

# BEST – Better Efficiency for Industrial Sewage Treatment



ESPC3  
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**Our BEST aim:**

Promote cooperation and best practices between industries, waste water treatment plants and local environmental authorities to ensure efficient treatment for industrial waste waters in the Baltic Sea Region.

# Partners

Cities, universities, expert and waterwork organisations, industrial companies, WWTPs  
+ 30 associated partners



City of Helsinki Environment Services	FI
Riga Technical University	LV
Tallinn University of Technology	EE
Estonian Waterworks Association	EE
Municipal water supply and sewerage company with limited liability (Leszno)	PL
Doruchow Municipality	PL
John Nurminen Foundation	FI
State Autonomous Institution of Kaliningrad region "Environmental Center "ECAT-Kaliningrad"	RU
Helsinki Region Environmental Services Authority HSY	FI
Põltsamaa Varahalduse limited company	EE
Limited company E-Piim Tootmine	EE
MUE "Vodokanal" of Gatchina	RU
City of Warsaw	PL
Regional Environmental Centre for Central and Eastern Europe, Country Office Poland	PL
LATVIJAS PIENS LTD	LV
Gdansk Water Foundation	PL

# Duration and funding

Duration: 1.10.2017 – 30.9.2020

Budget: 3,6 million €

Co-funding:

European Union Interreg Baltic Sea Region (75/85 %),  
Russian Federation financial support

Own funding by partners

The project has been granted an EU Strategy for the Baltic Sea Region Flagship Status (Policy Area Nutri)

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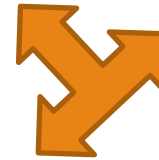
**Why BEST?**

# 1) Industry

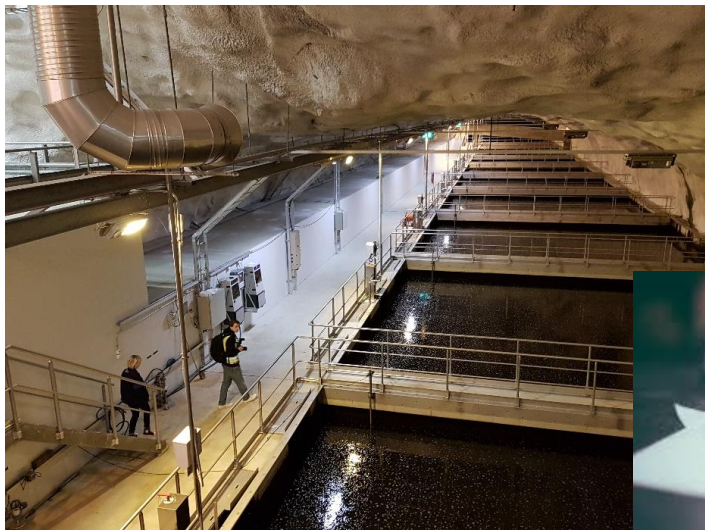


# 2) Permitting authority

Environmental permit



# 3) Local waste water treatment plant



Contract considering abnormal waste water



- **Cooperation models**
- **Technical solutions**, e.g. pre-treatment
- **Industrial waste water treatment guidelines**, materials and good examples

# 1) Assessment of the current situation

1. Compiling of a coherent **description of the current situation in treatment of industrial effluents entering municipal WWTPs** in the Baltic Sea Region.
2. **Testing pilot technologies** for removing phosphorus, hazardous substances and other substances from waste water.

*Leads: Riga Technical University, Tallinn University of Technology*

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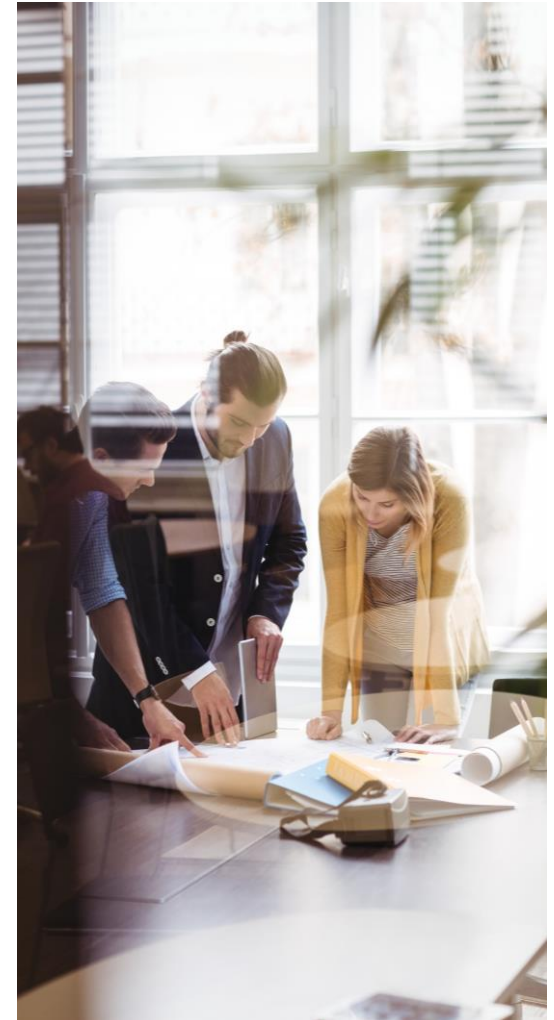
## 2) Capacity development

