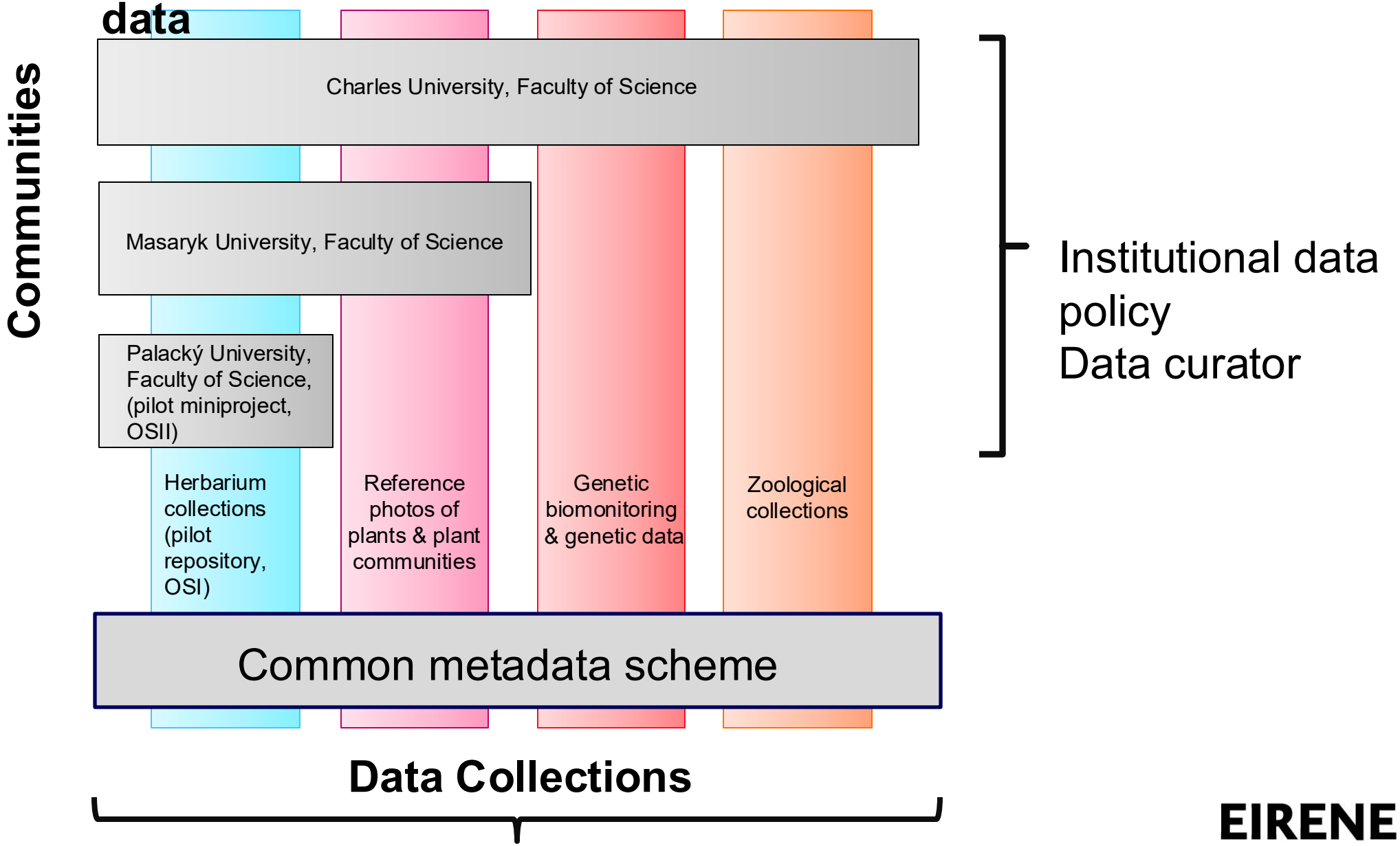
BioDiv - Repository for biodiversity data



