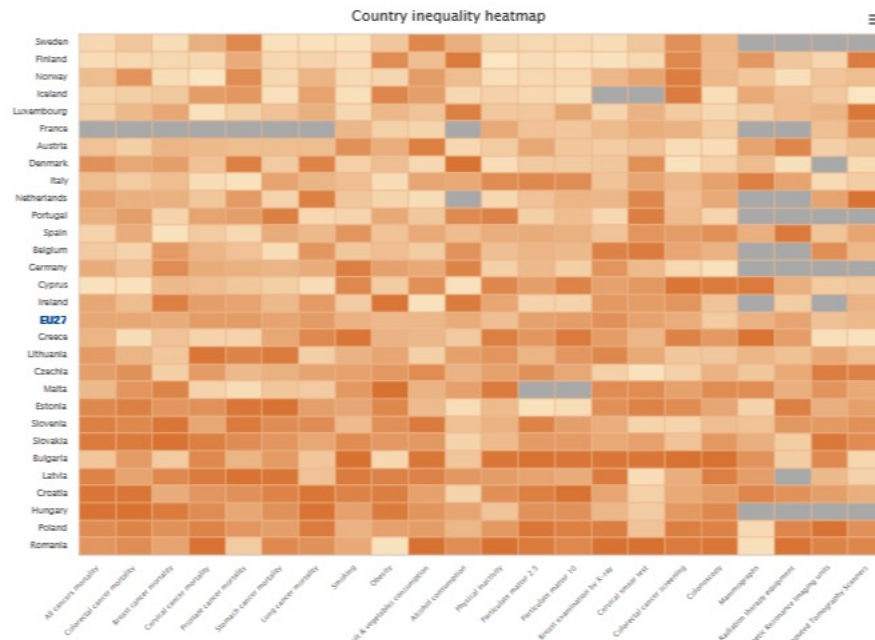
**Inequality dimensions**  
Select inequality dimension

Inequalities between countries

**Europe's Beating Cancer Plan pillars**  
Select indicator

- All cancers mortality
- Colorectal cancer mortality
- Breast cancer mortality
- Cervical cancer mortality
- Prostate cancer mortality
- Stomach cancer mortality
- Lung cancer mortality
- Smoking
- Obesity
- Fruit & vegetables consumption
- Alcohol consumption
- Physical inactivity
- Particulate matter 2.5
- Particulate matter 10
- Breast examination by X-ray
- Cervical smear test
- Colorectal cancer screening
- Colonoscopy
- Mammographs
- Radiation therapy equipment
- Magnetic Resonance Imaging units
- Computed Tomography Scanners

Country



The “heatmap” chart displays countries performance, from top (best performing) to bottom (lowest performing).

The orange shade indicates country performance, the lighter the shade, the better the country performs (for that given indicator) in terms of cancer inequality.

Indicators

# Compare Indicators: PM2.5 and PM10



## Inequality dimensions

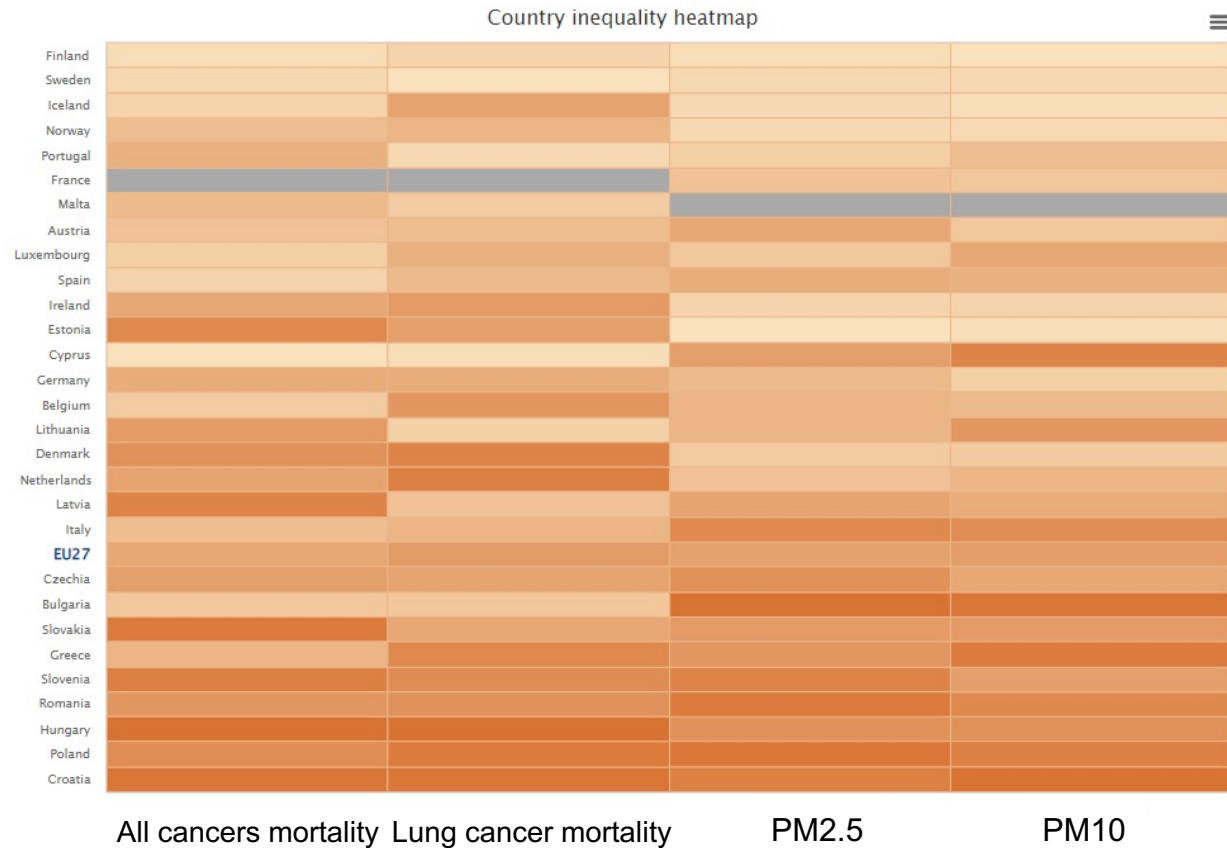
Select inequality dimension

Inequalities between countries

## Europe's Beating Cancer Plan pillars

Select indicator

All cancers mortality
  Lung cancer mortality
  Particulate matter 2.5
  Particulate matter 10



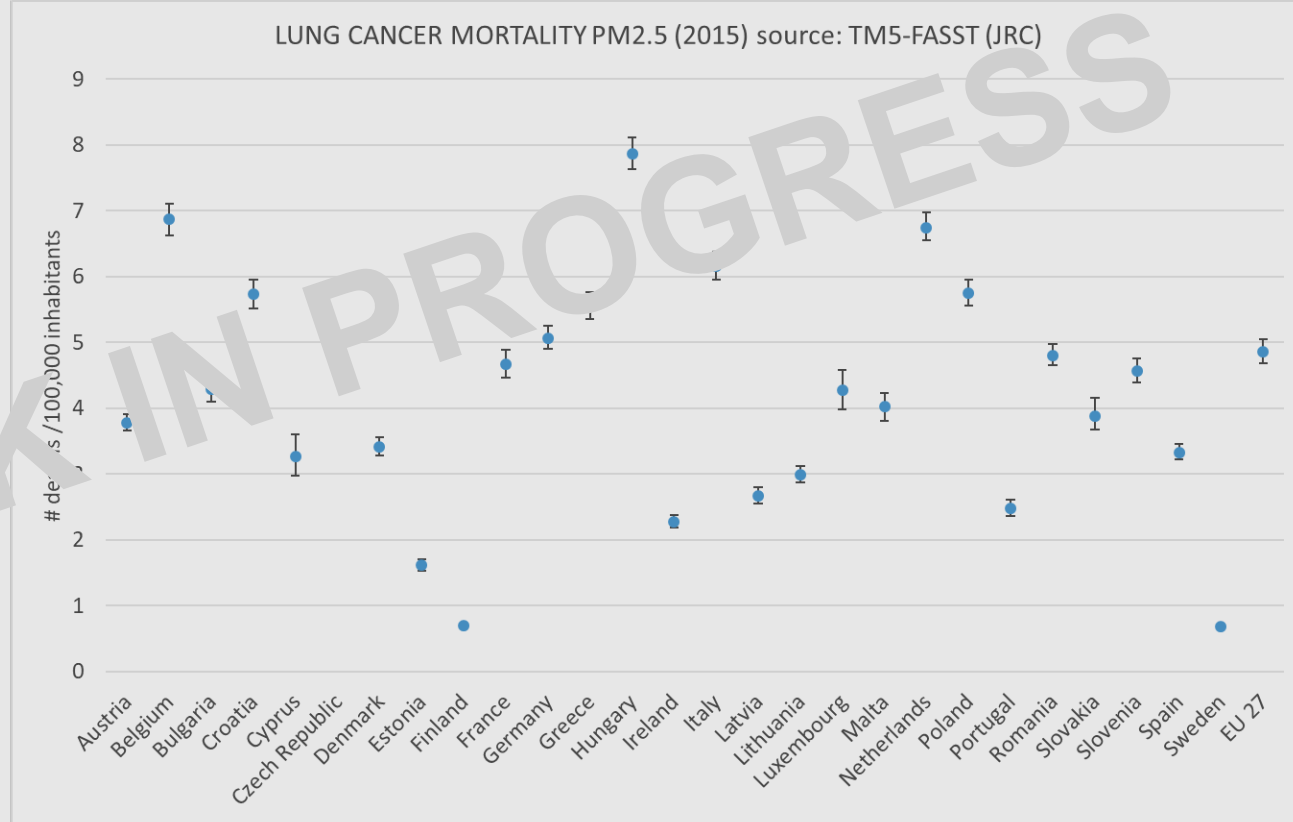
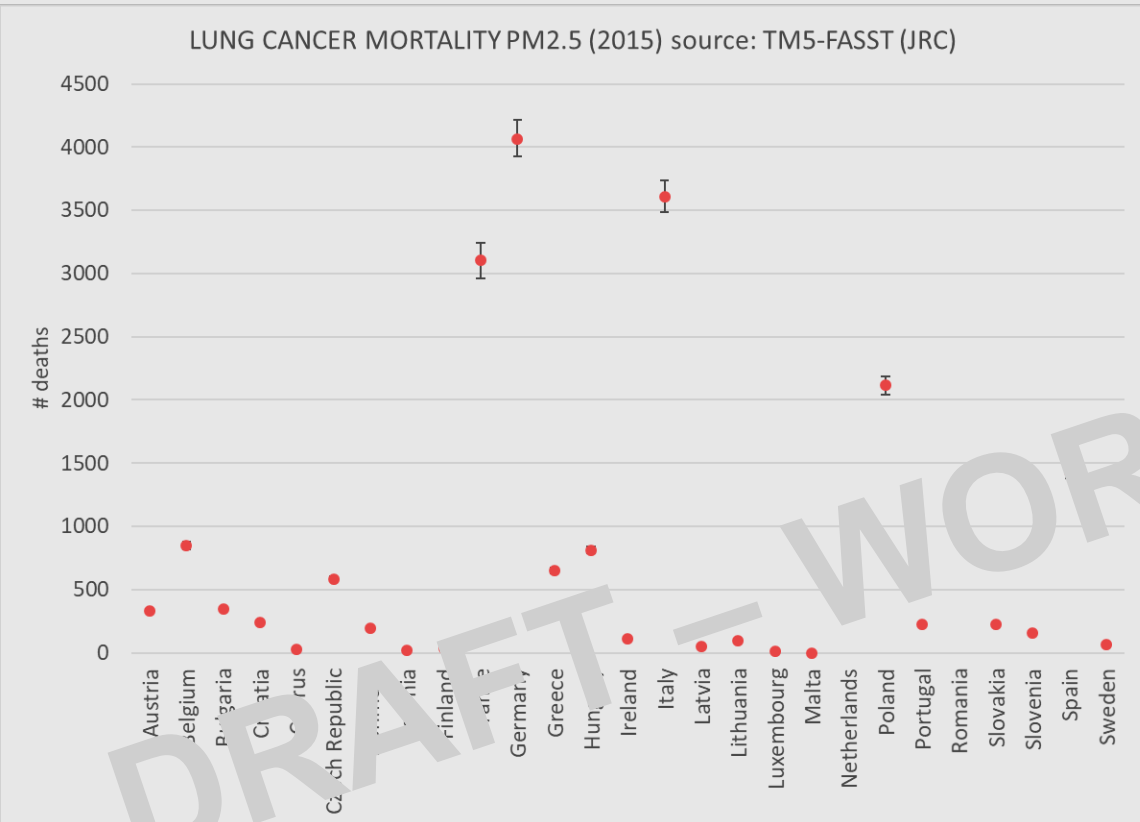
Countries with low PM2.5 and PM10 emissions and low cancer mortality

