EIRENE RI:
Research Infrastructure for
EnvIRonmental Exposure assessmeNt in Europe

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EXPOSOME:
Internal and external factors
Life course dimensions

EXTERNAL
– Occupational environment
– Urban environment
– Indoor environment
– Life style factors
– Social environment

INTERNAL
– Compound levels
– Host metabolism
– Biological processes
– Molecular function
– Microbiome interactions

HEALTH
Respiratory
Cardiovascular
Mental
Metabolic
etc.

LIFE COURSE DIMENSION
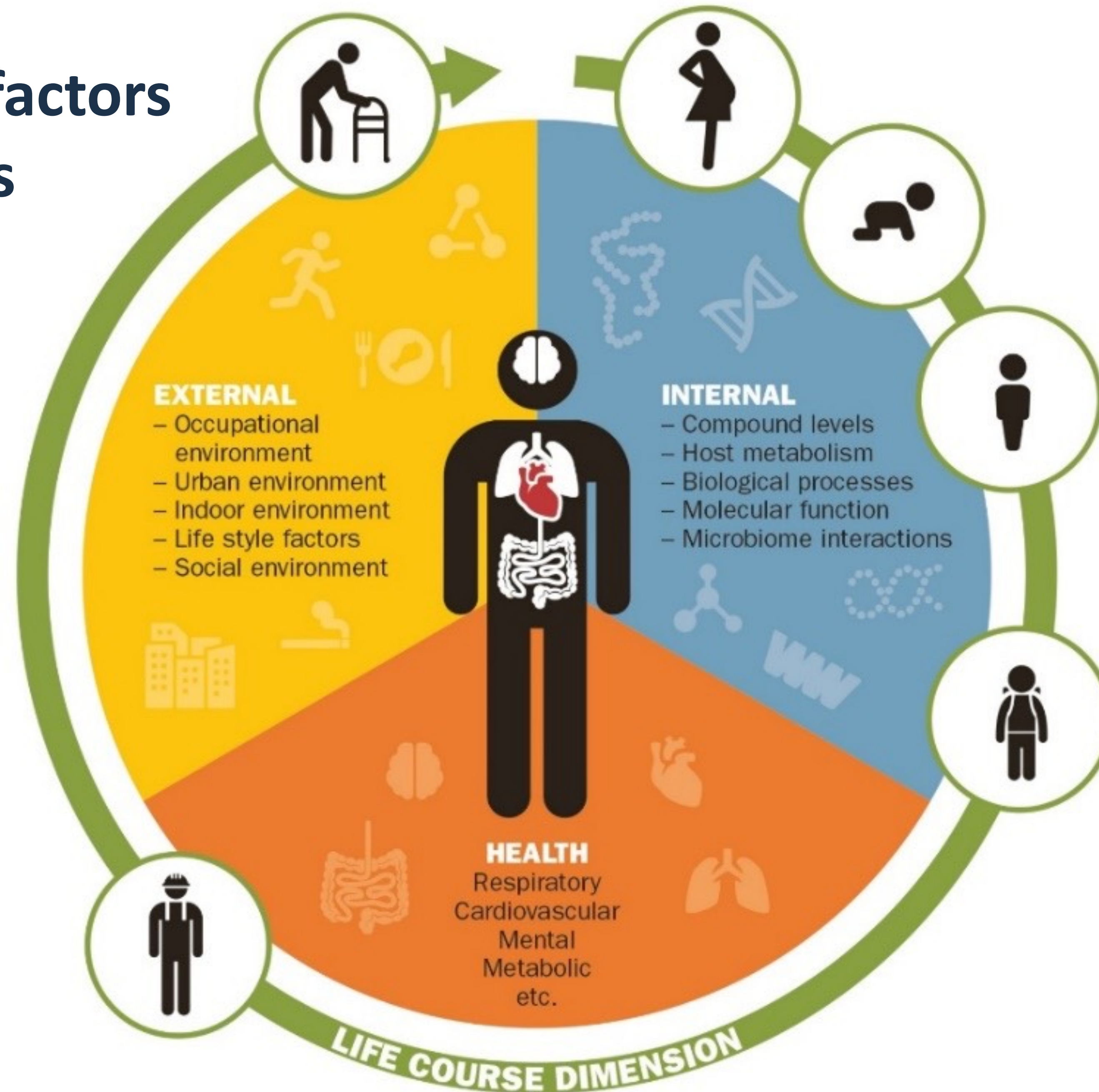
A gap identified in the Health&Food domain of 2018 ESFRI Roadmap

