



Update on pilot locations Rotterdam

RAINGAIN PROJECT MEETING

21st -23rd October 2013

Ecole des ponts Paris Tech, Paris, FR



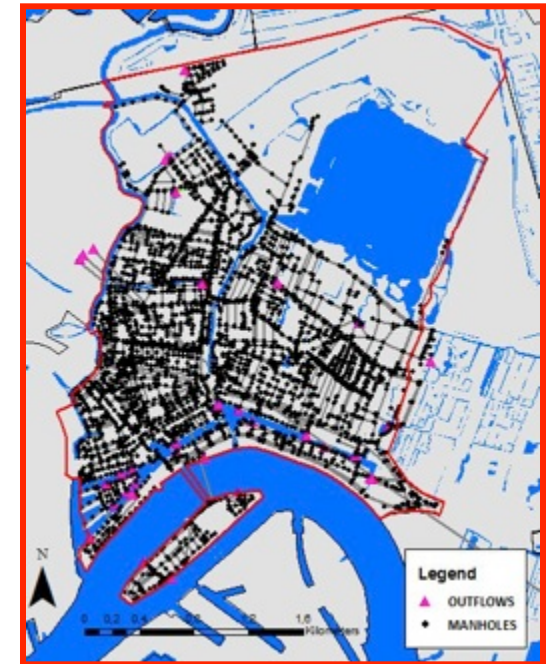
Rotterdam pilot locations



District 12.
Spaanse Polder:
1,9 Km²



District 9. Centrum:
3,7 Km²



District 10.
Kralingen-Crooswijk:
8 Km²

X-band data on Rotterdam districts

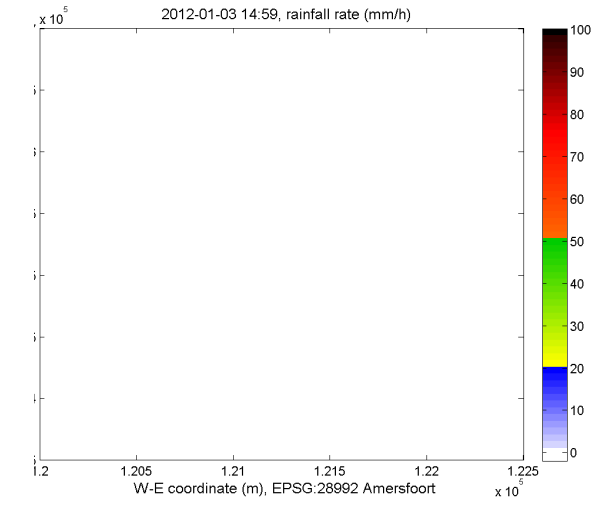
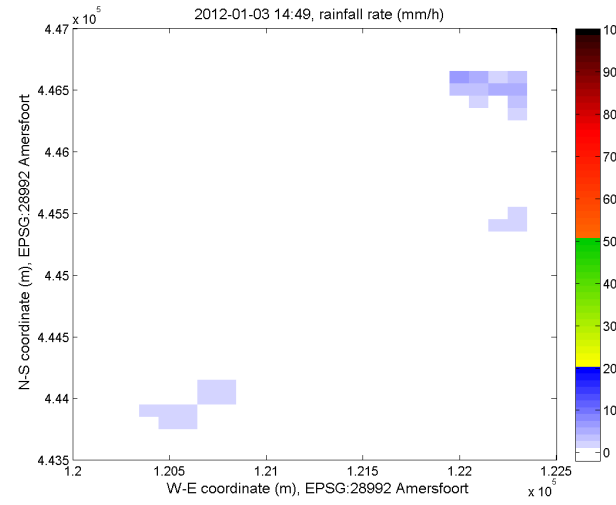
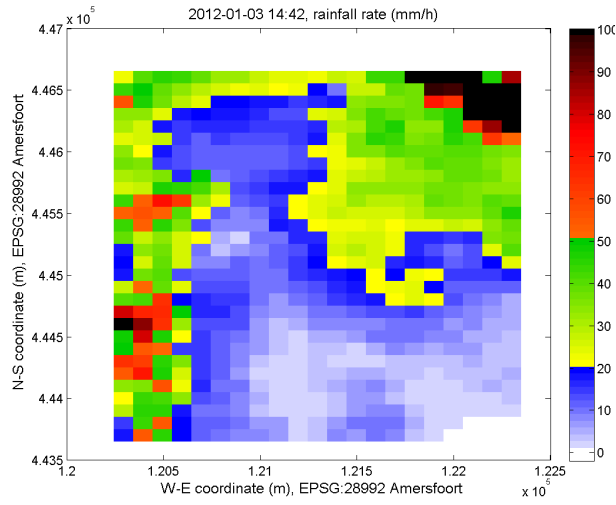
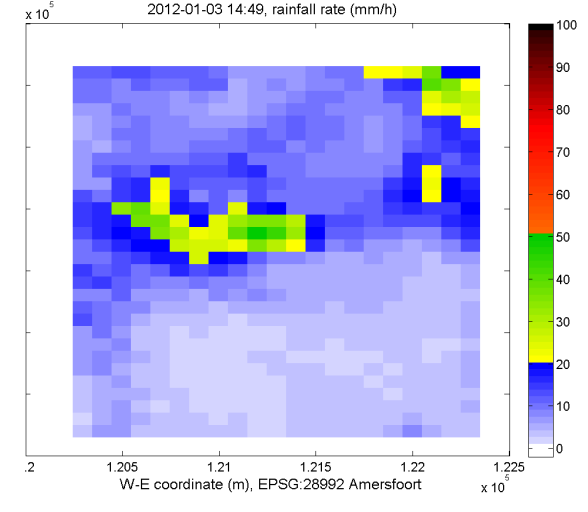
