



NORMAN Workshop
Emerging Environmental Pollutants:
Key Issues and Challenges



JRC Activities Support a Large Number of European Policies

GMES

INSPIRE

Technical Coordinator

Kyoto Protocol / Emission Trading

EU Global Development Policies

Emissions from Road Transport

Clean Air for Europe (CAFE)

Environment and Health Strategy

Water Framework Directive (WFD)

Nitrates Directive

REACH

Marine Strategy

Integrated Coastal Zone Management

Flood Risk Management

Common Agricultural Policy

Soil Thematic Strategy

Scientific Coordination Body

Urban Thematic Strategy

Renewable Energies & Energy Efficiency

Sustainable Use of Natural Resources Strategy

Environmental Technology Action Plan (ETAP)

Waste Framework Directive

Integrated Product Policy

Euratom Treaty

Major Customer DGs

- DG Environment
- DG Transport and Energy
- DG Agriculture and Rural Development
- DG Health and Consumer Protection
- DG Research
- DG Regional Policy
- DG Eurostat
- DG Enterprise & Industry
- DG External Relations, DG Development & DG EuropeAid-Cooperation Office

Co-operation with International Bodies

European Agencies and Organizations:

- EEA
- ESA
- EFSA
- EUMETSAT
- ECMWF
- CEN

Global Organizations:

- UN-ECE
- UNEP
- UNFCCC
- UNCCD
- WHO
- FAO
- WMO
- IAEA
- IEA

Global Networks:

