

www.nonhazcity.eu

Source-directed measures addressing (non-essential) uses of hazardous substances

NonHazCity project results

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Baltic Environmental Forum
BSR Water Platform, 16 September 2021



Background of the NonHazCity proposal submitted in 2015

“Source tracking must be brought down to municipal level in order to tackle the problem of manifold small-scale sources at urban areas.”

Mikhail Durkin, former Secretary of HELCOM LAND, at the COHIBA Final Conference, Helsinki 2012

- Earlier projects (COHIBA, BaltActHaz, BEAST, SOCOPSE, ScorePP) pointed out as important sources for HS in Baltic Sea three main pathways:
 - industrial wastewaters,
 - **municipal sewage** and
 - Storm water
- Small scale emitters in the urban areas cannot be efficiently regulated and controlled
- NonHazCity wanted to
 - De-toxify urban water cycles
 - Downscale findings and approaches from the earlier projects to urban areas
 - Demonstrate possibilities for low-cost **upstream source management** by all urban actors instead of high technology investments into wastewater treatment plants



NonHazCity 1 & 2 – Key activities

NonHazCity 1 (2016-19)

- Substances of Concern were identified
- Source maps of chemicals developed
- Municipal Chemicals Action Plans
- Test measures for concrete substance reduction at municipality 's own premises
- Pilot substitution actions at small businesses and improvement of their chemical assortment.
- Inhabitants campaign to show their hazardous substance emission share and tested the use of less hazardous chemicals in every-days household management.

NonHazCity 2 (2019-21)

- Monitoring the implementation of strategies & guidelines developed in NHC 1
- Making chemicals risk management more explicit in environmental management systems & standards (ISO 14002)
- Systematizing training of staff in public sector
- Empowering a larger amounts of private consumers & businesses to reduce their consumption of products containing HS
- Covering the topic of plastics as vector for hazardous substances, which has recently gained new impetus through the EU plastics strategy and work on the circular economy

Our basis of evidence at NonHazCity

Hazardous Substance Screening 2016 – 17:

- Water screening in several municipalities
- Article tests (in laboratory) in Sweden
- Urine & dust tests of volunteers/flats in Gdansk

Conclusions: substances of concern are everywhere in town!