Contrary to trend

Countries with high PM2.5 and PM10 emissions and high cancer mortality



# In the future...



# Thank you



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# Exchange of views

- How can we strengthen the synergies between health prevention and zero pollution policies?
- How can the Platform help implement better integration of pollution and health data?



# Feedback & Conclusions



# Lunch Break

We'll reconvene at 14:00!



# Towards Zero Pollution from production and consumption

14-15:15



# Proposals for the Sustainable Product Initiative

2<sup>nd</sup> meeting of the Zero Pollution Stakeholder Platform – 25.4.2022

*\*This is a summary presentation and does not represent the official views of the European Commission*

# Circular Economy package adopted on 30 March 2022

- Chapeau Communication *'on making sustainable products the norm'*
- Proposal for a Regulation on Ecodesign for Sustainable Products (ESPR)
- Ecodesign and Energy Labelling Working Plan 2022-2024
- EU Strategy for Sustainable and Circular Textiles
- Proposal for a revision of the Construction Products Regulation
- Proposal to Empower Consumers in the Green Transition





# Regulation on Ecodesign for Sustainable Products (ESPR)

## Building on the Ecodesign framework

Commission

European Committee  
of the Regions

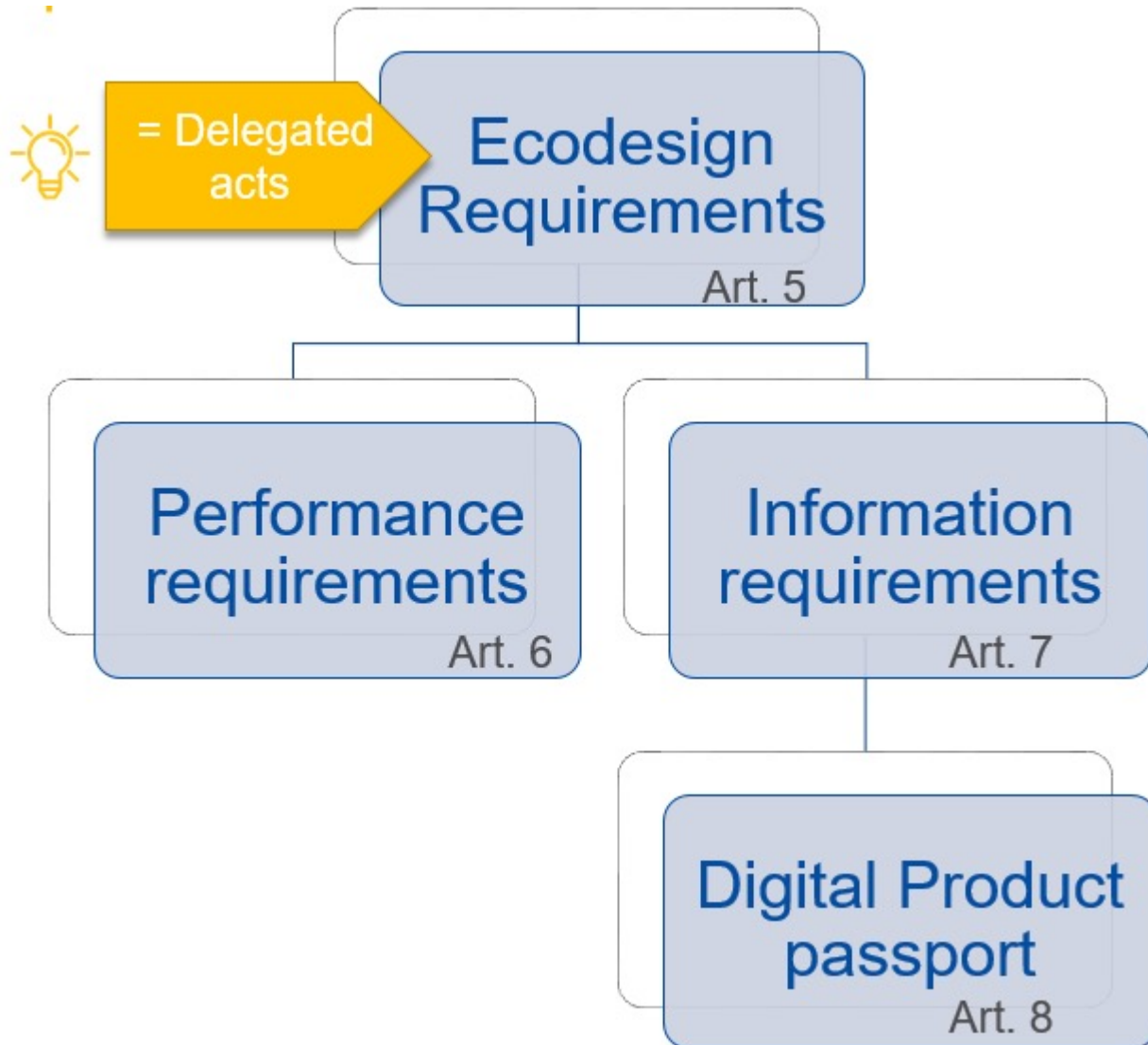
- Key features of the Ecodesign Directive approach maintained:
  - ✓ **Framework legislation:** a new Regulation on Ecodesign for sustainable products
  - ✓ Regularly updated **multiannual working plans** setting out priorities
  - ✓ **Product-specific measures** based on dedicated impact assessment



- **New features:**
  - ✓ **scope extension** beyond energy-related products
  - ✓ **new requirements** + clarification of existing requirements
  - ✓ structurally allow for **‘horizontal’ ecodesign requirements**
  - ✓ increased focus on **product information** (e.g. Digital Product Passport; labels)
  - ✓ Measures to **prevent destruction of unsold consumer goods**
  - ✓ **incentivising** best performing products
  - ✓ improved **market surveillance**



## Key Ecodesign product aspects



- **durability, reliability; reusability; upgradability;**
- **reparability; possibility of maintenance and refurbishment;**
- presence of **substances of concern;**
- **energy use or energy efficiency;**
- **resource use or resource efficiency;**
- **recycled content;**
- possibility of **remanufacturing and recycling;**
- possibility of **recovery** of materials;
- **environmental impacts**, including carbon and environmental footprint;
- expected generation of **waste** materials.

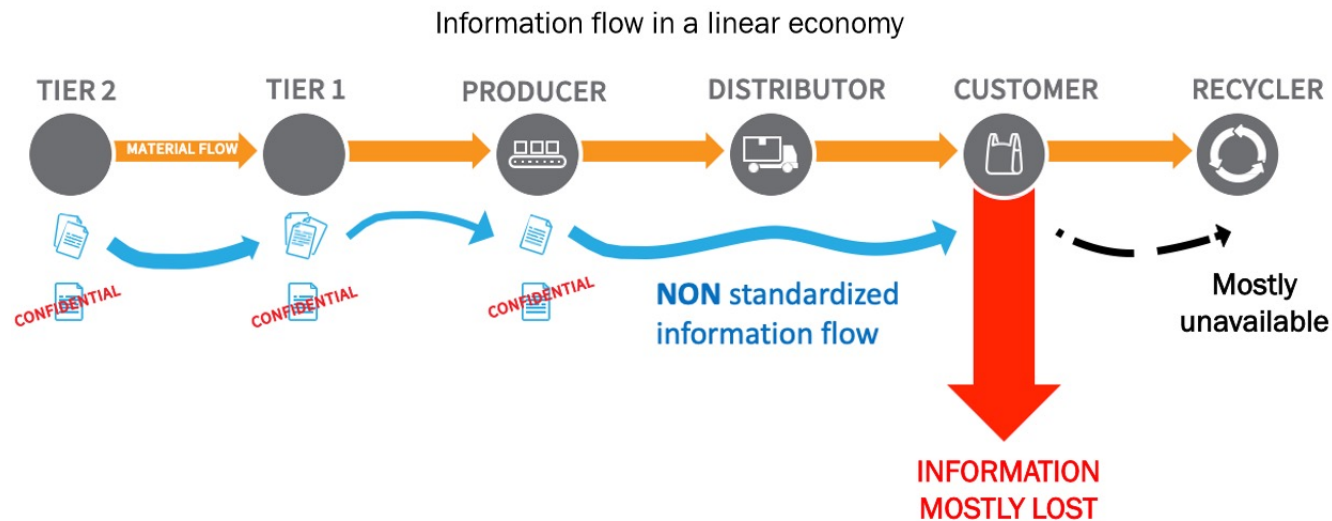
# Other tools provided in ESPR proposal

- ✓ Incentivising sustainable products, by enabling **mandatory green public procurement criteria** to be set in delegated acts for public contracting authorities to make sustainable choices when procuring products.
- ✓ Preventing the **destruction of unsold consumer goods**, including transparency requirements for those choosing to discard unsold goods, and the possibility to ban their destruction for relevant product groups.
- ✓ Reinforcing the **market surveillance and customs control** on products regulated: market surveillance implementing plans, possible targets on checks, support to common projects and investments.

