

Leading-Edge Asset Management

2nd IWA Leading-Edge Conference & Exhibition on Strategic Asset Management

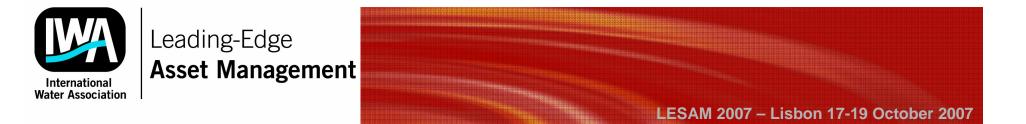
Urban water networks, what is at stake? (engineering challenges)

Paul Conroy, Sveinung Sægrov, Dana Vanier et al

Context

Asset Management and Engineering Developments

- Context
 - People
 - Processes
 - Systems
 - Avoid other Workshop topics
- Gaps
 - Institutional Building
 - Legal
 - Technical *
 - Relationship to Environmental Bodies *
 - Life Cycle Economics *



**** Life Cycle Costs of Maintenance and Repairs

- Benefit cost analysis
- Alternative methods and procedures
- Proactive reactive
- How much and when
- CAPex or Opex?
- When spent and how?

Opportunities

- Research
- Collaboration
- International Water Association
- Clearinghouse of shared data

Leading-Edge Asset Management

- **** Blockages
 - Where
 - Why
 - Random?
 - AWWARF
 - Patterns

Opportunities

- Research
- Collaboration
- Clearinghouse of shared data



- *** Water and Wastewater system Performance modelling
 - Performance
 - Monitoring
 - Condition
 - W modelling easier
 - WW More difficult
 - W asset poorer data
 - WW assets richer
- Opportunities
 - Research



Leading-Edge Asset Management

*** Water is Sexy

- Lack of marketing
- \$3000 a cubic meter
- Pay for cell phone

Opportunities

- Marketing
- Education
- Promotion to youth
- Promotion to citizens



*** Data Clearinghouse

- No case studies
- No good data

Opportunities

- Collaboration
- LESAM SC



Leading-Edge Asset Management

*** Deterioration modelling

- W asset poorer data
- WW assets richer
- WW Not repeatable

Opportunities

- Research
- Collaboration
- Clearinghouse of shared data



Leading-Edge Asset Management

*** Modelling for Small and Medium Utilities

- Poor Useage of data
- Lack of Data

Opportunities

- Research
 - Scaleable models
 - Guidelines
 - Leadership



Leading-Edge Asset Management

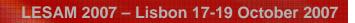
** Grease Traps

- Not research
- Not sexy
- Many municipalities around world

Opportunities

- Research
- Collaboration
- Clearinghouse of shared data





*** State of Asset Management

- No National reports or not consistent
- Many municipalities around world

Opportunities

- Collaboration
- Clearinghouse of shared data



Leading-Edge Asset Management

** Flushing

- Benefit cost analysis
- Alternative methods and procedures
- Proactive reactive
- How much and when
- Study of Biofilms

Opportunities

- Collaboration
- Clearinghouse of shared data



** Biofilms

- Good
- Bad
- Stable
- Deposits Versus Biofilms (coliforms)

Opportunities

- Research



Leading-Edge Asset Management

** Robotic imaging

- ***Water large trunk (boat?)
- ** Wastewater large trunk (boat?)
- * Wastewater domestic connections

Opportunities

- Research
- Development
- Innovation



Leading-Edge Asset Management

- ** Global collaboration
 - Islands of technology

Opportunities

- Collaboration
- LESAM
- Global Water network...



Leading-Edge Asset Management

* Comparisons to Oil and Gas Industry

- Technologies
- Techniques

Opportunities

- Research
- Collaboration
- Techniques useable



Leading-Edge
Asset Management