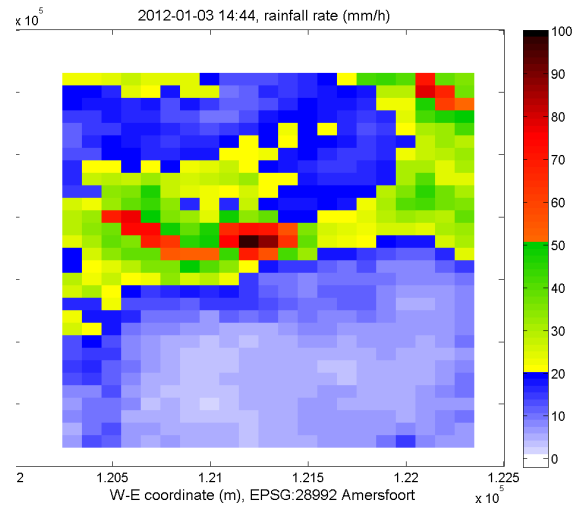
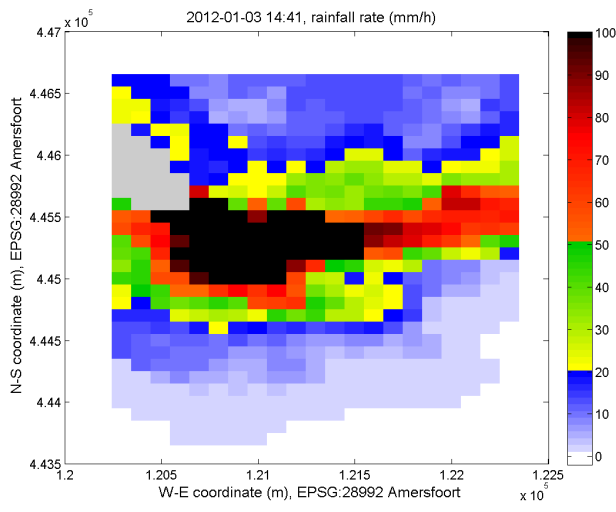
- 1) Radar storm plots: Temporal resolution comparison between the raw one (1 min) and temporal accumulation of 5 min and 10 min;
- 2) Storm evolution over the time for different temporal resolutions;
- 3) Results comparison in response time and water level;
- 4) Comparison of 2 rainfall spatial resolutions: 100m and 500 m;
- 5) Results of the comparison: overview of the catchment and 4 specific locations.