# Focus on the Digital Product Passport (DPP)



European Committee of the Regions



## WHAT

*A structured collection of product related data with predefined scope and agreed data ownership and access rights conveyed through a **unique identifier***

## HOW

***Decentralised** system linked with the European Dataspace for Smart Circular Applications (EDSCA).*

## SCOPE

*Information related to sustainability, circularity, value retention for re-use/remanufacturing/recycling.*

# ESPR

## Expected outcomes (I)

Commission

European Committee  
of the Regions

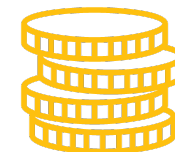


### For the environment:

- ✓ Help achieve **EU's environmental goals and SDG's**:
  - *Existing ED/EL rules estimated to have saved about 89 mtoe of primary energy use in 2020; savings set to rise to 132 mtoe by 2030.*
  - *This roughly corresponds to 150 bcm of natural gas, almost = to EU's import of Russian gas.*
- ✓ Aim to target those products on the EU market that currently generate a significant proportion of **product-related impacts**
  - *Scope gives possibility to take action on those products currently responsible for around 65% of total product-related GHG and particulate matter emission in the EU, and 70% of resource depletion.*

### For consumers:

- ✓ Better product performance and longer functionality = less need to replace = less frustration at failures and repairs & cost savings
- ✓ More informed choices via improved product information
- ✓ Continued energy savings



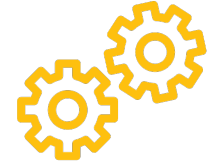
# ESPR

## Expected outcomes (II)

Commission

European Committee  
of the Regions

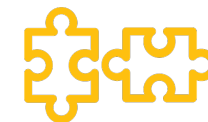
### For supply chain actors:



- ✓ Reduced material costs
- ✓ Increased competitiveness (including via reduced compliance costs associated with harmonised rules)
- ✓ Increased transparency across supply chain

### For the EU economy:

- ✓ Increased decoupling of economic activity from resource use
  - ✓ Increased circular material use
  - ✓ Reduced raw material dependencies
- = **Increased resilience**



# Thank you



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# Revision of the Industrial Emissions Directive (IED) & New Industrial Emissions Portal Regulation

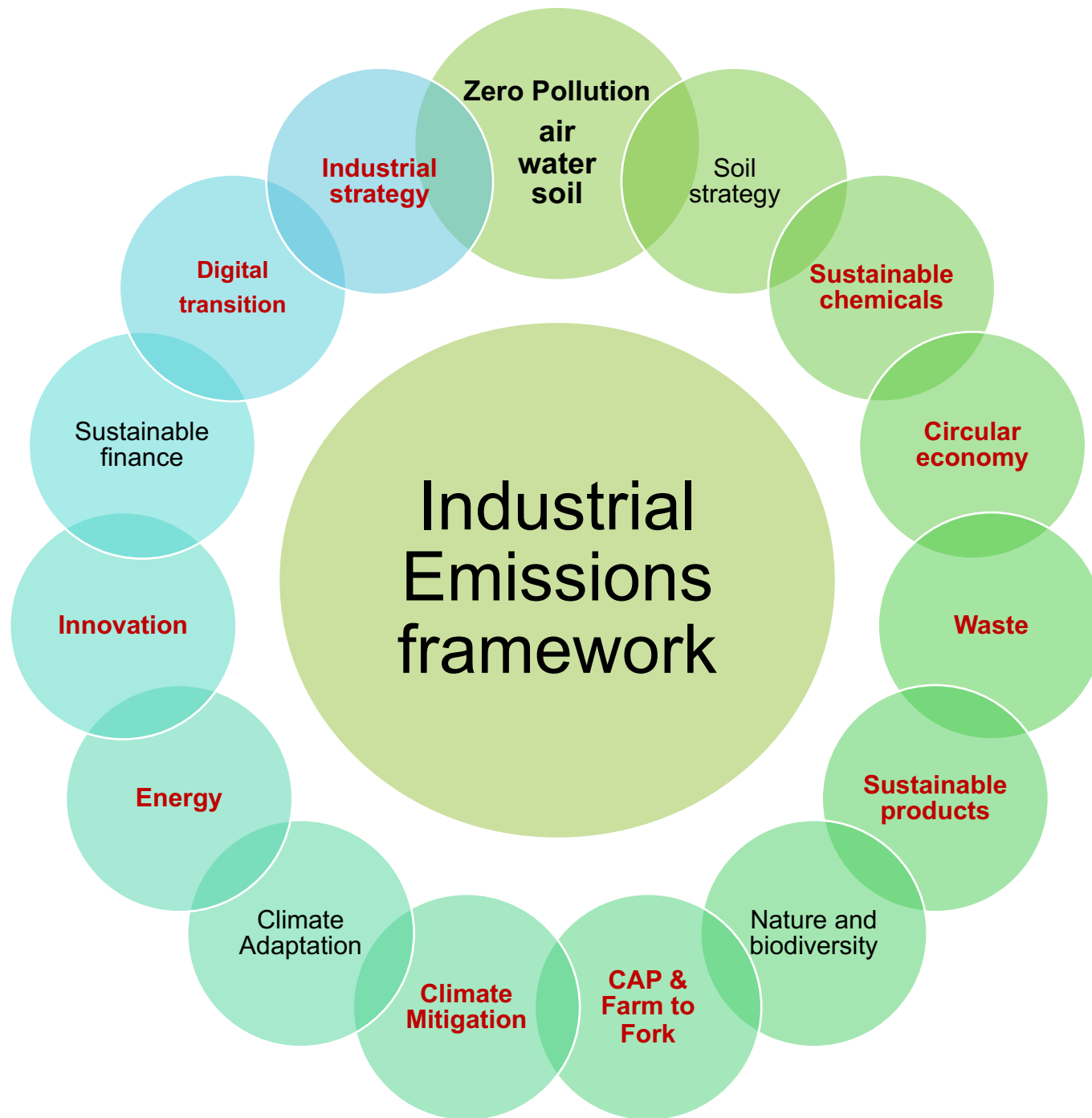
*Zero Pollution Stakeholder Platform, 25 April 2022*

# Industrial Emissions Directive (IED) Story So Far - what is it?.....



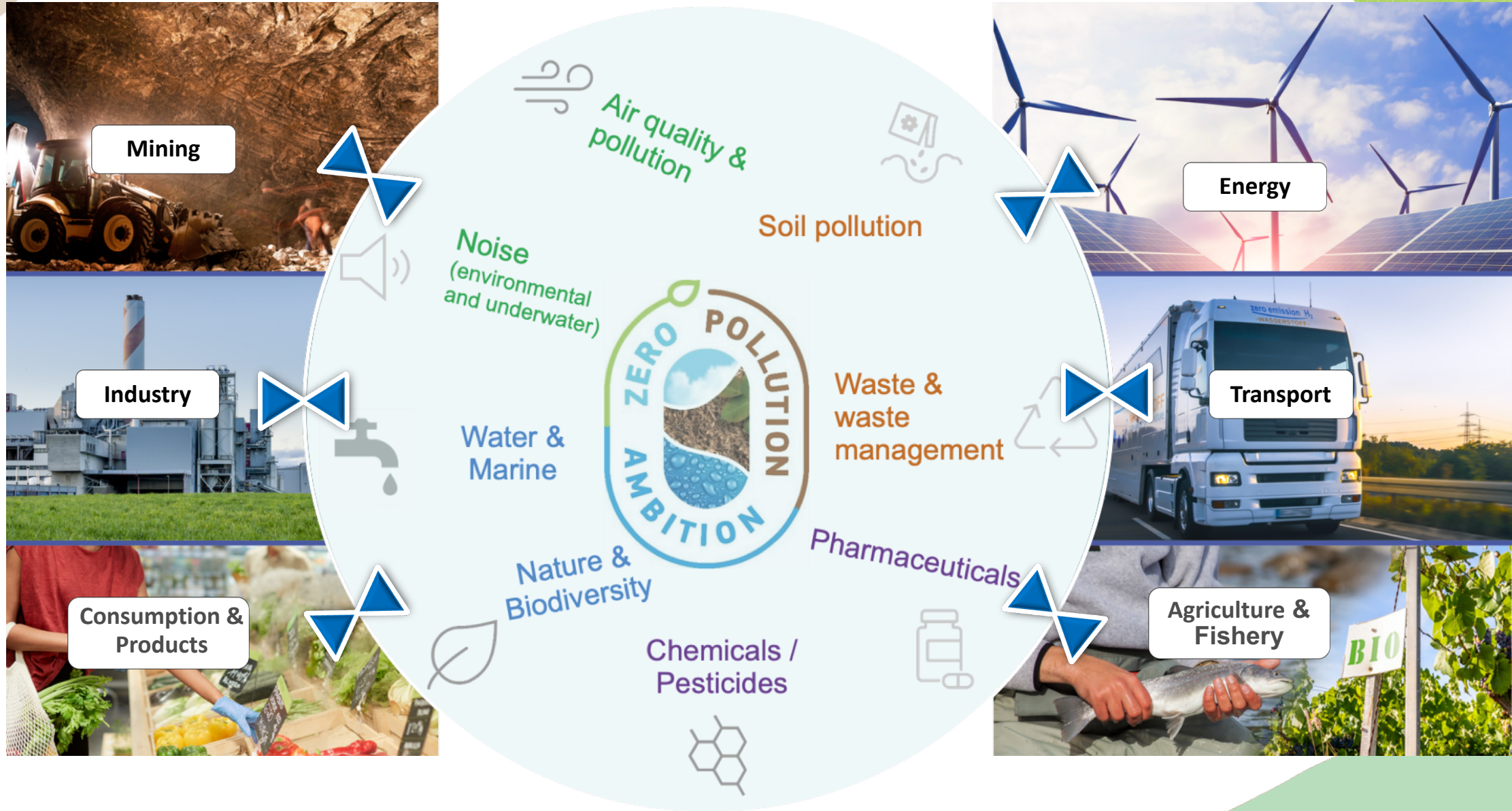
*A more complete name for the Directive might be.....*

