

Global Consultation on Chemicals and Waste Issues of Concern 11-12 July 2023

Day 1 - Hybrid meeting

11 July 2023



Global Consultation on Chemicals and Waste Issues of Concern

Welcome



Opening remarks

Jacqueline Alvarez

Head, Chemical and Health Branch, UNEP



Opening remarks

Pierre Strauss

*Deputy Director, Global Affairs,
Switzerland Mission to the United Nations*



Day 1

Opening plenary (9:00 – 10:30)

Tea and Coffee Break (10:30 – 11:00)

Discussions on Metals and Metalloids (*Arsenic, Cadmium, Lead, Lead in Paint, and Organotins*) (11:00 – 13:00 pm)

Lunch (13:00 – 14:00)

Discussions on Chemicals in Products 1 (*Endocrine disrupting chemicals (EDCs); Phthalates; Bisphenol A (BPA); Microplastics; Polycyclic Aromatic Hydrocarbons (PAHs)*) (14:00 - 16:30)

Tea and Coffee Break (15:20 – 15:50)

Discussions on Chemicals in Products 2 (*Chemicals in Products; Hazardous Substances in the Lifecycle of Electrical and Electronic Products (HSLEEP); Nanotechnology and Manufactured Nanomaterials and Per- and Polyfluoroalkyl Substances (PFASs) and the transition to safer alternatives*) (16:30 – 17:00)

Wrap up of the day (17:00 – 17:30)

Day 2

Discussions on Chemicals in Products 2 (*Chemicals in Products; Hazardous Substances in the Lifecycle of Electrical and Electronic Products (HSLEEP); Nanotechnology and Manufactured Nanomaterials and Per- and Polyfluoroalkyl Substances (PFASs) and the transition to safer alternatives*) (9:00 – 10:30)

Tea and Coffee Break (10:30 – 11:00)

Discussions on Bioactive Substances (*Highly Hazardous Pesticides (HHPs); Glyphosate; Neonicotinoids, Triclosan and Environmentally Persistent Pharmaceutical Pollutants (EPPPs)*) (11:00 – 13:00 pm)

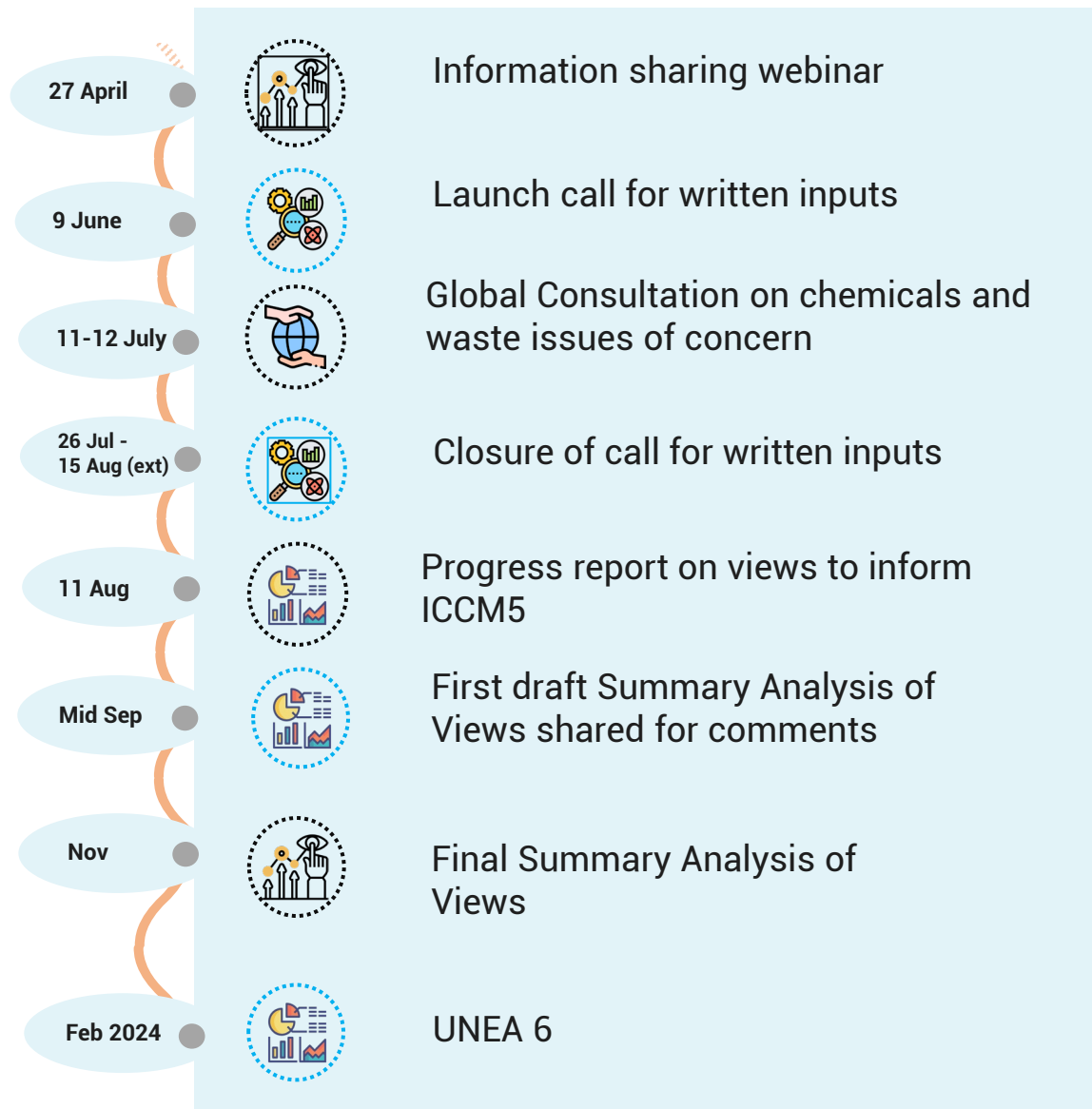
Lunch (13:00 – 14:00)

Discussion on Cross-cutting issues and priorities (14:00 - 15:30)

Tea and Coffee Break (15:30 – 16:00)

Wrap up and next steps (16:00 – 17:30)

Consultation process to address the UNEA resolution 5/7



Timeline cont.

- [Assessment Report on Issues of Concern](#)
- [Annexes to the Assessment report on Issues of Concern](#)
- [Fact sheets on Issues of concern](#)
- [SAICM Survey on emerging policy issues and other issues of concern](#)



Overview of issues of concern

Zhanyun Wang
Former ETH Zurich

UNEA 4 Mandate of the Assessment Report

UNEA 4/8, para 14(f): Prepare a report on matters in which emerging evidence indicates a risk to human health and the environment, identified by the Strategic Approach to International Chemicals Management, the Global Chemicals Outlook and under subparagraph (e) above, including an analysis of existing regulatory and policy frameworks and their ability to address those matters in the achievement of the 2020 goal, in particular for lead and cadmium

- (e) Follow trends in the design, production, use and release of chemicals and the generation of waste in order to identify issues of concern for future editions of the Global Chemicals Outlook and the Global Waste Management Outlook and catalyse sound management actions.



