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Stockholm Convention
Regional Centre



STOCKHOLM
CONVENTION

Agenda item 2

Review on available information on PCB
capacities and progress on PCBs elimination in
Europe

Stockholm Convention Regional Centre in the Czech Republic hosted
by the RECETOX centre, Masaryk University

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- Objective of the Review
- Methodology for the Review
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MEET THE RECETOX



HOST OF THE STOCKHOLM CONVENTION
REGIONAL CENTRE IN THE CZECH REPUBLIC
AND WHO COLLABORATING CENTRE

BRNO - BOHUNICE CAMPUS



history



culture



architecture



science

BRNO
city for life

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RECETOX in Brief

The RECETOX is a leading Czech research institute covering a broad range of basic and applied research on toxic compounds in the environment and their effect on human health.

Functions of RECETOX:

- **Research** activities
- **Education** programmes
- Open-Access Research Infrastructure
- **Science to Policy and Society** platforms (National Centre for Toxic Compounds, **Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology**)
- Application of research results

RECETOX
Faculty of Science
Masaryk University
Brno, Czech Republic



ABOUT Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology in the Czech Republic

- Hosted by the RECETOX + uses its capacity
- established in 2007
- endorsed in 2009 + successfully evaluated in 2013, 2015, 2019 and 2023 (mandates extended for additional 4 years)
- provides support to the Stockholm Convention on POPs contracting Parties (countries) in its geographical region of the Central and Eastern Europe and beyond*.
- chemicals management and management of wastes containing toxic chemicals by providing training, capacity building, expertise support in a number of fields

*

* We cover issues related to chemicals management, exposome research, monitoring, legal and institutional arrangements and governance including synergies. We support the work under Basel, Rotterdam, Stockholm and Minamata Conventions, SAICM and new Global Chemical Framework and negotiations of the Science Policy Panel (UNEA resolution 5/8) and also partly the INC process for the plastics treaty (UNEA resolution 5/14).

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Our mission is to provide technical assistance, build capacities to implement the Stockholm Convention on POPs and to protect the planet for future generations by combatting global environmental challenges and address triple planetary crises

