HELCOM's work on hazardous substances – lessons learned and recommendations for the future

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HELCOM and hazardous substances – how it started

- In 1960-70s chemical contaminants hot topic – not least in the Baltic Sea
- HELCOM formed largely in response to chemical pollution
- Focus on oil spills, industrial emissions and handling of waste streams

Signing the Helsinki Convention in 1974. © HELCOM

HELCOM and the eternal question: Which substances to prioritize?

Helcom Convention

Industrial emissions
Oil spills
"Noxious substances"

Ministerial Declaration

50% reduction goal → **47** substances

132 "Hot Spots"

Recommendation 19/5

280 substances of potential concern → **36** substances targeted for cessation

1974 Recommendations
DDT, PCBs, PCTs, Hg, Cd, Pb
Industrial emissions

1988

1992

1998

2007
BSAP

11 priority substances/groups

2013 Pharmaceuticals
Ministerial Declaration (MD) Copenhagen

2018
MD Brussels

Micropollutants
Core Indicators and MSFD alignment

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HELCOM status assessment

Currently:

Legacy / global pollutants

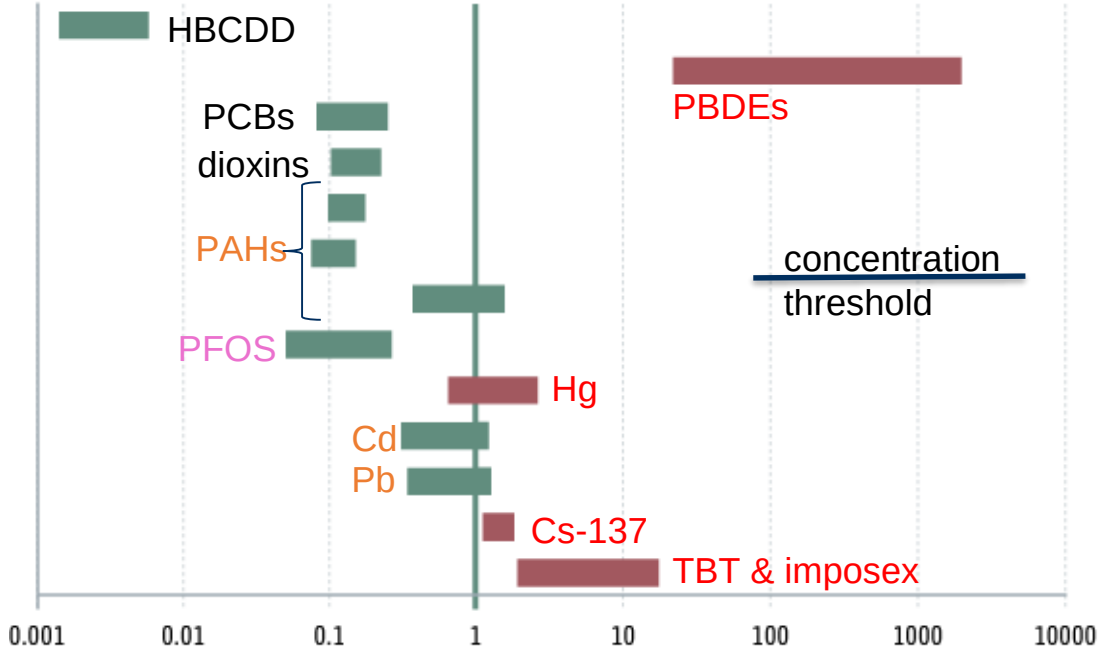
Monitoring – env. concentrations of indicator substances

Few substances deteriorate status

In addition: Test indicators and pre-core indicators (e.g. diclofenac)