**Pollution prevention and control of air, water and soil emissions from Europe's largest and most complex industrial sites and some large intensive livestock farms, minimising resource use (energy, materials and water), optimising process efficiency, encouraging circular economy practices, and ensuring waste prevention and control.....**



IED's integrated approach to pollution control & environmental management has strong *links* with other **European Green Deal** policies

# Zero Pollution policies – towards an integrated approach



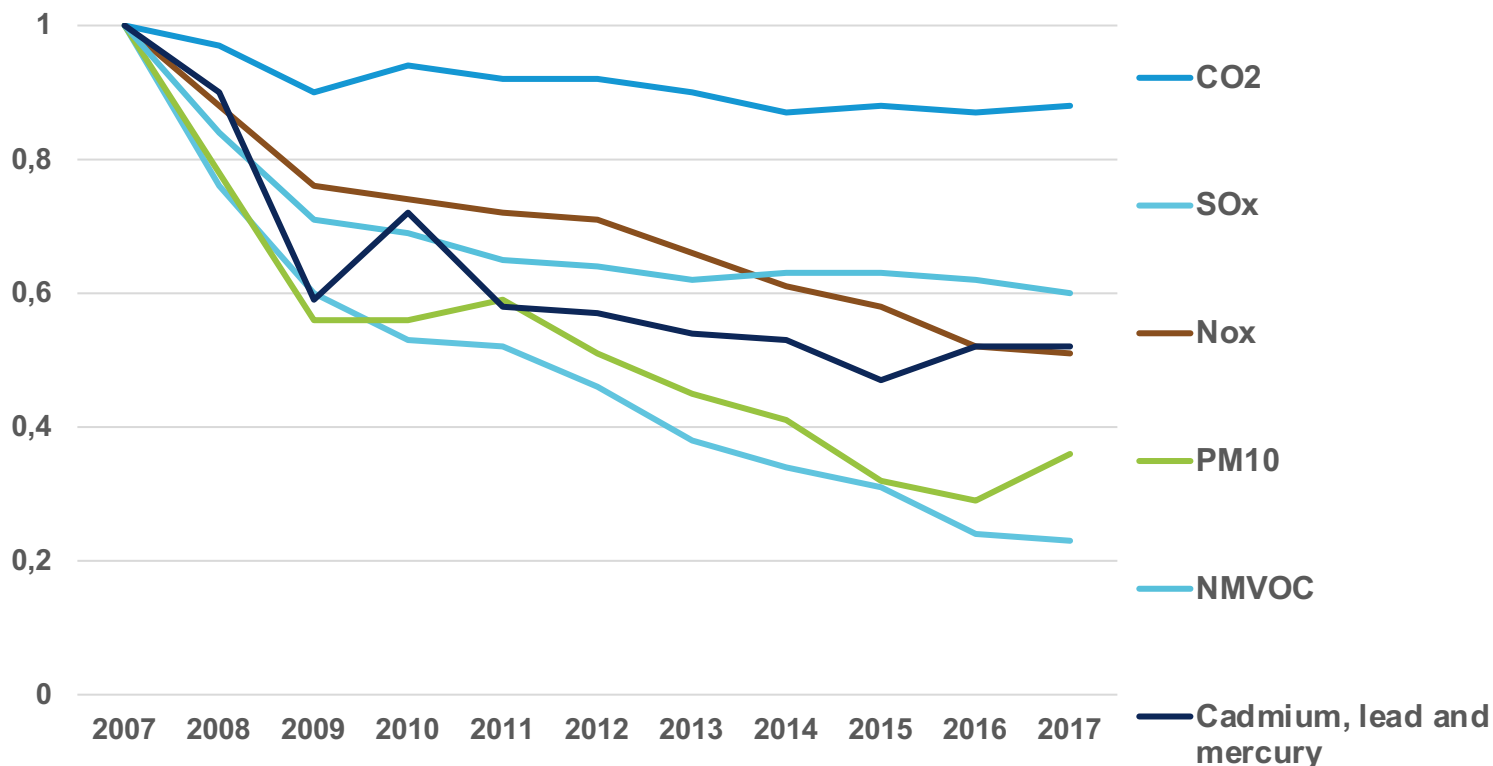
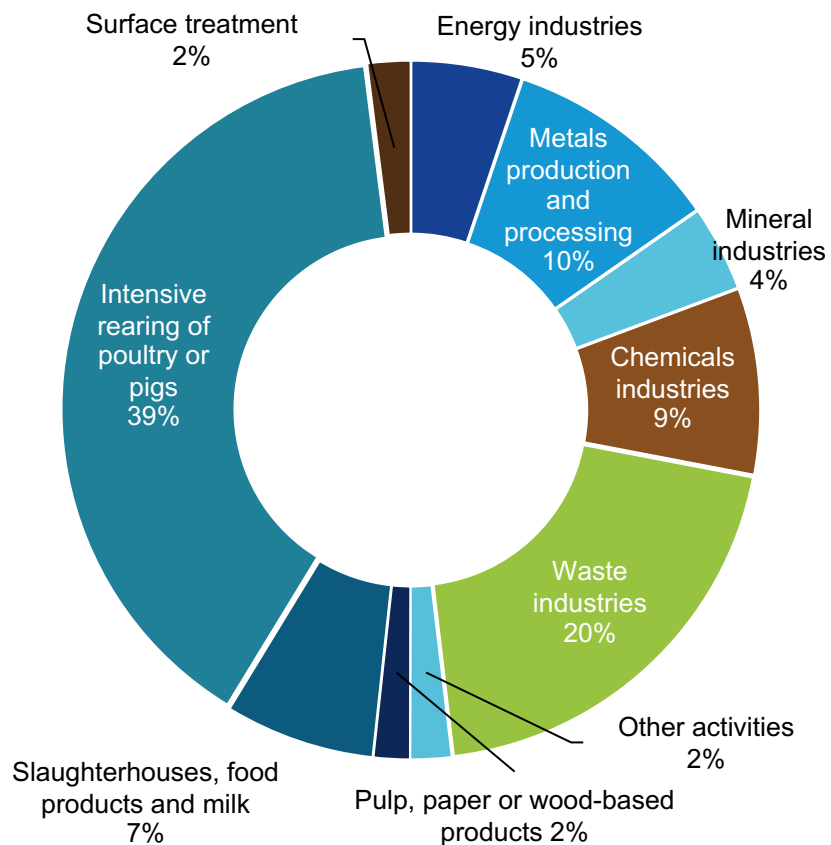
# IED TODAY – sectors covered & achievements



IED regulates over 30 000 large industrial installations and 20 000 farms

Decline in EU emissions of air pollutants by IED plant, 2007-2017: between 10% - 75%

% of installations per industry sector



# Industrial Emissions Portal (new name)



- **Was** European Pollutant Release and Transfer Register website (**E-PRTR**)
- **Plant-level data on emissions** of pollutants to air, water, soil and waste transfers – **since 2007**
- **Guarantees public access to environmental information** on industrial sites - required by the Kyiv Protocol under the Aarhus Convention
- Access via: <https://industry.eea.europa.eu/#/home>

# WHY do we need to revise the Industrial Emissions prevention & control framework



## We still have.....



Over **50%** of total emissions to air of sulphur oxides, heavy metals and other harmful substances

Around **40%** of greenhouse gas emissions



Around **30%** of nitrogen oxides and PM10 air emissions

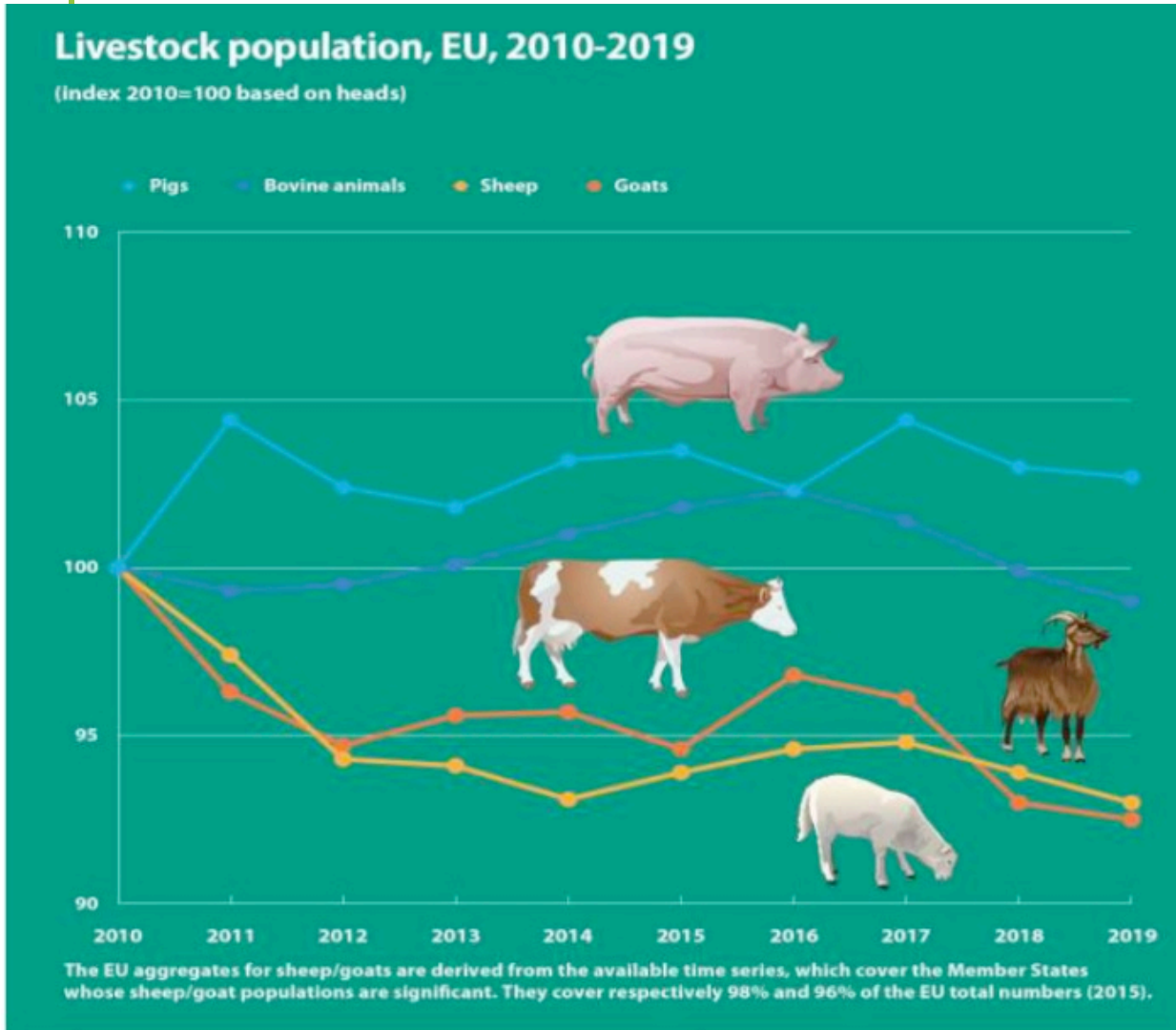
Causing damage to public health and the environment amounting to many billions of Euros every year.