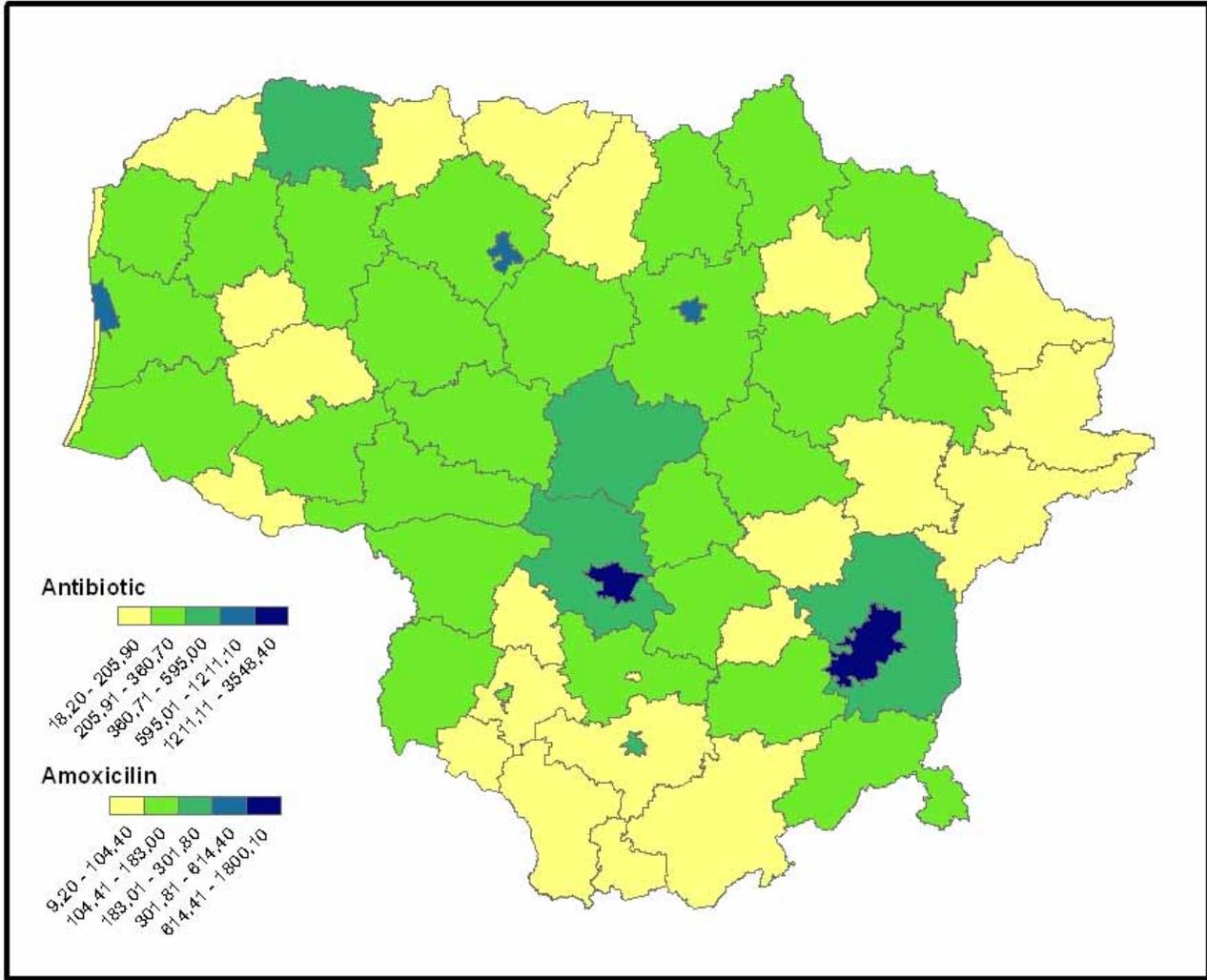
- IPCC
- IGBP
- GCOS
- GTOS

Exploring trade-offs in terms of cost-benefit requires investigators to compare threats posed by multiple contaminants, released to multiple media and to multiple organisms

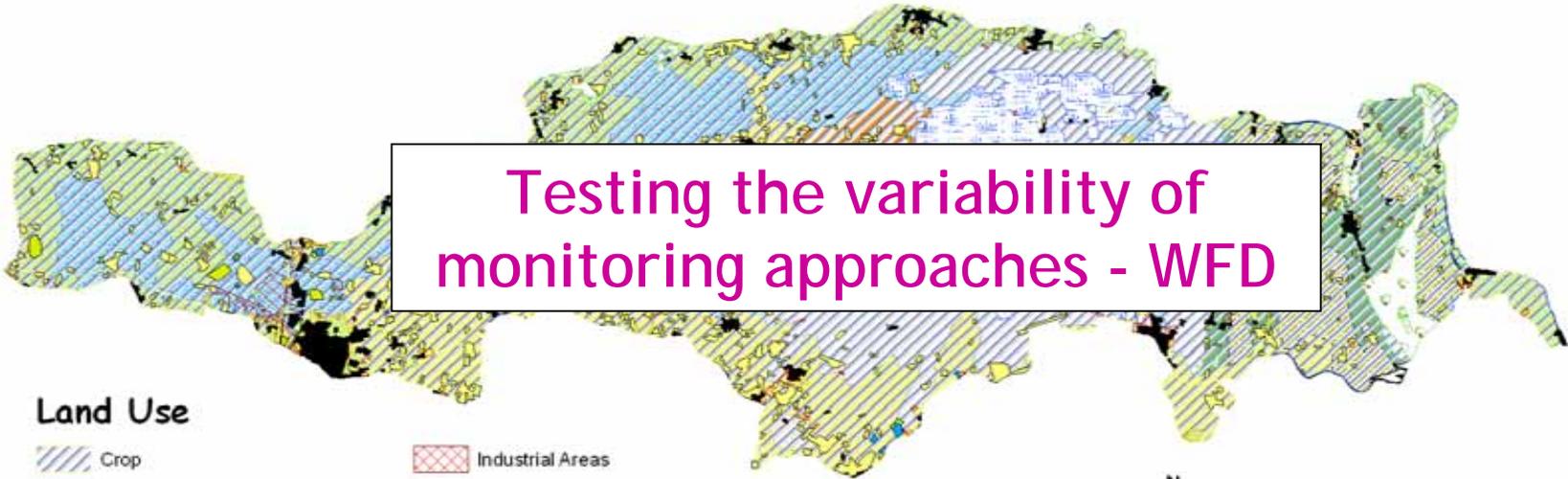


Risk mapping for emission estimates of pharmaceuticals in Lithuania

Joint Research Centre

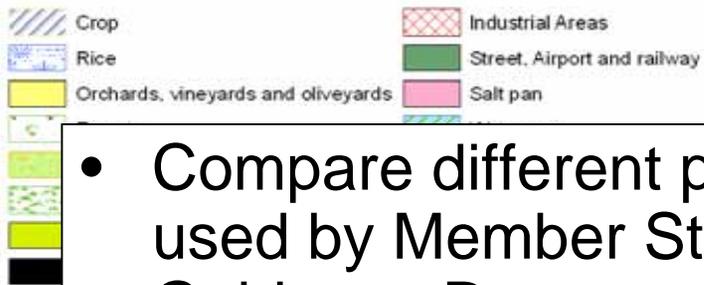


by Jolita Kruopiene (NOMIRACLE Network)



