

## Developing the DayWater Adaptive Decision Support System for urban stormwater source control: a challenge!

Daniel R. Thévenot & Miriam Förster, CERREVE, ENPC (France)

### Introduction

Although urban stormwater management (USWM) is essential for controlling both flooding and pollution problems, **decision-making** in any USWM project is especially complex since it involves a large number of stakeholders and large variety of domains of knowledge, i.e. both technical (hydraulic, chemical or ecotoxicological) and managerial (planning, assessing, decision-making, etc...).

The DayWater Adaptive Decision Support System (ADSS) intends to integrate stormwater source control into sustainable urban water management strategies.

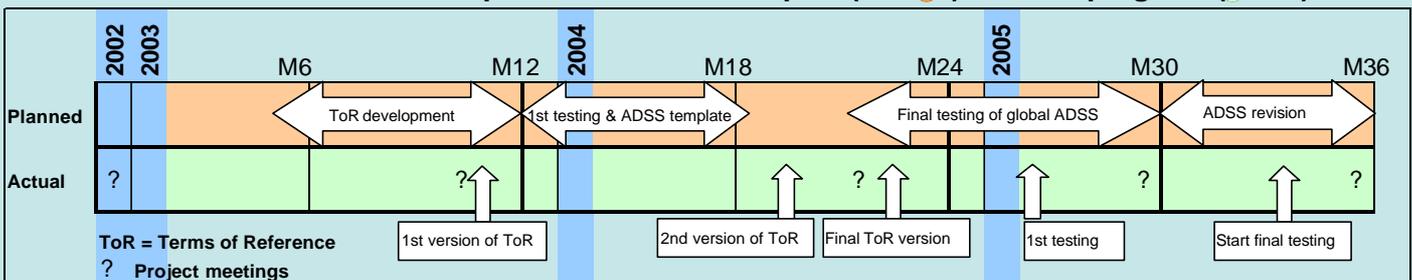
### Major challenges

- ? Cross-disciplinary partnership: hydrology, risk, social sciences,
- ? Coverage of the European scale: Polar circle to Mediterranean sea,
- ? Strong end-user involvement, incl. numerous end-user types,
- ? Implication of decision-making procedure in urban stormwater projects.

### Reasons of difficulties

- ? Multi-disciplinary & multi-cultural issues,
- ? Involvement of large number of institutions (scientific partners & end-users).

### Method and Results - Comparison of initial work-plan (orange) & actual progress (green)



### ADSS development

The Terms of Reference (ToR) of the ADSS were expected to remediate the problem of differing ambitions and expectations, demanding every component developer to describe his requirements and his contribution to the other components and to the general ADSS structure. The partners felt not able to do so, as the component inter-relations were only discovered step by step, parallel to their development.

### End-user involvement

In order to collect their major concerns and needs in USWM, all scientific partners are in regular contact with 14 core end-users (CEU). These CEU represent a large variety of private companies, local, county or catchment basin institutions or associations. All DayWater meetings involve all CEU. The number of end-users was further extended, at the end of the first project year, during 8 regional DayWater conferences.

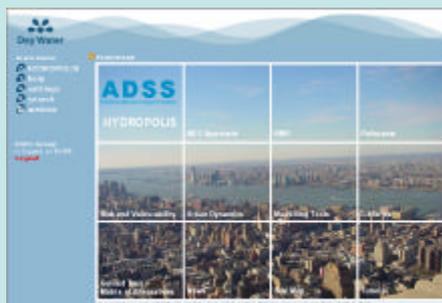
### Conclusion

#### ADSS added value

The integration of several topics into one system is innovative, especially as it is considering the users' demands:

- ? Flood & pollution prevention,
- ? Identification of individual viewpoints within the IUSW project stakeholders,
- ? Support for finding and comparing project specific solutions.

### DayWater ADSS front page



### ADSS Sustainability

Who will continue the ADSS development, enrich and maintain the databases and tools, and disseminate them? All contacted end-users strongly express their concern on this point, stating that their personal involvement in the project requires ADSS **sustainability**. Furthermore the ADSS **translation** in national languages appear necessary for its dissemination.

Contact: [daywater@cereve.enpc.fr](mailto:daywater@cereve.enpc.fr)

Final DayWater conference 3-4 Nov. 2005, ENPC, Paris