



Minute of WP3-WP4 Project Meeting

Prepared by Guenda Bruni

Date: Thursday 25th and Friday 26th October 2012

Venue: Haka Building-Rotterdam (NL)

Purpose of the meeting:

Project meeting-WP3 and WP4

Present:

Name		Organisation
Susana Ochoa Rodriguez	(SO)	Imperial College London (UK)
Barry Obrien	(BO)	Local Government Flood Forum (UK)
Andrew Johnston	(AJ)	Local Government Flood Forum (UK)
Natalija Stancic	(NS)	Conseil général de Seine-Saint-Denis (FR)
Li-Pen Wang	(LW)	Imperial College London (UK)
Marie-Claire ten Veldhuis	(MC)	TU Delft (NL)
Guendalina Bruni	(GB)	TU Delft (NL)
Erik de Haan	(EDH)	Province of Zuid Holland (NL)
Tirza Molegraaf	TM	Province of Zuid Holland (NL)
Johan Van Assel	(JVA)	Aquafin (BE)
Patrick Willems	(PW)	KU Leuven (BE)
Laurens Cas Decloedt	(LCD)	KU Leuven (BE)
Rosa Vicari	(RV)	(FR)
Ioulia Tchiguirinskaia	(IT)	Ecole des Ponts Paris Tech (FR)
Auguste Gires	(AG)	Ecole des Ponts Paris Tech (FR)
Daniel Goedbloed	(DG)	Gemeente Rotterdam (NL)
Johan Verlinde	(JV)	Gemeente Rotterdam (NL)
Herman Russchenberg	(HR)	TU Delft (NL)
Ricardo Reinoso	(RR)	TU Delft (NL)
Timothy Darlington	(TD)	Met Office (UK)
Pat Mackenzie	(PM)	Met Office (UK)
Peter Hollanders	(PH)	Waterboard Delfland (NL)
Olivier Hoes	(OH)	TU Delft (NL)
Abdellah Ichiba	(AI)	Conseil Général du Val-de-Marne (FR)
Philippe Bompard	(PB)	Conseil Général du Val-de-Marne (FR)



Name		Organisation
Alwin Wink	(AW)	TU Delft (NL)

Apologies:

Name		Organisation
Isabelle Baudin-Bizien		Veolia (FR)
Cedo Maksimovic		Imperial College London (UK)
Jean-Luc Chèze		Météo-France (FR)



MINUTE

DAY 1: 25th of October 2012

1. Introduction

DG welcomed everyone and introduced MC.

MC talked about the main objective of the project; she went through each one of the work packages (W1-W4), she talked about the current state of the project (radar tender and problems with that), and presented the agenda of the day.

Tender: re-opened because in the first one nobody met the requirements. It will be closed in December 2012.

MC told about the workshop on radars held in Leuven in April 2012 and about the Technical meeting held in June 2012 in UK to discuss about the platform the partners are going to use to share data and results.

MC talked about the advances on the project.

She eventually introduced PH-Delfland and OH-TU Delft.

2. Delfland presentation

PH talked about the percentage of the Dutch area above and below sea level, floods occurred in the Netherlands, both from the sea and from river overflow. He talked about subsidence and sea level rising.

PH mentioned the division of the country in Safety Zones, the pumping station system.

PH went down to local scale and talked about Rotterdam-Schiedam-Delft-Den Haag area, highlighting Westland, which is an important area of greenhouses.

He talked about Delfland tasks: surface water quantity and quality, defence works, river dikes, polder dikes, coastal defence works (23 km).

PH talked about urbanisation, which is increasing strongly in last 10 years, and is worsening the flood protection: imperviousness of the soil and faster hydrological response.

Measures: technical such as enlarging pumping capacity and creating more space for water, (enlarging canals), and storage facilities, retention options. He talked about the importance of improving data model and increasing data resolution, in particular rainfall.

Questions: HR asked who PH is referring to when he talk about stakeholders. PH refers mainly to farmers, but also to general public.

SO asked whether Delfland considers forecasting or only offline water management. She explained that in UK forecasts are also used to get people involved and to give them the chance to protect themselves against flooding.

PH answered that they are doing forecasts as well as communication: information to get people aware. MC added that floods in NL are not as frequent as in UK.