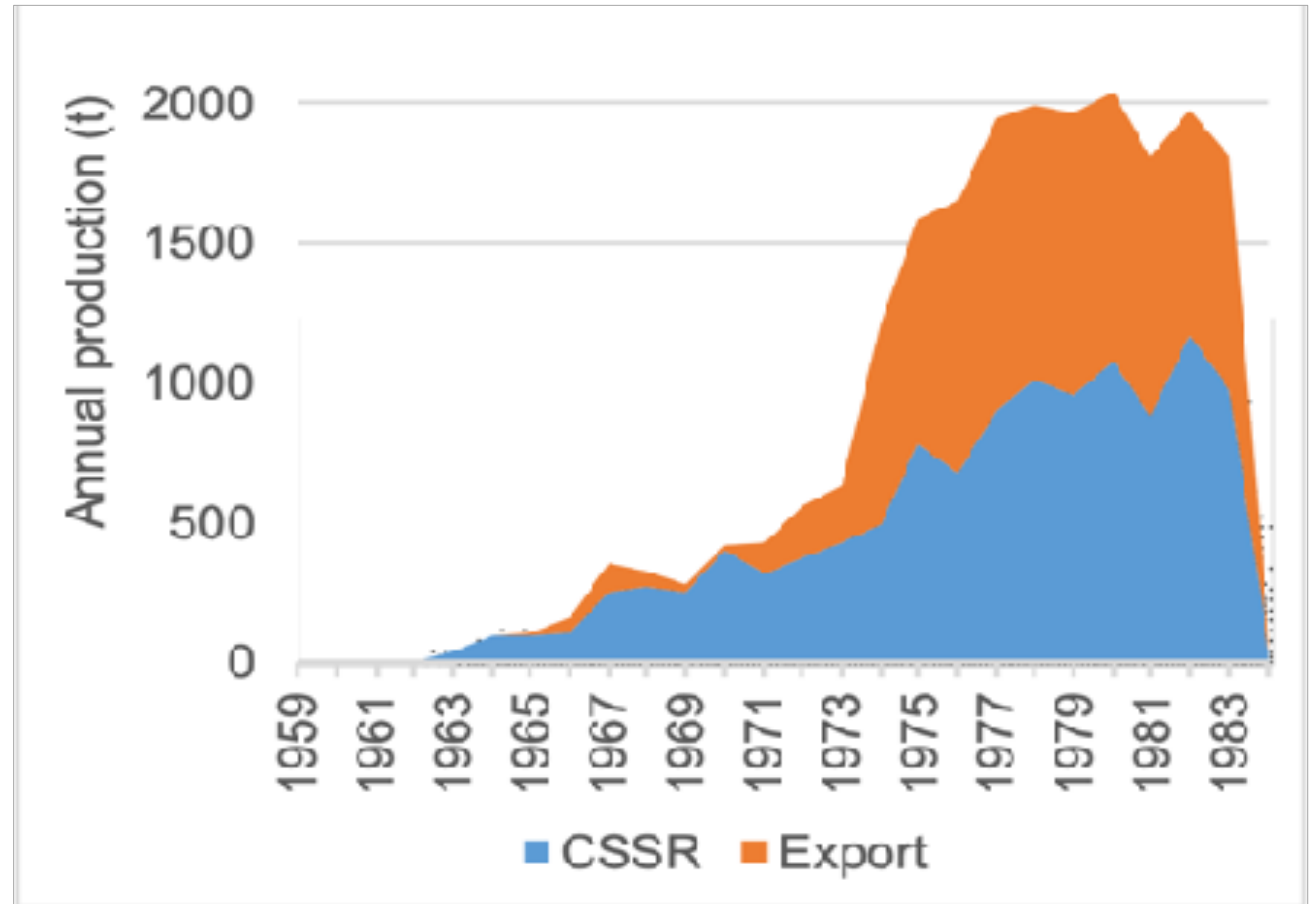
Examples of SCRC-CZ/RECETOX cooperation with countries

- Building **analytical, monitoring and risk assessment** capacities - globally
- Building **laboratory capacities** in Armenia, Kazakhstan, North Macedonia, Kenya, Ghana, Montenegro
- **PCB analyses** in Armenia, Kazakhstan, Kyrgyzstan, Ukraine and Turkey
- **monitoring networks** in CEE, Africa, Arab countries, Pacific Islands (air, water)
- **risk assessment project(s)** in Kazakhstan, Serbia, Mauritius
- development of **data repository and visualization** tool for the GMP (gmp-pops.org)
- **national inventories and surveys**
- **since 2011: support in updating of National Implementation Plans (NIPs)** - Czechia, Serbia, Ukraine, Moldova + 7 countries in GEF projects now
- development of the **legal framework** – Bosnia and Herzegovina, Serbia, North Macedonia, Turkey
- practical solutions for **decontamination/remediation** - VietNam - in cooperation with Dekonta Ltd., Mongolia and Kazakhstan, Ethiopia

implemented via Stockholm Convention Regional Centre (SCRC Czech Republic) in collaboration with the RECETOX Research Infrastructure