Testing the variability of monitoring approaches - WFD

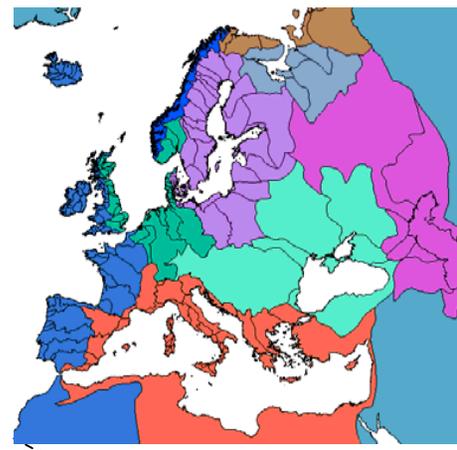
Land Use



- Compare different possible monitoring strategies used by Member States and identified in the CMA Guidance Documents
- Evaluate the effectiveness and cost-benefit of the different monitoring strategies
- Test experimental details of the various CMA Guidance Documents
- Collaborative field trials as feasibility phase
- Reference laboratory network to eliminate interlaboratory variations

Linking *monitoring* and *modelling* for a multi-scale risk assessment

Joint Research Centre



**Fate of
 Pollutants
 in
 Terrestrial
 and Coastal
 Ecosystems
 in Europe**



Policy Questions arising from a number of environmental Directives, e.g.:

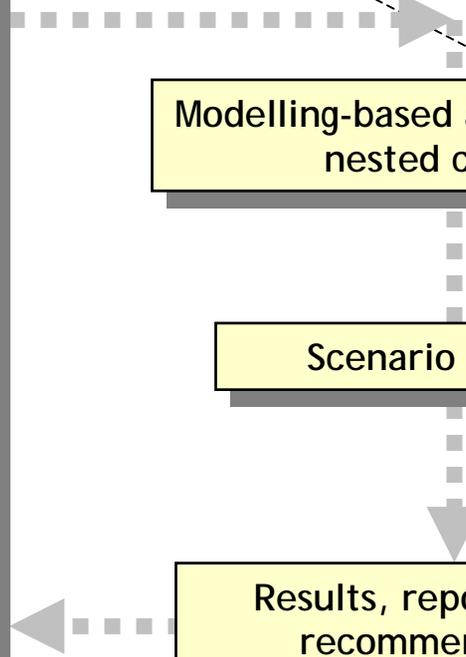
- Water Framework Directive, Nitrates, Groundwater, Pesticides, Sewage Sludge
- Soil Thematic Strategy
- Strategy on Sustainable Use of Pesticides
- Dioxin Strategy and Stockholm Convention on POPs

Policy Support

Modelling-based assessment in a nested context

Scenario analysis

Results, reports, maps, recommendations



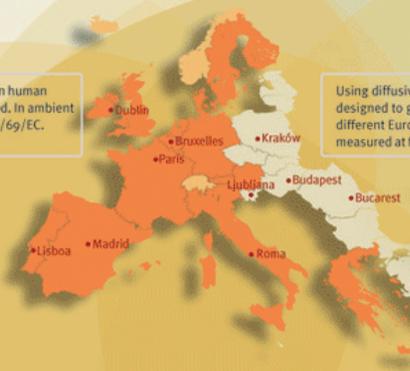


Population Exposure to Air Pollutants in Europe (People)

An assessment of outdoor, indoor and personal exposure air pollution levels

The PEOPLE project selected benzene, a known human carcinogen, as its first pollutant to be measured. In ambient air benzene is regulated by EC Directive 2000/69/EC.

Using diffusive monitoring the PEOPLE project is designed to give a ONE day snapshot of air pollution at different European cities. Benzene levels will be measured at fixed sites and by people wearing samplers.



PERSONAL EXPOSURE
How does personal exposure data differ from fixed site monitoring?

LIFE STYLE
How polluted are the different types of locations we visit?

One day in the life of

EUROPEAN CITIES



CITY BACKGROUND
How clean is the air across a city?



The PEOPLE project aims to measure the range of exposures to air pollution