IT asked what PH suggests to strengthen the communication of RainGain, to reach a broad audience. PH said that the North Eastern countries have a platform to exchange knowledge and information.

Mc introduced OH and 3Di project of TU Delft , Deltares and other partners.



3. 3Di

OH highlighted the importance of elevation data, which are 80% of hydrodynamic models. To model street floods, millimetre resolution is needed. With 3Di the resolution of elevation data is increased from 1 million to 1 billion pixels per square kilometre and current flood simulation softwares will not be able to handle such high data resolutions.

OH showed to the audience a video of high resolution simulated flood (5 x 5 meter water grid). The model will increase the elevation data resolution where needed and leave a coarser resolution elsewhere.

OH believes that RaiGain is a good chance to test the power of 3Di with high resolution rainfall.

Questions and comments: IT said that land use data resolution can be a model limitation then. OH believes that with a high amount of water, the imperviousness/perviousness would become negligible. IT thought that the simulation is a simplification on physical processes, since he did not take into account infiltration and other phenomena that are not negligible at that scale.

HR asked why millimetre resolution in urban floods is needed. OH answered that at street level there can be differences in elevation of the order of millimetres.

IT said that millimetres in elevation is good but is useless if we don't have the same resolution of the other data (i.e., land use).

SO added that calibration would be an issue with such a huge number of parameters and also asked where she could get more detailed information about the model.

OH said that documentation is available on the website and there is a paper published about the topic.

DG asked if the model would be as fast as it is now once the 1D sewer model will be coupled. OH does not know yet, but he thinks so.

4. PhD presentation-part 1

MC introduced the PhD presentation session: the first part is focused on rainfall data (radar-gauges) and the second one on modelling.

She introduced LCD, from KU Leuven.

LCD: he is going to prepare a review document about the state of art of radar technology. The document will be ready in a few weeks and distributed to RainGain partners.

LW: recently Doctor, he talked about improvements in range oversampling, radar signal frequency increasing to increase the resolution.

MC talked a little about differences between X-band and C-band radar, and that in UK they are going to use a C band radar, that is why they are trying to improve the signal of the C-band radar.

RR: MC introduced him as new PhD, working in US before, and now part of HR group, at the remote sensing department of TU Delft.

RR worked with a panel radar in Oklahoma. From now on he will work in WP1 and WP2.



5. Lunch break

6. Platform discussion

MC introduced SO who presented the platform to share data and results. Among several platforms (SO listed 4 or them), SO chose Delft-FEWS. It is open source, open shell system. It is flexible, with extensible module structure. It supports a wide range of standards formats. Work is made easier by the help of Deltares, the company behind the implementation of FEWS.

SO performed an example with one of the UK pilot locations, using SWIMM as hydraulic model, much easier to link into the platform.

SO explained how the data should be stored, then the setup of maps and filters. She showed the example directly in the FEWS platform. Filters can switch on and off layers, so that we can decide to put available our selection.

SO proposed some topic for discussion, such as use of platform, platform setup, models to be used at each pilot location (see presentation for full details).

MC started the discussion asking partners to specify what they want to share.

SO suggested each partner could share at least the precipitation algorithms, and who wants could share also the hydrodynamic models.

PW thought it would be interesting to share the rainfall data merging, since it would be possible to apply different methods to all the pilot locations.

IT mentions that the name and/or logo of the partner that developed an algorithm should be clearly identified on the FEWS platform. Furthermore when using an algorithm, a partner should be cautious and consult the developer to ensure that it was used within its validity domain.

SO will find out whether there is a user friendly way to set up the platform, she is going to have a meeting with Deltares the following Monday.

All the partners agreed on not comparing the hydrodynamic results, since it would be too time demanding (this would mean building up each pilot with the same model).

MC proposed to have another technical meeting to sort out how to exchange data.

7. PhD presentation-part 2

MC introduced the second part of the PhD presentations: hydrological modelling and use of rainfall data for hydrological applications.

