Leuven pilot study

Raingain Consortium Meeting
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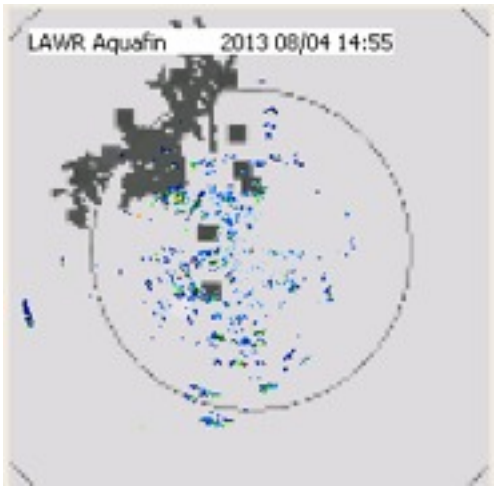
Content

- Progress on
  - Radar measurements
  - Radar data processing
  - Raingauge measurements and data processing
  - Modelling
  - Early Warning System

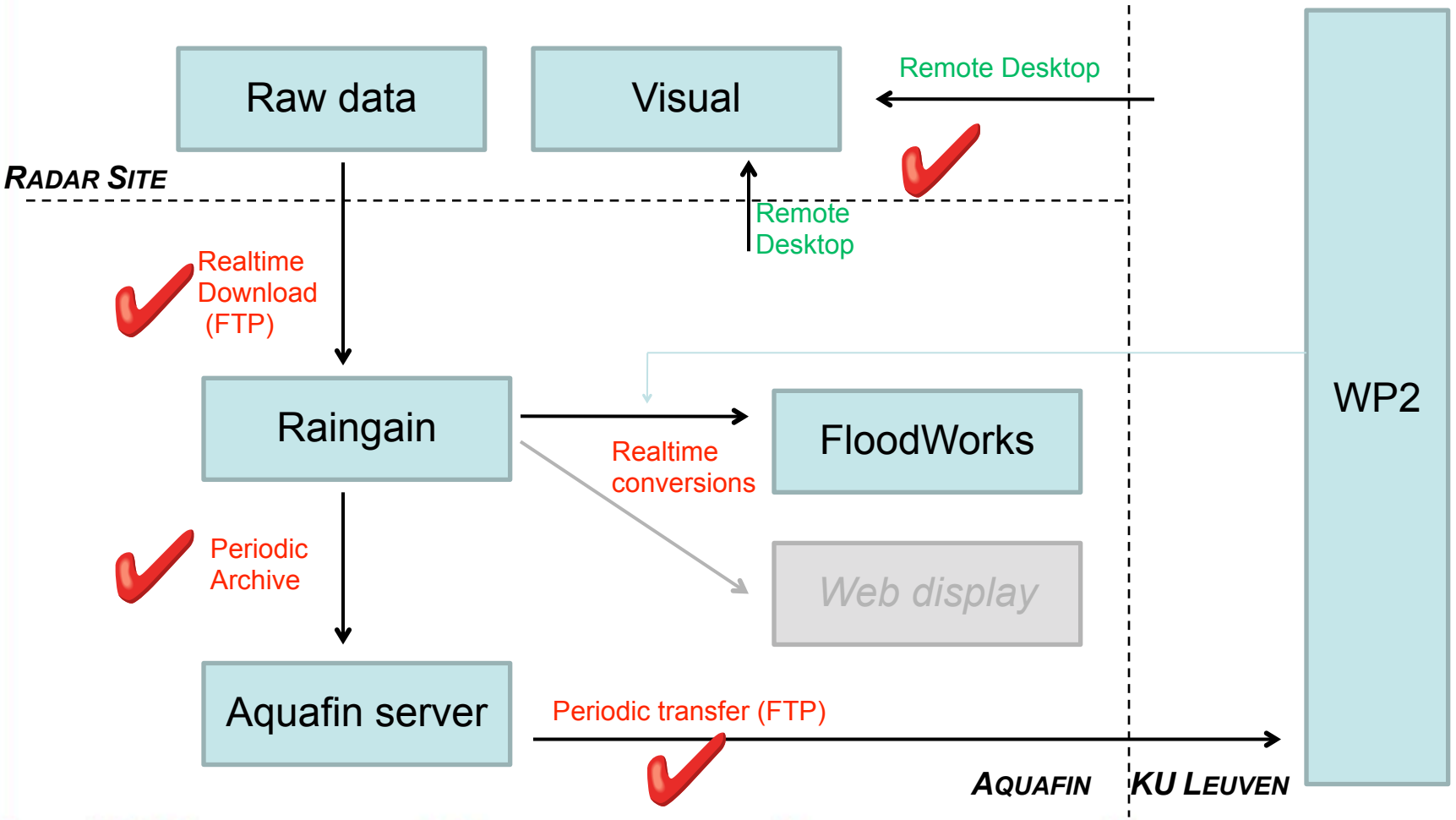
Radar

Evaluation of the past 6 months :