1 min

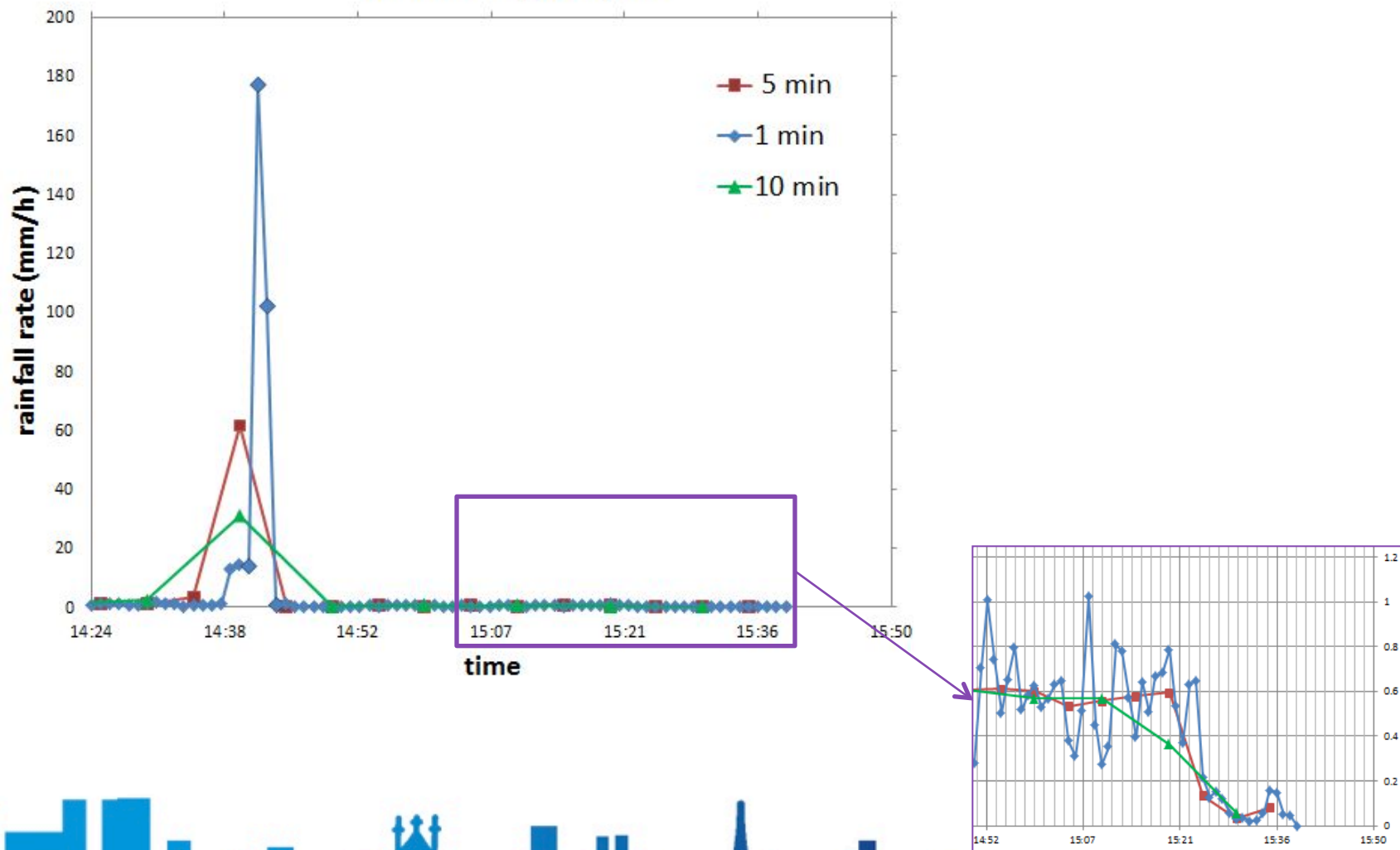
5min

10 min



Temporal resolution comparison: max. intensity rainfall pixel

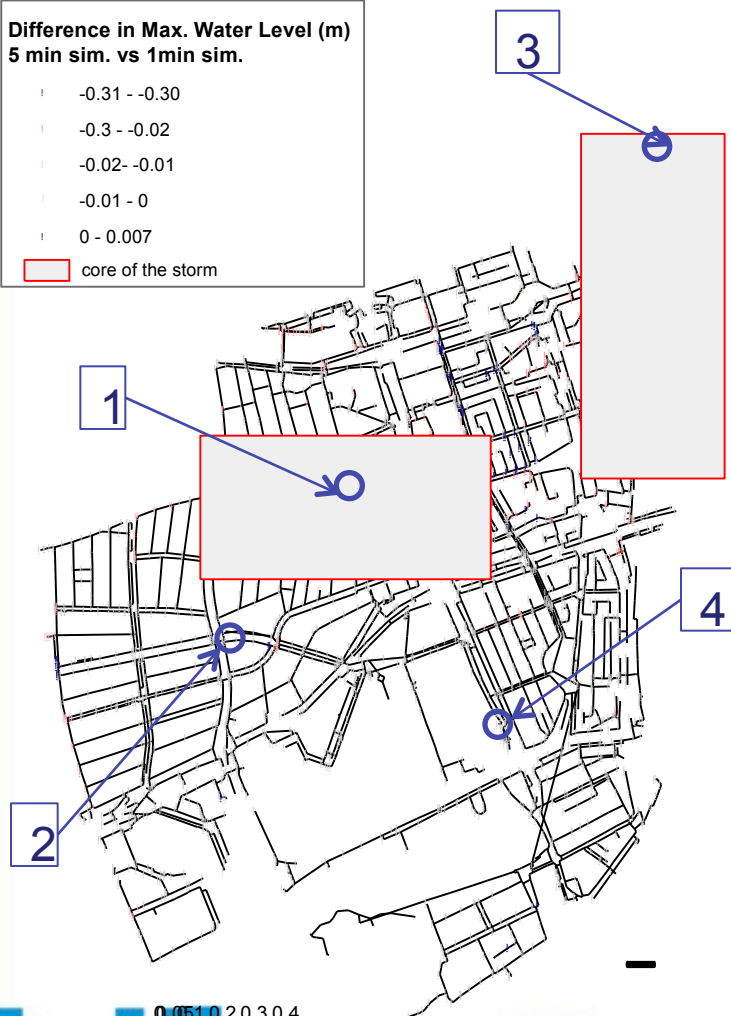
Rainfall rate @ 283 pixel



Differences in Maximum water level

