Intelligent Management Concepts for Urban Stormwater Infrastructure"

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HST Product Range

Systems & Solutions for Storm water- and CSO structures

- **Water level- and flow control:**
  - Dams, storm water retention structures,
  - Storm water retention tanks, collector channels and sewer networks

- **Removal & prevention of sedimentation:**
  - Storm water retention structures, WWTP (SBR)

- **Separation of floating solids:**
  - Storm water retention structures, WWTP (SBR)

**Systems & Solutions**

- Weirs & gates for dams and storage tanks
- Flush cleaning/ Jet cleaners
- Vertical lifting weir & Flushing sluices
- CSO Fine screen
HST Product Range

Automation & IT-Software for Water Infrastructure

- Process monitoring, Process control, Supervisory Control and Data Aquisition (SCADA)
- Operational management software → organisation- and optimize of workflows, (KANiO)
- Data collection & evaluating
- Automation → TeleMatic

Precision flow measurement over weir crest (EMA)

TeleMatic Telecontrol systems

Automation Software (HydroMatic)

SCADA-Systeme (SCADA V10 / SCADA.web)

operational management (KANiO / KANiO.web)
Global Challenges:

- Rising Urbanisation
- Frequency of extreme weather events due to climate change
Impact of global challenges

1. Urban flooding

resulting from overloaded drainage systems in urban areas
Impact of global challenges

2. Pollution of receiving water bodies

Stormwater is responsible for 50% of pollution flowing into receiving waters
Managing the “Peak Loads“ & fluctuations - major challenges for urban Infrastructure
Data exchange between Infrastructure Objects
A Storm Event is coming
Major lead value: Precipitation Data
Precipitation portal NiRA.web | high resolution forecast
Precipitation portal NiRA.web | Data of Oberhausen (sample)
Sample project – City of Erfurt, Germany
Intelligent management of stormwater infrastructure
Intelligent operation of infrastructure: sample – City of Erfurt
Intelligent management of stormwater infrastructure: Sample – City of Erfurt, Germany
Networking at all levels: Municipal 4.0 / intelli.net

Project sample: Qinan, China
HST Intelli.net
Drainage Management Software

B1 ZENTRALE

TeleMatic

KANiQ.web | SCADA.web | intelli.net | NiRA.web
Rainwater retention tank | smart equipment with “Intelli“ functions
Intelli.net: Hardware & Software installed in an intelligent water infrastructure:
Connection of Process- & Operation Control
SCADA.web – Intelli.Net (NiRA-SCADA-EMA-TeleCam)
Use the advantages of the digitilasation and “Municipal 4.0” to design and operate your stormwater infrastructure:

- Most reliable operation
- For reduced investments
- To optimise assets performance

- Flood prevention
- Receiving water bodies protection

→ protecting the environment serves the public health, secures live quality and public assets!
Thank you for your attention!

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