Status should guide development of *Actions to reach good environmental status*

Core Indicators used in holistic assessment (HOLAS) 2018
Risk ratios

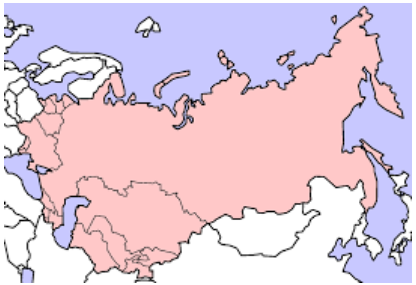


A changing world

emissions

regulation

geopolitical situation



- The *type of Actions* needed has changed
- The *role* of HELCOM has changed

There is a need to *modernize HELCOM's work with hazardous substances*

- During 2020: Work with **background report** to support development of a regional **systematic approach** to work with hazardous substances

Background report summarizes:

- Current HELCOM Actions, Recommendations and Activities
- HELCOM role and interactions with other regional actors
- Overview of data compilation in HELCOM
- Current HELCOM work on broad scope assessments and emerging concerns

→ Concrete suggestions for improvements

- Adopted by HOD and HELCOM Pressure group

Last week in Lübeck, Germany…

"Evolution, not a revolution"

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Last week in Lübeck, Germany…

- Hazardous substances (in general)
  - Regional strategic approach (NEW)
  - National programmes
  - List of measures (NEW)
  - HELCOM Rec industrial emissions
  - Chemical awareness campaigns (the public)
  - Chemical product registers
  - Public procurement (NEW)
  - Prioritize chemicals and measures using info from other policies
  - Regularly update prio-list, respond to assessments (NEW)
  - Follow other global/EU processes and influence them
  - Participate in SAICM
  - Develop biological effects monitoring
- Legacy pollutants
  - Lead, dioxins, mercury, PFAS, phenolic cmpds, chlorinated paraffins
- Contaminants of emerging concern
  - Pharmaceuticals, PFAS (foams) (NEW), antifouling biocides
  - Recurrent screening (suspect/non-target) (NEW)

New structure
Deadlines
Follow up

Last week in Lübeck, Germany…

Action #1:
"Develop a regional strategic approach and, on the basis of that approach, an ACTION PLAN for Helcom work on hazardous substances by 2024"

First step taken:
→ Update of the Expert Network on Hazardous substances (EN-HZ) Terms of References

