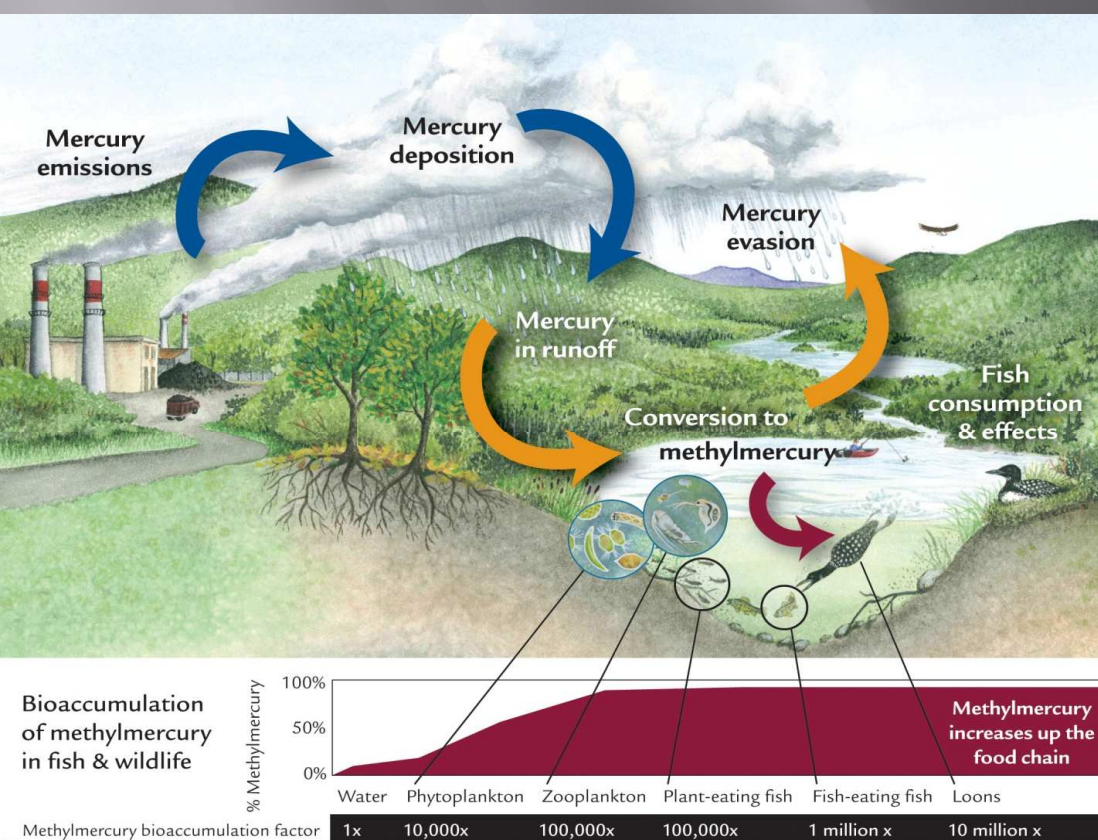




## Joint Research Project MeTra - Traceability for mercury measurements

This project will establish a metrological infrastructure for mercury measurements in all environmental media, as required by current and future national and international legislation aimed at controlling mercury emissions and releases.

An overarching target of the JRP is to support the implementation and assessment of the Minamata Convention on mercury – the global and legally binding treaty aimed at reducing global mercury emissions – together with EC Directives and Member State objectives to reduce the presence of mercury in the environment.



Mercury in its many chemical forms is highly toxic to human, animal and environmental health. Its ability to accumulate in terrestrial and aquatic biosystems makes it a particularly insidious threat to environmental sustainability. Its long lifetimes and ability to be transported in air over long distances mean that it is ubiquitous to all environmental compartments and is a pollutant of global concern.

JRP Partners: LNE (FR), BAM (DE), IJS (SI), LGC (UK), NPL (UK), PTB (DE), SYKE (FI), TUBTAK (TR), UBA (DE), VSL (NL), CNR (II-A) (IT), Uni Pau (FR), Uni Oviedo (ES)

**EMRP**  
European Metrology Research Programme  
Programme of EURAMET

The EMRP is jointly funded by the EMRP participating countries within EURAMET and the European Union





## Project objectives:

- To develop a **calibration infrastructure** enabling the **traceable assessment of mercury in air** to support European legislation for gaseous emissions and air concentrations and as part of the global mercury observing system.
- To develop a **metrological in-line measurement method** and calibration infrastructure enabling the traceable assessment of mercury thresholds specified in European legislation and as part of the global mercury observing system for **continuous and semi-continuous Hg(0) and Hg(II) measurement in (harsh) matrices** like stationary source emissions or liquid media.
- To develop a metrological infrastructure for emerging requirements in mercury science such as the evaluation of mercury concentrations **in indoor air from the use of mercury containing compact fluorescent lamps**.
- To develop primary measurement procedures for mercury **speciation in water and biota** in order to improve mercury monitoring through the aquatic ecosystems and support European legislation, including the **evaluation of transformation artefacts associated with sample collection and preparation**.
- To develop and accurately **perform bulk and compound specific isotope signature measurement methods** for Hg(0) and Hg species.
- To develop and accurately perform **light element (carbon) isotope ratio analyses** in organo-Hg species in order to detect contaminant transformations and migration.
- To investigate unique samples from the German **Environmental Specimen Bank** that document large mercury concentration changes over the last decades.



## For more information:

<http://projects.lne.eu/IRP/MeTra/index.asp>

**Dr Paola Fisicaro**

[Paola.fisicaro@lne.fr](mailto:Paola.fisicaro@lne.fr)  
**+33 (0)1 40433759**

**Laboratoire national de  
métrologie et d'essais (LNE)**  
1, rue Gaston Boissier - 75724  
Paris cedex 15, France

**www.lne.eu**

