

# Pushing the Boundaries of Urban Drainage: AI, Drones, Sensors & Robotics



International conference: More than 50 experts from across the globe attended

Last week, we hosted a truly inspiring international conference in Gelsenkirchen, Germany:

**“AI, Drones, Sensors and Robots for Smart Sewers and Urban Drainage 2025”**

More than 50 experts from across the globe gathered to explore how cutting-edge technologies are transforming the way we inspect and manage urban drainage systems.

## Key topics and contributions

- AI-powered sewer diagnostics at Tokyo Metropolitan Sewerage
- Stormwater prediction through deep learning



International case studies  
from Tokyo, the UK,  
Germany, Canada, and more

- Real-time data from Water and Wastewater Networks for AI analysis
- Practical AI use cases by Yorkshire Water, United Utilities, and Gelsenwasser
- Drone and sensor applications from WinCan, Andrews.Engineer, and Wirtschaftsbetriebe Duisburg
- Robotic inspection and maintenance featuring the MAC System, Pipebots from the University of Sheffield, and even Robo-Dogs from Jade Hochschule
- Cleaning-driven asset management presented by Sewer Robotics

Conference Programme 2025:

<https://bit.ly/IKT-International-Conference-2025>



Discussions and networking  
sessions

## International networking

In the various sessions and inbetween, participants took part in vibrant discussions and networking, proving:

The challenges in urban drainage – aging infrastructure, climate resilience, workforce shortages – are global.

Smart technologies offer new opportunities for efficient, cost-effective solutions.



Live demonstrations at IKT's test facilities gave participants hands-on insights into the latest inspection technologies.

## Live demonstrations

Live demonstrations featured drone flights, IKT's MAC system for non-destructive assessment, and robotic dogs navigating sewer networks – all in IKT's test facilities.

This conference was more than just an event – it was the start of deeper international collaboration in wastewater innovation. It marks the beginning of closer international cooperation in the field. The journey continues next year!

Take a look at the photo impressions of this lively conference here: <https://bit.ly/Photos-Conference-2025>

In the IKT research sewer pipe, Andrews Engineers from Canada demonstrate how they inspect sewers with their drone:

RoboDog visits the International Conference on Communications and Transportation (IKT) and his owner, Prof. Dr. Sebastian Hollermann, reports on the possibilities of using him in the sewer system:

In the IKT research sewer pipe, Andrews Engineers from Canada demonstrate how they inspect sewers with their drone.

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# **IKT International Conference 2025: AI, Drones, Sensors and Robots for Smart Sewers and Urban Drainage**



IKT International Conference  
2025:

AI, Drones, Sensors and Robots  
for Smart Sewers and Urban  
Drainage

This international conference brings together experts and innovators to explore cutting-edge AI, robotics, and sensor technologies for real-time monitoring, predictive maintenance, and smarter infrastructure solutions.

The future of urban drainage and sewer management is here!

### **Key topics for Smart Sewer Systems and Urban Drainage:**

- AI – How digitalization can transform their management
- Drones and Robotics – Improving safety and cost-effectiveness
- Robotics – Automating maintenance for efficiency
- Sensor Technologies for Inspection & Real-Time Data – Enhancing decision-making
- Predictive Analytics – Preventing failures before they happen

### **Programme:**

International Conference 2025: AI, Drones, Sensors and Robots  
for Smart Sewers and Urban Drainage

2 – 3 April 2025

### **Venue**

IKT – Institute for Underground Infrastructure  
Gelsenkirchen / Germany

**Who should attend?**

Municipalities, utilities, innovation teams, engineers, industry professionals, contractors and suppliers who are shaping the future of sewer systems and urban drainage!

**For delegates:** Registration

**For exhibitors:** Registration is open

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