MORPHEUS - Model Areas for Removal of Pharmaceutical Substances in the South Baltic 2017-2019

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REM Consult

Baltic Sea Pharma Platform Kickoff
November 22th Riga
LP - Kristianstad University

PP2 - Coastal Union Germany

PP3 - University of Rostock

PP4 - Gdańsk Water Foundation

PP5 - Gdańsk University of Technology

PP6 - Lithuanian EPA

PP7 - Klaipeda University

+ several WWTPs as associated partners
Consumption Pattern - Modelling "top-down approach" - WP 3

Training and Education - WP

Recommendations ("Road Maps") for advanced treatment technologies in selected WWTPs - WP 5

Communications and Dissemination - WP 2

Pharmaceutical Burden - Analysis "end-of-the-pipe emissions" - WP 4
Target groups

1) WWTP management and staff
2) Monitoring bodies, regional and local public authorities:

   -> better knowledge about pharmaceutical substances in wastewater (REPORTS ON CHEMICAL ANALYSIS AND CONSUMPTION, GUIDANCE DOCUMENT)

   -> better information about suitable advanced technologies for investment decisions into upgrading of WWTPs (ROADMAPS and TRAINING COURSE)

3) (Consumers – awareness raising)
Right now in all 4 Regions!

WP 3 Consumption Pattern

WP 4 Water sampling & Analysis
Right now in all 4 Regions!

WP 5 Survey existing technologies sent out

**REPORTING FORMAT**
for MORPHEUS project concerning basic data on selected WWTPs and sampling procedures
(WP 4 - SECOND DRAFT - TEMPLATE)

<table>
<thead>
<tr>
<th>1. General information (contact information)</th>
<th>2. Wastewater collection system</th>
<th>3. Wastewater treatment plant flow characteristics in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Name of the WWTP</td>
<td>2.1 Wastewater collection system</td>
<td>3.1 Type of the wastewater flow/volume measurement method and</td>
</tr>
<tr>
<td>1.2 Name of municipality in which WWTP is located</td>
<td>2.2 Wastewater collection system (separated, semi-separated, combined)</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Alignment Pharmaceutical Life Cycle (PA Hazards, HELCOM)

<table>
<thead>
<tr>
<th>Stage</th>
<th>MORPHEUS contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and authorisation</td>
<td>Collection of data on concentration of 22 pharmaceutical substances in effluent water, advancement of monitoring techniques</td>
</tr>
<tr>
<td>Manufacturing and distribution</td>
<td>No contribution</td>
</tr>
<tr>
<td>Consumption / use</td>
<td>Analysis of consumption patterns, consumer awareness raising (to a limited extent)</td>
</tr>
<tr>
<td>Waste</td>
<td>Compilation of information on advanced treatment technologies and recommendations for upgrading of specific WWTPs</td>
</tr>
</tbody>
</table>
Thank you!

Twitter: @morpheus_eu

Web: www.morpheus-project.eu