## Partly because.....

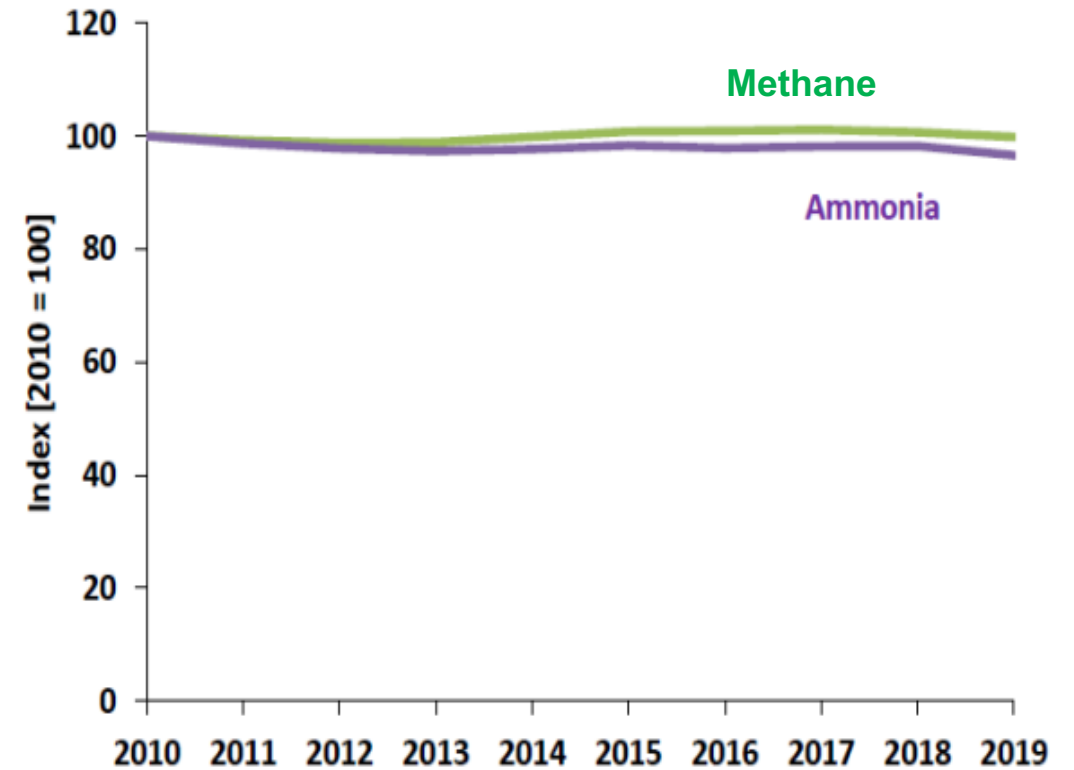
- In **80%** of industrial plant **IED permits**, Member States set the **least ambitious levels of pollutant emissions** allowable via agreed EU 'BAT'

# Why are additional livestock IED actions needed?



[ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)

EU-27 Emissions from Livestock 2010-2019. Source: EEA data





# Objectives of revised industrial emissions framework



- Make the legislation fit to accompany the **transformation of EU industry**
- Fulfills the **European Green Deal** and **Zero Pollution ambition** by:
  - Ensuring full and consistent implementation across Member States – **levelling the field at high health and environmental protection**
  - Incentivising investment in emerging more efficient pollution prevention techniques – advances in energy use, resource efficiency & water reuse
  - Enhancing rights to participate in permitting process & access to justice
  - Increasing transparency

# General overview of proposals



**To transform IED and Industrial Emissions Portal into forward-looking legislation to accompany the industrial transformation**

## 1. More effective

- Increase the ambition in permits
- More accessible information on permits and performance
- New revised Portal

## 2. Support innovation

- Flexible permitting for frontrunners
- Create INCITE to ensure latest technologies are employed
- Transformation plans

## 3. Resources & chemicals

- IED operators' EMS to improve resource efficiency, apply circular economy practices and use safer chemicals
- Report resource use

## 4. Support decarbonisation

- Curb non-ETS emissions
- Energy efficiency requirements
- IED review

**5. Scope:** widening to critical activities + simplified permits for livestock farms

# Promote innovation



- New Innovation Centre for Industrial Transformation & Emissions (**INCITE**) to:
  - Scout for worldwide emerging process techniques & clean technologies
  - Develop the IED to become more **forward-looking** and **dynamic**, to help industries and Member States to identify solutions to jointly decarbonise and reduce pollution
  - Become a hub to foster innovation for the industrial transition, linking technical and funding instruments like Horizon and the Innovation Fund, bridging EGD policies
  - Allow first-adopters to benefit from new flexible permitting arrangements, granting more time for testing and rolling out emerging techniques
- **Transformation Plans – 2030 on, hand in hand with transition technologies:**
  - Operators to show how the installation will achieve EU's 2050 zero pollution ambition, circular economy and decarbonisation aims
  - Complements Corporate Social Responsibility Directive, EU Taxonomy

# What is the approximate **timeline** for the revised IED requirements to apply?



Publication  
in OJ

Member State  
transposition



2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
------	------	------	------	------	------	------	------	------	------	------	------	------

Phased application of new requirements to all existing IED installations  
BAT & Strengthened Environmental Management Systems

Define BAT for new activities – mining, batteries etc.      New activities apply BAT

Define BAT for livestock farms      Farms apply BAT

Transformation Plans for energy intensive industries

Transformation Plans for other industries

# Thank you

*More info?*

<https://ec.europa.eu/environment/industry/stationary/index.htm>

 #EUGreenDeal



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# EXTRA SLIDES/ INFO

# Industrial Emissions Directive (IED) *how does it work?*.....

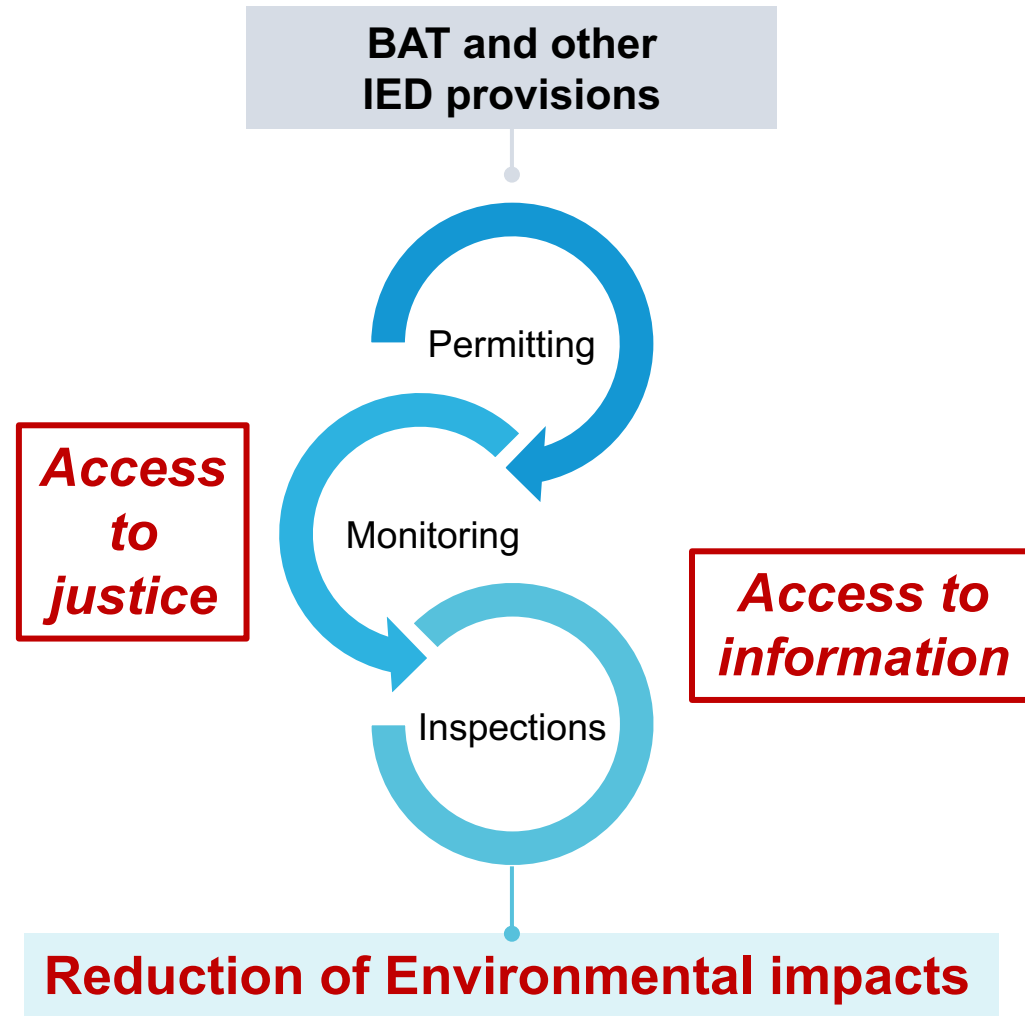


- ✓ Achieved by **EU-level agreements** (via the “**Seville Process**” of **co-creation** between Member States, NGOs and industry experts) of ‘**Best Available Techniques**’ (**BAT**)
- ✓ Applied **locally** via **IED permits** – taking into account **plant techno-economic conditions** (type of techniques used, how up-to-date etc )

# IED – Permits & Implementation on-the-ground



IED permitting directive prevents and reduces emissions from industrial sources in an **integrated way**



Implementing acts define environmental performance: **Best Available Techniques conclusions (BATC)**