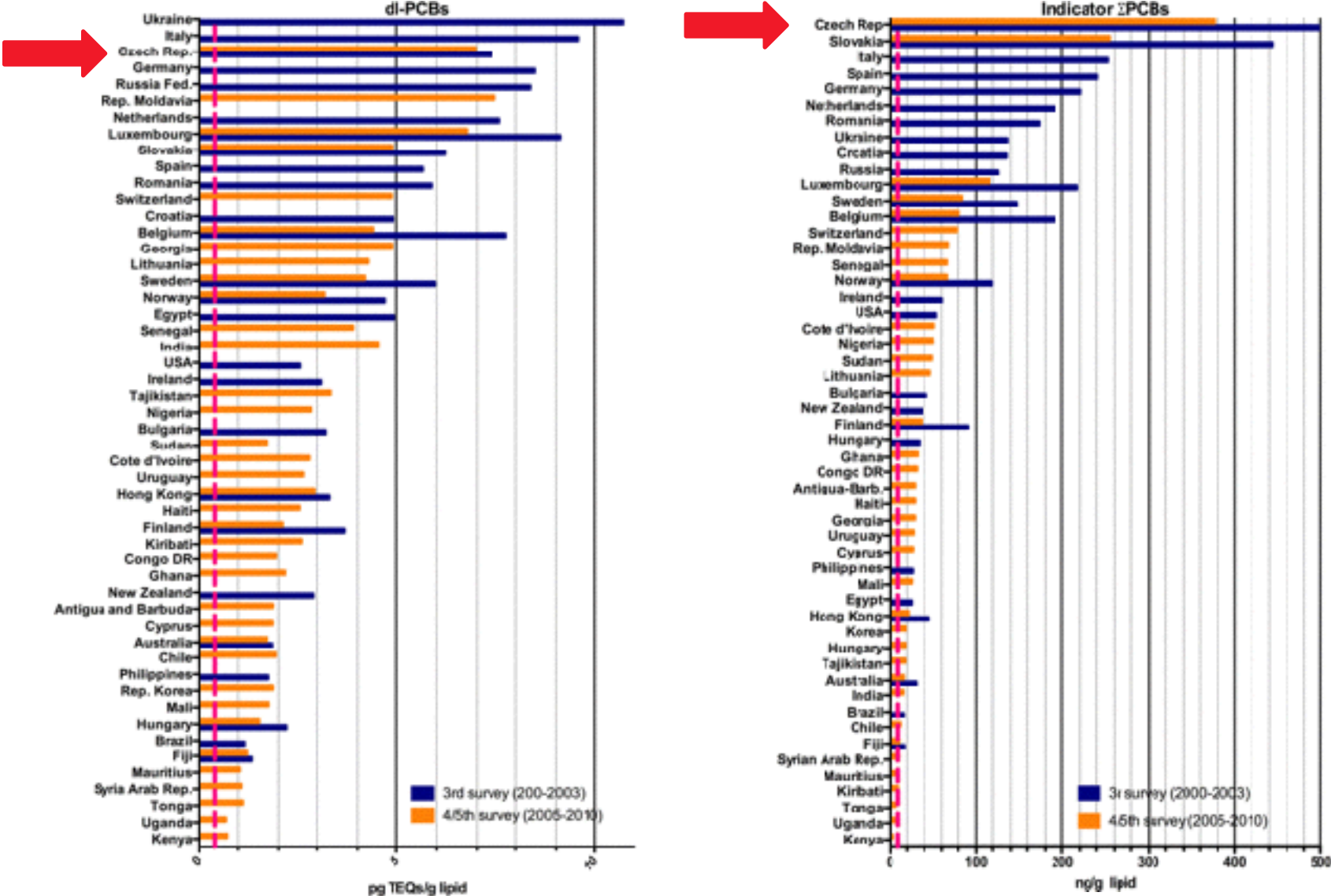
History of PCB production and use in former Czechoslovakia

- PCBs were produced in Chemko Strážské factory (eastern Slovakia) from 1959
- A total of 21482 tonnes were produced, of which 7000 – 8500 tonnes were used in the area of today Czech Republic
- PCBs were banned in 1984 in Czechoslovakia
- Phase-out/remediations started post 1995
- management governed by EU regulation/ standards
- national activities - human exposure - since 1994
- register of contaminated sites (post 2005)
- national PRTR (one of the first in Europe) since 2001 - pilot, 2005



Annual PCB production in former Czechoslovakia according to final location of PCB use. Data from Holoubek et al. (2006).