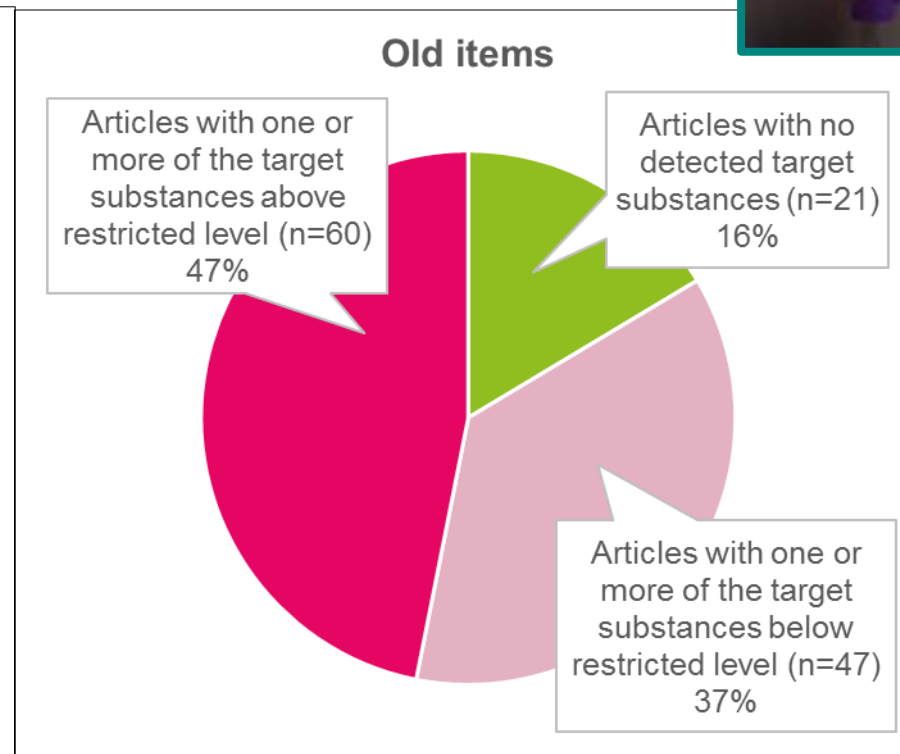
Detection Summary

Class	Substance	Industrial	Residential	Service	Stormwater	WWTP
Metals	Cadmium	59%	59%	85%	58%	73%
	Lead	9%	6%	15%	17%	0%
Organics	Bisphenol	100%	94%	100%	90%	92%
	Phthalates	94%	100%	86%	100%	100%
	Alkylphenols	28%	59%	64%	40%	75%
Per-fluorinated	PFOA	67%	67%	58%	50%	96%
	PFBA	33%	0%	33%	6%	22%

