



Minutes of 2nd annual DayWater meeting

From: Miriam Förster

Date: Copenhagen, 29/09 – 01/10/2004

1. Participants (40)

ENPC: D. Thévenot (DT), M. Förster (MF), J.-C. Deutsch (JCD), J. F. Deroubaix (JFD), E. Chouli (EC), J. M. Mouchel (JMM); end-users: C. Beyeler (CB), C. Cogez (CC), M. Ahyerre (MA)

Tauw: G. Geldof (GG), J. Kluck (JKL); end-users: T. Verhoeven (TV), A. Zuurman (AZ)

Chalmers: G. Svensson (GS), S. Ahlman (SA), J. German (JG); end-user: K. Bennerstedt (KB)

DTU : P.S. Mikkelsen (PSM), A. Ledin (ANL), E. Eriksson (EVE), A. Baun (ANB), M. Hauger (MBH); end-user: K. Gammelgaard (KG), N. B. Johansen (NBJ)

MU: M. Revitt (MR), L. Scholes (LS); end-user: J. Oldham (JO)

NTUA: E. Aftias (EA), K. Hatzibiros (KH), St. Papatzani (SP); end-user: A. Boumpa (AB)

DHI: R. Smilauerova (RS), T. Metelka (TM)

IPS: H. Sieker (HS), U. Zimmerman (UZ); end-user: M. Scheibel (MS)

LCPC: M. Legret (ML)

LTU: M. Viklander (MAVI), K. Karlson (KK), C. Westerlund (CAM)

Z. Vergos was unable to attend this meeting.

2. Meeting agenda (time schedule)

Thursday 29 September 2004

09:00 - 09:10	Welcome addresses	DTU + ENPC
09:10 - 09:20	1. Introduction (Agenda of the day)	D. Thévenot
09:20 - 9:50	2. Project organisational issues	
	• WP1 activity	M. Förster
	• CityNet activity	
	3. DayWater scientific progress within WPs	
10:20 - 11:00	• WP3: Urban dynamics	G. Geldof
11:00 - 11:40	• WP4: Risk and impact assessment	P.S. Mikkelsen
	4. DayWater scientific progress within WPs	
12:40 - 13:20	• WP5: Multi-criteria analysis of structural & non-structural BMPs	M. Revitt
13:20 - 14:00	• WP6: Sources and Flux Models	G. Svensson
	5. DayWater scientific progress within WPs	
14:30 – 15:10	• WP2: Adaptive Decision Support System (ADSS) production	T. Metelka
15:10 – 15:50	• WP7: Field testing	J.-C. Deutsch
15:50 – 17:00	6. DayWater further planning and summary	
	• International DSS Conference	D. Thévenot
	• CityNet meetings and workshops	

Friday 1st October 2004 - “End-users’ day”

09:10 – 09:30	Introduction to the end-user day	D. Thévenot
09:30 – 12:00	Demonstration workshop session in several rooms with dedicated computers: comments of end-users: 1. BMP catalogue 2. Chemical hazard identification tool 3. ADSS core software (online) 4. Cost tool 5. STORM tool 6. SEWSYS tool 7. Profile definition 8. FLEXT: GIS / ES risk screening tool	All LS, MU A. Baun, DTU TM & RS, DHI EA, NTUA HS, IPS SA, Chalmers EC, ENPC UZ, IPS
13:30 – 14:00	Present status of the ADSS field testing operation: which sets of components will be tested where? Procedure for the selection of the integrated ADSS testing sites	J.-C. Deutsch D. Thévenot
14:00 – 15:00	Review of the end-user comments during workshop sessions, for each demonstrated ADSS component	Respective partners
15:10 – 15:40	Review of the end-user comments on the methodology of testing ADSS set of components	K. Gammelgaard, Karlebo
15:40 – 16:30	Review of the end-user comments on the ADSS Terms of Reference	M. Scheibel, Wupperversand
16:30 – 16:45	Meeting conclusion	D. Thévenot
17:00 – 18:30	ASB meeting (parallel session)	Project partners
17:00 – 18:30	End-user meeting (parallel session)	End-users
18:30 – 19:30	Report on both parallel meetings (plenary session)	DT + C. Beyeler

3. WP1 activity + CityNet activity (MF)

The following results have been achieved during the last year within DayWater:

- 2nd and 3rd Management Reports (accepted)
- E-TIP (filled by partners in July 2004)
- D1.2 Methodology for selecting case studies for final testing (July 2004)
- 3rd DayWater News (September 2004)
- Several general publications in process (Novatech, DMUCE, ICUD)
- Organisation of discussion on ToR & ADSS functions.