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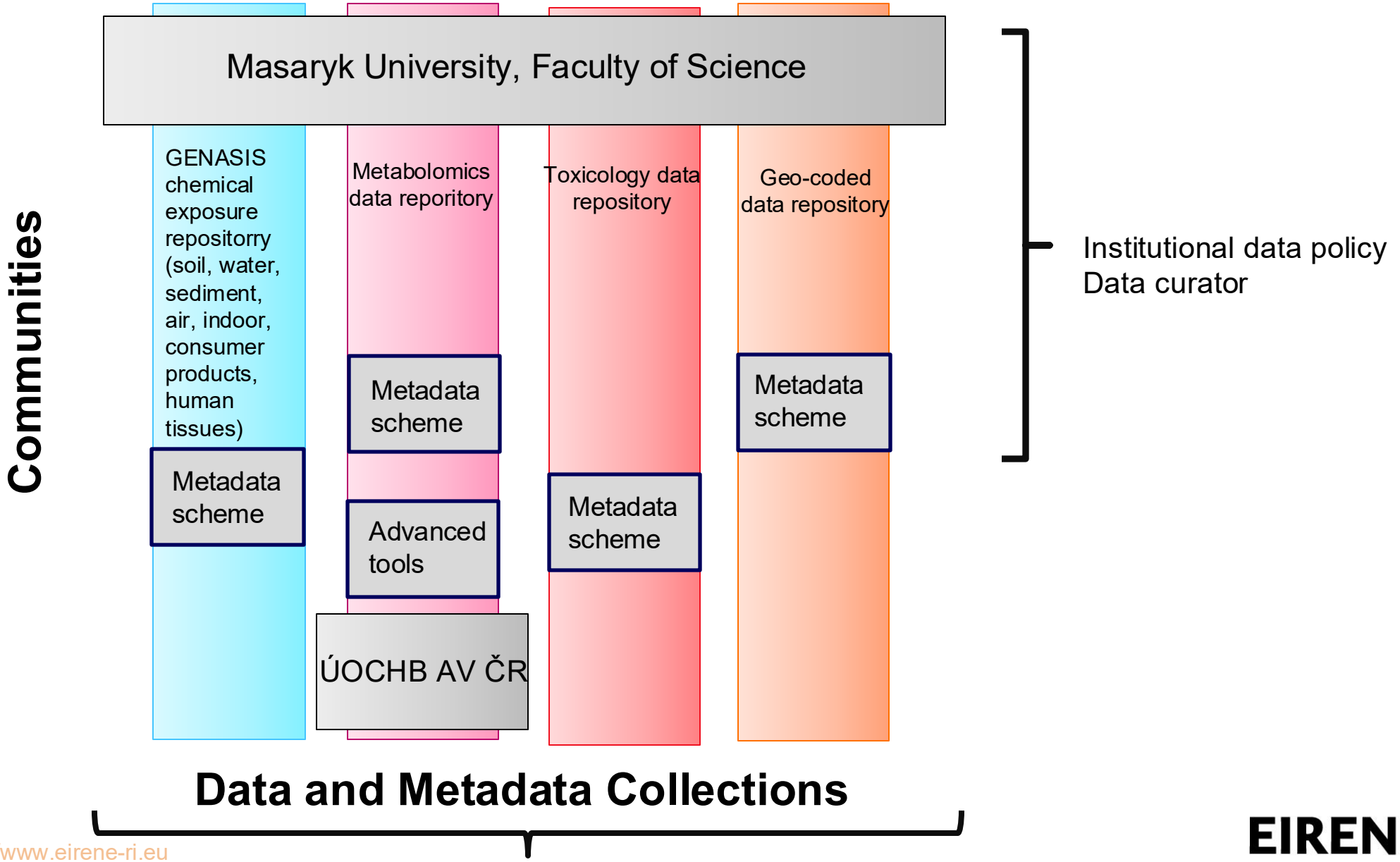
Repositories for data on chemical exposures and their effects



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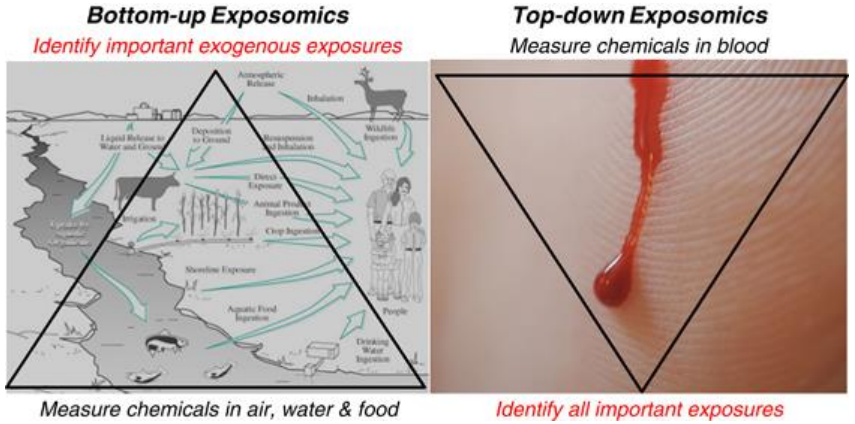
Exposomics challenge