- Operationality : (very) good
- Data quality : poor
  - Excessive clutter during dry weather
  - Uncertain impact on rain data (very few good recent rainfall events to evaluate properly)



Radar data flows



Radar data conversions

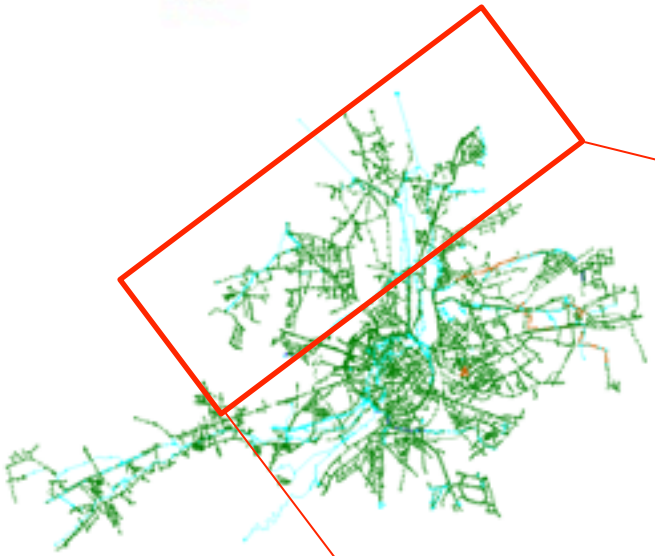
- Format conversion :
  - DHI proprietary format → Nimrod : ± done
- Data validation and processing (ongoing in WP2):
  - Checking for missing or erroneous pixels
  - Fill-up algorithm
  - dBZ to rainfall intensity conversion
    - Realtime comparison with rain gauges
    - Static conversion (unlikely to be sufficiently accurate)
  - Simple forecasting algorithm (advection based)

Raingauges

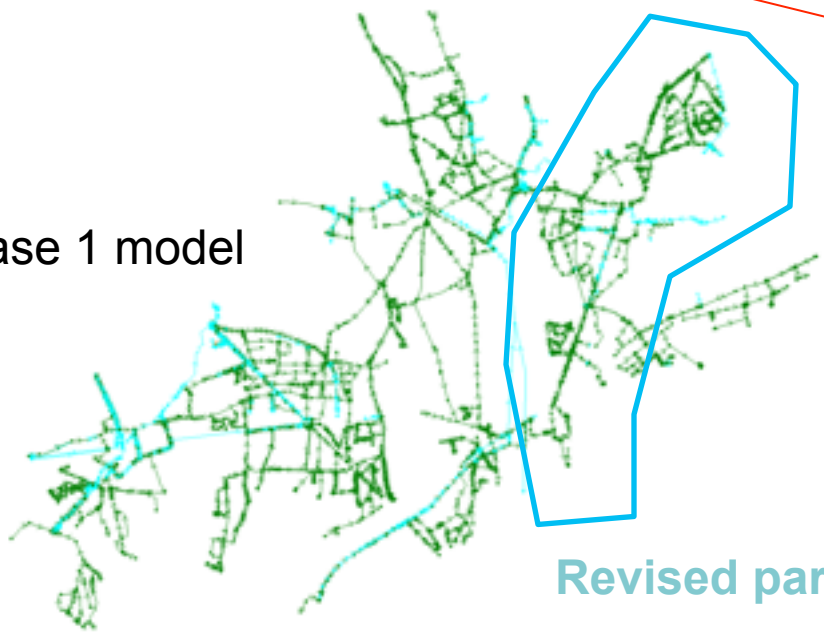
Evaluation of the past 6 months :

- Operationality : (very) good
  - Some locations loose realtime contact occasionally for short time, but no data loss in the end
  - Improved antenna may be necessary in real operational context
- Data quality : a lot of disturbance recently due to snow and frost

