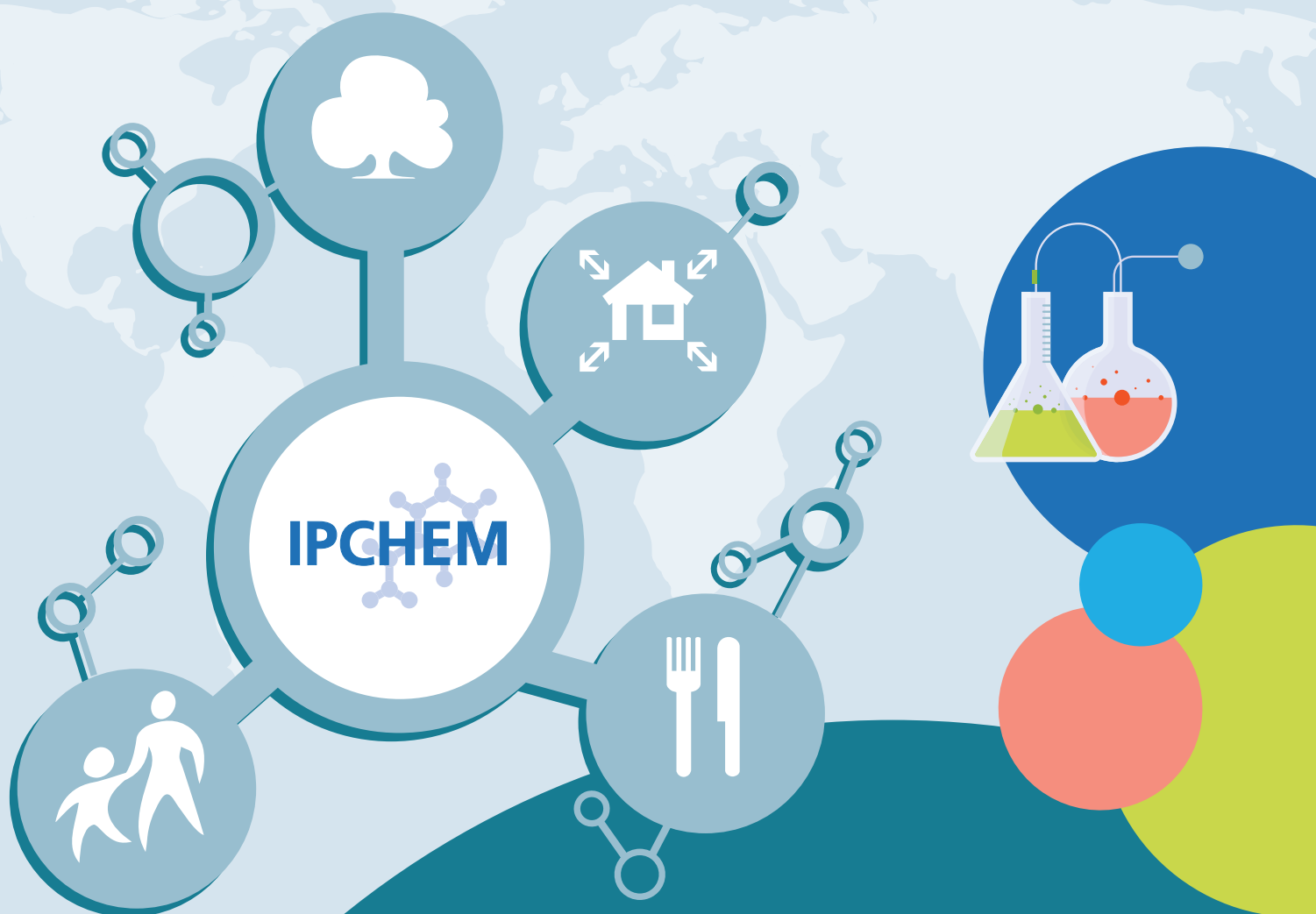




European
Commission



Information Platform for Chemical Monitoring

Joint
Research
Centre

What is chemical monitoring?