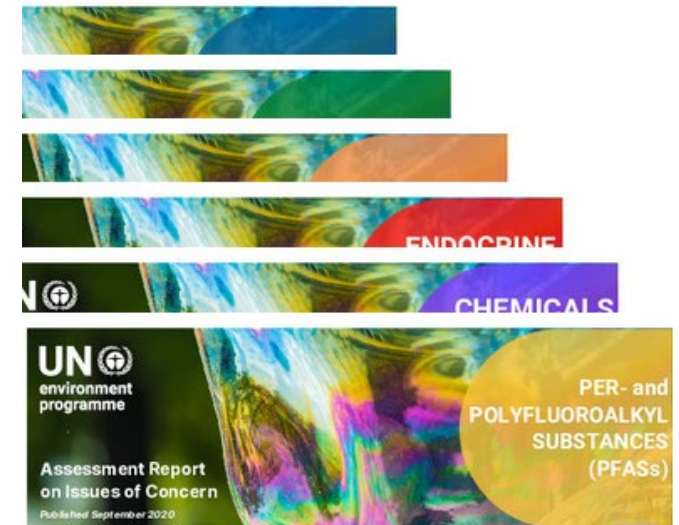
Assessment Report

- **Aim:** inform the international community about the situation of specific issues of concern, as a basis for considering possible needs for concerted action.
- **Report**
- **Summary in 6 UN languages**
- **Annexes**
- **Fact sheets**
- **Accessible at:**
<https://www.unep.org/resources/report/assessment-report-issues-concern-chemicals-and-waste-issues-posing-risks-human>

Download

An Assessment Report on Issues of Concern: Chemicals and Waste Issues Posing Risks to Human Health and the Environment

- 📄 English full report
- 📄 Annexes
- 📄 Factsheets on the 19 issues of concern
- 📄 Catalogue of International Actions on Chemicals and Waste
- 📄 English Summary
- 📄 ARABIC Summary
- 📄 CHINESE Summary
- 📄 FRENCH Summary
- 📄 RUSSIAN Summary
- 📄 SPANISH Summary



1. Introduction

The PFAS family is composed of thousands of synthetic organic chemicals that contain at least one perfluorocarbon moiety (e.g. -CF₂-) in their molecular structures. They are used or applied most often where extremely low surface tension and/or durable water and oil repellency is needed (e.g., in various fire-fighting foams and for surface treatment of textile).

2. Why is it relevant?

Since the late 1990s and early 2000s, studies have been conducted to assess some "long-chain" PFASs. Long-chain PFASs have been widely recognized as contaminants of high global concern due to their high persistence, bioaccumulation potential, toxicity, and ubiquitous distribution in the global environment, biota and humans.

PFASs have been widely used in numerous commercial and consumer applications since the late 1940s.

The Organisation for Economic Co-operation and Development maintains a global database of PFASs. A 2018 study identified more than 4,700 Chemical Abstracts Service numbers, which can be associated with a large variety of PFASs that (most) have been

While substantial progress has been made in understanding the hazards, exposure, risks and treatment of some long-chain PFASs, other PFASs and non-fluorinated alternatives have received limited attention. Information on the hazards of many non-fluorinated alternatives to PFASs is lacking.

In 2009, at the second meeting of the International Conference on Chemicals Management (ICCM2), the stakeholders of the Strategic Approach to International Chemicals Management (SAICM) identified "managing PFASs and the transition to safer alternatives" as an issue of concern.

Overview of the Issues

SAICM issues	Issues identified by GCO II
Chemicals in products (CiP)	Arsenic
Endocrine disrupting chemicals (EDCs)	Bisphenol A
Environmentally persistent pharmaceutical pollutants (EPPPs)	Glyphosate
Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)	Cadmium
Highly Hazardous Pesticides (HHPs)	Lead
Lead in paint	Intentionally added microplastics in products
Nanotechnology and manufactured nanomaterials	Neonicotinoids
Per- and polyfluoroalkyl substances (PFASs)	Organotins (organic tin compounds)
	Phthalates
	Polycyclic aromatic hydrocarbons (PAHs)
	Triclosan

Overview of the Issues

SAICM issues
Chemicals in products (CiP)
Endocrine disrupting chemicals (EDCs)
Environmentally persistent pharmaceutical pollutants (EPPPs)
Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)
Highly Hazardous Pesticides (HHPs)
Lead in paint
Nanotechnology and manufactured nanomaterials
Per- and polyfluoroalkyl substances (PFASs)

- Identified by SAICM Stakeholders at the **International Conferences on Chemicals Management (ICCMs)**
- <https://www.saicm.org/Implementation/EmergingPolicyIssues/tabid/5524>

Overview of the Issues

Issues identified by GCO II
Arsenic
Bisphenol A
Glyphosate
Cadmium
Lead
Intentionally added microplastics in products
Neonicotinoids
Organotins (organic tin compounds)
Phthalates
Polycyclic aromatic hydrocarbons (PAHs)
Triclosan

- **Selection criteria:** at least two countries or regional economic integration organisations have undertaken the following two types of actions since 2010, including at least one regulatory risk management action:
 - (1) There has been a **regulatory risk management action** on a chemical or group of chemicals, based on emerging evidence indicating a risk to human health and the environment.
 - (2) A **full risk assessment or reassessment action** for the same chemical or group of chemicals has been completed or initiated.

Assessment Scope & Methods

- **To prepare this report,**
 - scientists and experts across the globe
 - drafting and draft reviews on individual issues
 - experts from the African, Latin American and the Caribbean, Central and Eastern European, and Asian and the Pacific regions
 - gather specific inputs from their regions or countries
 - UNEP, other members of the Inter-Organization Programme for the Sound Management of Chemicals (IOMC), and the Secretariats of the Basel, Rotterdam and Stockholm Conventions, the Minamata Convention and SAICM
 - review and provide comments

Assessment Scope & Methods

- The assessment focused on
 - an overview of **different types of existing instruments and actions**
 - **being comprehensive, but not exhaustive + a “snapshot”** (by April 2020)
 - **the comprehensiveness of instruments and actions**, in terms of geographical scale, scope and content, without specifically looking into their effectiveness
 - *Legally binding instruments*: bilateral and multilateral treaties; national/regional legislation* and regulations*
 - *Soft law instruments*: resolutions and recommendations; codes of conduct; guidelines; communications; fiscal policies
 - *Voluntary initiatives*: voluntary phase-out; awareness-raising; capacity building; industry standards; labelling; partnerships