- To support integration into the biomedical sciences, exposomics should provide **a readily deployable toolbox** including methods of **high-resolution mass spectrometry for detection of environmental chemicals and metabolic perturbations**, **epigenomics** to measure environmentally mediated alterations to DNA, or **geospatial techniques** for mapping proximity to exposure sources.



- Such a toolkit should be **accessible to researchers** from multiple fields demanding the analyses of tens of thousands (and potentially millions) of samples **through the open-access services** of the harmonized network of (laboratory and data) research infrastructures.

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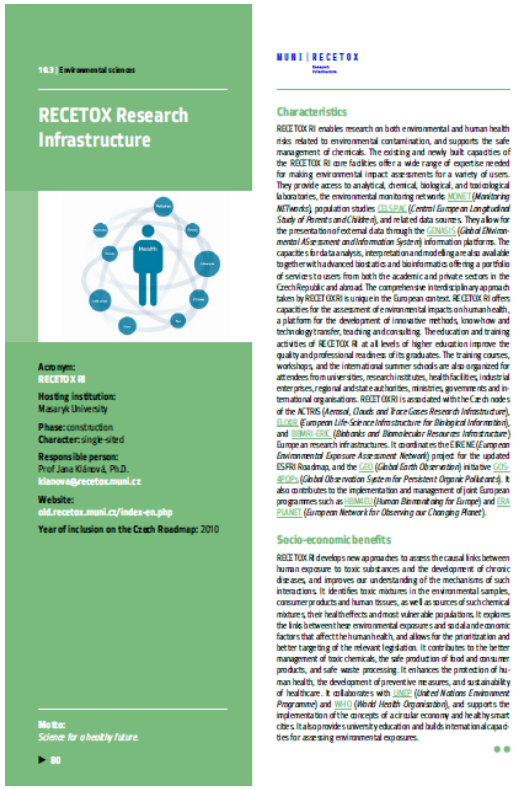
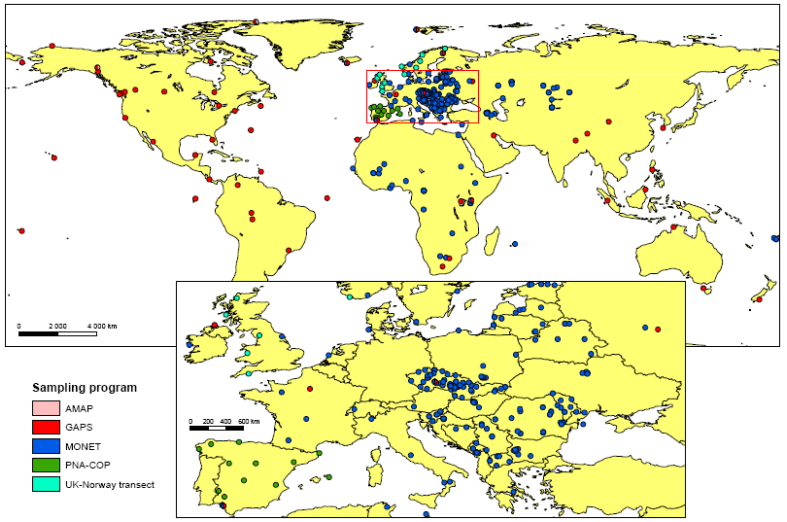
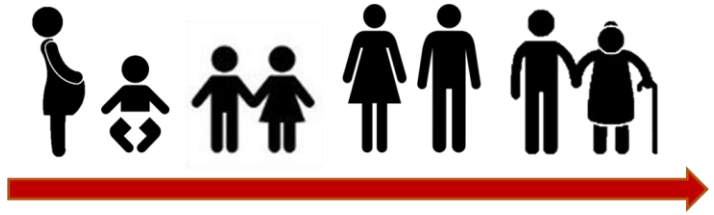
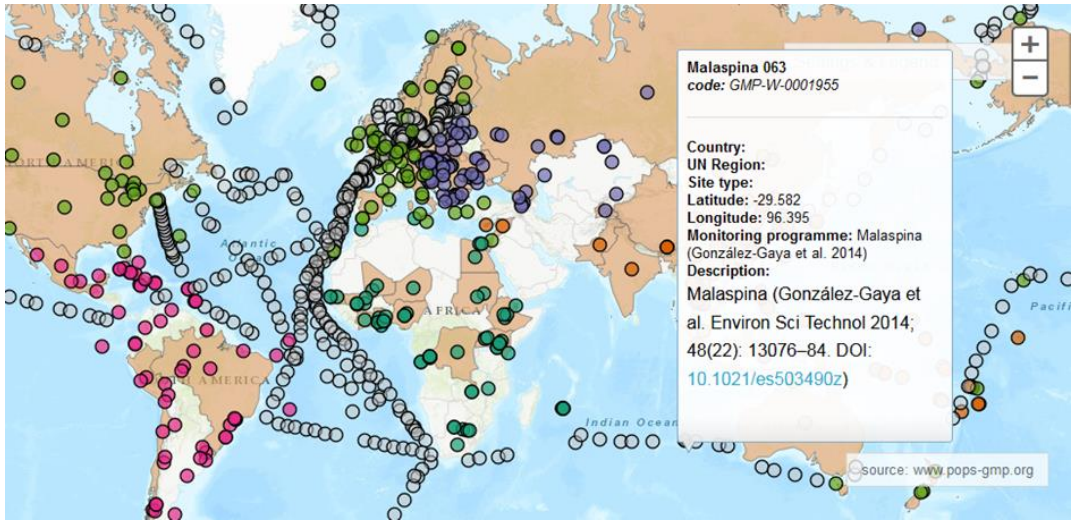
RECETOX RI at the roadmap since 2011