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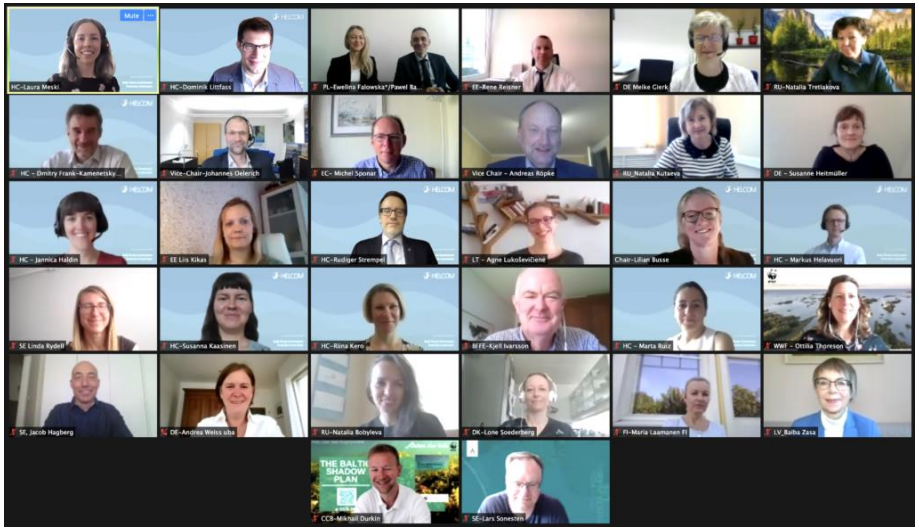
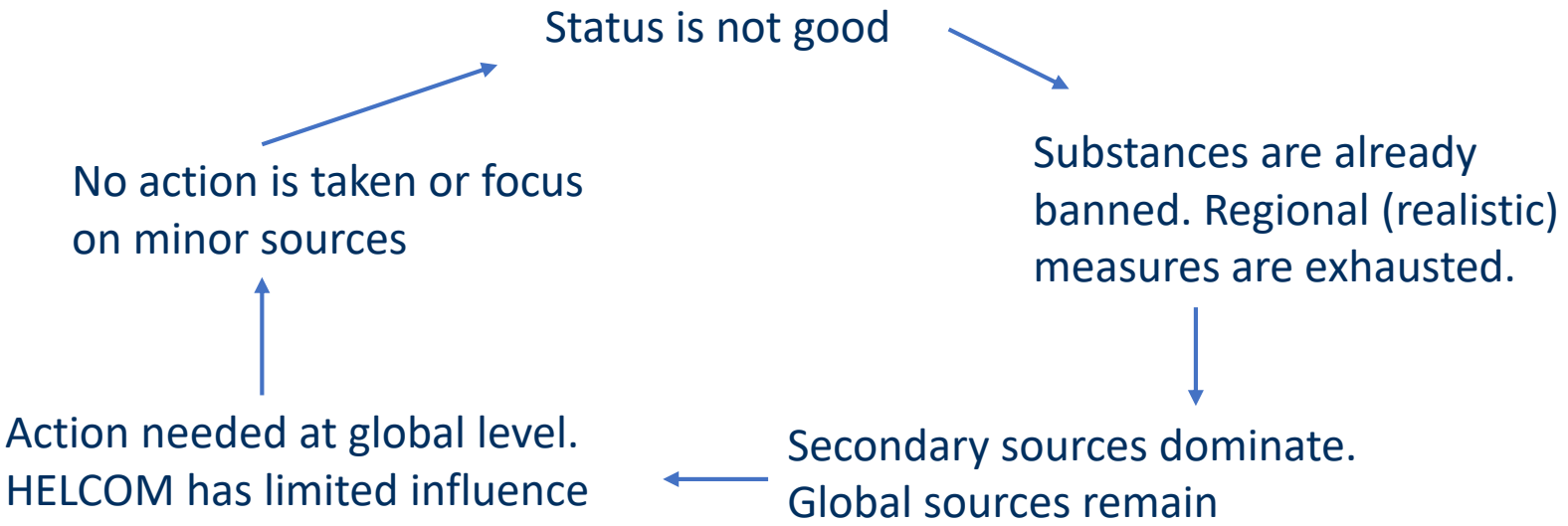
What should HELCOM do?