Assessment Scope & Methods




- For the eleven issues identified by GCO-II, additional details on
 - **a compilation of existing hazard or risk assessments** by national governments, intergovernmental institutions and their associated bodies as background
 - **an assessment of ongoing exposures**, including key characteristics (persistence, bioaccumulation potential, long-range transport potential, global trade of associated products and waste), major sources, and prevalence, levels and trends of exposure
 - Provides a basis for considering the possible needs for international concerted action



Major Lessons Learned

1. Interlinkages between the Issues

IoCs under SAICM		IoCs identified by GCO-II
Endocrine Disrupting Chemicals (EDCs; Section 3.2)	←	Bisphenol A (BPA; Section 4.2)
	←	Organotins (Section 4.8)
	←	Phthalates (Section 4.9)
	←	Triclosan (Section 4.11)
Highly Hazardous Pesticides (HHPs; Section 3.5)	←	Arsenic (Section 4.1)
	←	Glyphosate (Section 4.4)
	←	Neonicotinoids (Section 4.7)
Chemicals in Products (CiP; Section 3.1)	→	All issues
Hazardous Substances within the Life Cycle of Electrical and Electronic Products (HSLEEP; Section 3.4)		Arsenic (Section 4.1)
		Cadmium (Section 4.3)
	→	Lead (Section 4.5)
		Phthalates (Section 4.9)
Lead in Paint (Section 3.6)	→	Lead (Section 4.5)

-  established link
-  established partial link
-  possible link based on scientific evidence, but no official identification yet

2. The GCO-II Issues need attention

	Persistence in the environment?	Long-range transport potential?
Arsenic	✓	✓ (emissions from high-temperature processes)
Bisphenol A	✗	✗
Cadmium	✓	✓ (emissions from high-temperature processes)
Glyphosate	✓ (up to months to years in soil & sea water)	✓ (land-to-sea transport)
Lead	✓	✓ (emissions from high-temperature processes)
Microplastics	✓	✓
Neonicotinoids	✓ (up to months to years in soil & sediment)	✗
Organotins	✓	✓ (some organotins)
Phthalates	✗	✗
PAHs	✓	✓
Triclosan	✗	✗

2. The GCO-II Issues need attention

	Persistence in the environment?	Long-range transport potential?	Global prevalence of current exposure (and trends)?
Arsenic	✓	✓ (emissions from high-temperature processes)	✓
Bisphenol A	✗	✗	✓ (↗ in adults)
Cadmium	✓	✓ (emissions from high-temperature processes)	✓ (↘ in some regions, ↗ in others)
Glyphosate	✓ (up to months to years in soil & sea water)	✓ (land-to-sea transport)	✓
Lead	✓	✓ (emissions from high-temperature processes)	✓ (↗ as shown by global burden of disease data)
Microplastics	✓	✓	✓
Neonicotinoids	✓ (up to months to years in soil & sediment)	✗	✓
Organotins	✓	✓ (some organotins)	✓
Phthalates	✗	✗	✓
PAHs	✓	✓	✓
Triclosan	✗	✗	✓

2. The GCO-II Issues need attention

	Persistence in the environment?	Long-range transport potential?	Global prevalence of current exposure (and trends)?	Major sources being addressed globally?
Arsenic	✓	✓ (emissions from high-temperature processes)	✓	✗
Bisphenol A	✗	✗	✓ (↗ in adults)	✗
Cadmium	✓	✓ (emissions from high-temperature processes)	✓ (↘ in some regions, ↗ in others)	✗
Glyphosate	✓ (up to months to years in soil & sea water)	✓ (land-to-sea transport)	✓	✗
Lead	✓	✓ (emissions from high-temperature processes)	✓ (↗ as shown by global burden of disease data)	✗
Microplastics	✓	✓	✓	✗
Neonicotinoids	✓ (up to months to years in soil & sediment)	✗	✓	✗
Organotins	✓	✓ (some organotins)	✓	✗
Phthalates	✗	✗	✓	✗
PAHs	✓	✓	✓	✗
Triclosan	✗	✗	✓	✗

3. Progress Made, But Not Enough

- Many types of instruments have been developed and actions taken
- But they are inadequate to solve the issues at a global scale, e.g.,
 - For some well-known issues such as lead in paint and highly hazardous pesticides, progress has been uneven geographically.
 - For more recently identified issues, gaps exist in terms of scope and limitations of existing instruments and actions.

Acknowledgement

Technical contributions were kindly made by

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Grouping of the Issues for Today and Tomorrow

Grouping of the Issues for Today and Tomorrow

- Merely for the purpose of this Global Consultation meeting, to facilitate organisation and discussion of the 19 issues.
- During the discussion, priority actions for the issues may be considered for the group of the issues, or for each individual issue.

Grouping of the Issues for Today and Tomorrow

SAICM issues
Chemicals in products (CiP)
Endocrine disrupting chemicals (EDCs)
Environmentally persistent pharmaceutical pollutants (EPPPs)
Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)
Highly Hazardous Pesticides (HHPs)
Lead in paint
Nanotechnology and manufactured nanomaterials
Per- and polyfluoroalkyl substances (PFASs)

Issues identified by GCO II
Arsenic
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Metals and metalloids group

Grouping of the Issues for Today and Tomorrow

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Chemicals in products (CiP)
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Chemicals in products groups 1 – dark blue

Chemicals in products group 2 – light blue

Grouping of the Issues for Today and Tomorrow

SAICM issues
Chemicals in products (CiP)
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Phthalates
Polycyclic aromatic hydrocarbons (PAHs)
Triclosan

Bio-active substances group



Thank you for your attention!

Questions?



Scene setting on international agendas

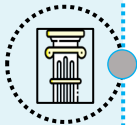
Jacqueline Alvarez

UNEP

The Resolution

The Resolution Request UNEP to...

March 2019



**UNEA
Resolution
4 / 8**

**Welcomed the
publication of Global
Chemicals Outlook II**

- Sub paragraph (e): Follow trends in the design, production, use and release of chemicals and the generation of waste in order to identify issues of concern for future editions of the Global Chemicals Outlook and the Global Waste Management Outlook and catalyse sound management actions;
- "Prepare, by 30 April 2020, a report on matters in which emerging evidence indicates a risk to human health and the environment, identified by the Strategic Approach to International Chemicals Management, the Global Chemicals Outlook and under subparagraph (e) above, including an analysis of existing regulatory and policy frameworks and their ability to address those matters in the achievement of the 2020 goal, in particular for lead and cadmium"

March 2022



**UNEA
Resolution
5 / 7**

**Welcomed the Issues
report, urged member
states and invited
other stakeholders to
take further action.**

- Seek views from Member States and other stakeholders, while ensuring sufficient time for their consideration, on priorities for further work, building on existing measures and initiatives, and on potential further international action on the issues discussed in the [Assessment Report on Issues of Concern](#), and in particular on those issues identified in the [Global Chemicals Outlook II](#) and
- to prepare a summary analysis, taking into account the views received for consideration by the Environment Assembly and by other international bodies, including the International Conference on Chemicals Management, as appropriate