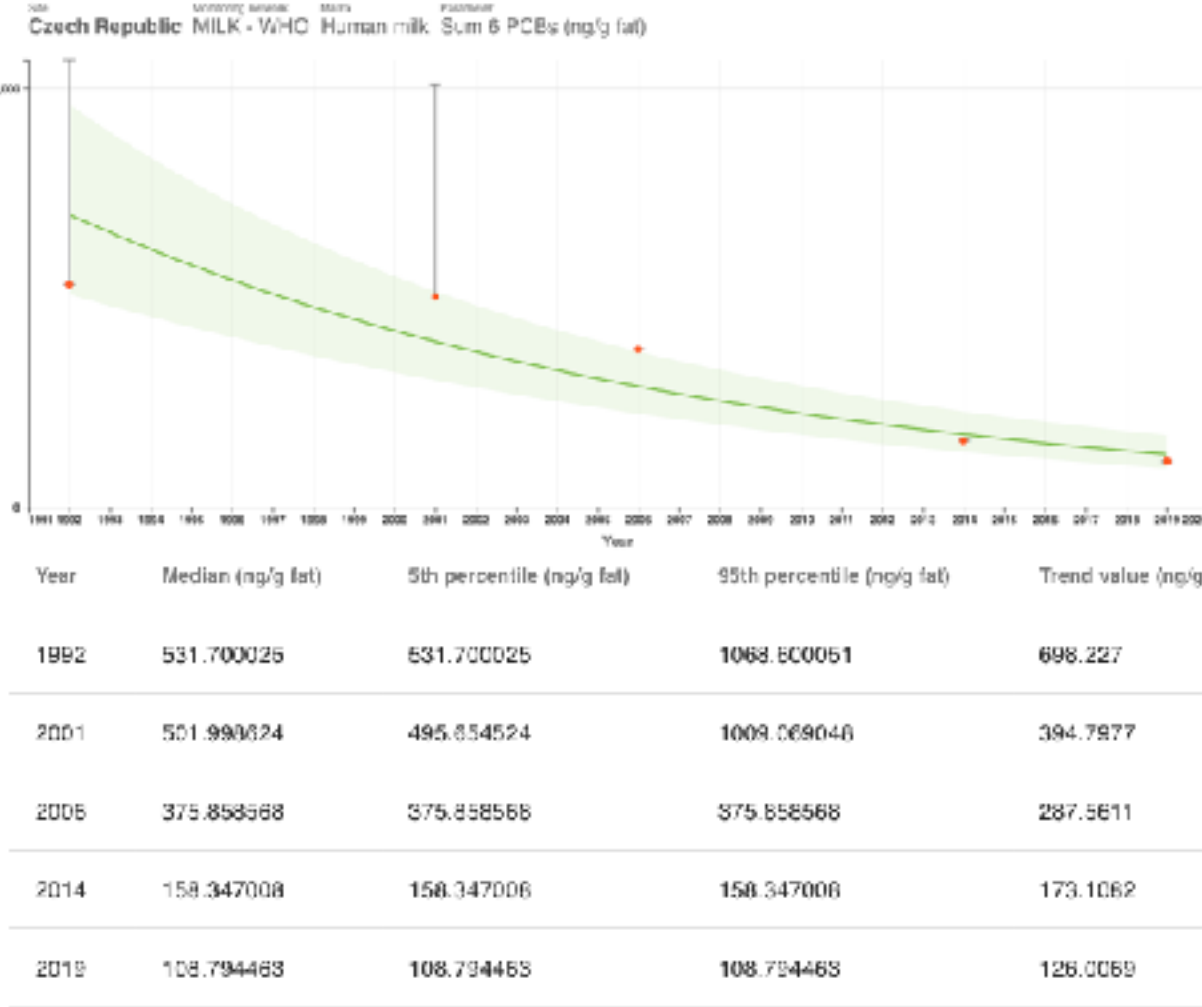
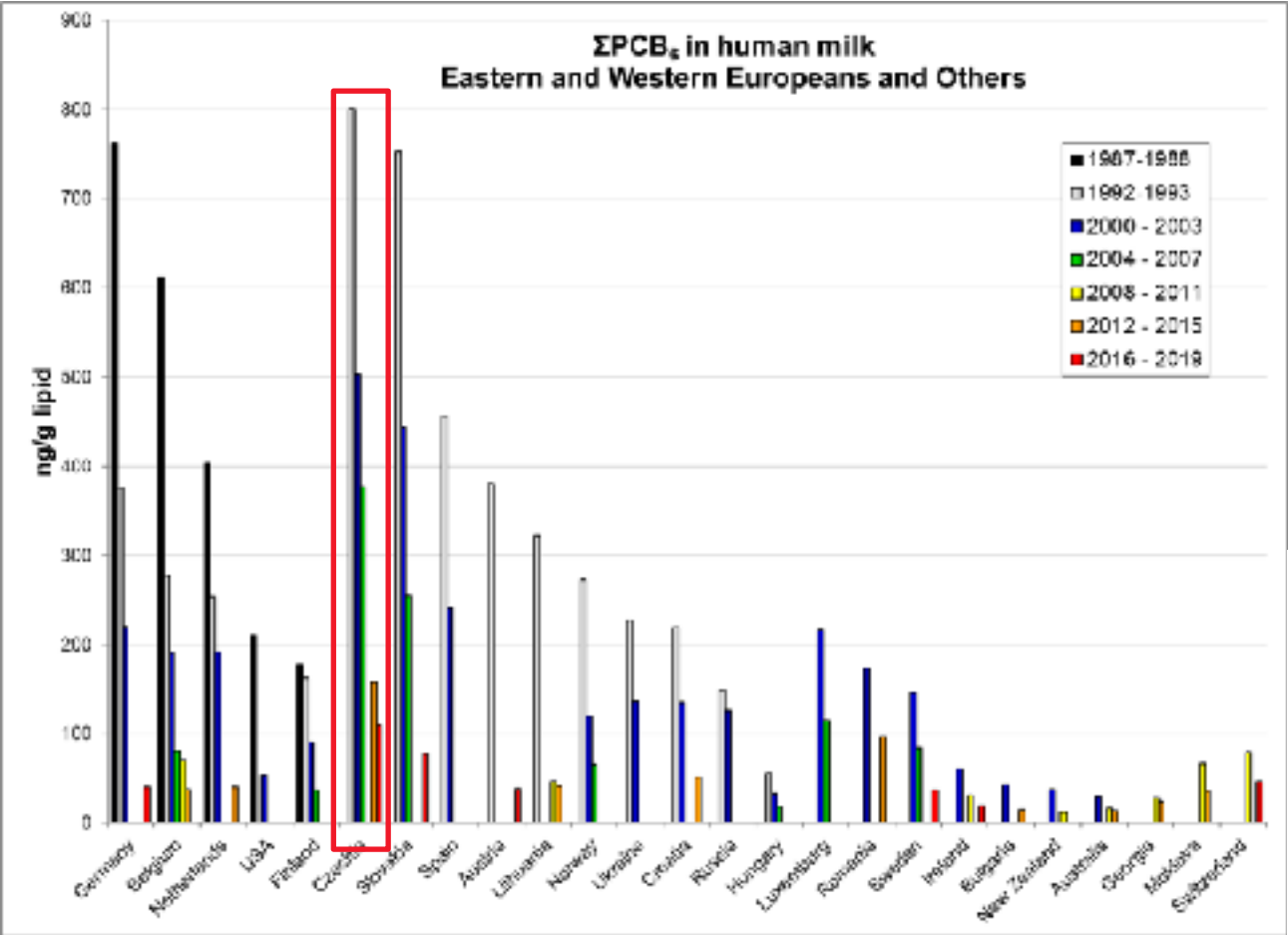
Czech population - one of the most PCB-contaminated populations in the world



