

# HAZBREF



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## WP4 Best practices in chemicals management in industry

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# Objective and goals

## Objective

To increase knowledge on management of hazardous chemicals in the IED industrial sectors via co-operation between operators, chemical suppliers and authorities.

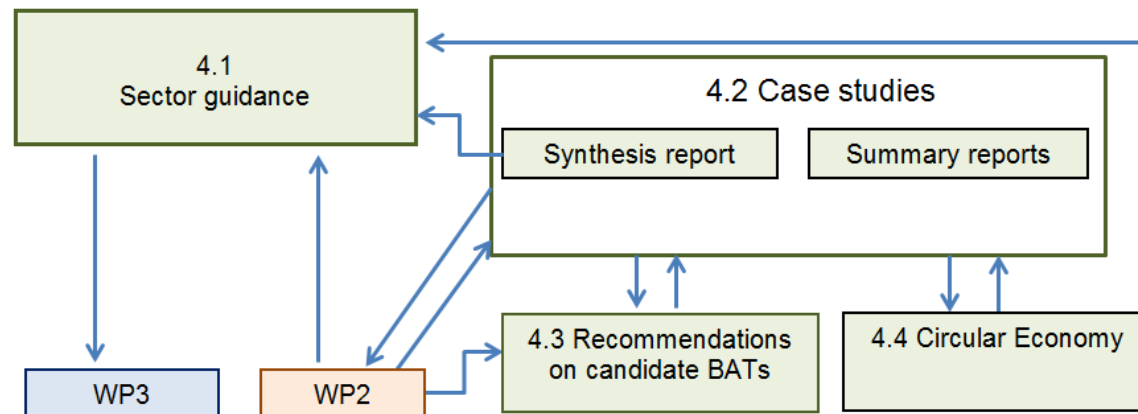
## Goals

- Provide better knowledge on current practices of chemical use and management in case installations in the selected sectors
- Produce descriptions for the potential candidate BATs for the reduction of releases of hazardous substances.
- Identify and evaluate the opportunities for promoting circular economy in the BREF process

# Work Package 4

## WP4 – Best practices in chemicals management in industry

- 4.1 Development of best practices in industrial sectors (sector reports)
- 4.2 Industrial installation case studies (textile, surface treatment, chemicals)
- 4.3 Development of BAT descriptions
- 4.4 Identifying hazardous substances preventing recycling and reuse in industry (Circular economy)



# Sectoral guidance

## Sector guidance

- Synthesis of the case study results
  - BAT recommendations for the case sectors and industry as a whole
  - Recommendations for Circular Economy
  - Conclusions on management and administrative practices
  - Good practice in preparing integrated permits
- 
- Input to BREF process (**EIPPCB** and **TWGs**)
  - **Operators of industrial installations** can use this knowledge for developing/improving the management systems of hazardous chemicals
  - **Industrial associations** for preparing sectoral environmental policies
  - Guidance for the **permitting and supervising authorities**

# Case studies

**Aim:** Increase knowledge on management of hazardous substances in 3 industrial sectors

**Activities:**

- Identification and characterization of hazardous substances used in the installation
- Review of chemical management practices and applied BAT; identification of best practices and opportunities for improvement
- Deriving information on potential BAT candidates on chemicals management
- Interviewing operators about implementation of legislation and administrative practices

# Textiles

- 4 case studies
  - Germany, Poland, Sweden
- 3 IED installations and one non IED, woven fabric, protective clothing
- Main processes: pretreatment and treatment of textiles, dyeing and finishing
- Key issues: consumption/input of chemicals, emissions of chemicals with waste gas, waste water and products, storage and handling of chemicals, wastewater treatment



# Surface treatment of metals and plastics

- 6 Case studies
  - Germany, Finland, Poland, Estonia, Sweden
- IED installations in automotive and aeronautics industries, engineering industry
- IED installations with hard chromium, cadmium plating, aluminium anodising etc.
- Key aspects: management of chemicals, production technologies and processes, wastewater treatment and waste management



# Chemical sector

- 5 Case studies
  - Finland, Sweden, Estonia, Poland
- IED installations for Polymers production, Large Volume Inorganic Chemicals
- Key aspects: Improving technological processes, end of pipe techniques, waste management solutions, recycling of wastes





# BAT candidates

- Screening of techniques and measures including:
  - substitution and prevention measures
  - abatement techniques to reduce waste water discharges and air emissions, including end-of-pipe solutions
  - emission monitoring techniques,
  - emerging techniques (ET)
- Evaluation of the applicability and efficiency of the identified techniques and measures
- Development of recommendations for candidate BAT of the three sectors taking into account the requirements of the BREF guidance (Section 2.3.7.2 of the Commission Implementing Decision 2012/119/EU).