Consultation process timeline



Sixth session of the UN Environment Assembly (UNEA-6, 26 February to 1 March 2024, Nairobi, Kenya) to consider a **Summary of views on issues of concern** developed on the basis of the written inputs and global consultation



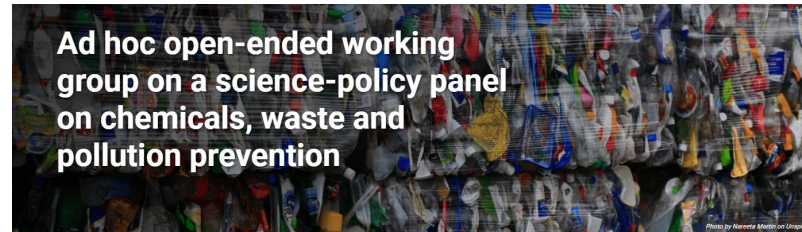
Chemicals and Waste International Scene

Ongoing processes



ICCM5

- Date**
25 - 29 Sep 2023
- Location**
Bonn
- Meeting type**
ICCM



UNEP EVENT

Global Intergovernmental Meeting on Minerals and Metals
7 - 8 September 2023
Geneva, Switzerland

WORKING GROUP MEETING

Third meeting of the UNEP Working Group on Nitrogen
27 - 28 April 2023
Hybrid - Bucharest, Romania



Food and Agriculture Organization of the United Nations



UNITED NATIONS
EMG

30 MONTREAL PROTOCOL



World Health Organization



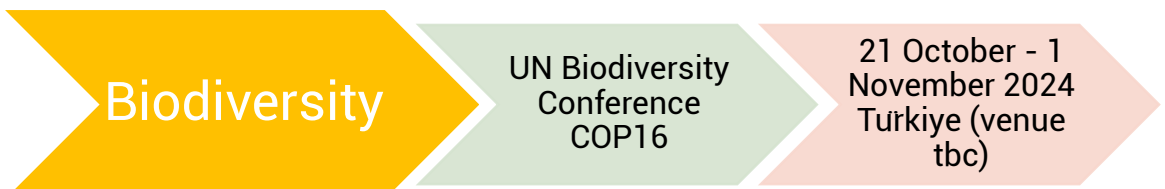
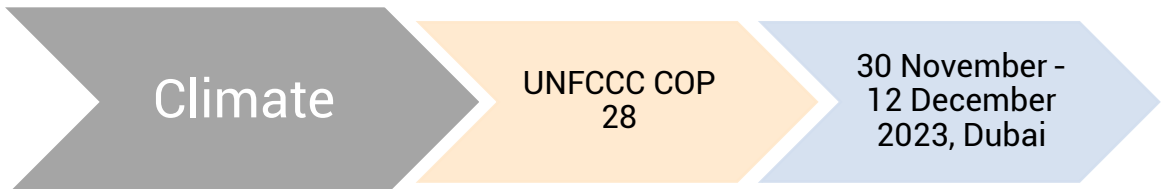
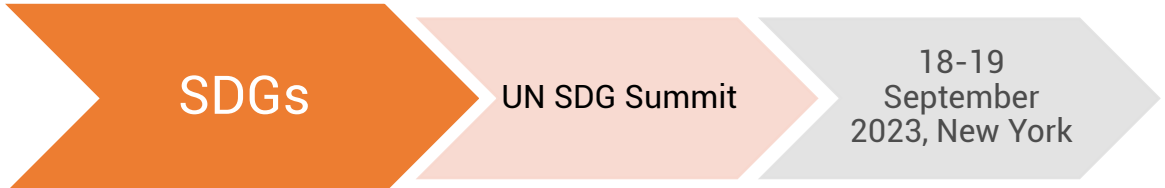
UNECE



International Labour Organization

C&W MEAs and other global fora

Linkages - Chemicals and waste relevance to other clusters



A number of opportunities towards:

- **Elevated international concerted actions**
- **An integrated and holistic approach** going beyond a silos
- **“System thinking”**, considering C&W new and ongoing processes as well as beyond, exploring linkages with the Climate and Biodiversity agendas as well as sectoral approaches
- **An overarching enabling environment**, including leadership, new mechanisms to raise international community's efforts, knowledge management, and involvement of the scientific community



Questions?



Tea and Coffee Break



Metals and Metalloids Group

Arsenic, Cadmium, Lead, Lead in Paint, and Organotins



Metals and Metalloids Group

Zhanyun Wang

UNEP

Overview of the Issues

SAICM issues
Lead in paint

Issues identified by GCO II
Arsenic
Cadmium
Lead
Organotins (organic tin compounds)

(1) Needs for Concerted Action on Them

	Arsenic	Cadmium	Lead	Organotins
Long-range transport				
• Via natural currents	Non-volatile, but high potential via small to fine particles on which they are adsorbed			Most insignificant, except methylated ones
• Via trade	Extensive			
Exposure worldwide	Prevalent			
Natural sources, e.g.,				
• Volcanic activity; vegetation exudates; windblown dusts	Yes			Yes (e.g., methylation of inorganic and organic tin in sediments)
Anthropogenic sources				
• Unintentional, e.g., fossil fuel combustion, metal smelting	Yes (major sources to air)			No
• Intentional production, use, disposal and recycling, including	Wood preservatives, pesticides, alloys, animal feed additives and pharmaceuticals, electronics and semiconductor industry	Nickel-cadmium batteries, alloys, coatings and plating, pigments, solar cells, PVC stabilisers	Lead-acid batteries, lead sheets, pigments, enamels and ceramics, PVC stabilisers, ammunition, alloys, cable sheathing	Oil and PVC stabilisers, coatings on glass, catalyst for polyurethane foams and silicones production, dewormers, biocides and pesticides.

(2) Complex Landscape

	Legally binding instruments	Soft-law instruments	Voluntary initiatives
Arsenic	Laws on various products; Basel Convention	Guidelines; prioritization for controlling	Phase-out; standards; monitoring; guidance and tools
Cadmium	Laws on various products; standards; guidelines; notification; mandatory recycling targets; Basel Convention; emission reduction	Resolution; guidelines; strategy; prioritisation	Industry limit; phase-out; standards
Lead	Laws on various products; PIC procedure; Basel Convention; emission reduction; marketing authorization; standards; notification; guidelines	Resolution; guidelines; task force; strategy; prioritization; recommended standards	Network; guidance and tools; phase-out; standards; action
Organotins	Laws on various products; PIC procedure; notification; PRTR	Code of practice; guideline values	Stewardship programme; phase-out; standards

(3) Progress Made, But Not Enough (Lead in Paint)



(4) Opportunities

Arsenic	<ul style="list-style-type: none">➤ Further international concerted actions that cover all major sources
Cadmium	<ul style="list-style-type: none">➤ Further international concerted actions that cover all major sources, taking into account trade-offs across uses (e.g., an increased demand in some uses may help reduce its emissions in others)➤ A sound management of cadmium during and after mining and processing of zinc
Lead	<ul style="list-style-type: none">➤ Further international concerted actions that cover all major sources
Lead in paint	<ul style="list-style-type: none">➤ Stepping up global efforts in phasing out lead paints➤ Effective monitoring and enforcement➤ Addressing small and medium-sized companies and informal economy
Organotins	<ul style="list-style-type: none">➤ Expanding existing instruments and action by more governments and stakeholders to minimise exposure to the large family of organotins, possibly through international concerted action



Metals and metalloids

Q&A

Breakout Sessions – How will we work ?