**Difference in Max. Water Level (m)
5 min sim. vs 1min sim.**

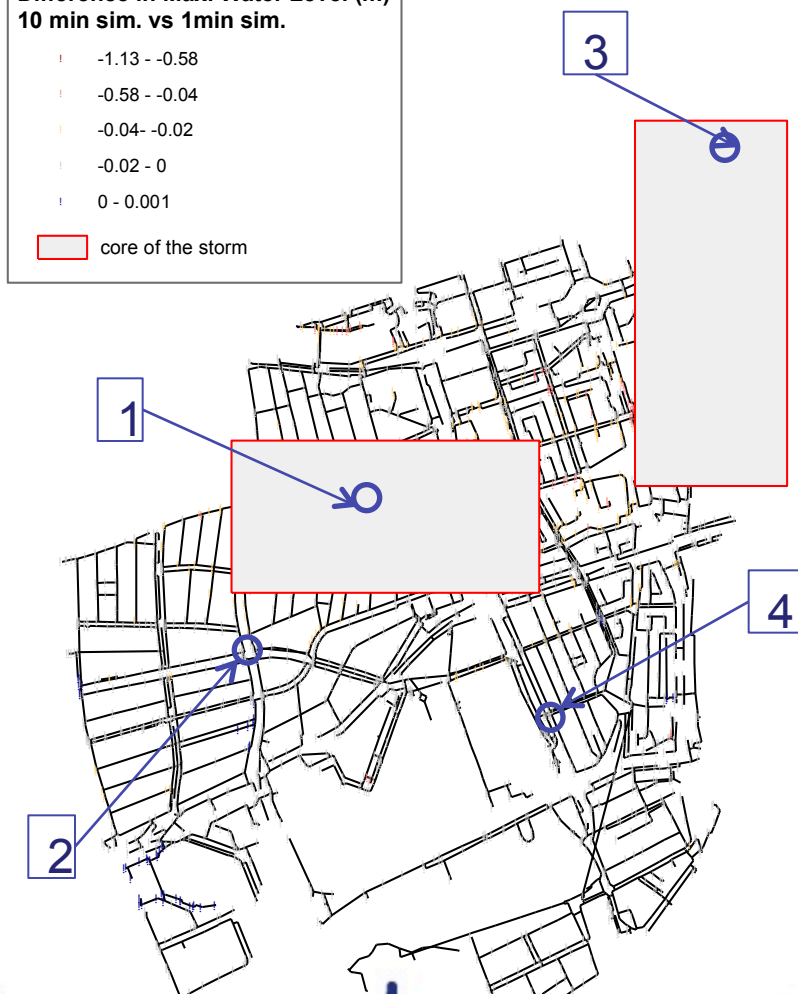
- -0.31 - -0.30
- -0.3 - -0.02
- -0.02 - -0.01
- -0.01 - 0
- 0 - 0.007
- core of the storm