Snapshot
Summary

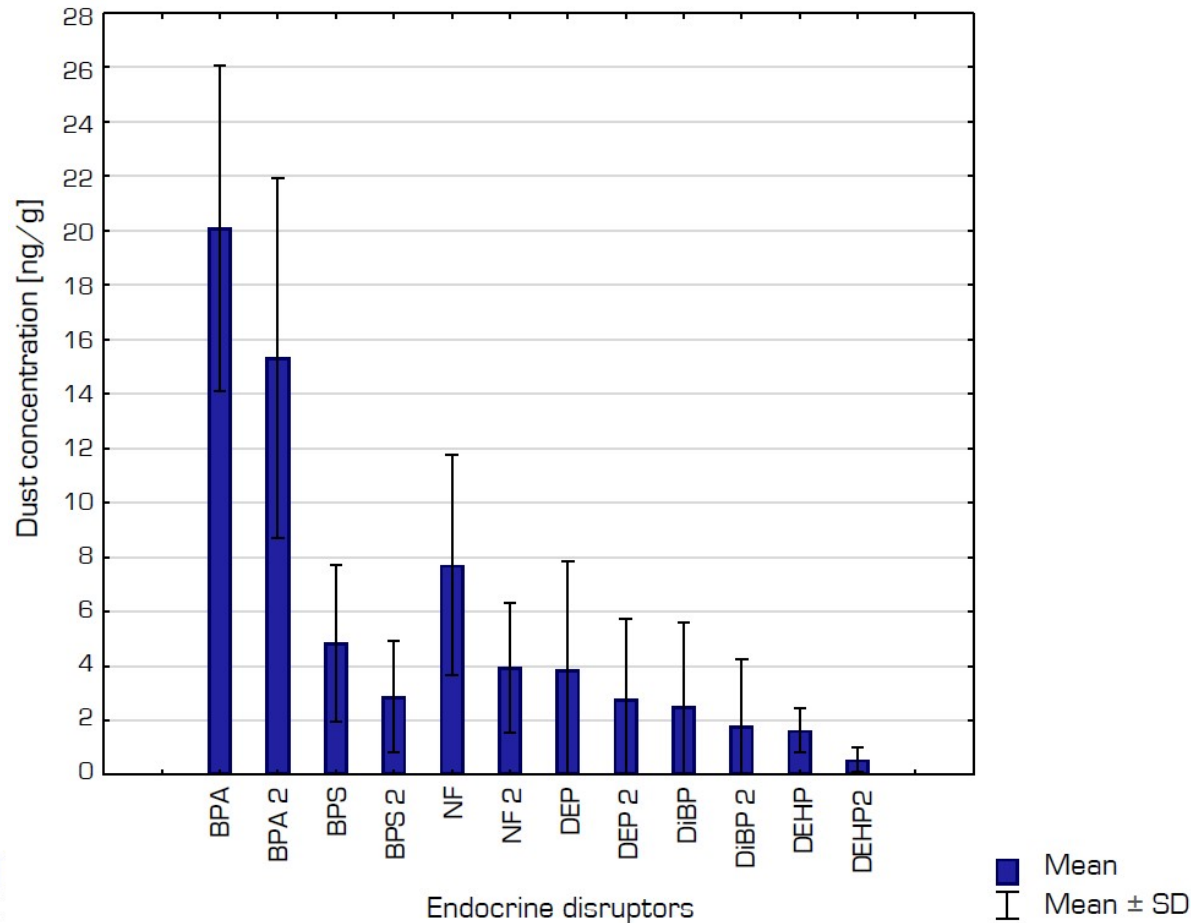
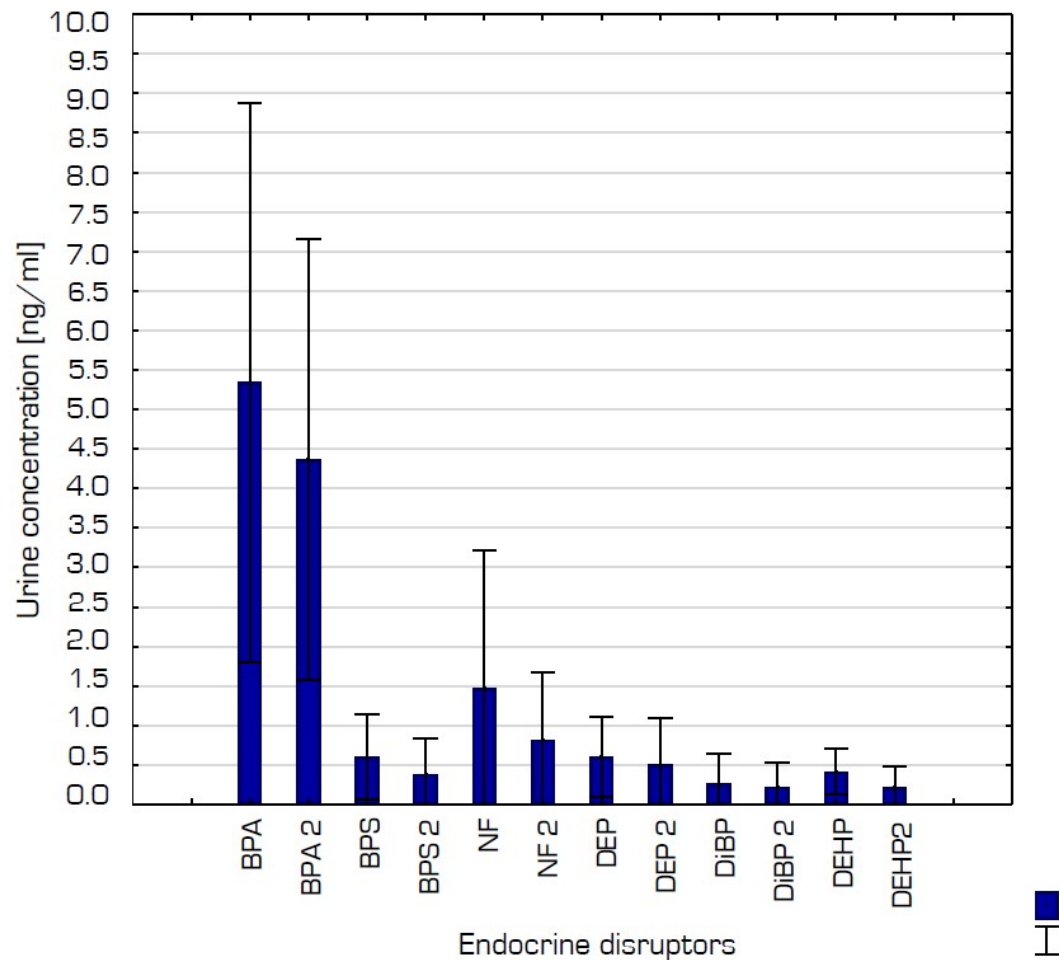
Contaminant Type	Age of the problem	Detection Frequency	Level of Concern
Metals	Yesterday	Everywhere	Moderate
Organics	Today	Everywhere	High
Perfluorinated Substances	Tomorrow	WWTP	High