- **On site participants**

- Please create a group of around 10 persons and discuss the questions in the agenda and on the screen.
- A template for response is available for download and filling in by the group. If you prefer, paper boards are available.

- **On-line participants**

- You will be moved to virtual rooms to respond to questions in groups.
- Please designate in each room:
 - a **moderator**, to moderate the discussion, and
 - a **rappporteur**, who will take notes and may report in plenary. It is proposed that the rapporteur from the group shares its screen and types group's responses in the template.

- All groups:**

- Designate a moderator and rapporteur for the group.
- Reporting back in plenary is optional.
- A template for response is available for download and filling in by the group. If you prefer, paper boards are available. Please email the group's responses, to UNEP : Tapiwa.Nxele@un.org, cc Sandra.averous@un.org.



Metals and Metalloids Group - Breakout Session

1. *Arsenic*
2. *Cadmium*
3. *Lead*
4. *Lead in Paint*
5. *Organotins*

Meeting documents:

- 6_Opportunities for further action
- 7a_Metals and Metalloids Fact sheet

- **What potential international actions should be taken?**
 - And which are priorities?
- **Which international forum or instrument would be best placed to take the lead on international action on this issue?**
- **For issues under this group, please highlight**
 - economic industry sectors of relevance, and
 - linkages with other sustainability agendas.





Metals and Metalloids Group – Reporting back

Arsenic, Cadmium, Lead, Lead in Paint, and Organotins



Lunch



Chemicals in Products Group 1

*Endocrine disrupting chemicals (EDCs); Phthalates; Bisphenol A (BPA);
Microplastics (intentionally added); Polycyclic Aromatic Hydrocarbons (PAHs)*



Chemicals in Products Group 1

Zhanyun Wang

UNEP



Chemicals in Products Group 1

Chemicals in Products, Group 1

Chemical-specific issues

Bisphenol A

Endocrine disrupting chemicals (EDCs)

Intentionally added microplastics in products

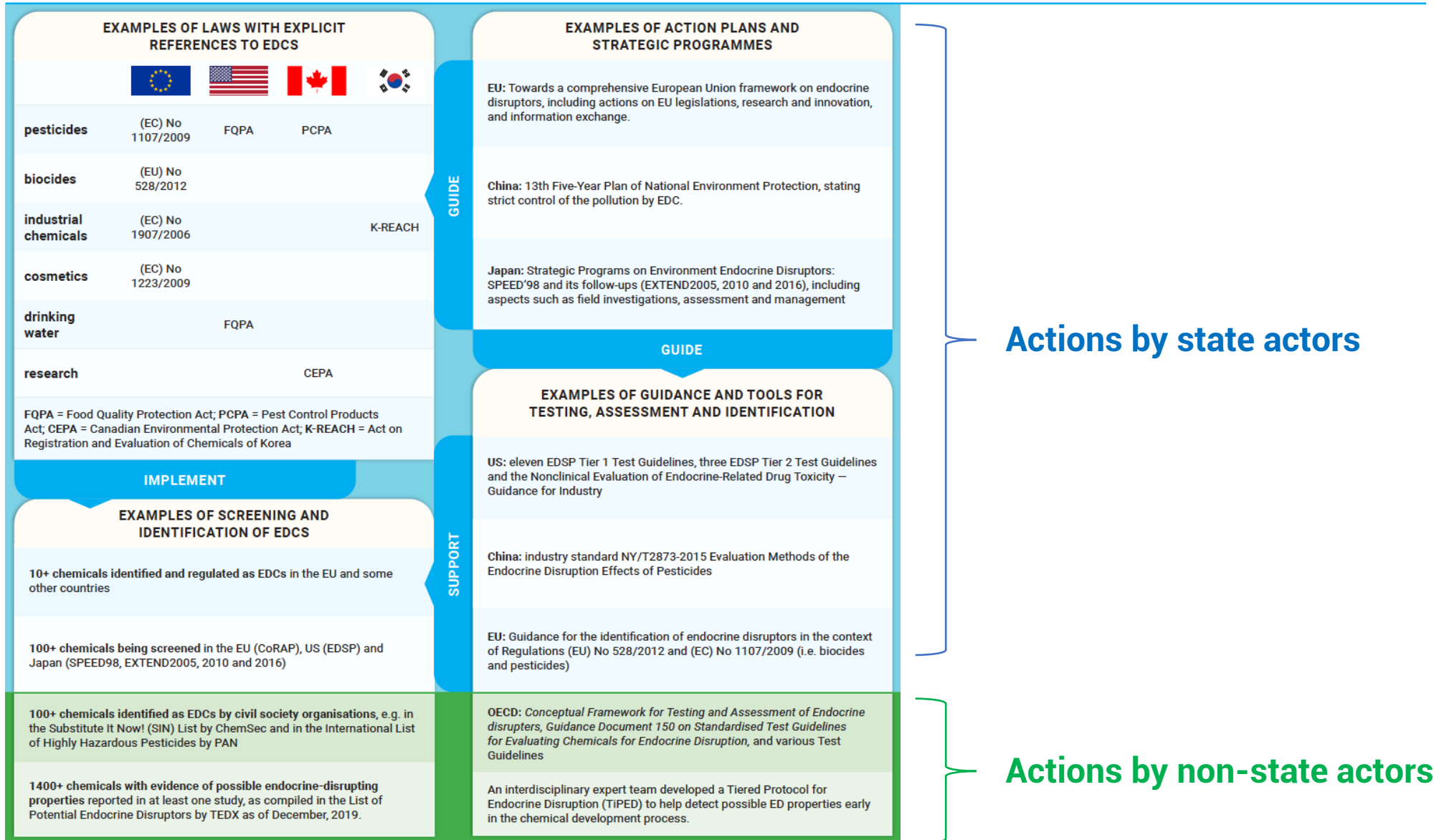
Phthalates

Polycyclic aromatic hydrocarbons (PAHs)