The contribution to CityNet activities are listed below:

- WP2 European junior scientist Workshop: abstract review
- WP3 End – user Water management workshop: speaker and discussion leader
- WP4 Joint dissemination workshop: organiser / entire responsibility
- WP5 International CityNet Conference: preparation of session / review
- WP6 Enhanced end-user participation: end-user contact / in process
- WP7 Study modules: comment on outline proposal
- Cross-project activity: creation of DSS cross project group & organisation of a meeting

Conclusion: The DayWater News will be sent out with an accompanying mail to keep the CityNet end-users informed. The mail will inform them that deliverables with public dissemination level (D1.10, D2.1, D4.1, D5.1, D5.2, and D6.2) can be found on the DayWater web site. They won't have access to ADSS prototype at the moment as the

databases are not filled yet. Besides that, some results on STORM & SEWSYS and D4.1 are available.

4. WP3 – Urban Dynamics (GG)

Current activity:

- D3.2 Comparison of decision-making processes (in progress: collaboration with WP7)
- D3.3 Methodology for carrying out attractor analysis (concept in progress)
- D3.4 Ambition reflection, three attractors: basic, functional & conceptual, difficulties in the transition phases (concept in progress).

Aspects of Water:

- Enlarge user's way of thinking
- Hydropolis philosophy: besides indicators and criteria also soft aspects; "unlocking" - takes into account users' background (musician or engineer)
- The ADSS component on Aspects of Water presents overlaps with criteria and indicators developed by WP5 team for the comparison of alternatives: such overlaps need to be solved in order to avoid confusion of ADSS users.
- Sensitive aspect = psychological aspect.

Urban dynamics:

Assistance for the user in: possible cooperation, being aware of problems, taking profit from experience, looking for funding possibilities.

Ambition reflection:

- User should reflect his attitude towards USWM
- Information about transition theory
- Fingerprint based on questions, leads to different types of USWM.

User support: by a questionnaire, theory (text document), examples, tools and pop-ups

Discussion:

Several overlaps have been identified and have to be discussed. The water aspects should be linked to the indicators/criteria; the same terms should be used as there is a complete overlap except of moral aspects (MR). Another overlap with policy instruments and case study databases was identified (JCD). In which way the end-user should enter his problem? Where is the methodology for it (JFD)? Interaction is iterative and not "teaching" (GG). How is the pop-up function adapted to the different backgrounds of users (EC+ CB)? Not all users need the same "warnings"!

Conclusion:

Agreement is needed for common terms and should result in a common list of indicators and criteria as input for the MOA/MCA! (DT+ EA)

5. WP4 – Risk Assessment (PSM, EVE, ANL, HS, JMM)

Current activity:

- T4.1 + 4.3 are done
- T4.2 + 4.4 are in progress. For T4.2 only the reporting remains.
- T4.5 due at the end of the project
- Action now: Risk indicators, CHIAT (assessment of chemical risks), bio tests and vulnerability, GIS/ES or FLEXT
- Separation of hazard (general → CHIAT methodology for chemical hazards) and vulnerability (local → FLEXT tool) for risk characterisation/

CHIAT:

Source characterisation → hazard identification (potential pollutants) → hazard assessment (potential priority pollutants) → expert opinion (selection of priority stormwater pollutants). Result: ca 400 pollutants → reduction needed! Selected Stormwater Priority Pollutants (SSPP) = 12 organic (already changed, the final changes were made during the PP work meeting on 29th September!). Expert judgement is based on expert knowledge as well as legislation and regulations. This is a useful tool for the identification of compounds.