0 0.051 0.20.30.4
 Kilometers

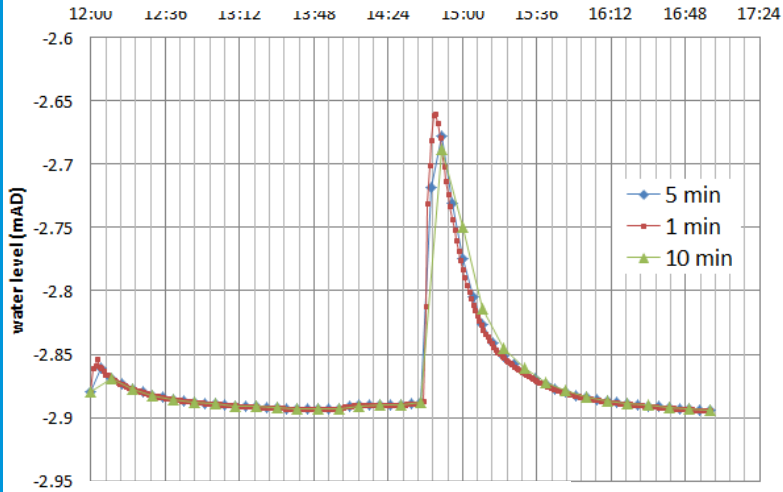
**Difference in Max. Water Level (m)
10 min sim. vs 1min sim.**

- -1.13 - -0.58
- -0.58 - -0.04
- -0.04 - -0.02
- -0.02 - 0
- 0 - 0.001
- core of the storm