Installation-specific **permit** comply with the BATC and other IED provisions



# Widened scope (1) Livestock



- IED will become a key instrument supporting Member States to address emissions of **methane** and **ammonia** from **livestock farms**:
  - **Largest 10%** cattle farms (NEW), **18%** of pig & **15%** of poultry farms now covered - with a light permitting regime - representing a **scope** cover of 62% of EU livestock emissions of ammonia and 44% of methane
  - **Overall 14% of EU livestock farms (205 k out of 1.46 million)**
  - Health benefits from above - costed at more than € 5.5 bn per year:
    - Ammonia reductions (ests.) : 12% cattle, 7% pigs, 20% poultry
    - Methane reductions(ests.) : >8% cattle, 37% pigs

# Widened scope (2) - Landfills



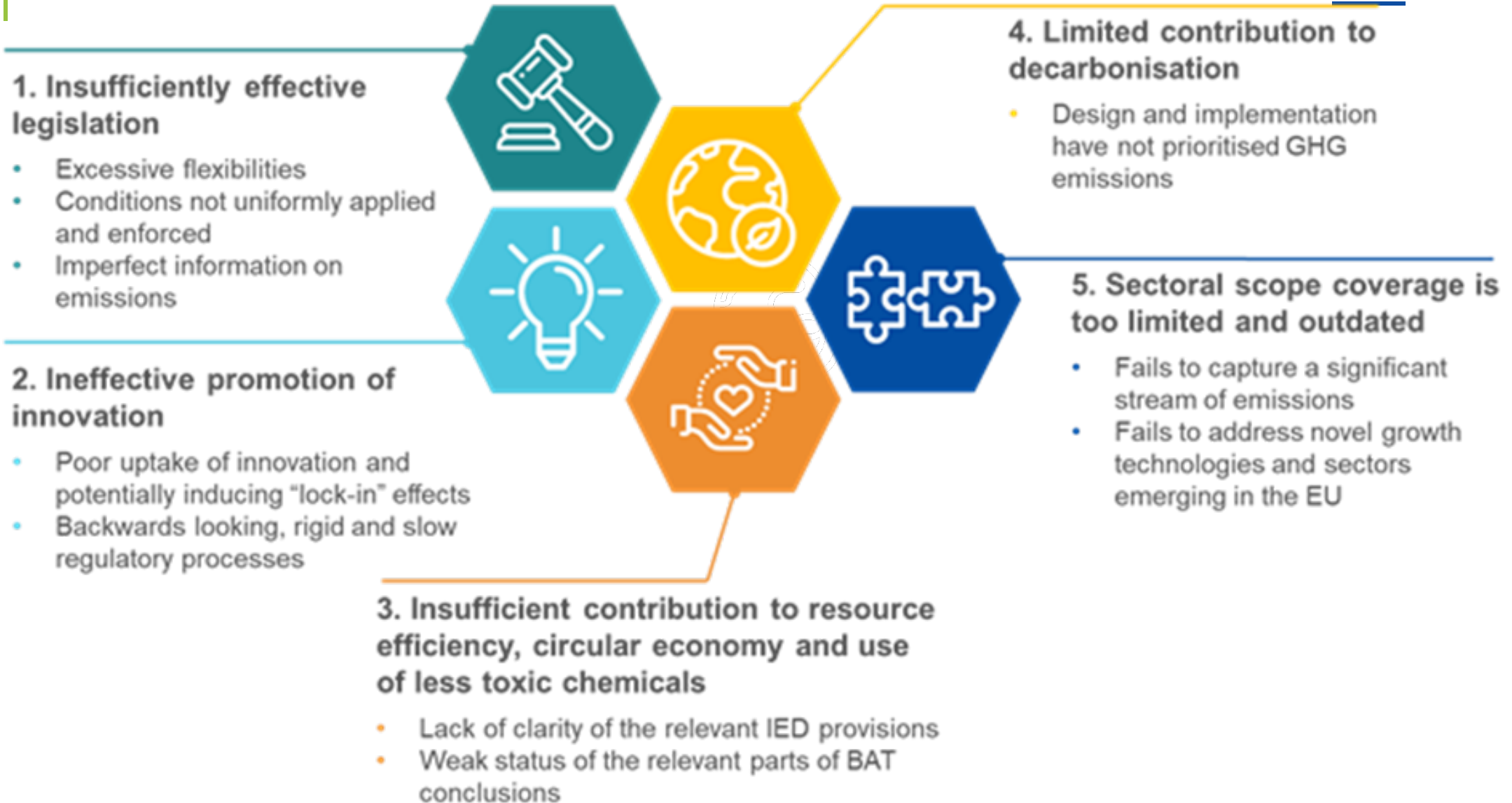
- IED Best Available Techniques will apply to **landfills** for the first time, modernising the 20+ year old requirements of the Landfill Directive, eg reducing/ capturing their high methane emissions



# Widened scope (3) e.g. Minerals, Metals, Batteries

- To support expected growth of these key activities for the Green Deal, in the most sustainable manner, addressing public concerns for such installations
  - Extraction of **industrial minerals & metals** (NB not energy-related, nor aggregates)
    - Up to 850 mines/ extraction sites may be covered
  - Large-scale **production of batteries** that will significantly expand, to secure better environmental performance
    - Between 20 – 95 factories

# Five high-level problems - current Industrial Emissions regime - tackled by NEW proposals



# The Industrial Emissions Framework - Toolbox



Supports an **integrated approach** to a **high level of protection** of human health and the environment as a whole.

- **Best Available Techniques (BAT)** – decided via the ‘Sevilla process’ at managed by the European Commission’s JRC. Sector-specific Technical Working Groups (Member States, NGOs and industry) identify best technologies, techniques and management of installations.
- **BAT conclusions** – legally binding environmental performance limit ranges, and energy efficiency and resource efficiency requirements.
- **IED permits** – issued by Member States authorities, containing the provisions with which the installation has to comply in order to be permitted to operate, eg pollutant Emission Limit Values (ELVs).

# 1. Improve effectiveness of current provisions & permits – actions in the 2020s



- **Member States** - Set more ambitious IED permit emission limit values – when revising permits & for new permits – start from considering feasibility of best performance, not legal laxest minimum allowed via BAT
- **Member States & Operators** – make permit summary publicly available (European Commission to provide format)
- **All** - Improved public participation in permitting, as required by the Compliance Committee of the Aarhus Convention
- **All - Industrial Emissions Portal** will replace E-PRTR reporting. More valuable – will report more substances, with greater consistency between IED and data from related legislation (Seveso directive, urban waste water treatment)
- **EC, All to use** – New harmonisation cost-benefit assessment required for any IED permit emissions limit derogations, with regular reviews

## 2. Promote innovation

- New **Innovation Centre for Industrial Transformation & Emissions (INCITE)** to:
  - Scout for worldwide emerging process techniques & clean technologies
  - Develop the IED to become more **forward-looking** and **dynamic**, to help industries and Member States to identify solutions to jointly decarbonise and reduce pollution
  - Become a hub to foster innovation for the industrial transition, linking technical and funding instruments like Horizon and the Innovation Fund, bridging EGD policies
  - Allow first-adopters to benefit from new flexible permitting arrangements, granting more time for rolling out emerging techniques
- **Transformation Plans** – 2030 on, hand in hand with transition technologies:
  - Operators to show how the installation will achieve EU's 2050 zero pollution ambition, circular economy and decarbonisation aims
  - Complements Corporate Social Responsibility Directive, EU Taxonomy



# 3. Contribute to resource efficiency and the circular economy



- Upgrading of the Environmental Management System already required by sector-specific 'Best Available Techniques' legal conclusions (BAT-C) :
  - Foster substitution of toxic chemicals by safer, less ecotoxic alternatives
  - Improve resource efficiency, including water reuse, to meet benchmarks set in BAT-C
  - Enhance energy efficiency by incorporating mandatory energy efficiency minimum levels, energy audits, and plans & review actions required by the Energy Efficiency Directive
- Reporting of resource use (energy, water, raw materials) so that installations can be benchmarked



# 4. Support decarbonisation – reducing greenhouse gas emissions (GHG)

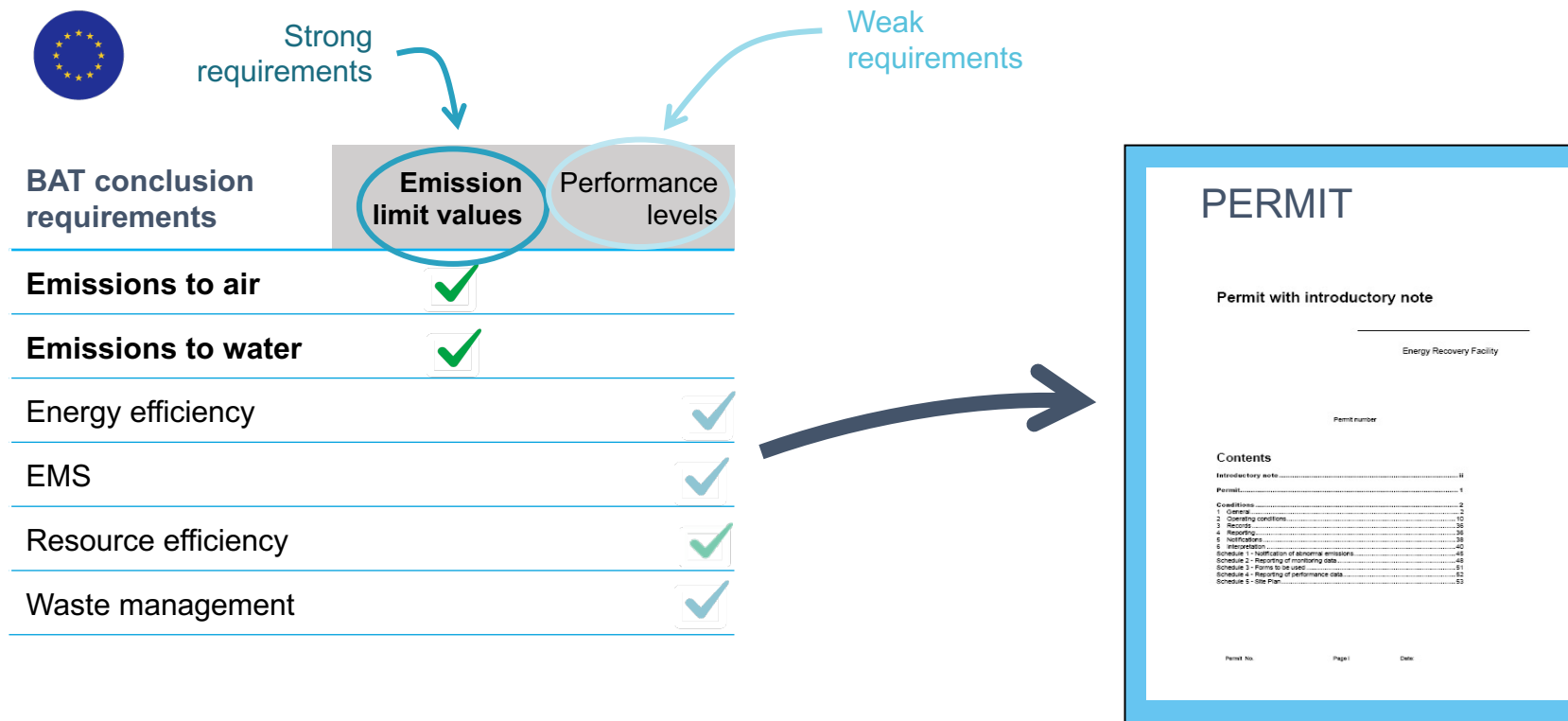


- The **EU-ETS** remains the **key instrument** regulating **GHG emissions**, where the activities and types of GHG are in its scope
- Out of ETS scope: Gases like methane, refrigerants. Activities: All livestock
- IED will support decarbonisation & one-stop-shop actions on depollution by:
  - Making energy efficiency requirements an integral part of IED permits
  - Including activities in its scope that generate significant methane emissions (eg cattle)
  - The 2028 mutual review clause between IED and ETS (already in Fit for 55 proposals) - to examine implementation of IED in the context of the Climate Law and Zero Pollution
  - Ensuring EU legislation is fit to support 2030s breakthrough technologies that both reduce emissions of GHG and pollutants overall