Chemical monitoring is the continued or periodic process of determining whether a chemical is present and at which concentration, for example in the environment, in food, in buildings, in products or in our bodies.

What is IPCHEM?

The **Information Platform for Chemical Monitoring (IPCHEM)** is the access point for searching chemical monitoring data collections. It is hosted by the European Commission's Joint Research Centre.



IPCHEM in 10 facts:

- Unique source for exploring **chemical occurrence data** for the environment, human biomonitoring, food and feed, consumer products and indoor air
- **Harmonised** and quality-checked data
- Publicly accessible **metadata** (summaries) describing the data collections
- Contact points for **direct interaction** with data providers
- Data collections with **time series** starting in the 1960s
- 68% of datasets in IPCHEM are **publicly available**
- Data collections covering all **EU countries and beyond**
- Data for **regulatory exposure and risk assessments**
- Supporting the evaluation of the **impact of chemical or environmental policy measures**
- **Collaborative community** of data providers and data users.

Policy objectives

IPCHEM's comprehensive chemical exposure knowledge base supports environmental and chemicals policy making. It also helps evaluate the effectiveness of the EU regulatory framework on chemicals.



The four IPCHEM modules

Data in IPCHEM is structured within four thematic modules: human biomonitoring, environmental monitoring, food and feed, and product and indoor air.



The human biomonitoring module

Coordinated by the European Environment Agency (EEA), this module provides human biomonitoring (HBM) data based on the measurement of chemicals in, for example, human blood, hair or urine. IPCHEM incorporates more than 120 HBM data collections throughout Europe.



The food and feed module

This module, coordinated by the the European Food Safety Authority (EFSA), includes monitoring data for occurrences of chemical residues in food and feed since 2011. It comprises over 200 million chemical monitoring records.

IPCHEM



The environmental module

EEA also coordinates this module, comprising 18 data collections and 255 million concentration measurements, for chemicals in water, air, soil and biota.



The product and indoor air module

Coordinated by the European Commission's Joint Research Centre (JRC), this module currently focuses on indoor air quality. Three such monitoring data collections have been integrated into IPCHEM, concerning human exposure to air pollutants in public buildings, schools and offices.



What IPCHEM can do for you:



Faster retrieval of chemical monitoring data from different sources using one reference gateway.



Data are quality-checked and comparable.



Monitoring data enable the evaluation of the effectiveness of chemicals policy.