The legacy pollutant loop

Focus on legacy pollutants



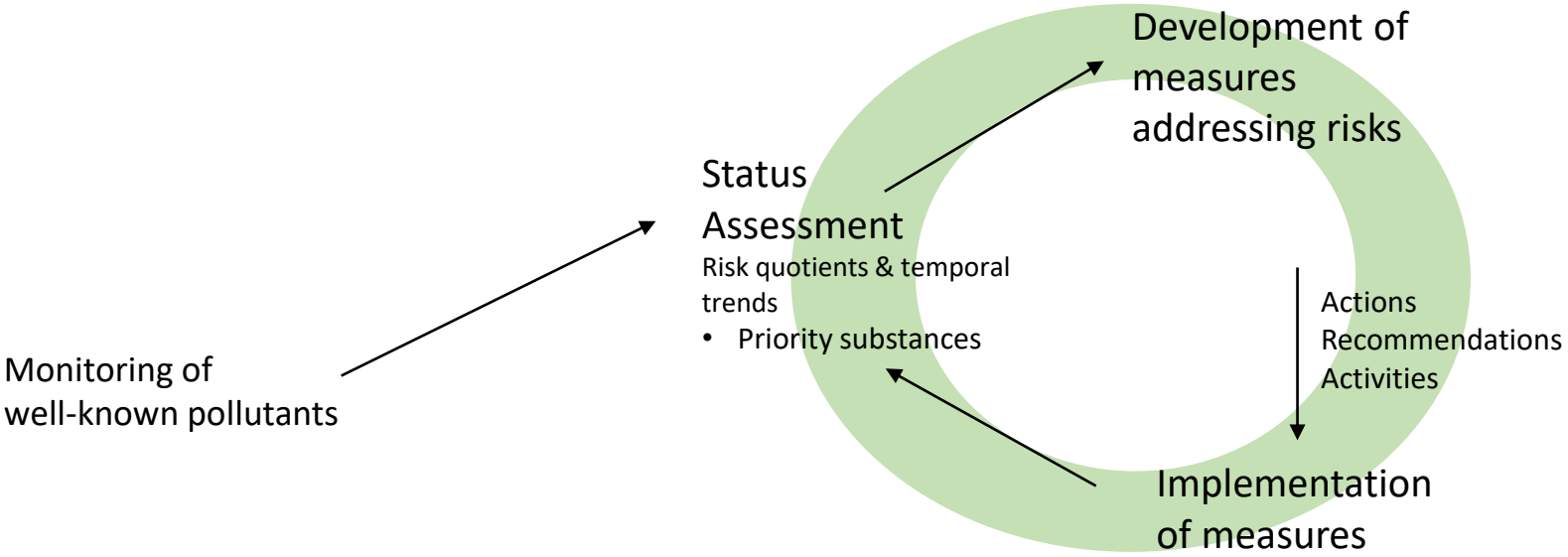
Hazardous substances – a moving target

Identified hazardous substances

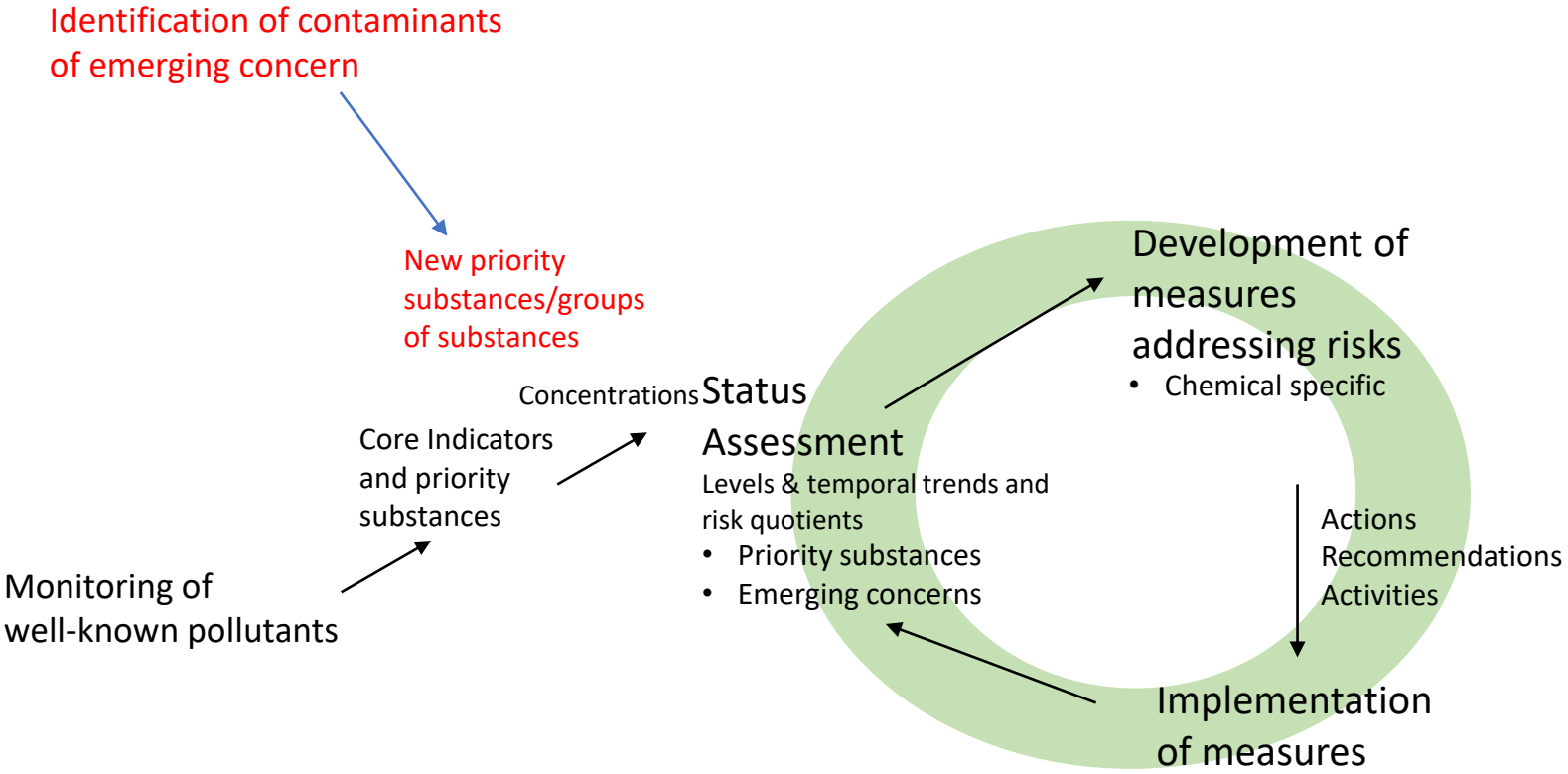
Emerging or unknown chemical threats

HELCOM Actions/activities already existing but *are not concretized and implemented*

Gaps and missing links in the management cycle



Gaps and missing links in the management cycle



Suggestions

Develop **procedure and time plan to identify chemicals of emerging concern**