RECETOX accredited trace laboratories
CELSPAC population studies
MONET air and water monitoring networks
GENASIS/GMP information platforms



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EIRENE RI: Prioritised in the 2021 ESFRI Roadmap

EIRENE RI

Research Infrastructure for EnvIRonmental Exposure assessmeNt in Europe

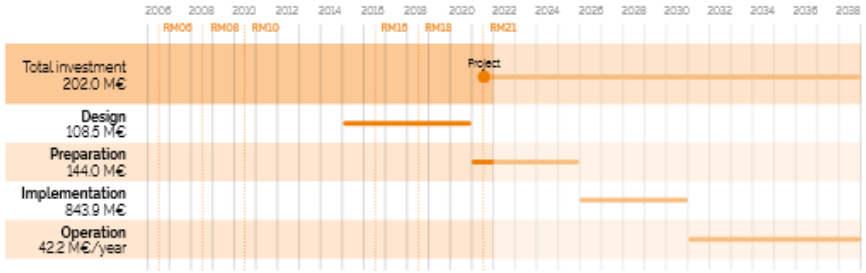
Website	Headquarters	Legal status	Type
pending	Masaryk University Brno, Czech Republic	pending	distributed

DESCRIPTION

The Research Infrastructure for EnvIRonmental Exposure assessmeNt in Europe (EIRENE RI) pioneers the first European Research Infrastructure on environmental determinants of human health, the Human Exposome. EIRENE RI intends to support large-scale research for the interdisciplinary assessment of environmental determinants of health, including indoor and outdoor environment factors, lifestyle, socioeconomics, and the individual's ability to cope with various stressors such as infection or disease. EIRENE RI will provide harmonised workflows and integrated services for data and sample collection, as well as knowledge and tools that will be made accessible to academic researchers, private companies, public authorities and citizens through the EIRENE open-access system and the EIRENE knowledge hub.