(1) Complex Landscape

Chemical-specific issues	Legally binding instruments	Soft-law instruments	Voluntary initiatives
Bisphenol A	Law on various products; standards	Guidelines	Phase-out; standards
EDCs	Law with explicit references to EDCs; law on specific EDCs	ICCM resolution; action plans	Guidance and tools; assessments; information sharing; screening programmes; awareness raising; network; action
Microplastics	Law on various products	Resolution	Phase-out; standards; consumer education
Phthalates	Law on various products; tax; notification; guideline values	Recommendations	Phase-out; standards
PAHs	Law on various products	Resolution	Phase-out; standards; consumer education; guidance and tools

(1) Complex Landscape: Many Actors and Linkages




(1) Complex Landscape: Geographical Differences

EXAMPLES OF LAWS WITH EXPLICIT REFERENCES TO EDCS		EXAMPLES OF ACTION PLANS AND STRATEGIC PROGRAMMES		EXAMPLES OF LAWS WITH EXPLICIT REFERENCES TO EDCS	
pesticides	(EC) No 1107/2009	FQPA	PCPA	pesticides	(EC) No 1107/2009
biocides	(EU) No 528/2012			biocides	(EU) No 528/2012
industrial chemicals	(EC) No 1907/2006		K-REACH	industrial chemicals	(EC) No 1907/2006
cosmetics	(EC) No 1223/2009			cosmetics	(EC) No 1223/2009
drinking water		FQPA		drinking water	
research			CEPA	research	
<p>FQPA = Food Quality Protection Act; PCPA = Pest Control Products Act; CEPA = Canadian Environmental Protection Act; K-REACH = Act on Registration and Evaluation of Chemicals of Korea</p>				<p>FQPA = Food Quality Protection Act; PCPA = Pest Control Products Act; CEPA = Canadian Environmental Protection Act; K-REACH = Act on Registration and Evaluation of Chemicals of Korea</p>	

EXAMPLES OF SCREENING AND IDENTIFICATION OF EDCS		EXAMPLES OF GUIDANCE AND TOOLS FOR TESTING, ASSESSMENT AND IDENTIFICATION	
10+ chemicals identified and regulated as EDCs in the EU and some other countries	SUPPORT	US: eleven EDSP Tier 1 Test Guidelines, three EDSP Tier 2 Test Guidelines and the Nonclinical Evaluation of Endocrine-Related Drug Toxicity – Guidance for Industry	GUIDE
100+ chemicals being screened in the EU (CoRAP), US (EDSP) and Japan (SPEED98, EXTEND2005, 2010 and 2016)		China: industry standard NY/T2873-2015 Evaluation Methods of the Endocrine Disruption Effects of Pesticides	
100+ chemicals identified as EDCs by civil society organisations, e.g. in the Substitute It Now! (SIN) List by ChemSec and in the International List of Highly Hazardous Pesticides by PAN		EU: Guidance for the identification of endocrine disruptors in the context of Regulations (EU) No 528/2012 and (EC) No 1107/2009 (i.e. biocides and pesticides)	
1400+ chemicals with evidence of possible endocrine-disrupting properties reported in at least one study, as compiled in the List of Potential Endocrine Disruptors by TEDX as of December, 2019.		OECD: <i>Conceptual Framework for Testing and Assessment of Endocrine Disruptors, Guidance Document 150 on Standardised Test Guidelines for Evaluating Chemicals for Endocrine Disruption</i> , and various Test Guidelines	
		An interdisciplinary expert team developed a Tiered Protocol for Endocrine Disruption (TIPED) to help detect possible ED properties early in the chemical development process.	

(2) Progress Made, But Not Enough (EDCs)

EXAMPLES OF LAWS WITH EXPLICIT REFERENCES TO EDCS	EXAMPLES OF ACTION PLANS AND STRATEGIC PROGRAMMES	EXAMPLES OF SCREENING AND IDENTIFICATION OF EDCS																								
<p>  </p> <table border="1"> <tr> <td>pesticides</td> <td>(EC) No 1107/2009</td> <td>FQPA</td> <td>PCPA</td> </tr> <tr> <td>biocides</td> <td>(EU) No 528/2012</td> <td></td> <td></td> </tr> <tr> <td>industrial chemicals</td> <td>(EC) No 1907/2006</td> <td></td> <td>K-REACH</td> </tr> <tr> <td>cosmetics</td> <td>(EC) No 1223/2009</td> <td></td> <td></td> </tr> <tr> <td>drinking water</td> <td></td> <td>FQPA</td> <td></td> </tr> <tr> <td>research</td> <td></td> <td></td> <td>CEPA</td> </tr> </table> <p>FQPA = Food Quality Protection Act; PCPA = Pest Control Products Act; CEPA = Canadian Environmental Protection Act; K-REACH = Act on Registration and Evaluation of Chemicals of Korea</p>	pesticides	(EC) No 1107/2009	FQPA	PCPA	biocides	(EU) No 528/2012			industrial chemicals	(EC) No 1907/2006		K-REACH	cosmetics	(EC) No 1223/2009			drinking water		FQPA		research			CEPA	<p>EU: Towards a comprehensive European Union framework on endocrine disruptors, including actions on EU legislations, research and innovation, and information exchange.</p> <p>China: 13th Five-Year Plan of National Environment Protection, stating strict control of the pollution by EDC.</p> <p>Japan: Strategic Programs on Environment Endocrine Disruptors: SPEED'98 and its follow-ups (EXTEND'05, 2010 and 2016), including aspects such as field investigations, assessment and management</p>	<p>10+ chemicals identified and regulated as EDCs in the EU and some other countries</p> <p>100+ chemicals being screened in the EU (CoRAP), US (EDSP) and Japan (SPEED98, EXTEND2005, 2010 and 2016)</p>
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(3) Opportunities: Expanding Existing Actions

Bisphenol A	<ul style="list-style-type: none">➤ Scaling up action to address all relevant exposure sources➤ Considering low-dose effects and different subgroups' susceptibility or vulnerability
EDCs	<ul style="list-style-type: none">➤ Bringing countries to the same level of awareness and knowledge➤ Bridging different approaches to assessing and managing EDCs
microplastics	<ul style="list-style-type: none">➤ Expanding current action to cover those countries and regions that have taken no action and to cover other intentional uses of microplastics
Phthalates	<ul style="list-style-type: none">➤ Expanding current action to cover exposure sources for all vulnerable populations
PAHs	<ul style="list-style-type: none">➤ Raising global awareness towards establishment and implementation of legally binding instruments for addressing PAHs in consumer products across different jurisdictions➤ Fostering food processing standards to minimise PAH contamination

(3) Opportunities: Grouping and Better Substitution

Bisphenol A	➤ Assessing and managing BPA analogues, complemented by regular biomonitoring
EDCs	
microplastics	➤ Addressing unintentionally formed microplastics
Phthalates	➤ Addressing and avoiding regrettable substitution
PAHs	

(3) Opportunities: Others

Bisphenol A	
EDCs	
microplastics	
Phthalates	
PAHs	➤ Expanding the use of reference PAHs beyond the sole use of BaP



Chemicals in Products Group 1

Q&A



Questions?