Knowledge exchange

- National prioritization exercises and research projects,
- Discussion of (new) chemicals prioritized under **other policies.**
- **Which substances are relevant for the Baltic Sea?**

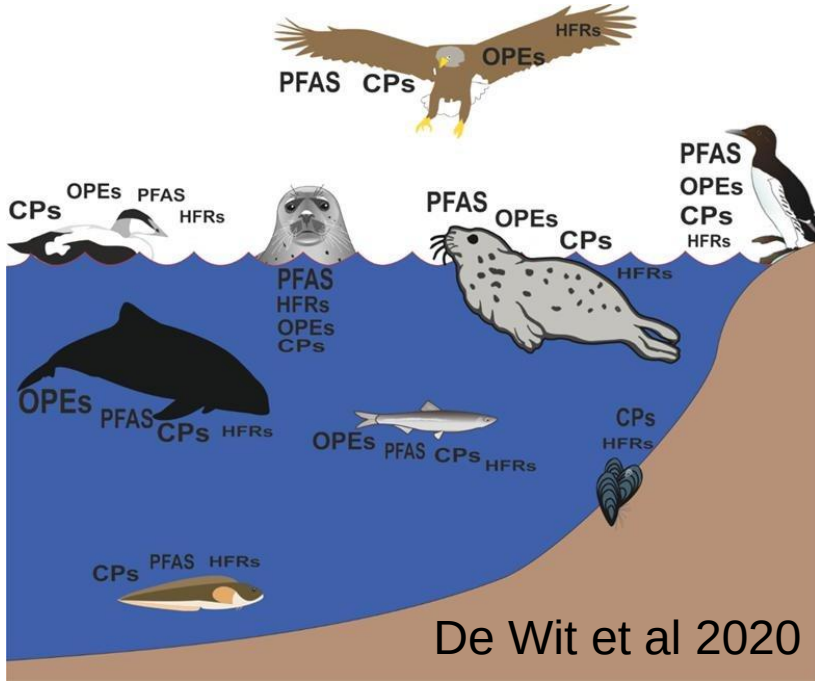
Assessment of candidates

- Collection of monitoring + ecotox data
- Risk assessments for substances/groups of substances.
- Cooperate to fill knowledge gaps: joint (target) **screening campaigns** for selected chemicals