The concept of a pan-European Infrastructure supporting research on the effects of long-term exposures to various types of stressors on population health and the roles these exposures play in the development of chronic diseases is based on ten-year experience of Czech national RECETOX RI. Entered in the ESFRI Roadmap 2021, EIRENE RI already connects 50 research institutions from 17 countries. It builds on the legacy of the European environmental monitoring networks and their databases (EMEP, GMP, GMOS), GEO Initiatives (GOS4POP and GOS4M) and related H2020 projects (ERA PLANET, e-SHAPE), EU biomonitoring initiatives (DEMOCOPHES, HBM4EU), UNEP/WHO global biomonitoring efforts, EU exposome (HELIX, EXPOSOMICS, HEALS and EHEN cluster) and other related projects (HERA, EURION cluster).

TIMELINE & ESTIMATED COSTS



INTERCONNECTIONS

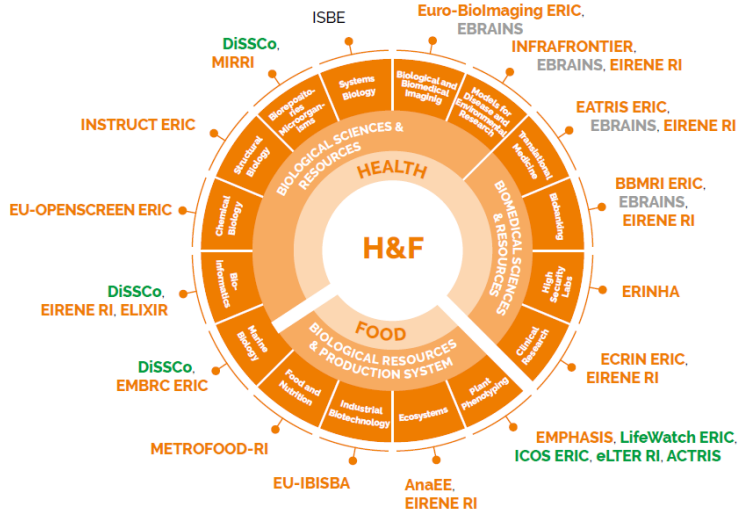
POLITICAL SUPPORT

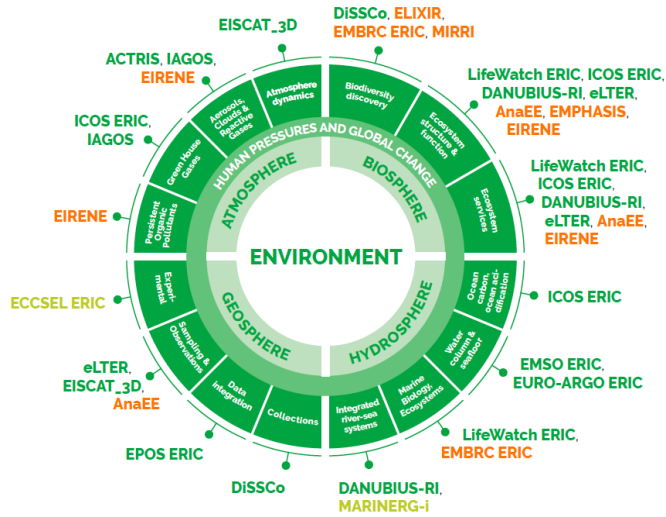
Lead
CZ

Prospective member
AT, BE, DE, EL, ES, IS, IT, NL, SK

Members

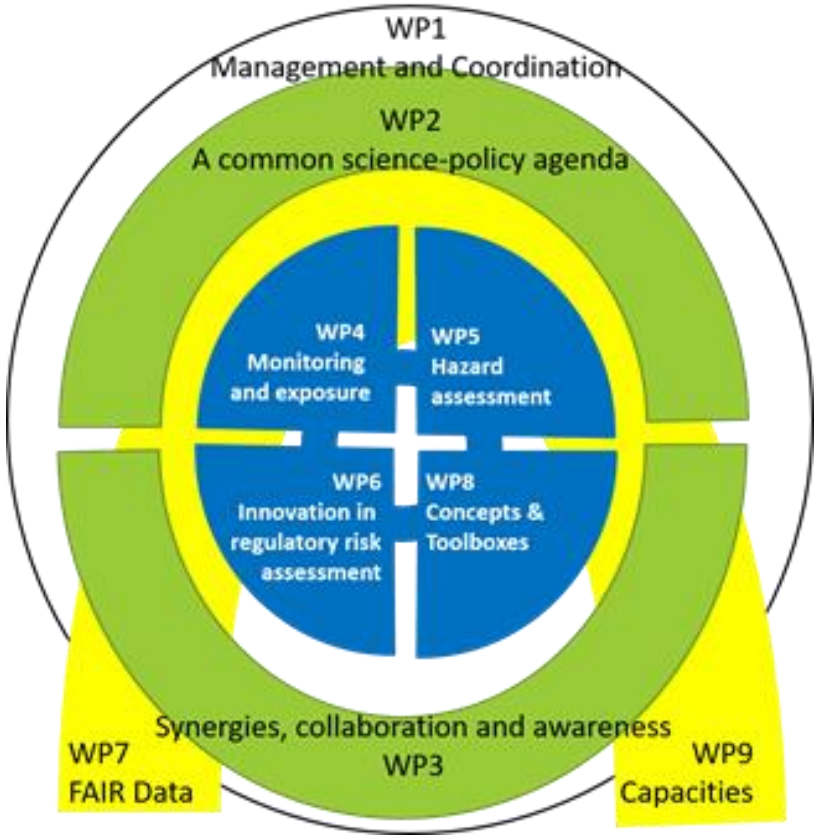
- **Austria, Belgium, Czechia, Italy, Netherlands**
- Germany, Greece, Island, Slovakia
- France, Norway, Sweden
- Finland, Slovenia, Spain, UK, US
- Cyprus, Denmark, LX, Portugal
- Australia
- EMBL/EBI



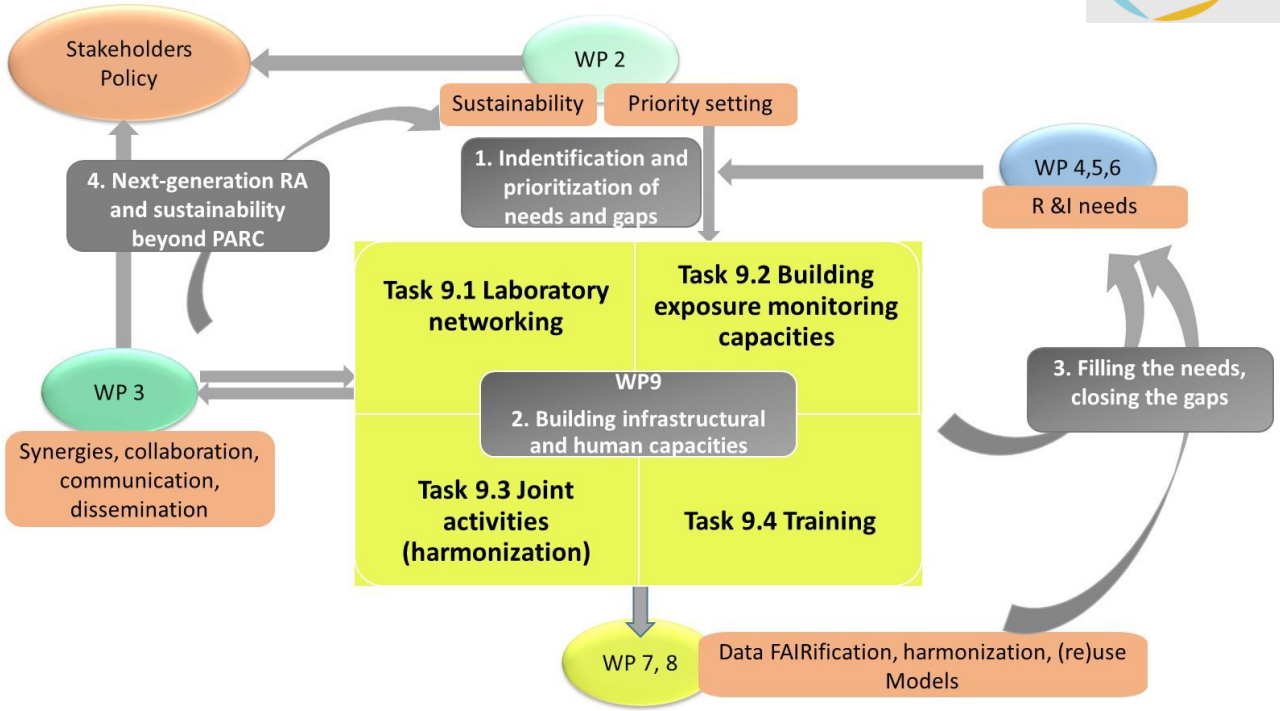


EIRENE RI

Partnership for Assessment of Risks from Chemicals (PARC)