Discussion:

Is the list definitive or site specific (DT)? Until now it is related to receiving waters (regulations), but it can be extended for taking into account soil and groundwater characteristics. Until now CHIAT is based on a hypothetical European site, but in combination with models like SEWSYS & STORM it could become site specific (ANL)! At present only the input concentration is taken into account, but not the receiving water concentration; it is difficult to define the border between hazard and vulnerability (JMM)! The final list of SSPP should be accompanied by a description of boundary conditions (KH). Will the SSPP list be updated (JCD)? Not clear yet (PSM).

Bio Tests:

The bio-tests are a fieldwork based on algae, rotifer and bacteria on four different sites: Stockholm, Nantes, Wuppertal and Luleå. A new industrial site in Paris will be added for the bio-tests, in the hope to detect patterns of toxicity. The tests showed reduced growths for the Stockholm highway run-off sample.

Vulnerability:

Vulnerability of ecosystems depends on the evaluation and the potential impact (different indicators are necessary). Vulnerability of flooding can be based on passive, active or pro-active (preventing) measures. Mapping of potential dangerous zones (petrol stations) or specific objects (hospitals and schools) could be useful for the user.

FLEXT/ GIS – ES (Expert System):

Expert system used to investigate GIS based potential for disconnections at Emschergenossenschaft, in order to select alternatives to the present combined sewer system. Possible future use: Develop a vulnerability map; combine flood risk & chemical risk.

Discussion:

What is the users' benefit (CB)? Information will be given on the compounds present in the sediment, resulting in a large list of components. The link with each BMP is not yet implemented (PSM). Will point or diffuse pollution be taken into account (CC)? Both will be (ANL). SEWSYS can simulate concentrations on a specific site (GS). The vulnerability map was originally only for chemical risk, but now further developed for flood risks (JMM).

6. WP5 – BMPs (MR)

Current activity:

- D5.1, D5.2 finalised, available on the BSCW
- D5.3 Fate of priority pollutants in BMPs; is marked "restricted" in the DoW, but could be "public" (presently under referee process); it links processes within a BMP and the characteristics of priority pollutants

- D5.4 Primary removal mechanisms (expected for Nov. 2004): potential for removal of each PPSP by a BMP; 3 levels (high/medium/low) are based on properties of pollutants; the processes are adsorption, sedimentation, volatilisation, plant uptake etc... (data input from WP4)
- D5.5 BMP catalogue (expected for Aug. 2005); still data input (also photos) needed!
- Collaborations outside DayWater: WAND, SUDSNet, CIRIA, International Water & Sanitation Centre (see WP6).

Discussion:

Are adsorption vs. infiltration and adsorption vs. settlement counted twice (ANL)? Adsorption is concerning the soluble phase and infiltration the solid phase (sediments). There is a difference between soluble and solid particles absorption or through pass, but some might start being soluble and end solid, which is problematic (MR).

What about treatment chains and site characteristics (HS)? The classification of a BMP regarding one pollutant (change of physical characteristics) is adaptable (LS).

For a comparison of BMPs removal efficiency or absolute output concentrations are needed (DT). Background data for specific concentrations are missing (ANL). This proves that source control (of pollutions) is the ultimate solution! We have to see how we can couple the BMP removal capacities with the SEWSYS model (GS).

7. WP6 – SFM (GS, HS, SP)

Current activity:

- D6.1, D6.2 and D6.5 are available on BSCW
- Coupling of STORM – SEWSYS foreseen for spring 2005, a (test) case-study is planned in Karlebo Municipality (SA)
- Snow model paper has been prepared for the integration of the Snow module into SEWSYS (foreseen for Nov 2004)
- SEWSYS models mass flow in urban catchments.

STORM & SEWSYS:

- Prediction of overflow frequency combined with a SFM
- Based on long term or design storms
- Included BMPs: swales, trenches, green roofs, CSO tanks, retention ponds...
- Translation into English needs checking
- Exchange data via xml files.