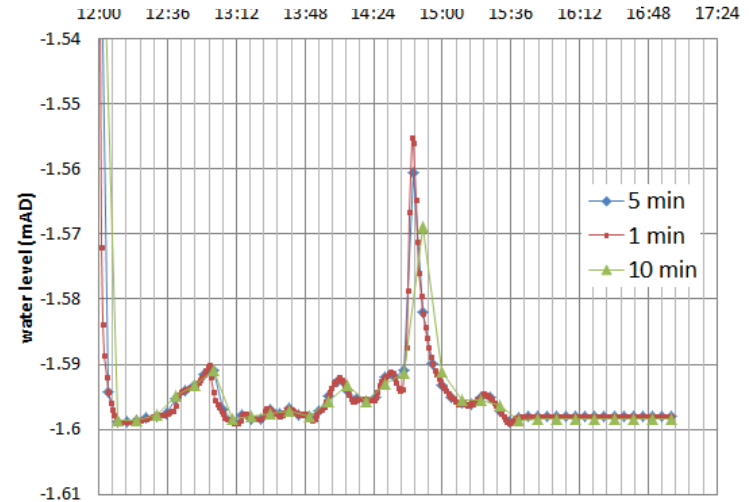


0 0.051 0.20.30.4
 Kilometers

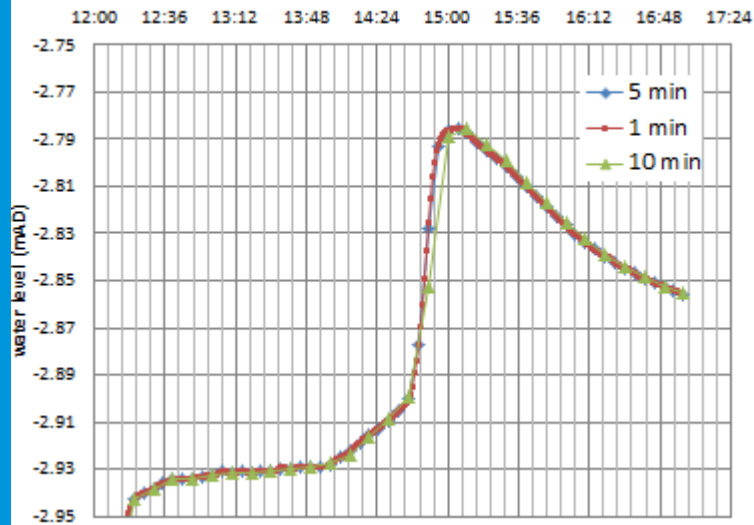
Location 1



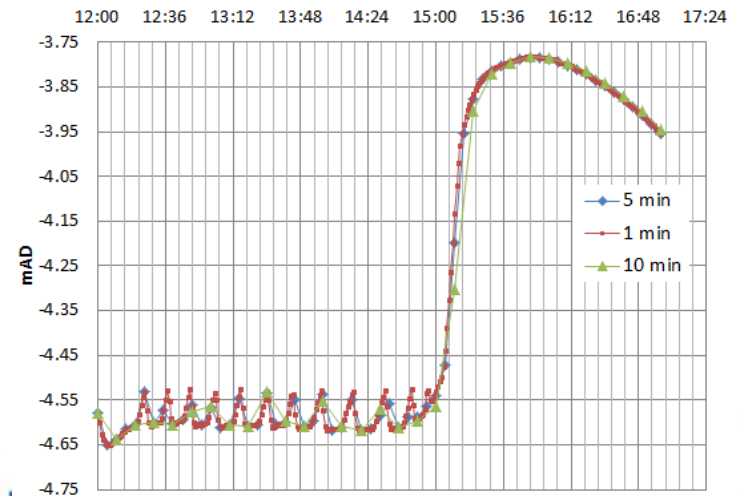
Location 3

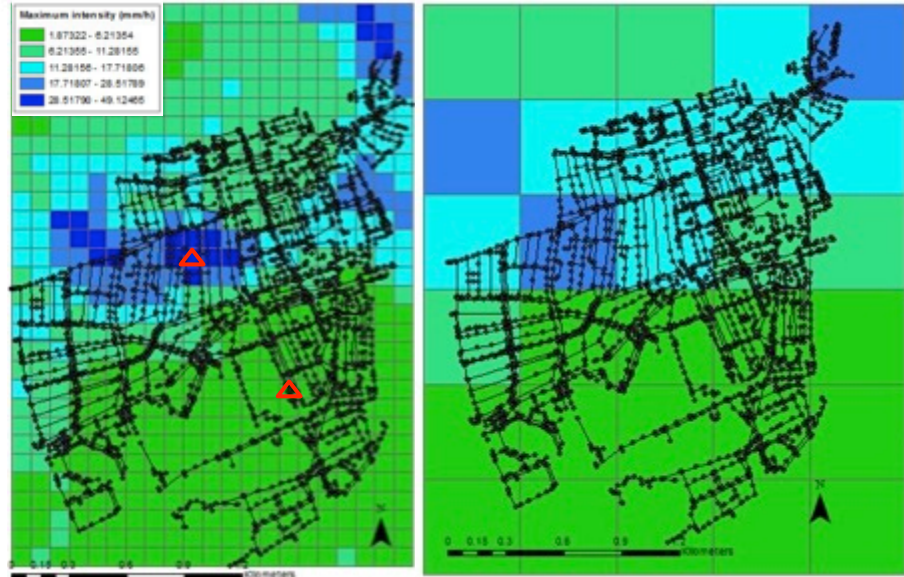


Location 2



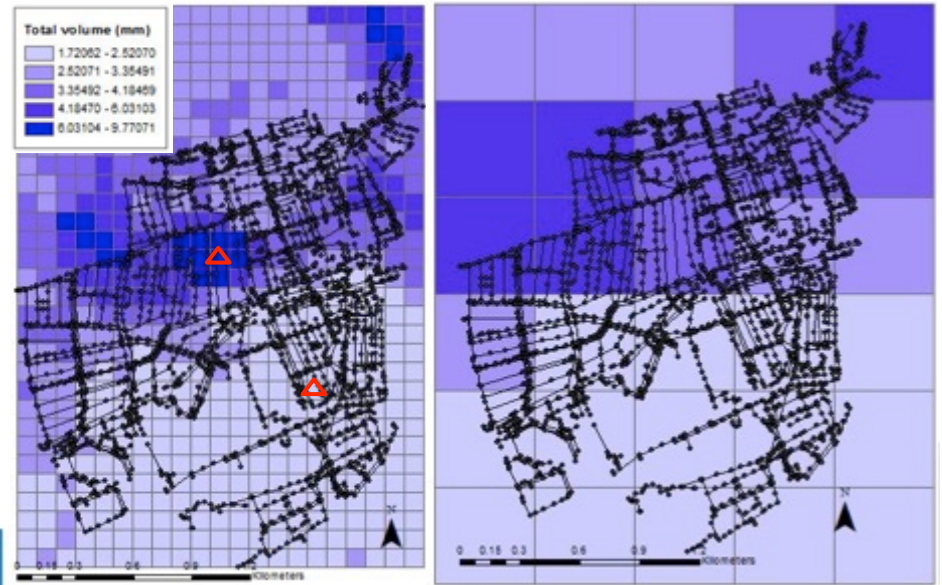
Location 4





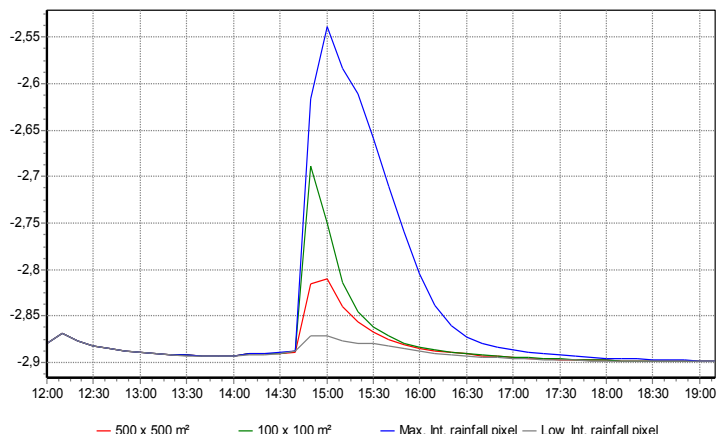
Total volumes (mm)

