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Implementation of the EU mercury package in the Czech Republic - national opportunities and challenges and the latest development at the international level

Kateřina Šebková, Ph.D.

Director of the National and Regional Centres
RECETOX, Masaryk University, Brno, Czech Republic

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the CZECH REPUBLIC at a glance

Official name: the Czech Republic
Total area: 78,867 km²
Population: about 11,3 million
Capital: Prague, pop. 1,312,091

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1 Introduction to RECETOX

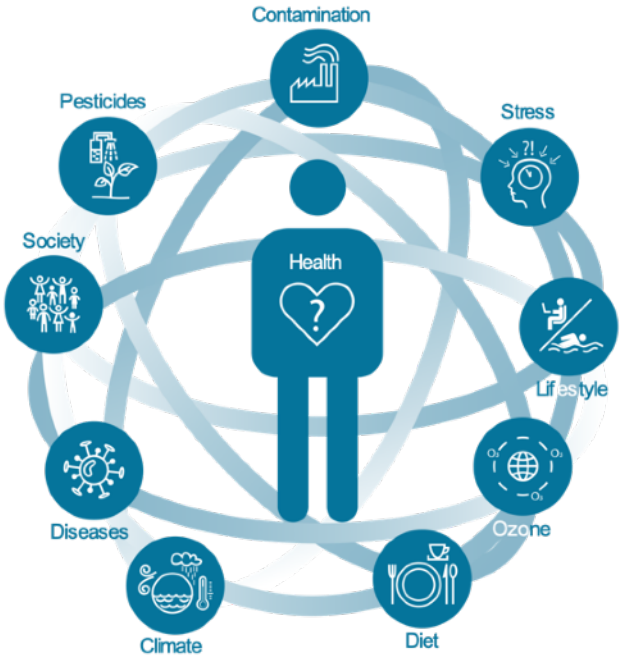
RECETOX in brief

RECETOX is a leading Czech research institute established at the Masaryk university, Brno, Czech Republic which covers a broad range of basic and applied research on **toxic compounds** in the environment and their **effect on human health**.

35 years of experience

RECETOX pillars:

- Research activities
- Education programmes
- Open-Access Research Infrastructure
- Science for Society
- Application of research results



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RESEARCH at RECETOX

RECETOX targets research and education in cross-cutting area of **Environment and Health**. Our high quality interdisciplinary research combines chemical, biological, environmental and epidemiological approaches supported by state of the art facilities.

The RECETOX Research Infrastructure (RI) is a **single-sited research facility**, which supports the implementation of interdisciplinary research projects and conducts

Core Facilities of the RECETOX RI:

- Trace Analytical Laboratories
- Cohort studies
- Data repositories and information systems

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Minamata Convention Related Activities by RECETOX

EU Horizon 2020 **EU Human Biomonitoring Project (HBM4EU)** coordinating and advancing human biomonitoring in Europe to provide evidence for chemical policy making

The Group on Earth Observations (GEO), the Task HE-02 **"Tracking Pollutants"** - GEOSS work plan up to 2025 selected a flagship on mercury further developing GMOS (Global Mercury Observation System) and **initiative on Persistent organic pollutants** aiming at harmonization of approaches

The global (UNEP/WHO) pilot capacity building project "Development of a Plan for Global Monitoring of Human Exposure to and Environmental Concentrations of Mercury" (China, Costa Rica, Ghana, India, Kyrgyzstan, Mongolia, and Russian Federation)

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Organization of regional consultations / preparatory meetings

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2 How EU implements the Minamata Convention?