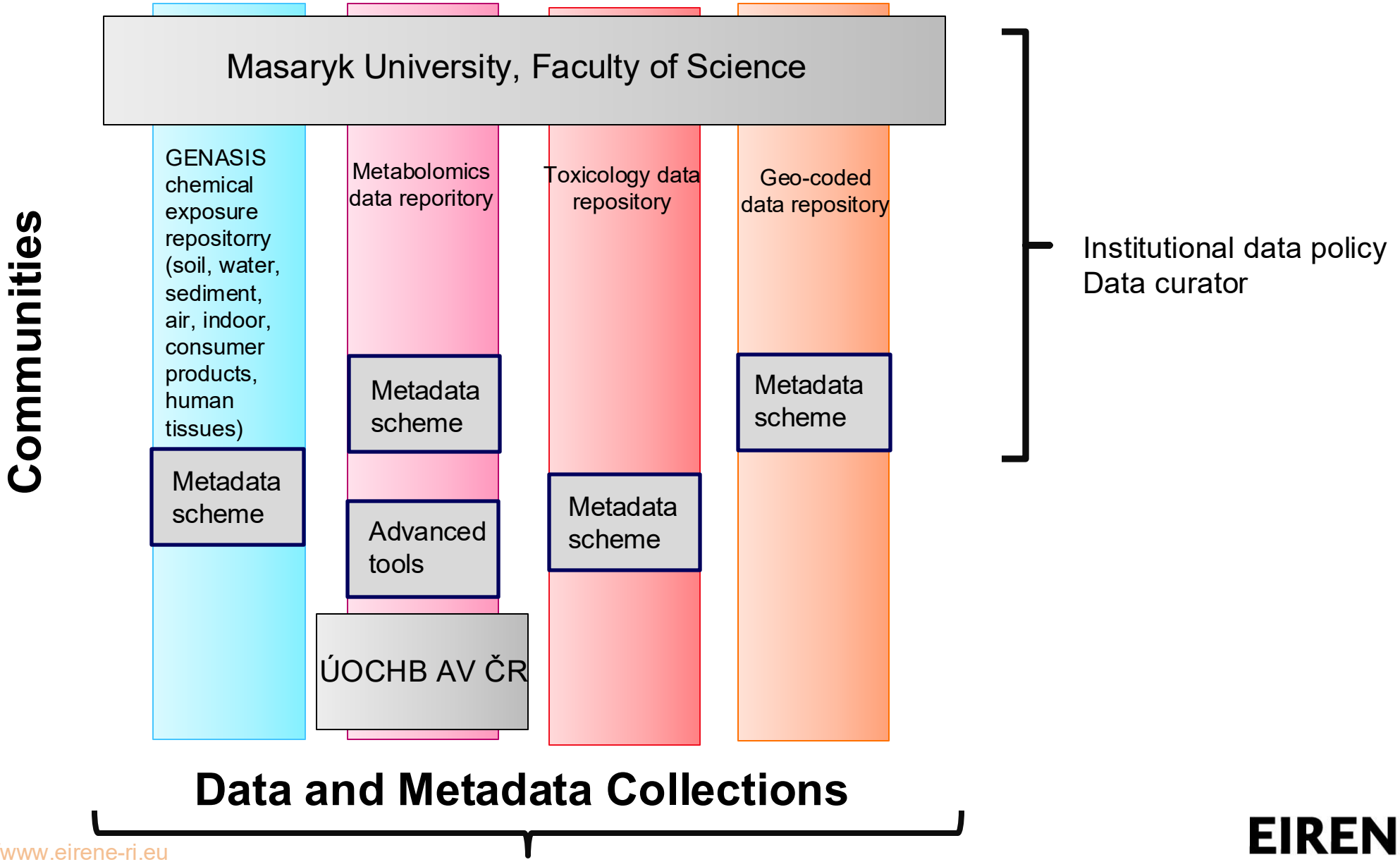
HBM4EU science and policy for a healthy future



VISION: Building infrastructural and human capacities in PARC

EIRENE RI

Repositories for data on chemical exposures and their effects



EIRENE RI