Maximum intensities (mm/h)

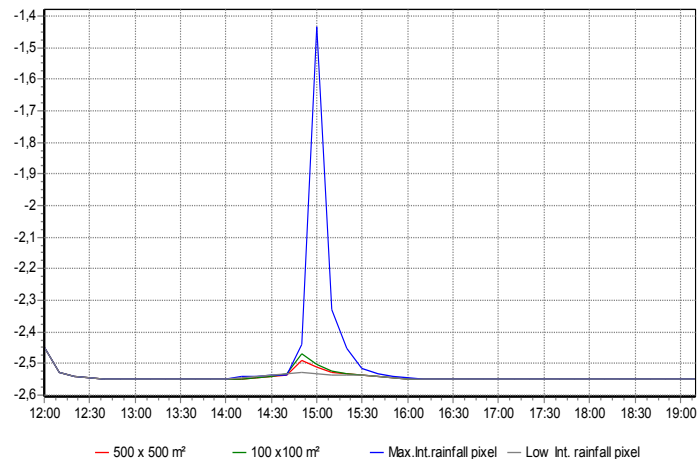


Spatial resolution comparison at 4 specific locations

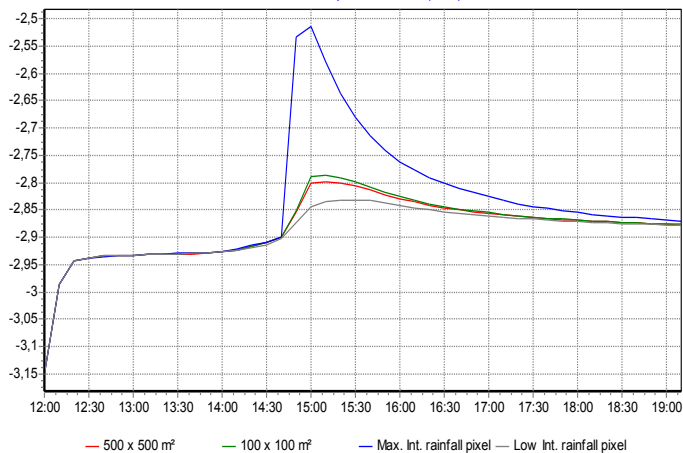
Location 1: Centre of the storm Water level (mAD)



Location 3: Northern upstream area Water level (mAD)



Location 2: Western part Water level (mAD)



Location 4: OUTLET Water level (mAD)