Joint **non-target/suspect screening campaigns**

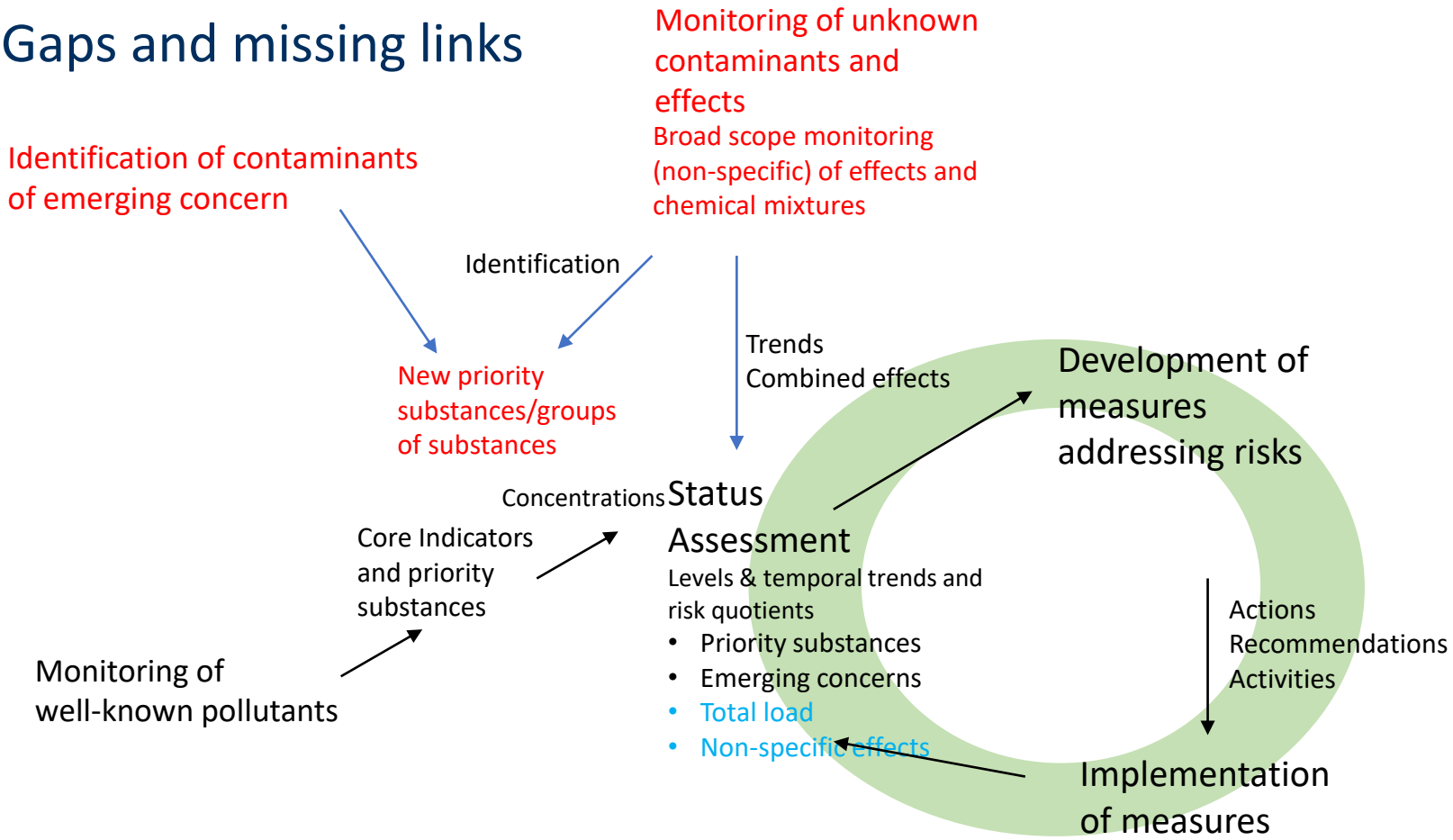
- identify marine contaminants in the field/at sources.
- “safety-net” for contaminants lacking data or those that slip through the regulatory net.