Chemicals in Products Group 1 - Breakout Session

1. *Endocrine disrupting chemicals (EDCs)*
2. *Phthalates*
3. *Bisphenol A (BPA)*
4. *Microplastics (Intentionally added)*
5. *Polycyclic Aromatic Hydrocarbons (PAHs)*

Meeting documents:

- 6_Opportunities for further action
- 7b_Chemicals in Products Group 1 Factsheets

- **What potential international actions should be taken?**
 - And which are priorities?
- **Which international forum or instrument would be best placed to take the lead on international action on this issue?**
- **For issues under this group, please highlight**
 - economic industry sectors of relevance, and
 - linkages with other sustainability agendas.





Tea and Coffee Break



Chemicals in Products Group 1 – Reporting back

*Endocrine disrupting chemicals (EDCs); Phthalates; Bisphenol A (BPA);
Microplastics; Polycyclic Aromatic Hydrocarbons (PAHs)*



Chemicals in Products Group 2

Chemicals in Products; Hazardous Substances in the Lifecycle of Electrical and Electronic Products (HSLEEP); Nanotechnology and Manufactured Nanomaterials and Per- and Polyfluoroalkyl Substances (PFASs) and the transition to safer alternatives



Chemicals in Products Group 2

Zhanyun Wang

UNEP

Chemicals in Consumer Products

Chemical-specific issues

Hazardous substances within the life cycle of electrical and electronic products (HSLEEP)

Nanotechnology and manufactured nanomaterials

Per- and polyfluoroalkyl substances (PFASs)

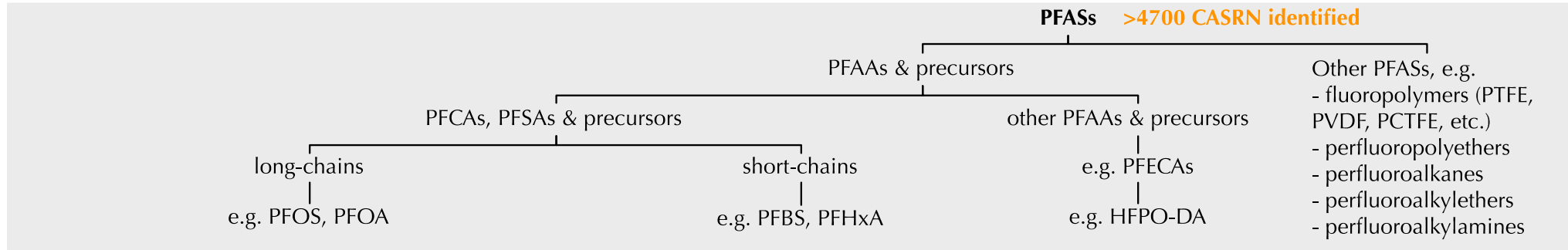
Chemicals management issues

Chemicals in products (CiP)

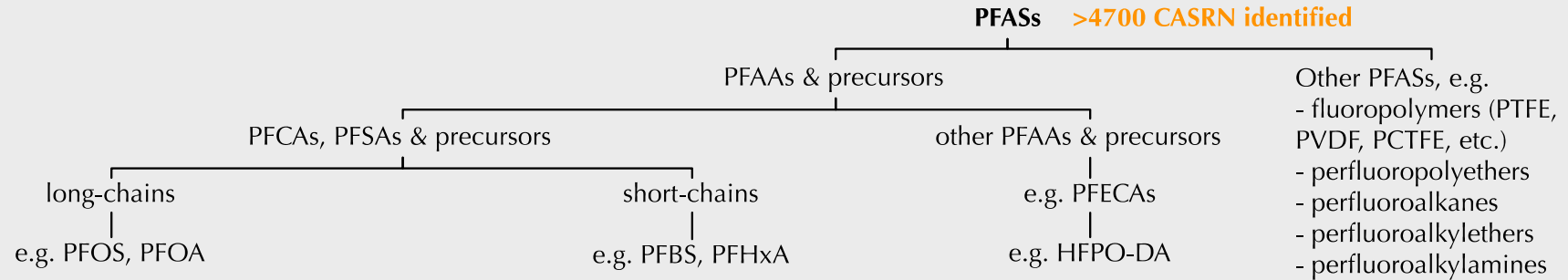
(1) Complex Landscape of Instruments & Action

Chemical-specific issues	Legally binding instruments	Soft-law instruments	Voluntary initiatives
HSLEEP	Law on specific chemicals in products and/or e-waste; tax; ecolabels; law on e-waste	Resolution; declaration; recommendations; action plan; strategy	Standards; network; guidance and tools; action; challenges; scientific statements
Nanomaterials	Law on registration / notification; mapping	Guidelines; strategic planning	Capacity building; action; guidance and tools; network; classification;
PFASs	Law on specific PFASs; PIC procedure; evaluation; standards	Action plan; guide; standards; guidance and advisory values	Phase-out; network; information sharing; statements

(2) Progress Made, But Not Enough (PFASs)



(2) Progress Made, But Not Enough (PFASs)



Legally-binding Ban / restrictions, e.g.

International: PFOS, PFOA and their precursors listed under the Stockholm Convention, with some exemptions; PFHxS and its precursors being evaluated for listing

EU: Restriction of PFOA and related substances to be in force from July 2020 with some exemptions; restriction proposal of C₉-C₁₄ PFCAs, PFHxS, and their related substances under evaluation

EU: Restriction of 6:2 FT-silanetriol and TDFAs; in spray products in force; restriction proposal of PFHxA and its related substances under evaluation

Denmark: ban of PFASs in paper and cardboard used in food contact materials (undergoing external consultation, with expected enter in force in July, 2020)

Australia: ban the use of fluorinated firefighting foams in South Australia, subject to transition arrangements; *Operational Policy: Environmental Management of Firefighting Foam* in Queensland, include requirements for use of foams containing short-chain fluorotelomers where such use is the only viable option

Voluntary phase-out, e.g.