Testing of toys and matracas in kindergartens



For the whole report, please see www.nonhazcity.eu
News section in any of the categories.

Urine and dust analyses in Nov. 2017 (repeated in June 2018) (7 families, 6 substances) – the proof in Gdańsk



Our mission: tell the story about hazardous substances in our daily lives

- Hazardous substances are in many everyday products such as cosmetics, cleaning agents, toys, plastics, furniture, flooring materials, textiles...
- From these products and articles, they emit and enter the wastewater system, pollute indoor air and get into our bodies.
 - Emissions e.g. via hot, fatty or acid food stuff from contact to packaging materials/kitchen utensils
 - All additives that are in textiles go directly to our skin and wash out during laundry
 - We breath VOCs emitted from many materials (floors, furniture, room textiles, electronic equipment.....) at home, in hoffice, everywhere.....
- The substances can harm nature and human health
- They accumulate in our bodies and the environment and are not effectively removed by wastewater treatment plants.

Our target groups

- NonHazCity is focusing on **municipalities** (municipal entities), on (small) **businesses** and on **private households** (everyone in town) and pin-points actions & measures for them.



What cities & citizens can do & how? Our proposal:

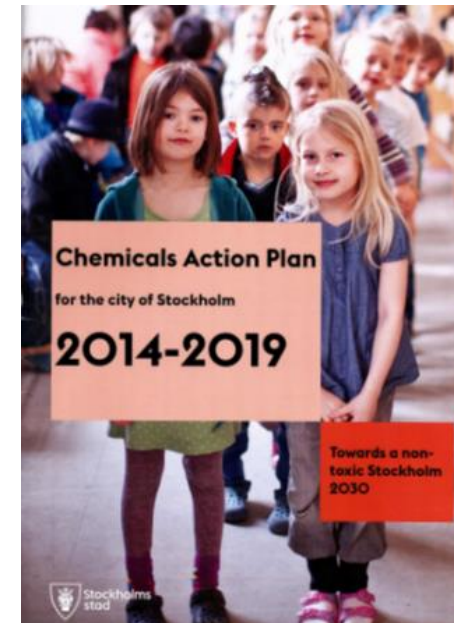
- Change Consumption – then you reduce emissions and exposure
- How?
 - Chemicals Action Plans
 - Chemical Smart Procurement
 - Change consumption pattern at home and work



Chemical Action Plan

- both for human and environmental health

- Prioritizing Substances of Concern of the municipality
- Setting goals for:
 - The municipality and its entities
 - Businesses in town
 - Informing the inhabitants
- Three types of pilot activities
 - Substitution of chemical products
 - Substitution of articles and materials
 - Chemical criteria in procurement
- Quantification: Calculating the benefit of substitution
 - Tonnes of HS can be phased out by targeted actions.



Chemical smart procurement - a powerful and effective tool for HS reduction

for public AND private actors - anyone

- An average of EUR 1.8 trillion is spent on public procurement every year, which equals approximately 14% of the EU GDP.
- The high purchasing power and the use of public funds implies that the municipalities have more of a responsibility to minimize the risks caused by hazardous substances than individual consumers.
- Public sector's purchasing power and chemical smart procurement can be used to influence the market and increase sustainable consumption and production.
- Chemical-smart procurement is a tool specifying Green Procurement regarding HS.
- **Procurement is the key!**
 - **No hazardous substances in products, no emissions!**
 - **Upstream control of down-stream problem!**

Change consumption pattern

- Finding from NonHazCity: **Knowledge & awareness is not enough** about hazardous substances
 - At all three target groups
 - Especially, with regard to solid articles
 - More is known about detergents and cosmetics
- Therefore, we invest a lot into training, information campaigns, developing easy understandable info materials and tools to start action
- We are convinced: there is a lot what everyone can do – at home, at workplace, at any facility he/she acts or stays.
- BUT: it is not so easy to change consumption pattern 😞😞
- We are thinking a lot about how to initiate behaviour change.....