Halogenated flame retardants
Chlorinated paraffins
Perfluoroalkyl substances
Organophosphate esters



De Wit et al 2020

Gaps and missing links



Suggestions

Work with **unknown risks (proactive precautionary)**

Effect based monitoring.

- Difficult to agree on a joint effect-based monitoring (EBM)
- Lately: several workshops to progress this ambition. Need to agree on expert level how EBM **could be used in practice**.

Non-target/suspect screening

- (identify new contaminants)
- monitor temporal and spatial trends in **total chemical pressure**, and **track sources** of chemical mixtures.
- Proposed during last year in the Pressure WG and is progressing.
- Need to **clarify the purpose** of this type of wide scope screening, how to process the results and possible next steps based on the results.

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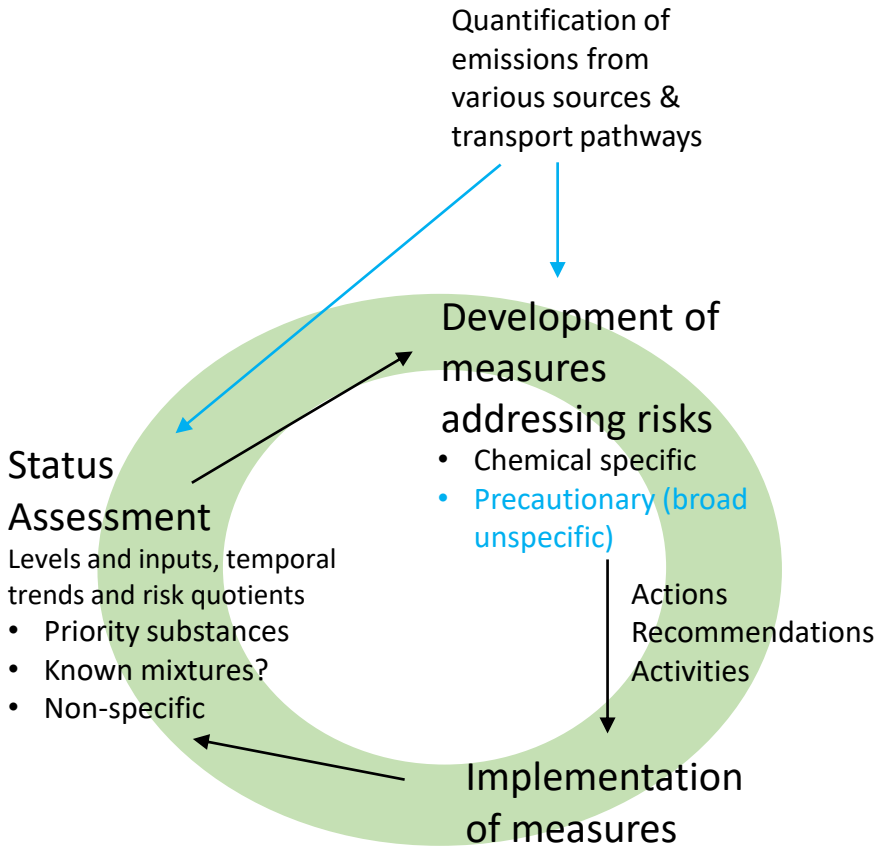
Gaps and missing links – work with inputs

Work with **quantification of inputs/emissions**.

- **Challenge!** Data on inputs not available for most substances.
- Lack of pressure analyses in WFD and MSFD
- Cooperation between CPs to **jointly assess sources** of hazardous substances, shared knowledge gap!



Thank you!

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