

## Co-UDlabs online practice workshop on urban drainage

Identifying good practice and research for optimising the performance of urban drainage assets and improving their resilience to climate change and sustainability

NOVEMBER 3-4, 2021

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| <b>DAY 1</b>  | <b>Wednesday 3rd November 2021, 09.00 – 12.30 (CET) / 08.00 – 11.30 (GMT/UTC)</b>   |
| 09:00   | <b>Welcome by workshop moderator</b> - Dr. Iain Naismith (Co-UDlabs - IKT, Germany)   |
| <b>The Co-UDlabs Project</b>  |   |
| 09:00 – 09:15   | <b>Why is the European Commission funding the Co-UDlabs Project? Objectives, Ambition, Work programme</b><br>Dr. Iain Naismith (Co-UDlabs - IKT, Germany)<br>Dr. Jose Anta Álvarez (Co-UDlabs - Universidade da Coruña, Spain)  |
| 09:15 – 09:30   | <b>Co-UDlabs and collaboration - Bringing Science, Industry and Network Operators together</b><br>Dipl.-Ing. Thomas Brüggemann (Co-UDlabs - IKT, Germany)<br>Prof. Dr.-Ing. Bert Bosseler (Co-UDlabs - IKT, Germany)  |
| <b>Setting the scene – Storm Bernd – July 2021</b>  |   |
| 09:30 – 09:45   | <b>Case Study - Heavy rainfall events in Europe in July 2021: consequences and challenges for sewer network operators (experiences of IKT in co-ordinating assistance for affected municipalities)</b><br>Mirko Salomon (ComNetAbwasser - IKT, Germany)   |
| <b>Session I - Optimising existing urban drainage asset performance - use of monitoring and sensing to optimise network performance in response to heavy rainfall</b> |   |
| 09:45 – 09:55   | <b>Overview of issues concerning monitoring and sensing for asset performance</b> <ul style="list-style-type: none"> <li>by the leader of the Co-UDlabs Joint Research Activity 1 on Smart Sensing and Monitoring in Urban Drainage<br/>Dr. Jean-Luc Bertrand-krajewski - INSA Lyon (France)</li> </ul> |
| 09:55 – 10:30   | <b>Short presentations of examples of good practice in Europe</b> <ul style="list-style-type: none"> <li><b>Smart Utilisation of Wastewater Storage capacity in sewers – Centaur Project (UK, France, Portugal)</b><br/>Dr. Alma Schellart (Co-UDlabs - University of Sheffield, UK)</li> </ul>         |

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|  | <ul style="list-style-type: none"> <li>• <b>Pollution released in Combined Sewer Overflows. Monitoring challenges in traditional infrastructures of Madrid (Spain).</b><br/>Antonio Lastra (Canal Isabel II, Spain)</li> <li>• <b>Management of flow measurement data in sewers</b><br/>Dr. Franz Tscheikner-Gratl (Norwegian University of Science and Technology)</li> </ul>  |
| 10:30 – 11:00  | <b>Panel discussion on research needs for ‘use of monitoring and sensing to optimise performance in response to heavy rainfall’.</b> <ul style="list-style-type: none"> <li>• <b>Virtual White Board open</b></li> </ul>  |
| 11.00 – 11:15  | <b>Coffee break</b>   |
| <b>Session II - Evaluation of Assets and Deterioration</b> |   |
| 11:15 – 11:25  | <b>Overview of the evaluation of assets and deterioration issues</b> <ul style="list-style-type: none"> <li>• <b>by the leader of the Co-UDlabs Joint Research Activity 2 on Evaluation of assets deterioration in Urban Drainage systems</b><br/>Prof. Simon Tait, (Co-UDlabs, University of Sheffield, UK)</li> </ul>   |
| 11:25 – 12:00  | <b>Short presentations of examples of good practice</b> <ul style="list-style-type: none"> <li>• <b>Application of cameras for monitoring pumping stations (Netherlands)</b><br/>Prof. François Clemens (Co-UDlabs - Deltares, Netherlands)</li> <li>• <b>AI-based Approaches for Short- and Long-term Sewer Asset Management in Berlin (Germany)</b><br/>Dipl.-Ing. Matthias Riechel (Kompetenzzentrum Wasser Berlin, Germany)</li> <li>• <b>Numerical Studies about deterioration assets in Arnhem and Den Haag (Netherlands)</b><br/>Dr. Irene Scheperboer (IKT, Netherlands)</li> </ul> |
| 12:00 – 12:30  | <b>Panel discussion on research needs for ‘use of monitoring and sensing to optimise performance in response to heavy rainfall’.</b> <ul style="list-style-type: none"> <li>• <b>Virtual White Board open</b></li> </ul>  |
| <b>12:30 - End of day 1</b>                                |   |