Modelling



Full model



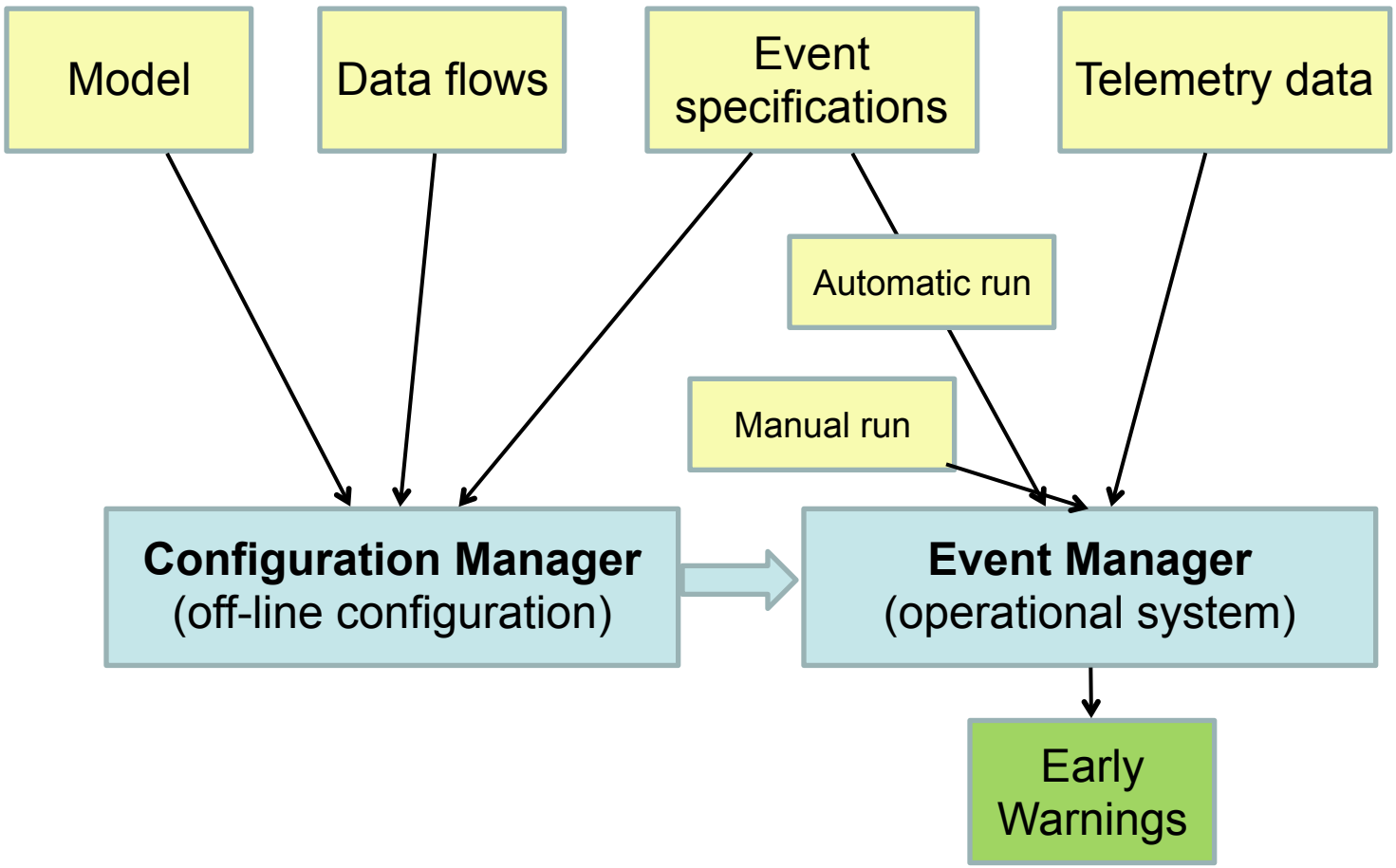
Phase 1 model

Revised part

Modelling

- New version for Leuven-North (phase 1 model) expected to be available before Summer
  - Important updates of
    - Asset data (trunk sewers, pumping stations)
    - Contributing areas
  - To be used for first FloodWorks configuration and first 2D model building
    - (target : 2nd half 2013)

FloodWorks


Model
Data flows
Event specifications
Telemetry data
Automatic run
Manual run
Configuration Manager
(off-line configuration)
Event Manager
(operational system)
Early Warnings

FloodWorks

- Planning 2nd half 2013 :
  - Prepare a minimal configuration for manual runs
  - Use whatever radar data is available (regardless of quality)
- Planning 2014 :
  - Gradually build more complex configurations and automatic run schedules