Our special Tool for everyone: the NonHazCity household checks

Inventory and checking (if labelled) of household products in households

- Cosmetics & personal care
- Cleaning agents
- Kitchen ware
- Toys
- Textiles – room textiles & cloths
- Furniture
- Interior accessories
- Sport equipment & utensils
-



The NonHazCity household-check

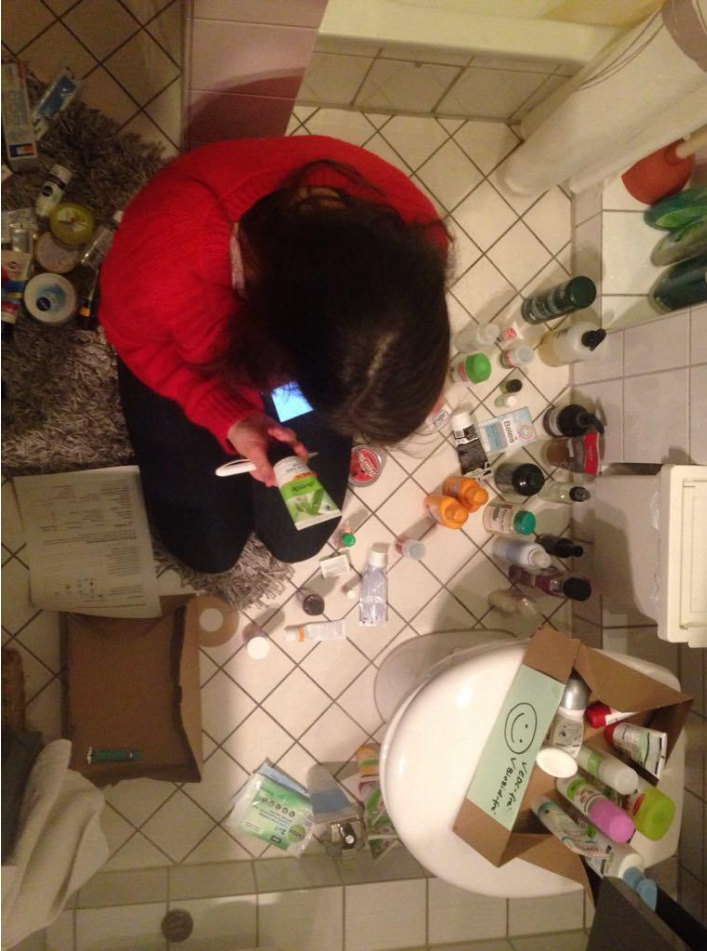
More than 60 households in partner cities around the Baltic Sea were checked during NHC1 – since then we do more continuously

Aim

- Showing the occurrence of a wide range of potentially hazardous products in every household
- Providing and testing consultancy to households in different living situations
- Second visit after several months: how sustainable is change in the households?



What did we find in the households?