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| <b>DAY 2</b>  | <b>Thursday 4th November 2021, 09.00 – 12.00 (CET) / 08.00 – 11.00 (GMT/UTC)</b>   |
| 09:00   | <b>Welcome by workshop moderator - Dr. Iain Naismith (Co-UDlabs - IKT, German)</b>   |
| <b>Session III – Improving resilience and sustainability of urban drainage assets</b> |  |
| 09:05 – 09:15   | <b>Overview of the issues concerning resilience and sustainability</b> <ul style="list-style-type: none"> <li>• <b>by the leader of the Co-UDlabs Joint Research Activity 3 on Improving resilience and sustainability in urban drainage solutions</b><br/>Dr. Luís Cea Gómez - Universidade da Coruña (Spain)</li> </ul>  |
| 09:15 – 10:15   | <b>Short Presentations of good practice in Europe</b> <ul style="list-style-type: none"> <li>• <b>Dealing with London’s legacy of combined sewers (UK)</b><br/>Andrew Hagger (Thames Water Utilities, UK)</li> <li>• <b>Development of modular technology for handling and treating rainwater as part of Aalborg Utility’s rainwater management (Denmark)</b><br/>Prof. Jesper Ellerbæk Nielsen (Aalborg University, Denmark)</li> <li>• <b>Addressing climate change in the City of Almere (Netherlands)</b><br/>Maria Rus (City of Almere, Netherlands)</li> </ul> |



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|  | <ul style="list-style-type: none"> <li>• <b>Co-Designing a “Livable Street”:</b> Project ‘LesSON’ and the Future Initiative “Water in the City of Tomorrow” (Germany)<br/>Dr. Daniela Falter (Emschergenossenschaft, Germany)</li> <li>• <b>Not all SuDS are created equal: Impact of different approaches on combined sewer overflows (Switzerland)</b><br/>Dr. Joao Paulo Leitao (Co-UDlabs - EAWAG, Switzerland)</li> </ul> |
| 10:15 – 11:45                              | <p><b>Panel discussion on research needs for “Improving resilience and sustainability of urban drainage assets”</b></p> <ul style="list-style-type: none"> <li>• <b>Virtual White Board open</b></li> </ul>  |
| 10:45 – 11:00                              | <b>Coffee break</b>  |
| <b>Reminder of the outcomes from Day 1</b> |  |
| 11:00 – 11:15                              | <ul style="list-style-type: none"> <li>• <b>Illustrated summary of the key points from the presentations and discussions from Day 1 – Sessions I and II</b><br/>Dr. Iain Naismith (Co-UDlabs – IKT, Germany)</li> </ul>  |
| <b>The way forward</b>                     |  |
| 11:15 – 11:55                              | <ul style="list-style-type: none"> <li>• <b>Panel discussion on the next steps for actioning the workshop’s findings through Co-UDlabs</b><br/>Co-UDlabs Joint Research Activity leaders</li> </ul>  |
| 11:55 – 12:00                              | <b>Concluding remarks</b>  |
| <b>12:00 - End of day 2</b>                |  |