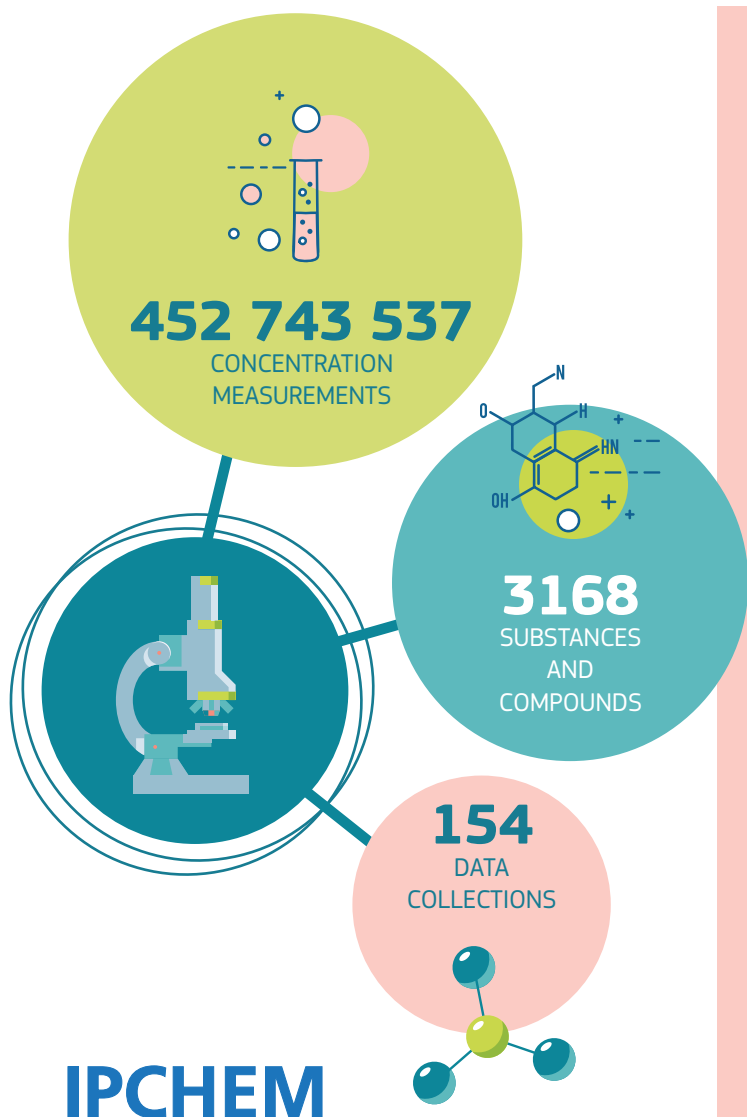
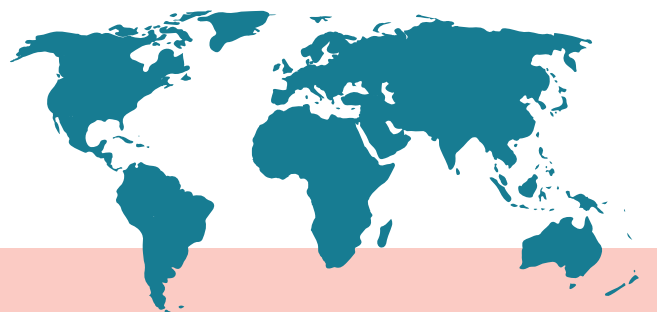


Support for planning of future monitoring campaigns at EU or Member State level.

The players

IPCHEM is a unique information platform that promotes collaboration between researchers and policy makers, local, regional and national bodies, EU institutions and agencies.

Overview of data integration status in IPCHEM in 2021



Distribution of concentration measurements in 2021 by module (in millions)



Human Biomonitoring
0.08



Environment
255



Products & Indoor Air
0.02



Food & Feed
197



IPCHEM and data quality

IPCHEM integrates chemical monitoring data from diverse sources, of different spatial and temporal detail. However, for regulatory purposes and other uses, these data need to be of a known and defined quality. IPCHEM addresses this need for a standardised assessment of data quality.

Data collections are integrated in close collaboration with the data providers. The Quality Check rules are embedded in the ETL (Extract, Transform and Load) data-harmonisation process. This has proven capable of detecting hidden quality control issues, enabling data providers to take corrective action.



How to use IPCHEM

IPCHEM can be used to search and compare chemical monitoring data across various media (water, soil, air, food and feed, biota, human body, waste, consumer products). It offers two ways of searching data: i) by chemical, medium and country; and (ii) multi-chemical by location.

Searching for chemical occurrence in specific media and/or countries

Starting with a chemical name or CAS-number, the search can include all data collections in all modules, or focus on a specific module, medium or country. IPCHEM lists data collections matching the defined search terms.

Searching for chemical occurrence in a specific location

The "IPCHEM Advanced Viewer" allows users to search by geographical area, either a city or an area within a defined radius. Data in this location can be filtered by chemical, module, medium and data collection.

Join the IPCHEM community...

...as a data provider

IPCHEM integrates data from different sources, such as national authorities, national or international monitoring programmes and research consortia. If you would like your data to have more impact, and support policy making, then look at the IPCHEM webpage "How to be part of IPCHEM" or get in touch with the IPCHEM team: jrc-ipchem-support@ec.europa.eu

...as a data user

Chemical occurrence data in IPCHEM can be used to address a wide range of research and policy questions relating to the environment, health and chemicals. Data can support regulatory risk assessments, be used to check compliance with legal limits and target interventions, support the development of risk and impact indicators, evaluate the effectiveness of policy measures, or be used to analyse and evaluate model predictions.