Results of the WHO/UNEP surveys for DL-PCBs in TEQs (pg/g lipid) and indicator PCBs in ng/g lipid in pooled human milk samples from different countries in 2000-2003 (blue), and 2005-2010 (orange).

From van den Berg et al. (2017).

The human biomonitoring shows the decreasing tendencies/ trends in PCB levels in breast milk worldwide



Development of iPCB concentrations in human milk over time between 1987 and 2019 for 25 countries that participated two or more times in the WHO/UNEP-coordinated surveys (left).

From: Malisch, Fürst, Šebková (Eds.), 2023.

Now you know about “us” ...

- want to know more?
- Brochures and leaflets or website www.recetox.muni.cz
- RECETOX Research infrastructure open access - <https://www.recetox.muni.cz/en/services/for-users>
- PARC materials and website www.eu-parc.eu

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CONVENTION**

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Review on available information on PCB
capacities and progress on PCBs elimination in
Europe

Stockholm Convention Regional Centre in the Czech Republic hosted
by the RECETOX centre, Masaryk University

Objective of the Review

- review available information on PCB capacities and progress on PCB elimination in Europe under national implementation plans and other relevant sources of information (national reports, project reports etc.) to update PCB Dashboard

Methodology for the Review

- review and extract information from NIPs, Article 15 reports, BC national reports, project reports, internet search
- fill in questionnaire “Assessment of national capacities to phase out the use and eliminate PCB” prepared for regional workshop held in April 2024 in Bratislava, reviewed+updated by SCRC
- contact target countries with request for feedback / validation of the information
- incorporate the feedback into final dataset for PCB Dashboard

Questionnaire distributed

- to review country legal framework, PCB inventory and progress, provided NIPs and Art 15 reports, national capacities for PCB elimination and
- external support for PCB management received.

Assessment of national capacities to phase out the use and eliminate PCB

Name of country	Date of elaboration			
Country Focal Point, Official Contact Points and Competent Authorities <i>(Add rows as necessary)</i>	Name	Title	Institution	Contact
...				
Authority responsible for completing this form	Name	Title	Institution	Contact
...				
Other relevant authorities and stakeholders consulted to elaborate this strategy <i>(Add rows as necessary)</i>	Name	Title	Institution	Contact
...				
LEGISLATION				
Ratification of the Stockholm Convention	Yes	No	date of entry into force	
Ratification of the Basel Convention	Yes	No	date of entry into force	
National legislation on hazardous waste environmentally sound	Yes	No		
Title of legislation	Date	number	Description	link
...				
...				
National legislation on PCB environmentally sound management. <i>(Add rows as necessary)</i>	Yes	No		
Title of legislation	Date	number	Description	link

PCB Inventory					
National PCB Inventory developed	Yes	No	Under development	Partial	Year of last update
Link to latest PCB inventory (or attach inventory):					
Amount of PCB inventoried	Equipment in use:	Number of equipment			
		Total weight (Casting + Liquid) (tons)			
	Equipment in storage:	Number of equipment			
		Total weight (Casting + Liquid) (tons)			
Waste:	PCB Liquids not contained in casings (tons)				
	Other PCB waste (porous and non-porous materials, contaminated soils, PPE) (tons)				
Sectors covered in PCB inventory:					
Electric energy Producers	Yes	No	Remarks	...	
Electric energy transporters and distributors	Yes	No	Remarks	...	
Small energy distributors: cooperatives, municipalities, etc.	Yes	No	Remarks	...	
Public buildings and institutions: ports, airports, military bases, universities, etc.	Yes	No	Remarks	...	
Medium and Large private electricity consumers: Industries and other facilities	Yes	No	Remarks	...	
Others	Yes	No	Remarks	...	
Last presented National Implementation Plan	Year	Link to latest NIP			
PCB inventory presented in NIP?	Yes	No	Remarks	...	
NIP currently being updated?	Yes	No	Expected year to present next updated NIP		

