

BEST – Better Efficiency for Industrial Sewage Treatment



BEST workshop Gdansk
June 12, 2018

City of Helsinki
Kajsa Rosqvist, Project manager

Kick off in Helsinki 6-8.2.2018



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 organistaions, 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)

4



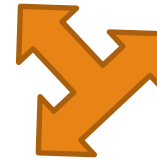
Why BEST?

1) Industry

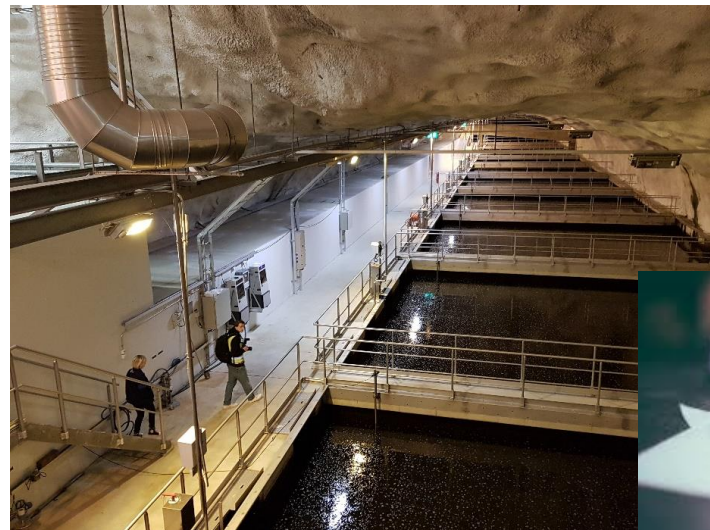


2) Permitting authority (municipality/ regional authority)

Environmental permit:
Restrictions on emissions led to the waste water treatment network (e.g. requirements for pre-treatment)



3) Local waste water treatment plant



Contract considering abnormal waste water:
Quality, quantity, risk for work safety, treatment process and sludge utilisation



- **Cooperation models**
 - Industrial waste water treatment contracts hand in hand with environmental permits
 - Joint supervisions and monitoring
 - Regular joint meetings
 - Models for emergency situations
- **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

7

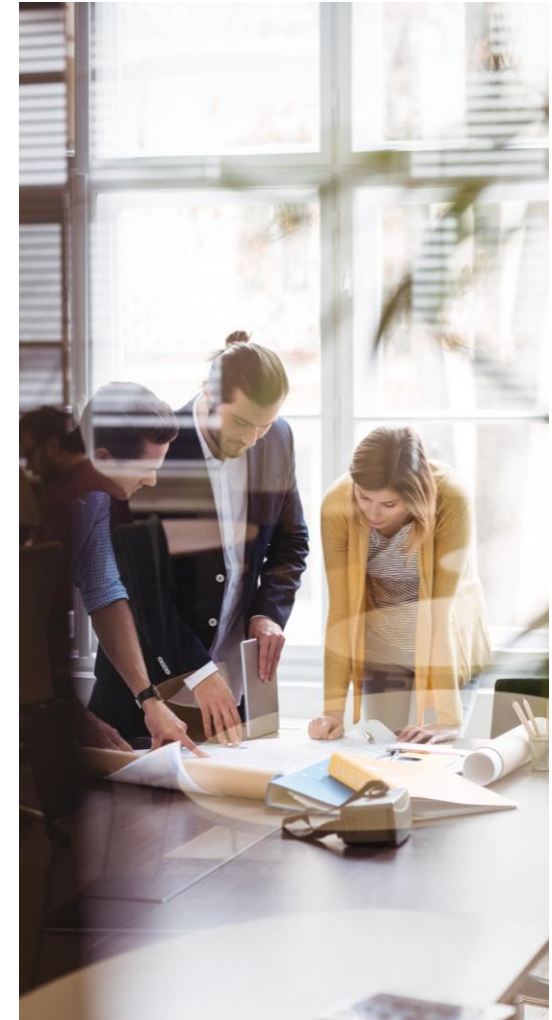
2) Capacity development

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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11