EU Actions on Mercury (past)

EU Mercury Strategy - 2005, comprehensive plan aimed at addressing mercury use and pollution

new legislation in 2008 - **mercury export ban** (Regulation No. 1102/2008) and EU Mercury Strategy review and update in 2010

The EU **signed** the Minamata Convention on Mercury in October 2013

Nevertheless, some articles in the Minamata Convention required some updates of the EU law - **4 years work**:

stakeholder and public consultation in 2014 (August-November)

Study on EU Implementation of the Minamata Convention on Mercury and Complementary Assessment of the Mercury Export Ban (2015)

EU Actions on Mercury (past+present)

proposal for new Mercury regulation - February 2016

negotiations on that regulation with EU member states and European Parliament concluded in May 2017 and EU ratified the Minamata Convention on 18 May 2017

EU Regulation No 852/2017 on mercury, and repealing Regulation 1102/2008 - replaces the previous EU Mercury regulations (1102/2008), brings EU law into line with the Minamata Convention on Mercury, prohibits the export of mercury, provides for the proper storage of mercury waste and restrict the use of mercury in many products. **applicable from 1st January 2018**

+ covers six areas related to the Minamata Convention previously not covered (adapted to the Minamata Convention): (1) import of metallic mercury, (2) exports of mercury-added products (3) existing use of mercury in industrial processes, (4) new mercury uses in products and processes (5) artisanal small-scale gold mining and (6) use of dental amalgam.

EU Actions on Mercury (MC)

- The **Regulation** is a reaction of the EU to the adoption of the Minamata Convention on Mercury, but it goes a bit beyond the Convention
- text of the Regulation agreed/adopted at EU level 16 May 2017
- published in Official Journal on 17 May 2017
- enters into force 11 December 2017 (chlor-alkali) and 1 January 2018 (rest), depending on relevant provisions
- national transposition started immediately, but it also takes time (at least 12 months since agreement of the government, two chambers of the Parliament and signature of the President are required (CZ case).

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3 National challenges and opportunities - Czech Republic

Challenges and opportunities in CZ

a) EU regulation transposition - national process

✓regulation is directly applicable and superior to/overriding any existing national legislation covered by the field (any relevant provisions)

✓BUT…some fields such as inspection/enforcement/penalties and fees have to be transposed to adapt to national circumstances

✓also, missing fields need to be introduced into national legal framework + covers six areas where EU legislation was not adapted to the Minamata Convention

✓fields/provisions for transposition identified:

- **waste management provisions**
- **reporting on wastes/storage of mercury**
- **implementation of new technologies and competent authorities for that**
- **measures on dental amalgam for phase down**

Challenges and opportunities in CZ

b) EU regulation implementation

- ✓national coordination process in place
- ✓synergies among conventions
- ✓pilot inventory and decision to prepare the National Implementation Plan for end 2019
- ✓enhanced cooperation environment and health sector
  - Risk assessment on the use of dental amalgams in the Czech Republic - population assessment and identification of vulnerable groups
  - Ostrava Declaration adopted in 2017, setting up national priorities - work in progress now (amalgam phase down is one of the items)

Council of the National Centre for Toxic Compounds

National Centre for Toxic Compounds

- inter-ministerial body supporting Minister of Environment
- chair: Vice-minister, Ministry of Environment, Czech Republic
- 24 members including National Focal Point for the Stockholm Convention
- all stakeholders: ministries, national authorities, industry, civil society and RECETOX:

- Ministry of Agriculture
- Ministry of Defense
- Ministry of Education, Youth and Sports
- Ministry of Environment (8 representatives)
- Ministry of Finance
- Ministry of Health
- Ministry of Industry and Trade
- Ministry of Local and Regional Development
- Ministry of Transport

- CENIA - Czech Environmental Information Agency
- Czech Environmental Inspectorate
- National Institute of Public Health
- 1 representative of: industry, civil society and RECETOX

2 meetings/year at a minimum

science to policy transfer
brainstorming/identification/ prioritization
preparation and endorsement of national documents, plans, strategies
requests for work
contract research

one subsidiary body = **national platform for HBM4EU** (established in 2015)
members - researchers and representatives of decision makers

Challenges and opportunities in CZ

c) Convention implementation

✓ waste management issues

✓ mercury waste may be **temporarily stored** in liquid form provided that the specific requirements for the temporary storage of mercury waste

✓temporary storage of mercury waste **only until 2022**

✓ **permanent disposal** of mercury waste must undergo conversion before underground facilities placement

