



European  
Commission

JRC PORTFOLIO 09

## ZERO POLLUTION FOR PLANETARY HEALTH – INTEGRATED RESPONSES

Pollution is a major cause of disease and premature death, loss of biodiversity and ecosystem services and is one of the drivers of climate change. Recognising that the impacts of pollutants – be they chemicals, particles, litter, noise, or light – are intimately connected to their environmental occurrence, the Zero Pollution Action Plan commits to reducing their levels so that they are no longer considered harmful to humans and nature by 2050. This requires multiple actions, ranging from monitoring and reduction at source, restoration, a shift towards a sustainable ‘green’ chemistry, the development of safe and sustainable products but also changes in behaviour, consumption, and use.

### The portfolio aims to:

Anticipate and enable the formulation and implementation of policies for protecting and restoring planetary and human health

Assess the status of planetary health, including progress towards policy targets

Integrate pollution-related activities and research across the Joint Research Centre

Joint  
Research  
Centre

# Delivering on anticipation, integration and impact of EU policies

- ▶ providing innovative tools and new methods for the monitoring and (eco)toxicological assessment of pollutants, supporting evidence-based EU policy measures on natural resources and sustainable development,
- ▶ identifying novel pollutants and issues of emerging concern thus increasing the Union's preparedness and responsiveness capacity,
- ▶ enabling the development for outlook and foresight studies regarding the sources and distribution of pollutants with a perspective of meeting the Zero-Pollution Ambition,
- ▶ supporting post-disaster and post-war needs assessment that mitigates the impact of pollution caused by disruptive events,
- ▶ integrating tools and data from in-situ measurements including citizen science-based approaches, modelling, and Earth observations to address pollution from various sources, across diverse sectors and environmental compartments,
- ▶ accompanying the transition to a healthier society and a sustainable circular economy,
- ▶ analysing drivers of increasing pollution such as population dynamics, socioeconomics (inequality and consumerism) and geopolitical aspects,
- ▶ anticipating the development of the chemicals acquis towards a more effective, efficient and animal-free assessment of chemicals,
- ▶ studying trade-offs and co-benefits of different de-pollution pathways.

## Time frame

Zero Pollution for Planetary Health Integrated Responses aims at a **continuous development and improvement** of indicators to evaluate pollution trends and progress towards policy objectives. The portfolio will focus its efforts on both **short-term input** (the next Zero Pollution Outlook Report is due **by the end of 2024**) and **long-lasting support** to policy needs, by ensuring a continuous release of highlights on achievements.

## Find out more



### ZERO POLLUTION FOR PLANETARY HEALTH – INTEGRATED RESPONSES

<https://joint-research-centre.ec.europa.eu/jrc-research-portfolios/zero-pollution>

## Main partners

### Partner DGs

AGRI, CNECT, CLIMA, DEFIS, ENV, ESTAT, GROW, HERA, MARE, MOVE, NEAR, RTD, SANTE

### Selected stakeholders

ECHA, EEA, EFSA, EMSA, HADEA, OECD, UNEP, WHO

Zero pollution

One Health

Planetary boundaries

Pollution

Impact of pollutants

Particles

Risk Assessment and Mitigation

Chemical mixtures

Biodiversity

Water

Soil

Healthy oceans

Health

Air quality

Certified reference materials

Data-to-action

Plastics

Vehicle emission standards

Chemical safety

Chemicals

## Science for policy

Joint Research Centre

[joint-research-centre.ec.europa.eu](https://joint-research-centre.ec.europa.eu)

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

@EU\_ScienceHub

@EU\_ScienceHub

@EU\_Science

EU Science, Research and Innovation

EU Science Hub - Joint Research Centre

PRINT  
PDF

ISBN 978-92-76-99481-7  
ISBN 978-92-76-99480-0

doi:10.2760/662878  
doi:10.2760/138841

KJ-04-23-209-EN-C  
KJ-04-23-209-EN-N