# BAT Conclusions

BATC define BAT and the related environmental performance to be incorporated in permits issued by Member States' competent authorities

BATC have strong legal status on emission levels, but are weaker on other aspects e.g. resource efficiency





# Zero Pollution Stakeholder Platform

Zero Pollution Pledges

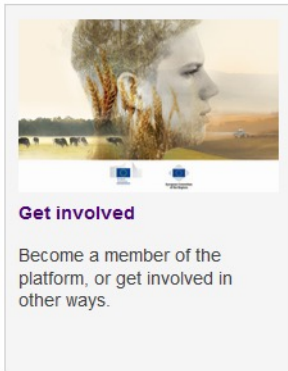
# Towards zero pollution from production and consumption

Flagship 4.  
Facilitating zero pollution choices

*“From 2022 onwards, the Commission will encourage **public and private sector operators to make ‘zero pollution pledges’** to promote best available, ‘near-zero waste’ options, and in general products and services proven to be less polluting over their whole life cycle, with a focus on **EU Ecolabel products and services**, including tourist accommodations and less toxic chemicals and materials . This will provide people with more offers and information on cleaner options.”*



# | Making a 'zero pollution pledge'



## Make a 'zero pollution pledge'

The pledges will promote the best available, 'near-zero waste' options. This means products and services that are proven to be less polluting over their whole life cycle, especially those awarded the EU Ecolabel. The aim is to provide people with more options, and clearer information on cleaner options.

Currently, there are two options:

## 1. Through the New Consumer Agenda

Through the Sustainable Consumer Pledges, companies are invited to make a voluntary pledge including a 'zero pollution pledge'.

[Get involved >](#)

### Sustainable Consumption Pledge

Voluntary cooperation with businesses to increase the sustainability of production and consumption, thereby complementing other regulatory actions.

Companies are invited to make a voluntary pledge including a 'zero pollution pledge' to support sustainable consumption, beyond what is required by law.

## 2. Through the Climate Pact

Interested in making a pledge? The European Climate Pact can help you!

[Get started >](#)

European Climate Pact

[Home](#) [About](#) [News](#) [Ambassadors](#) [Young people](#) [Pledges](#) [Resources](#) [Events](#)

[European Commission](#) > [European Climate Pact](#) > [Pledges](#) > [Organisation and group pledging](#)

### Organisation and group pledging



# | Creating synergies with Ecolabel



By choosing products bearing the EU Ecolabel, consumers are:

- given the chance to make an educated purchasing decision and opt for products that really contribute to fighting pollution
- encourage innovation and business opportunities
- choosing products with strict limits which help limit harmful emissions along the entire product's production chain, thus preventing pollution

**How the EU Ecolabel is contributing to the Zero Pollution Action Plan**



# Promoting update and looking for improvements

- The participants of the Stakeholder Platform are encouraged to make ‘zero pollution pledges’ and / or help promote them while also promoting awareness and uptake of the EU Ecolabel.
- The Commission will analyse the update and the current monitoring system under the various pledging initiatives with the view to further improve and refine them.
- The Stakeholder Platform will discuss the update and possibilities for strengthening the ‘zero pollution pledges’ in a future meeting (in 2023)





- ✓ [Making a 'zero pollution pledge' through the Climate Pact](#)
- ✓ [Making a 'zero pollution pledge' through the Sustainable Consumption Pledge](#)



## Contact us

[ENV-ZERO-POLLUTION@ec.europa.eu](mailto:ENV-ZERO-POLLUTION@ec.europa.eu)

[zero.pollution.stakeholders@technopolis-group.com](mailto:zero.pollution.stakeholders@technopolis-group.com)

[https://ec.europa.eu/environment/zero-pollution-stakeholder-platform\\_en](https://ec.europa.eu/environment/zero-pollution-stakeholder-platform_en)







# Exchange of views & conclusions



# Feedback



# Conclusion



# Information Points - Fostering research and innovation for zero pollution

15:15-16



# Markku Markkula

Rapporteur



# R&I for Zero Pollution

*Zero Pollution Stakeholder Platform,  
25/04/2022*

Manfred Rosenstock, Deputy Head of Unit, DG ENV A.3

**SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND**

*Exclusive focus on defence research & development*

Research actions

Development actions

**SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT\***

*Exclusive focus on civil applications*



**Pillar I  
EXCELLENT SCIENCE**

- European Research Council
- Marie Skłodowska-Curie
- Research Infrastructures



**Pillar II  
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS**

Clusters

1. Health
2. Culture, Creativity & Inclusive Society
3. Civil Security for Society
4. Digital, Industry & Space
5. Climate, Energy & Mobility
6. **Food, Bioeconomy, Natural Resources, Agriculture & Environment**

Joint Research Centre



**Pillar III  
INNOVATIVE EUROPE**

- European Innovation Council
- European Innovation Ecosystems
- European Institute of Innovation & Technology\*

**WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA**

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

Fusion

Fission

Joint Research Center

# How Horizon Europe clusters contribute to zero pollution



Horizon Europe Pillar II Clusters		Relevant 'zero pollution' aspects
1	Health	<ul style="list-style-type: none"> <li>• Impacts of environmental degradation on human health</li> </ul>
2	Culture, Creativity & Inclusive Society	
3	Civil Security for Society	
4	Digital, Industry & Space	<ul style="list-style-type: none"> <li>• Sustainable, responsibly sourced supply of raw and critical raw materials</li> </ul>
5	Climate, Energy & Mobility	<ul style="list-style-type: none"> <li>• Impacts of mobility and energy generation on air quality, ecosystems &amp; biodiversity (including noise pollution)</li> </ul>
6	Food, Bioeconomy, Natural Resources, Agriculture & Environment	<ul style="list-style-type: none"> <li>• Prevention from and removal of pollution (in water &amp; marine, soil and air)</li> </ul>



# From expected impacts to destinations in Cluster 6...



## Strategic Plan

**Impact 1** Climate neutrality and adaptation to climate change

**Impact 2** Preservation and restoration of biodiversity and ecosystems

**Impact 3** Sustainable and circular management of natural resources; tackling pollution; bioeconomy

**Impact 4** Food and nutrition security for all from sustainable food systems from farm to fork

**Impact 5** Balanced development of rural, coastal and urban areas

**Impact 6** Innovative governance models enabling sustainability, environmental observation

## Work Programme 2023-2024

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

• **Destination 1:** Biodiversity and ecosystem services

• **Destination 3:** Circular economy and bioeconomy sectors  
• **Destination 4: Clean environment and zero pollution**

• **Destination 2:** Fair, healthy and environmentally-friendly food systems from primary production to consumption

• **Destination 6:** Resilient, inclusive, healthy and green rural, coastal and urban communities

• **Destination 7:** Innovative governance, environmental observations and digital solutions in support of the Green Deal



# Five Horizon Europe Missions



# Other ‘zero pollution’ R&I aspects in Horizon Europe



## European partnerships – some examples

- PARC (Partnership for Assessment of Risks from Chemicals) (Cluster 1),
- Clean Steel (Cluster 4),
- Zero-Emission Waterborne Transport; Clean Aviation; Clean Energy Transition; Clean Hydrogen; Batteries (Cluster 5),
- Water4All; Climate Neutral, Sustainable & Productive Blue Economy (Cluster 6)

## Clean air expenditure tracking

- across Horizon Europe a reporting requirement (no targets) for the EU-budget arising from the National Emissions Ceilings Directive; biodiversity and climate expenditure is also tracked

## ‘Do no significant harm’ principle

- to design projects in a way that does not significantly harm environmental objectives and to identify and mitigate potential environmental harms



# Funding opportunities



## Horizon Europe

- [Strategic Plan 2021-2024](#)
- Work Programme 2021-2022 (*amended in December 2021*):
  - [Cluster 1](#)
  - [Cluster 4](#)
  - [Cluster 5](#)
  - [Cluster 6](#)
  - [Missions](#)
- [Mission Implementation Plans](#)
- Open & upcoming calls under different clusters (Work Programme 2021-2022): [Search Funding & Tenders \(europa.eu\)](#)
- Open & upcoming Mission calls (Work Programme 2021): [Search Funding & Tenders \(europa.eu\)](#)
- Upcoming Mission calls (Work Programme 2022): expected mid-May 2022

# What is coming next?

## Work Programme 2021-2022

- Work Programme 2021-2022 amendment (Mission calls 2022): **mid-May 2022**
- Info Days on all Missions' 2022 Work Programme call topics: **17-18 May 2022**

## Work Programme 2023-2024

- Programme Committee meetings with the National Contact Points to present & discuss the Work Programme 2023-2024: **ongoing**
- Inter-Service Consultation on the Work Programme 2023-2024: **Summer 2022**
- Work Programme 2023-2024 adoption: **End of 2022**

## Strategic Plan 2025-2027

- Strategic Plan 2025-2027 adoption: **Q1 2024**

# The EU environmental foresight system - FORENV



## 3<sup>rd</sup> annual cycle 2020-2021

- **“Emerging societal, economic and environmental issues that may impact our ability to deliver a zero-pollution ambition for a toxic-free environment by 2050”**
- [Reports and communication videos](#)
- Various partners involved: European Commission, EEA / Eionet, contractor, external experts, Scientific Committee on Health and Emerging Environmental Risks / EEA Scientific Committee
- In relation to the Zero Pollution Action Plan, FORENV outputs from the last cycle will be used to:
  - Feed into the development of the zero pollution monitoring and outlook framework and the EU early warning and action system for chemicals
  - Provide input for a wider stakeholder engagement through the Zero Pollution Stakeholder Platform (Zero Pollution talk)



# Interactive session



[www.sli.do](http://www.sli.do)

**Slido code: #Zero2**

## Questions for the audience

- Which of the five Horizon Missions is most relevant for the core activities of your organization?
- Does your organization keep up to date with EU R&I projects in your area?
- What type of information/ opportunity would be useful for your organization to receive via the ZPSP in relation to R&I activities?
- Additional suggestions/comments?