AG, recently Doctor, presented small scale rainfall variability in urban areas and a comparison between radar estimates and rain gauge measurements. He presented the modules included in Multi-hydro model and the application on the Kodak catchment. He highlighted the hydrological consequences due to changes of pixel resolution, such as the percentage of impervious area. He performed simulations with different resolutions and showed results depending on imperviousness coefficient. Afterwards he talked about the uncertainty associated with small scale rainfall variability. He showed the comparison between rain gauges and C-band radar estimates.

GB, PhD candidate at TU Delft (NL), presented her research and future works.



SO, PhD candidate at Imperial College (UK) presented the pilot areas within the RainGain project, surface water flood forecasting and warning in the UK and radar-rain gauge merging.

AI, recently hired by the Conseil Général du Val-de-Marne (FR) in order to prepare his PhD at Ecole des Ponts Paris Tech (FR), presented his research topic: management optimisation of storm water storage facility using X band radar data. He also presented the case study.

MC concluded the day.

DAY 2: 26th of October 2012

MC welcomed everybody and presented the agenda of the day.

8. Pilot location description

JVA presented Leuven pilot location. No particular problems about flooding, but the surrounding rural area drains to the city. It is a very large case study: the full drainage area contains over 500 km of pipes. There are 3 main pumping stations. The network is combined. Rain gauges are used to calibrate the wind effect affecting the system.

SO presented UK pilot locations: first of all Cranbrook catchment, highly urbanised area, which experienced severe fluvial and surface flooding. When the river level is high it flows into the sewer system. The impact of flooding: damage to residential properties. They have 2 models-one simplified and another one complete.

The second pilot location: Purley area, very touristic thus very critical. The third location: Torquay Town Centre (see presentation for full details).

AG presented two of the three French pilot locations: Moree Sausset/Kodak catchment (in collaboration with Conseil Général Seine-Saint-Denis) and Jouy en Josas.

AI presented the third pilot location, Sucy-en-Brie (in collaboration with Conseil Général Seine-Saint-Denis).

GB presented Rotterdam pilot locations, Spaanse polder, Kralingen, Centrum (three different sewer districts of Rotterdam urban area).

9. Finance

MC introduced AW for finance report.

Focus: acquisition of rainfall data-radar and rain gauges.

The draft of the financial report for the next payment claim will be sent in January 2013, the time table will be sent to partners in Dec 2012. AW asked partners to send at least a draft estimate of budget spending and possible deviation within few days.

10. Communication

IT presented the future communication officer, RV. She will start working at the end of November. AG presented the current homepage of the website and the links that are available: pictures of conferences, information about coming events and papers. AG asked partners to send information to put in the website.



AW asked which format and how we can send information. IT suggested zipped files by e-mail or by online ftp (i.e., “we transfer”).

AG introduced RV, who talked about her background (Experience in the European Commission as well as freelancer in TV programs). She wants to link small team knowledge with large audience. She believes that the communication plan presented in April 2012 has to be enriched. She will put more details by asking each partner about local actors, local and international target. Visual identity: section where the logo and templates will be available. She asked if there are urgent practical issues they can solve as first step.

She will define a common questionnaire or visit the communication department of each partner (under JVA and MC suggestion).

11. Steering committee

Meeting with local governments

It has been decided by all the partners to organize an event in Paris the day after the main meeting (23rd October 2013), with local governments of the countries involved in the project. More details about the meeting will be decided during the meeting in London.

Financial and progress report 2nd payment claim

MC asked the partner if there was any objection to the financial and progress report for the 2nd payment claim. Since there was not any, the plan was approved by the Steering Committee.

Next project meeting in UK, april 2013

SO presented the schedule of the next project meeting, which will be on 15th and 16th of April 2013 in UK.

- Monday 15th : project meeting-technical.

- Tuesday 16th : Project meeting and Communication & Finance. In the afternoon a field trip is scheduled.

On Wednesday 17th UK NOG meeting is scheduled. SO invited all the partners to join it (see presentation for details).

Following project meeting in FR, October 2013

The following project meeting will be on 21st -22nd of October 2013. The proposed date was approved by all the partners.

12. Closure

MC closed the meeting thanking Rotterdam Municipality and specially JV for taking care of the organisation. She thanked also all the partners for joining the meeting and contributing to it.

The meeting closed at 15:00. A field trip to green roof, water square and storm water tank followed the closure.