Increasing the **capacity and competence** of WWTPs, industrial companies and local and regional authorities

- ✓ **6 international workshops** (in Helsinki, Gdansk, Tallinn, Riga, Kaliningrad, Warsaw) for BEST partners and local stakeholders.
- ✓ **National events** (Estonia, Latvia, Poland, Kaliningrad, Lithuania) by network organisations and waterwork associations and **study visits to WWTPs** in BSR
- ✓ Materials compiled to a **learning package and training concept** in for further educational use

*Leads:*

*Gdansk Water Foundation and Estonian Waterworks Association*





### 3) Local cooperation models and investments

1. **Enhancing cooperation** between local and regional stakeholders (WWTPs, industry, environmental authorities) **by developing local management models**
2. **Technological investments** to achieve better process control and treatment of industrial effluents

*Leads: City of Helsinki, John Nurminen Foundation and investing partners*

1. **Optimal utilization of industrial sewage for energy production**
  - Pilot-scale fermentation installation for WWTP in Leszno, Poland
2. **Piloting nutrient recycling technology for industrial waste waters**
  - Phosphorus filtering system enabling nutrient recovery in Doruchow, Poland
3. **Co-treatment of industrial wastewaters in MWWTP**
  - Monitoring equipment for WWTP in Põltsamaa, Estonia
4. **Co-treatment of industrial waste waters of a dairy company**
  - Regulation facilities for dairy company, Estonia
5. **Improved pre-treatment in dairy company**
  - Pre-treatment for dairy company in Jelgava, Latvia
6. **Improved co-treatment of industrial waste waters**
  - Substance-specific analyzers for WWTP in Gatchina, Russia

## 4) Final outcome:

# National and BSR wide guidelines for improved management of industrial effluents

Guidelines are targeted to

- 1) permitting and monitoring authorities in municipal, regional and national levels,
- 2) WWTPs affected by industrial effluents

Description of legislative, technical and institutional developments needed for improved management of industrial effluents.

*Lead: John Nurminen Foundation*



# Thank you!

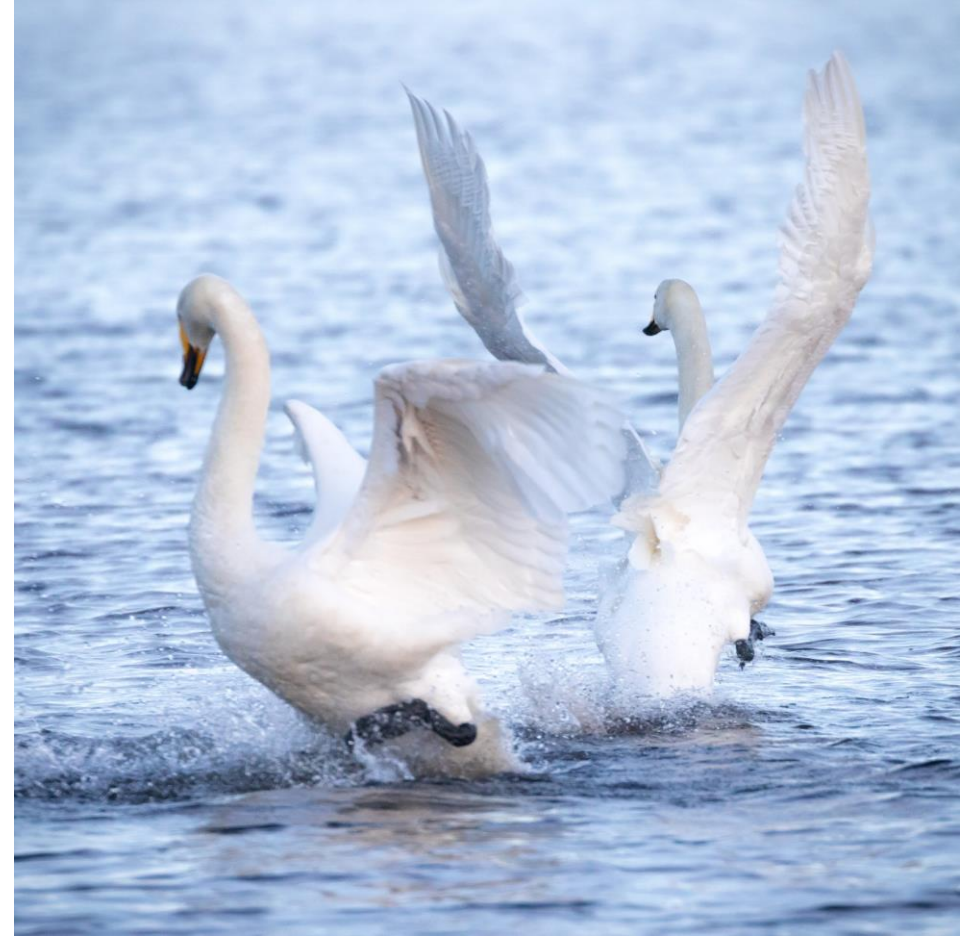
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