Smart Water Technologies
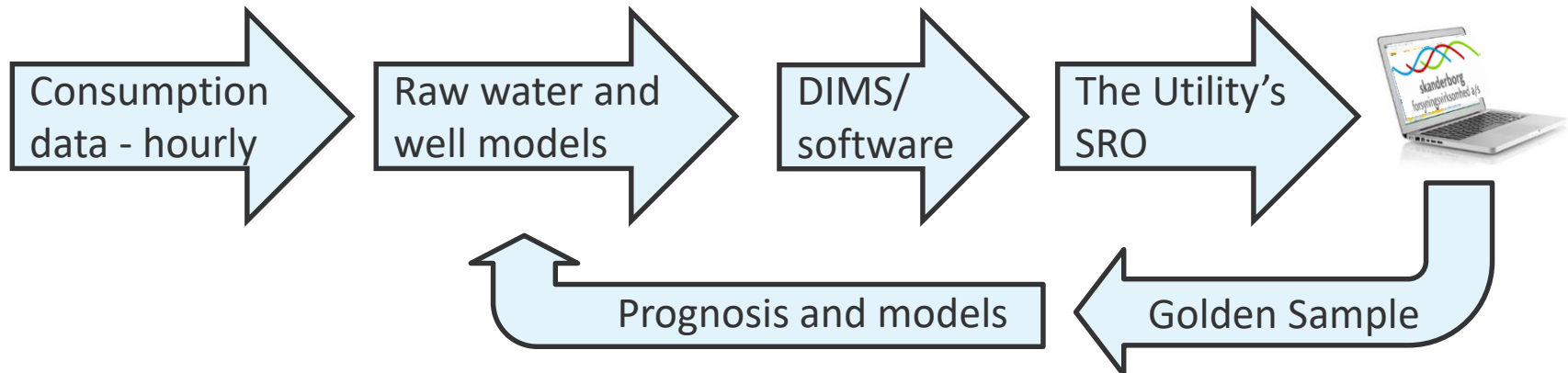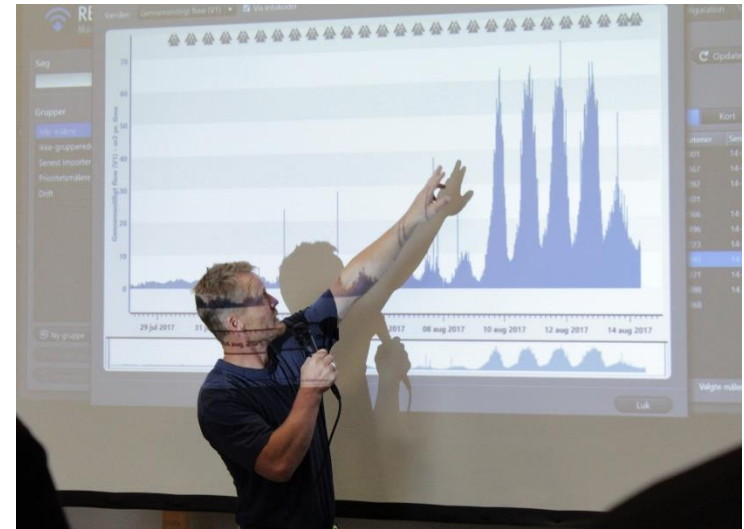

Rune Kier Nielsen | City of Hamilton | 14.09.2018

Intro to Smart Water Technologies

Moving from readings once a month/year to distant digital readings by the hour – and using the data proactively:

- Improves energy efficiency
- Reduces man hours significantly
- **Prolongs life of existing assets**

Consumption data - hourly → Raw water and well models → DIMS/ software → The Utility's SRO →

← Prognosis and models ← Golden Sample

Applicability to retrofitting process

- A digital add-on to existing infrastructure

- Improves management of existing assets and directs maintenance

- Delivers on customer communication and strengthens decision making

Impact

- Data and direction to decision making re. retrofitting

  - Longer life for existing infrastructure

  - Improves energy efficiency

- Detects and positions leakages

  - Reduces water loss

  - Lowers operational costs

- Involves citizens in consumption data and water consumption behaviour
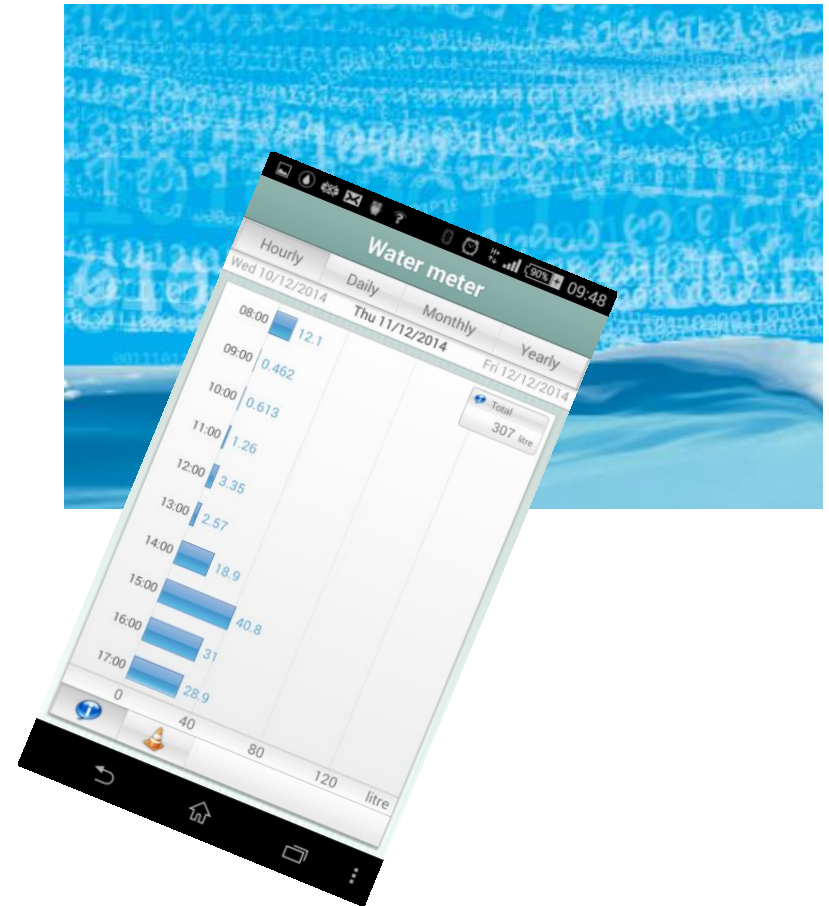
Business case

Acc. US EPA: Energy efficiency in water management can save 15-30 % with a ROI of a few months to a few years.

- Energy saved on utilities go to the City and can then be reinvested
- Investment depends on existing set-up and scale – and local utility

Water = water, energy, man hours, infrastructure and assets

Integration roadmap: Next steps

• CHAIN – Smart Water Networks uses A.I. and algorithms on pressure, flow, level – data in 1 minute intervals

• Stop leaks BEFORE they happen!

  • Alliance with CHAIN partners

  • Meeting with AquaGlobe and Kamstrup