# Circular Economy

- **Background:** EU action plan for the Circular Economy
  - The Commission intends to enhance better resource use by including guidance on best waste management and resource efficiency practices in BREF documents
- **The aim of Activity :**
  - Identify and evaluate the opportunities and obstacles for recycling/reuse of wastes with regard to use and presence of hazardous substances in the materials in the production process
- **Results of the activity:**
  - produce information on the possibilities to promote non-toxic material cycles
  - better tracking of chemicals of concern in BREFs, as well as in permitting and enforcement activities.

**Thank You for  
your attention!**

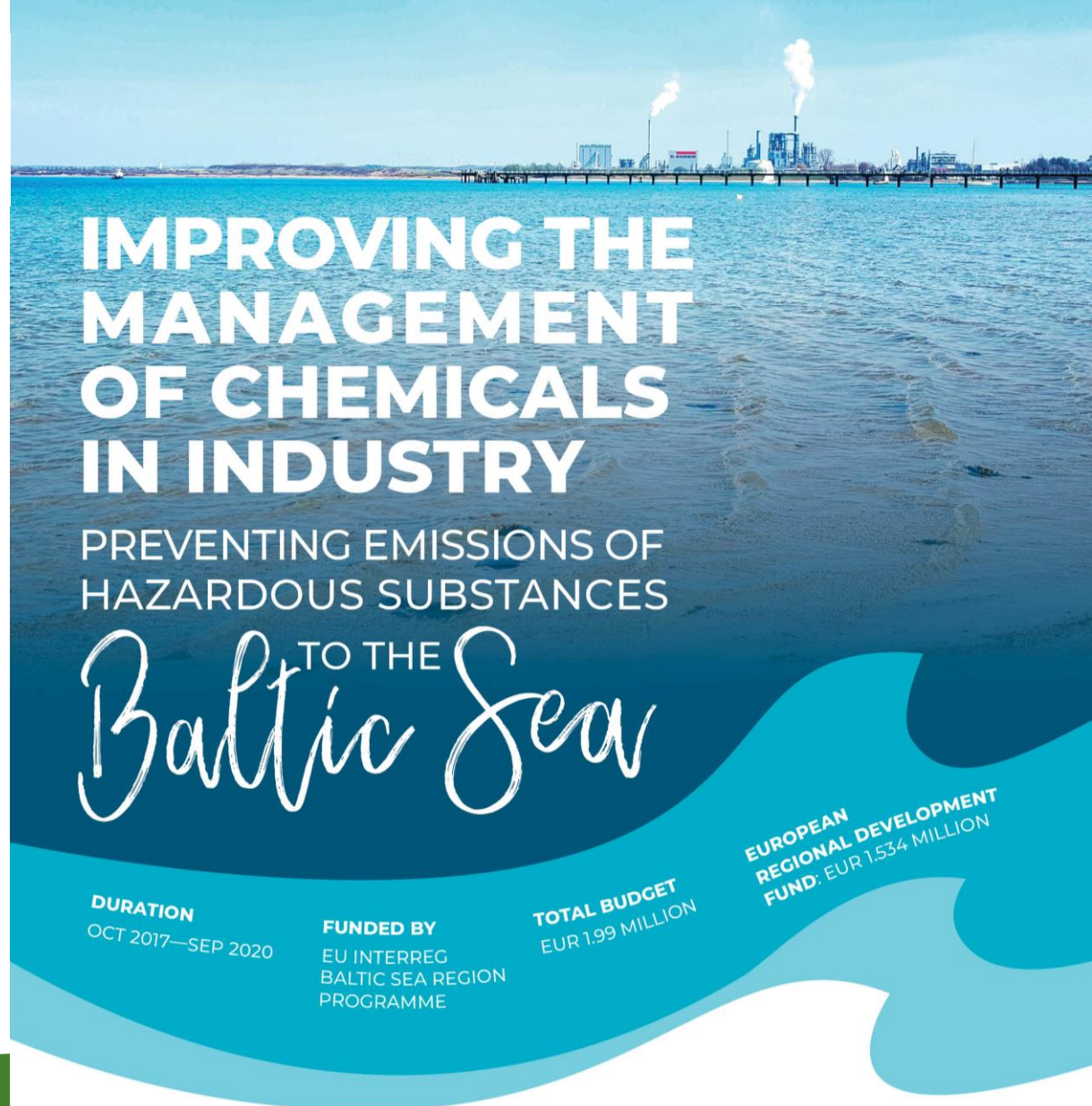
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# IMPROVING THE MANAGEMENT OF CHEMICALS IN INDUSTRY

## PREVENTING EMISSIONS OF HAZARDOUS SUBSTANCES TO THE *Baltic Sea*

**DURATION**  
OCT 2017—SEP 2020

**FUNDED BY**  
EU INTERREG  
BALTIC SEA REGION  
PROGRAMME

**TOTAL BUDGET**  
EUR 1.99 MILLION

**EUROPEAN  
REGIONAL DEVELOPMENT  
FUND: EUR 1.534 MILLION**