✓ **conversion and solidification** always needed for metallic mercury

Underground facilities:

- salt mines
- above-ground facilities dedicated to and equipped for the permanent storage

Germany, Spain, Poland, Austria

Challenges and opportunities in CZ

c) Convention implementation

✓long term mercury monitoring in place (air, water, soil, humans)

✓ National Implementation Plan for end 2019

✤ generate information on mercury at a country level to provide an essential knowledge base to enable policy and strategic decisions,

✤ set up cost-effective plans and priorities,

✤ provide information requested by the Convention (where relevant for CZ)

Challenges and opportunities in CZ

c) Convention implementation: National Implementation Plan for end 2019 (requirements)

initial assessment - inventory of …. sources, wastes, priorities

article 8 - … inventory within 5 years, plan within four years = in 2021

article 9 - … no later than three years after the date of entry into force of the Convention for it and on a regular basis thereafter, identify the relevant point source categories = in 2020, submit plan within four years of convention entering into force for a Party, plan within 5 years

article 7 - Submit its national action plan to the Secretariat no later than three years after entry into force of the Convention for it or three years after the notification to the Secretariat, whichever is later = 2020

note - guidelines - some adopted by COP1 (in September 2017)

Challenges and opportunities in CZ

c) Convention implementation - National Implementation Plan for end 2019 (content)

- development of action plans to minimize mercury emissions into air and releases to other environmental compartments (articles 8 and 9)
- notifications
- National Implementation Plans (articles 7 and 20),
- setting up health policies and nation-wide measures to protect human health (article 16),
- and identify priorities in other activities requested in the Convention (articles 3-6 and 14-22)

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4 The latest development at the international level - mercury monitoring

Update on the Ad-hoc Technical Expert Group on Effectiveness Evaluation

How to organize a thorough monitoring and use of information collected by environment and health sectors for purposes of implementing Minamata Convention on Mercury?

What are building blocks that should be considered?

What challenges need to be overcame nationally and internationally?

Minamata Convention Article 22

1. COP shall evaluate the effectiveness of this Convention, beginning no later than six years after the date of entry into force of the Convention and periodically thereafter at intervals to be decided by it.

2. To facilitate the evaluation, COP 1 shall initiate the establishment of arrangements for providing itself with **comparable monitoring data** on the presence and movement of mercury and mercury compounds in the environment as well as trends in levels of mercury and mercury compounds observed in biotic media and vulnerable populations.

Minamata Convention Article 22

3. The evaluation shall be conducted on the basis of available scientific, environmental, technical, financial and economic information, including:

    a) Reports and other monitoring information provided to COP pursuant to paragraph 2;

    b) Reports submitted pursuant to Article 21;

    c) Information and recommendations provided pursuant to Article 15; and

    d) Reports and other relevant information on the operation of the financial assistance, technology transfer and capacity-building arrangements put in place under this Convention.

Update on the Ad-hoc Technical Expert Group on Effectiveness Evaluation

- The technical ad-hoc expert group meetings and work in 2018 and 2019.
- Report prepared for COP3 including the reference information document containing background on monitoring activities, modeling and monitoring arrangements, now open for comments until 5 September 2019
  http://www.mercuryconvention.org/Meetings/Intersessionalwork/tabid/7857/language/en-US/Default.aspx

Preliminary summary

- On levels of mercury in **air, biota and human**, data are either available, or able to be obtained, and would be comparable on a global basis, but gaps exist.
- For **water** and **soil**, data are available and useful locally, but may not provide trends on a global basis. **Sediment** monitoring is not widespread, and not easily comparable.
- **Ocean water** would be globally comparable, but concern exists on the feasibility of sampling.

Preliminary summary

- To meet the requirements of article 22 regarding monitoring data, information should be gathered on levels of mercury in **air, biota and humans**.
- Cost-effective, practical, feasible and sustainable methods are available for all of these three types of monitoring.
    - Air - a combination of air sampling (both active and passive) and wet deposition
    - Human biomonitoring - hair and cord blood
    - Biota - the sampling methods might vary bust be possible.

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