International: A global phase-out of its global production and use of long-chain PFASs by 3M in 2000-2002; under the US EPA PFOA Stewardship programme, eight major producers phased out their global production and use of PFOA, its longer homologues and precursors by 2015

Denmark: COOP Denmark discontinued the sales of all cosmetics products containing PFASs in March-September 2019

Australia: Airservices Australia has phased out PFAS-containing firefighting foams in civilian airports since 2010

(2) Progress Made, But Not Enough (PFASs)

PFASs >4700 CASRN identified	
<p>PFCAs, PFSA's & precursors</p> <ul style="list-style-type: none"> long-chains e.g. PFOS, PFOA 	<p>PFAAs & precursors</p> <ul style="list-style-type: none"> short-chains e.g. PFBS, PFHxA other PFAAs & precursors e.g. PFECAs e.g. HFPO-DA <p>Other PFASs, e.g.</p> <ul style="list-style-type: none"> - fluoropolymers (PTFE, PVDF, PCTFE, etc.) - perfluoropolyethers - perfluoroalkanes - perfluoroalkylethers - perfluoroalkylamines
<p>Legally-binding Ban / restrictions, e.g.</p> <p>International: PFOS, PFOA and their precursors listed under the Stockholm Convention, with some exemptions; PFHxS and its precursors being evaluated for listing</p> <p>EU: Restriction of PFOA and related substances to be in force from July 2020 with some exemptions; restriction proposal of C₉-C₁₄ PFCAs, PFHxS, and their related substances under evaluation</p> <p>Denmark: ban of PFASs in paper and cardboard used in food contact materials (undergoing external consultation, with expected enter in force in July, 2020)</p> <p>Australia: ban the use of fluorinated firefighting foams in South Australia, subject to transition arrangements; <i>Operational Policy: Environmental Management of Firefighting Foam</i> in Queensland, include requirements for use of foams containing short-chain fluorotelomers where such use is the only viable option</p>	<p>EU: Restriction of 6:2 FT-silanetriol and TDFAs; in spray products in force; restriction proposal of PFHxA and its related substances under evaluation</p>
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(3) Opportunities: Expanding Existing Instruments

HSLEEP	➤ Stepping up global action to address the early life-cycle stages of EEP
Nanomaterials	➤ Fostering wider integration of nanomaterials in regulatory data requirements ➤ Working towards a common definition and grouping strategies
PFASs	➤ Accelerating the global implementation of phasing out long-chain PFASs

(3) Opportunities: Grouping and Substitution

HSLEEP	
Nanomaterials	➤ Working towards a common definition and grouping strategies
PFASs	➤ Novel approaches to managing PFASs as a group or groups

(3) Opportunities: Others

HSLEEP	➤ Addressing the needs of informal sectors
Nanomaterials	
PFASs	➤ Enhancing information exchange between stakeholders and fostering joint actions

Information Exchange on Chemicals in Products

INFORMATION OBJECTIVES IDENTIFIED IN THE UNEP CHEMICALS IN PRODUCTS (CIP) PROGRAMME

INSIDE	OUTSIDE	OVERALL
Within supply chains, to know and exchange information on chemicals in products, associated hazards and sound management practices;	to disclose information of relevance to stakeholders outside the supply chain to enable informed decision-making and actions about chemicals in products;	to ensure that, through due diligence, information is accurate, current and accessible

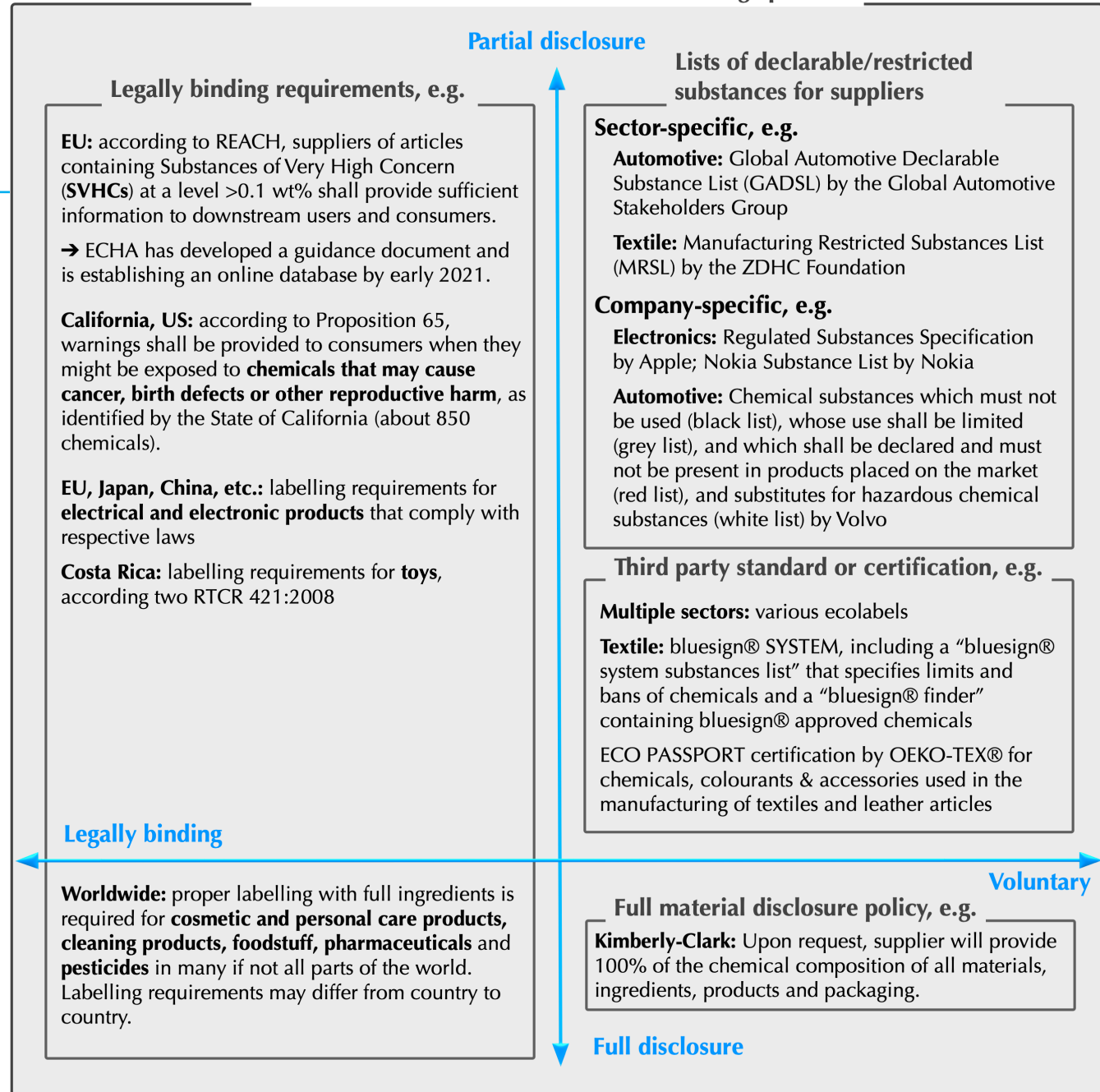
GUIDE

Current Practices & Opportunities

Opportunities

- From restricted substances to full disclosure
- Getting the information to designers, consumers, regulators and waste managers
- Effective monitoring and enforcement

Instruments related to CiP information exchange practices





Chemicals in Products Group 2

Q&A



Questions?



Global Consultation on Chemicals and Waste Issues of Concern



Chemicals in Products

Group 2