„There is a need to enable a research infrastructure that will facilitate research on the human health and wellbeing at all stages in development, including ageing, nutrition and behavioural studies, and their connections to the social sciences and humanities. There are **geographic, economic and environmental drivers affecting human health and wellbeing. Climate change, extreme weather, dramatic changes in ecosystem services, environmental pollution and exposure to harmful chemicals** represent a new combination of issues that **require an integrated approach at pan-European level.**

At the heart of this approach is the EXPOSOME, taking **a holistic view throughout the human lifetime on the effect of exposures to diet, lifestyle, and the environment on human health and disease**. The EXPOSOME coupled with advanced genetic and medical approaches represents an opportunity to tackle this complex issue by connecting to the landscape of Health & Food RIs and other domains. Ongoing EU projects and networks on human biomonitoring (HBM4EU and EMEP) are important steps to bring together relevant parties."

GEO | GOS⁴M
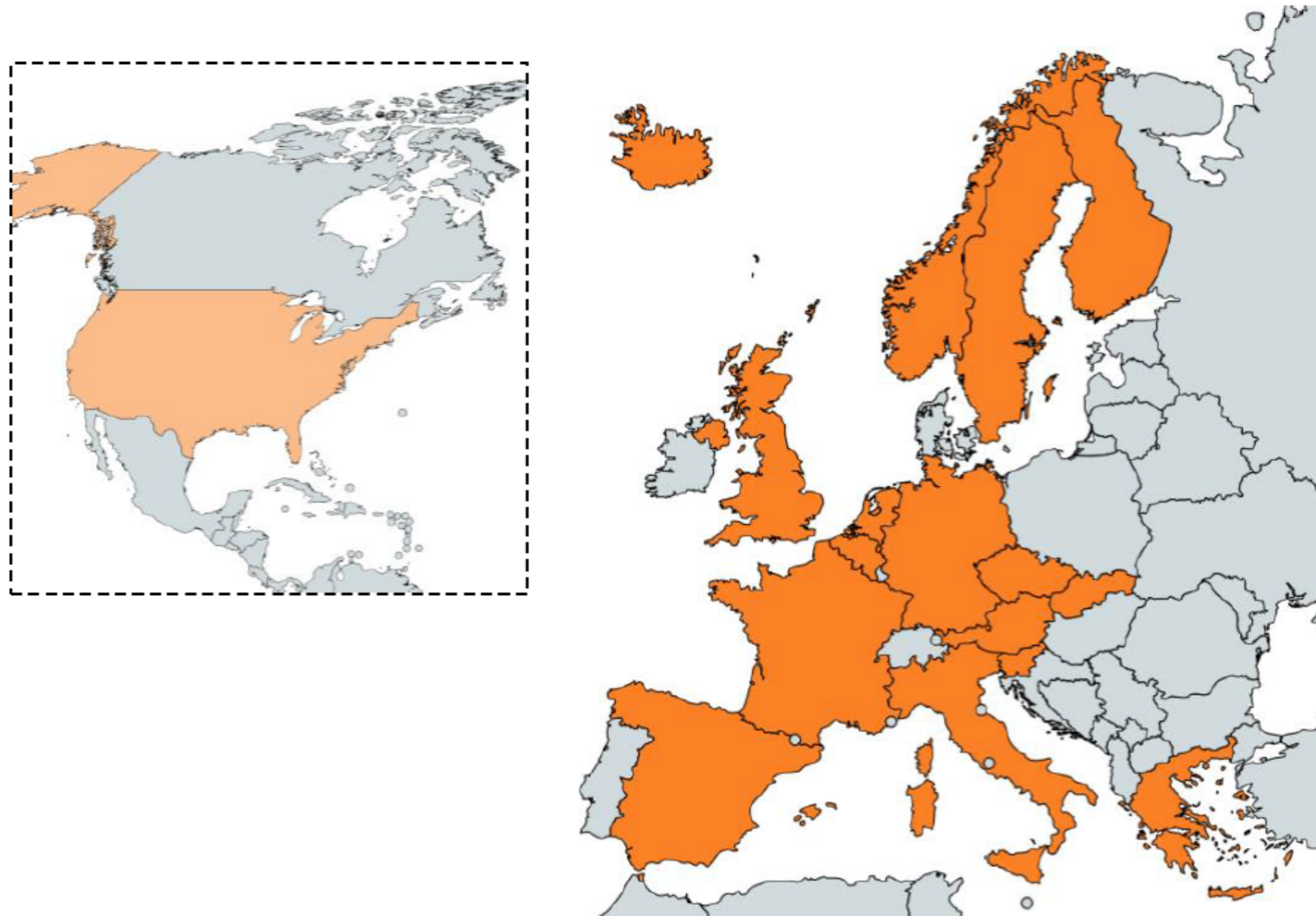GLOBAL OBSERVATION SYSTEM FOR MERCURY
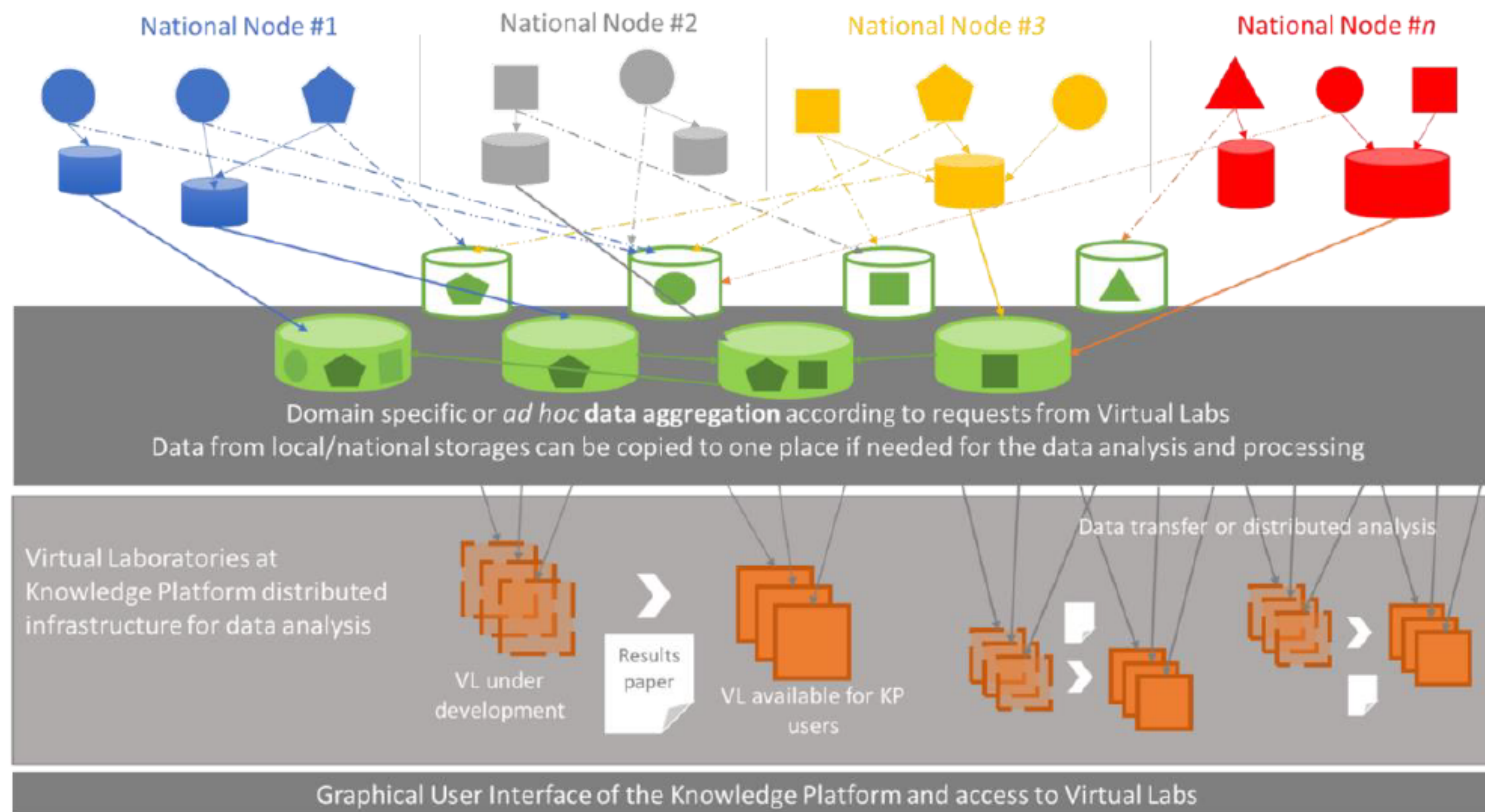
EIRENE RI
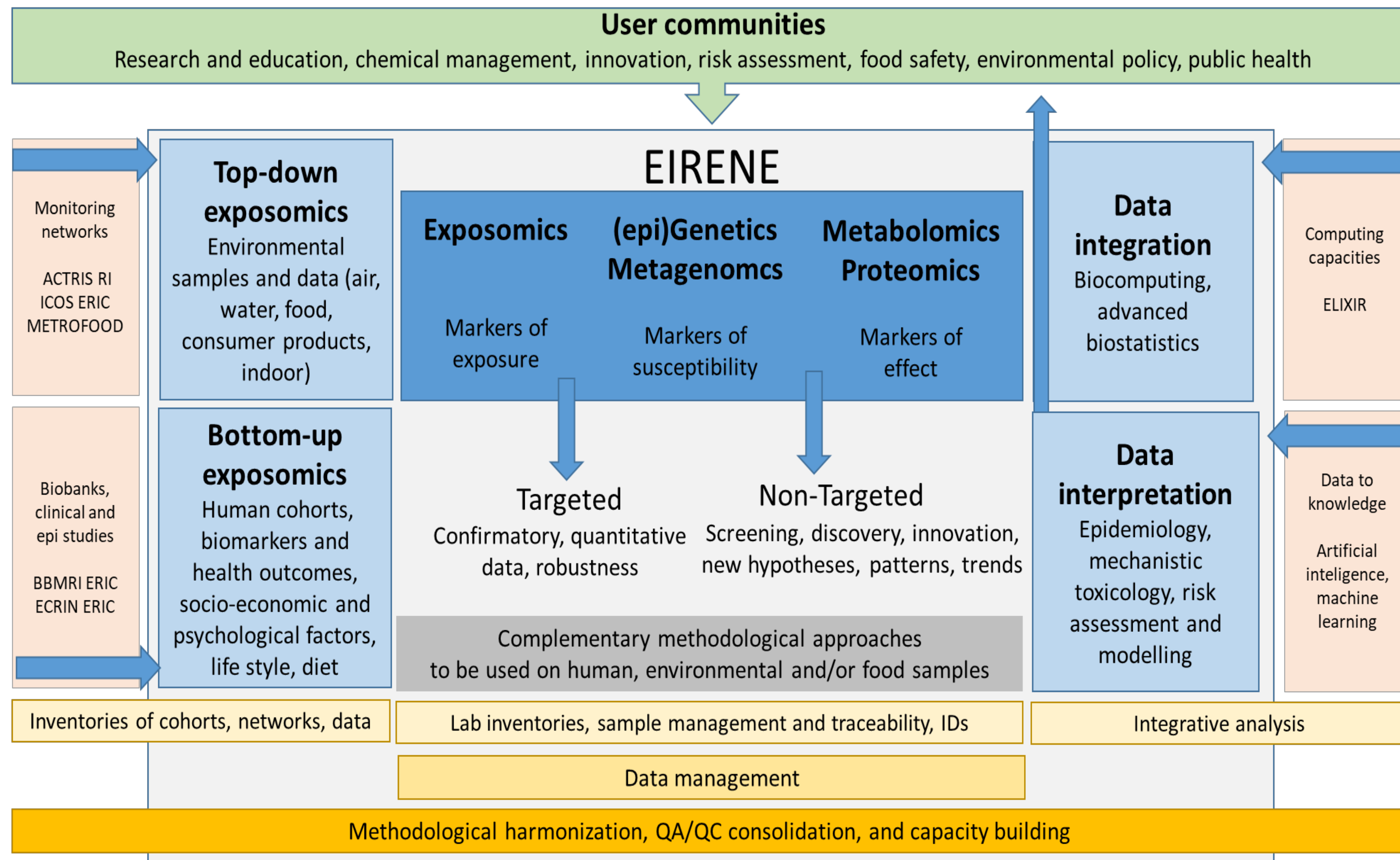
Geographical coverage

Layers of exposome data, Knowledge platform and Virtual Labs

Thank you for your attention