## Q&A



**Thank you for your attention!**





# Information Points – Digital solutions for Zero Pollution (Flagship 7)

16-16:15

# European Network of Living Labs



Joint Working Group on  
Digital for Sustainability,  
including Zero Pollution

**European  
Network of  
Living Labs**

**Joint Working Group on  
Digital for sustainability,  
including Zero pollution**



**The role of the European Network  
of Living Labs**

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# A quick introduction



The European Network of Living Labs (ENoLL) is **the international federation of benchmarked Living Labs in Europe and worldwide**. Founded in November 2006 under the auspices of the Finnish European Presidency, the network has grown in 'waves' up to this day.

It is an international non-profit association which aims to promote and enhance user-driven innovation ecosystems, especially Living Labs.

ENoLL focuses on facilitating knowledge exchange, joint actions and project partnerships among its historically labelled (about 500) members, promoting the establishment of new living labs and enabling their implementation worldwide.

The certification and labelling of ENoLL Members guarantees the integrity and the coherence of the application of the Living Lab methodology, contributing to consolidate the role of Trust Brokers of the Living Labs with their communities.

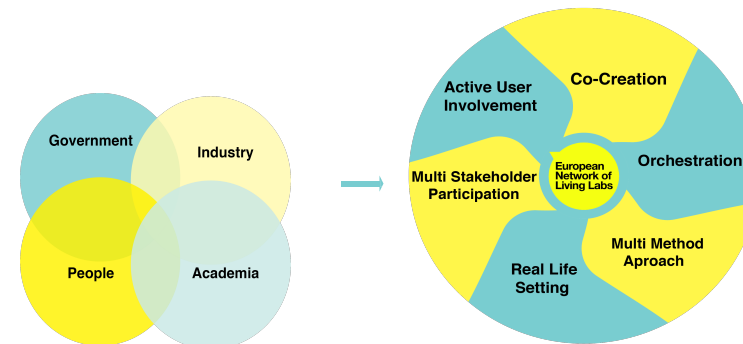
# What's a Living Lab



We define Living Labs (LLs) as user-centred, open innovation ecosystems based on systematic user co-creation approach, integrating research and innovation processes in real life communities and settings

The key points of a living lab are:

- The **ecosystem approach** beyond projects
- **Accelerate the gap between ideation and validation & implementation** through an iterative co-creation process with all involved stakeholder
- **Empower bottom up innovation** and participation
- **Involve all parts of the quadruple helix** in the innovation funnel via an orchestrated approach that **builds trust** for long term collaborations
- **Create real long term sustainable impact** on **ecosystems, people and organizations** via common understanding and involvement
- **Scaling up** in a **transdisciplinary** way (social, systems, geographical, operational)
- **Domesticate & develop products & services** from the beginning in real life settings



**European  
Network of  
Living Labs**

**Joint Working Group on  
Digital for sustainability,  
including Zero pollution**



**Working Group on Digital for  
Sustainability including Zero  
Pollution**

---

# Zero Pollution EU Action Plan



COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS



Pathway to a Healthy Planet for All  
*EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil'*

## **Flagship 7: Living Labs for green digital solutions and smart zero pollution**

In 2021, the Commission will, together with partners, launch Living Labs for green digital solutions and smart zero pollution to engage with regional and local authorities (for example through the Living-in.eu community) and other stakeholders to help develop local actions for green and digital transformation which contribute to the European Digital Green Coalition and the European Climate Pact.

By 2023, the Living Lab members will develop recommendations on using for a climate and environment-friendly use of digital solutions to accelerate zero pollution efforts, with a particular focus on citizen engagement.

# Joint Working Group on Digital for Sustainability, including Zero Pollution



The **overall objective** is mobilize Living Labs to answer:

- How can living labs support their cities and regions in becoming Green and Digital (and/or through Digitization)
- How they can have a real impact in society by supporting decision and policy making?

The **expected outcomes** are the following:

- set of recommendations that can be addressed to policy makers, the Living Lab themselves and Cities/Regions, together with a list of Key Performance Indicators to assess their efficiency and effectiveness;
- raise awareness with the Cities/Regions of the opportunity of using Living Labs to become green and digital Cities/Regions and achieve Zero Pollution objectives.



# Joint Working Group on Digital for Sustainability, including Zero Pollution



- ENOLL thematic leaders in the core group

<p>Mobility</p> <p>Agriculture &amp; Agri Food</p> <p>Culture &amp; Co-creativity</p>	<p>Social Innovation &amp; Digital Rights</p>	<p>Social Impact of Artificial Intelligence</p>	<p>Health &amp; Well-being</p>	<p>Rural Living Labs</p>	<p>Energy &amp; Environment</p>
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- Relevant initiatives and projects identified
- Time plan defined

**LIVING-IN.EU**

	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22
Identification phase													
Launch event													
Workshops and feedbacks													
Recommendations drafting													
Recommendations presentation													

**European  
Network of  
Living Labs**

**Joint Working Group on  
Digital for Sustainability,  
including Zero pollution**



**The role of Living Labs  
good practices**

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# Key messages/aspects

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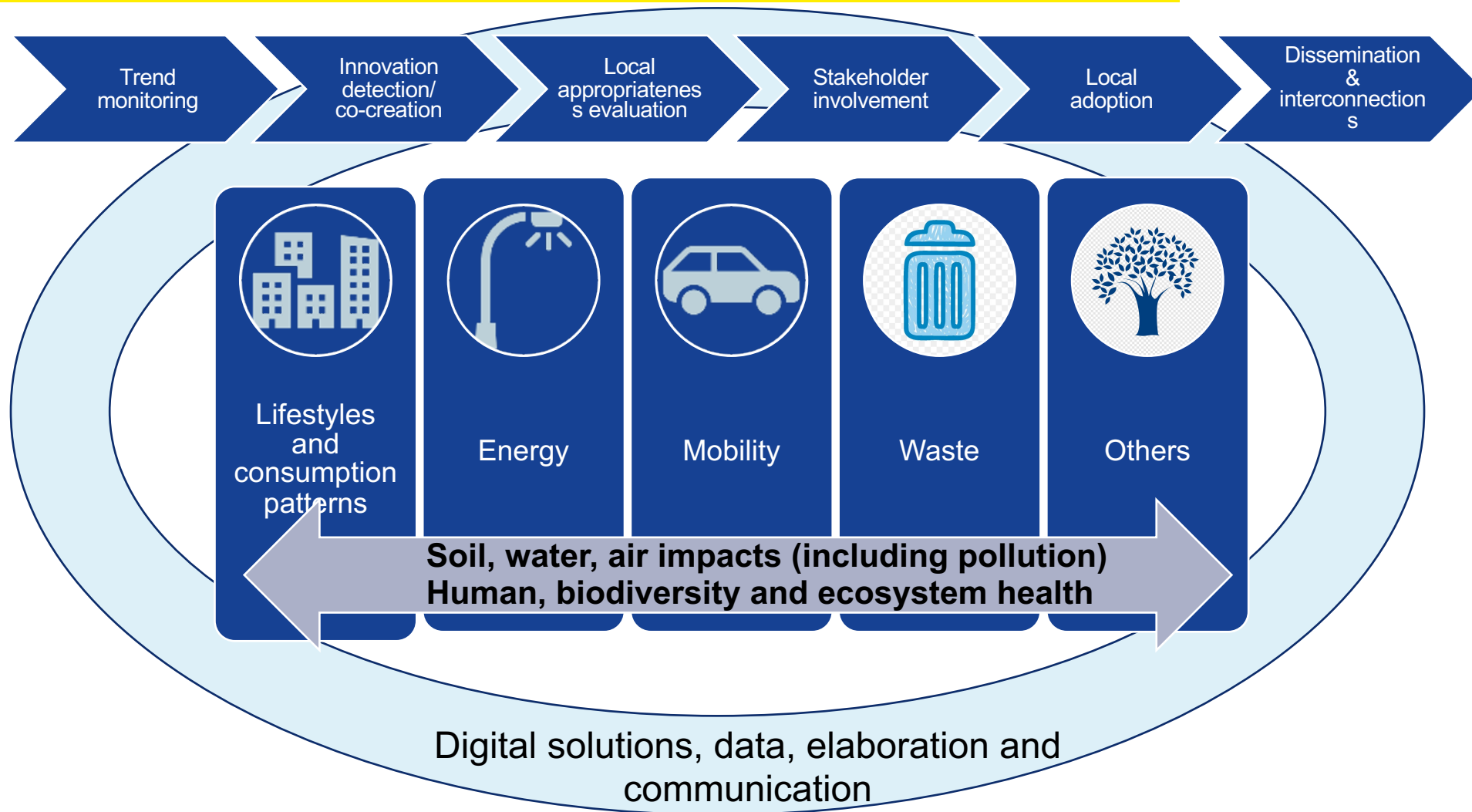
- From multiple Living Labs definitions.....  
to stimulate common capacities building in LLs for harnessing  
innovative policy response in zero pollution
- Increase the innovation readiness of LLs ecosystems in supporting  
digital transformation to accelerate zero pollution
- From “sectoral orientation” to cross sectorial LLs
- Secure participation & collaboration for all.....

## **Two dimensions of analysis**

Domain (technical solutions and practices)

Living lab operation and organization

# Several dimensions of LL action



# The chase for good practices goes on!

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- The Joint Working Group on Digital for Sustainability, including Zero Pollution, is eager to listen further examples that can help this process.

[info@enoll.org](mailto:info@enoll.org)



# Conclusions





# Q&A



# Conclusions and next steps





# Next Meetings

- 11 October 2022 - 3rd meeting of the Zero Pollution Stakeholder Platform
- 14 December 2022 - Zero Pollution Conference presenting the Zero Pollution Monitoring and Outlook – dedicated discussion of the Zero Pollution Stakeholder Platform on the same day



Thank you!



## Contact us

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