- Overall amount of (hoarded) products
- Sprays
- Hazard symbols
- Misuse of i) cosmetics, ii) dose, iii) container / packaging
- Fragrances
- Greenwashing
- Biocides for i) conservation, ii) disinfection
- Colouring agents
- (several) parabens (at once)
- UV filter

https://thinkbefore.eu/wp-content/uploads/2020/11/BEF_DIY_Guidebook_ENG.pdf

you can detox your household with help
of this guide

[BEF DIY Guidebook ENG.pdf](#)
[\(thinkbefore.eu\)](#)



DIY GUIDEBOOK:
DETOX YOUR HOME



Check your exposure: <https://checked.detoxed.eu/>

Endocrine Disruptors (EDs) exposure analyzer



5 fingers like 5 reasons to live a DetoxED lifestyle

(DetoxED – free of Endocrine Disruptors – hormonal cheaters that increase the risk of lifestyle diseases: obesity, infertility and cancers)

1. **Knowledge.** Endocrine Disruptors are harmful, yet common in daily life. ([read more](#))
2. **Care.** Protect your health. ([read more](#))
3. **Nature.** Protect the Earth. ([read more](#))
4. **Economy.** Save money. ([read more](#))
5. **Attitude.** Being DetoxED is easier than you think!

[Take a step now - start here](#)




NONHAZCITY

www.thinkbefore.eu
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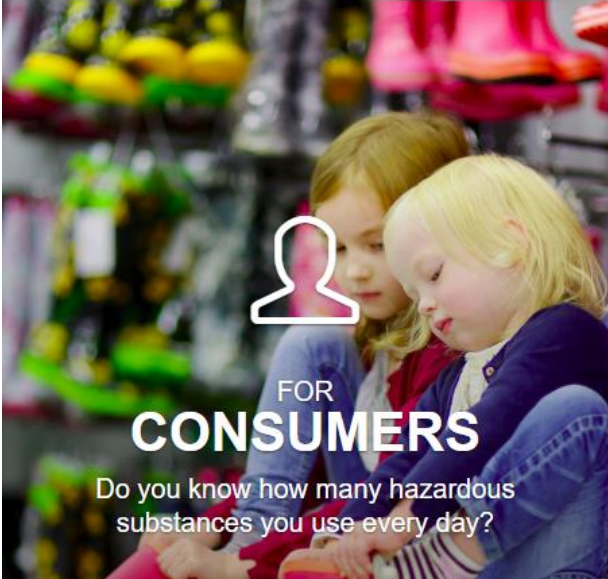
The NonHazCity Website


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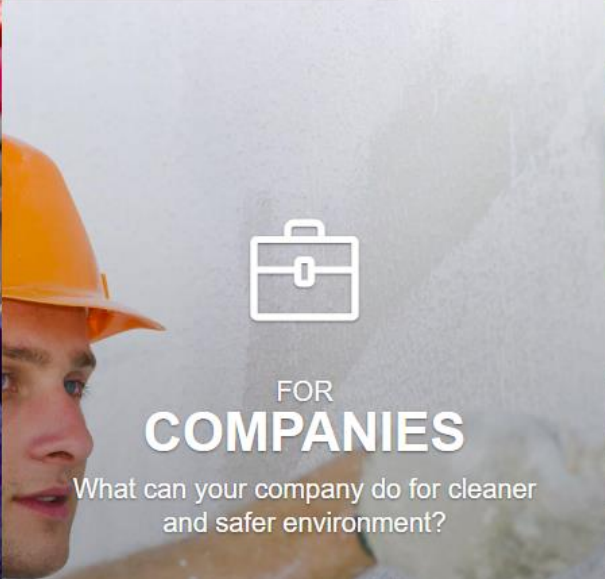
SAFER PRODUCTS, CLEANER CITIES!


 NonHazCity


NonHazCity project wants to address the small-scale emitters directly and try to reduce the consumption of hazardous substances at the source. Municipalities, small and medium sized enterprises and private households will be addressed by various means, adapted to each specific target polluter with the main goal to prevent hazardous substances ending up in the sewer and, ultimately, in the Baltic Sea.






FOR
CONSUMERS
Do you know how many hazardous substances you use every day?




FOR
COMPANIES
What can your company do for cleaner and safer environment?




FOR
MUNICIPALITIES
How can municipalities reduce emissions of hazardous substances?

 EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