UNEPP/OPS/PCBSIWG/01

National Reports to the Stockholm Convention					
1st Report - 2006	Yes	No	PCB Inventory included?	Yes	No
2nd Report - 2010	Yes	No	PCB Inventory included?	Yes	No
3rd Report - 2014	Yes	No	PCB Inventory included?	Yes	No
4th Report - 2018	Yes	No	PCB Inventory included?	Yes	No
5th Report - 2022	Yes	No	PCB Inventory included?	Yes	No
SAMPLING AND ANALYTICAL CAPACITIES					
Legal provisions for PCB sampling and identification	Yes	No	Remarks	...	
Laboratories for PCB analysis <i>(Add rows as necessary)</i>					
Name of laboratory	Location	Technologies	Certification/ accreditation	REMARKS	
...					
PCB laboratories (public and private) are adequately available across the country against potential demand for	Yes	No	Remarks	...	
DISPOSAL FACILITIES					
Country disposal facilities for PCB <i>(Add rows as necessary)</i>	Yes	No	Remarks	...	
Name of disposal facility/ company	Location	Technologies (chemical treatment, incineration, engineered landfilling, etc.)	Best disposal operation (D1, D2, P1R, I1, R1, R2, R4, etc.)	REMARKS	
...					
...					
PCB disposal facilities are adequately available across the country against potential demand for analysis?	Yes	No	Remarks	...	
PCB PROJECTS					
Name of the project <i>(Add rows as necessary)</i>	Source of funding (GEF, other)	Date of Start	End Date	Implementing Agency	Expected PCB elimination (tons)
...					

Participating countries

WEOG and CEE UN regions, EU and non-EU located in wider Europe

Total number of countries in the Review	49
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Parties to the Stockholm Convention on POPs	46
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Parties to the Basel Convention	49
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Countries with no contact	2
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Countries with no data	3
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Legal framework and PCB inventory

legislation on PCB management available in ALL Parties

combination of national + EU legislation

6 countries are using primarily EU legislation

note: in EU countries (EU member prior SC entry into force in 2001) PCB phase out required by 2010, otherwise mostly adhering to 2025 and 2028 deadlines

PCB inventory performed by SC Parties

YES in 43/44

How many updates of the inventory ?

At least one

44

Most PCB inventory updates observed

5 in one country

Sectors covered in PCB inventory

Energy (major producers only) or energy (all - large and small distributors including private companies) - covered in 46 Parties

Other Sectors covered

public security or health

education - universities and schools

transport - ports, airports and railways

agriculture

mining

military

Capacities for PCB analyses and disposal

for PCB analyses (laboratories)

Total number of PCB laboratories in the Review	200+
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Laboratories for PCB oil analyses	60+
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Countries with no laboratory	10+
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Capacity for PCB elimination in country in wider Europe	YES
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Countries with (local) facility	15
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Countries with no domestic facility	20+
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Any PCB-free countries?

YES!

Total number of PCB-free countries	11
------------------------------------	----

Andorra, Austria, Denmark, Finland, Hungary, Latvia, Liechtenstein, Monaco, the Netherlands, Sweden
Iceland pending validation

will become PCB free in 2026 1-2

PCB equipment in Europe (preliminary)

- Nr. Of PCB equipment: 205 164
- Mass of PCB in equipment in use 47 366 412 kg
- Total Number of equipment in storage or out of use: 69 194
- Total mass of equipment in storage or out of use: 209 786 kg
- Other liquid not contained in equipment: 1 243 496,5 kg
- Other liquid PCB not contained in equipment in use or unspecified: 18 179 387,9 kg
- Other PCB waste (porous and non porous materials, contaminated soils, PPE): 233 200 kg

Projects implemented in the region related to PCB

with external assistance by the GEF

- differences in eligibility (developed countries not eligible)

Total number of GEF projects for countries in the Review 42*

Total number GEF projects covering NIP 20+

Countries with NIP supported by GEF 17

Countries with no GEF project 21

Countries with specific PCB management project 13

* some projects may be counted more than once - regional/global

Next Steps

1. Validation still ongoing, some countries asked for more time
2. RECETOX experts to crosscheck information
3. RECETOX to update database for PCB dashboard for Europe - share with BRS Secretariat
4. Finalize the report on the information on PCB capacities and progress on PCB elimination in Europe

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Should you have questions, do not hesitate to contact our team performing the Review:

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katerina.sebkova@recetox.muni.cz

Thank you for your kind attention and feedback/questionnaires already received!