Cost Model:

- Construction unit cost per BMP type (four chosen types)
- Related to Greek unit costs and CIRIA description of materials needed
- Standard size of BMP measure chosen
- XLS table can be easily adapt to other national unit costs

Discussion:

Management of snow deposit in cold climate is a mixture of structural and non-structural BMPs. Where can it be included? In BMP catalogue (DT)?

The cost assessments should be developed for all BMP types. Will the comparison of costs support the selection of BMPs? How do we use the cost tables within the ADSS (MR)?

8. WP7 – Field testing

Current activity:

- ToR reformulation started in Lyngby Dec 2003 and ended in August 2004-10-13
- Two different visions: Hydropolis (smart guided) and profile definition (guided mode)
- Content of the ToR: Graphical interface, description of functionalities and general structure of the components (databases, documents and tools), external tools
- Homogenous field testing: first loop on set of components, second loop on global (integrated) ADSS testing
- Validation must be user friendly
- Testing should use ongoing projects
- Homogeneous testing procedure needed to allow the comparison of results
- Demonstration of examples for set of components
- Presentation of stakeholders database (in different project phases), case studies database (viewer available, ready to be filled in), policy instruments database (needs input from each country)
- Profile definition: Mountain (see PPT presentation) = Hydropolis^3 = tour operator!
- The profile definition contains two different types of questions: Specific information and dynamic thinking.

Discussion:

The top of the mountain is not the perfect BMP solution: it is just the end of the Q/A profile definition process (JCD).

As discussed and agreed at previous meetings, the “field testing of ADSS set of components” (task 7.3) will contain in parallel both developing components together with the end-users and testing of components with end-users.

9. WP2 – ADSS

Presentation:

- History of ToR / ADSS development
- Different interfaces of already implemented databases with their data structure, modes of usage (admin, free, semi, guided)
- Hydropolis is a user interface with sensitive fields and supports negotiation with the help of the different databases available
- ADSS data structure: indicators, BMPs, (external) tools, case studies, stakeholders, water aspects, risk assessment, Q/A profile definition, MoA/MCA
- XML exchange files between the tools like STORM, SEWSYS etc...
- Different modes within Hydropolis: free (Google), semi-guided (smart guidance), guided (user profile definition), administration
- “Fingerprint”: is the result of profile definition and the base for key term selection
- All modes share different functionalities, there is no strict limitation
- Functionalities: tracking, caddy, pop-ups
- Condition for testing: data and functionalities needed!
- After the testing only minor changes will be possible (see man months below)
- There is a STRONG NEED OF COLLABORATION BETWEEN WP teams!!!

WP2 man month distribution:

Personnel costs have been saved by DHI during first 2 years: they will be necessary for third year:

Planned (actual) in Year 1: 12 MM (8.3 MM)

Planned (actual) in Year 2: 24.5 MM (22 MM)
Planned (actual) in Year 3: 8 MM (14 MM)

Discussion:

Will the ADSS be adapted to different countries, e.g. stakeholder database (AB)? Until now we just provided the frames, which have to be filled by each country. The administrator can add and modify the content at any time (JCD). Can the ADSS prototype be copied on a local computer (HS+MS)? Can the project be viewed by others (EA)? Are the case studies added in the respective database visible for all users (since it is web based)? If you create your project under the guided mode, it is not visible for others, neither are the documents that you store in your personal library or caddy (TM). There is still the language problem for the broad use of the ADSS within the whole Europe (JCD+EC). Finally the project partners have to discuss about the future of ADSS prototype (DT). The use of the ADSS in practice requires further development of the ADSS prototype (the result of the DayWater project) and translation into several European languages. It was agreed to discuss different funding-possibilities to ensure that this further development can take place after the DayWater project has ended (PSM).

10. Further planning (DT)

Presentation:

- 4th Management Report: calendar of operations
- Date for the 3rd annual DayWater meeting in Prague: it is at the same time than orthodox Easter and French school holidays; some partners feel that mid April 2005 is too early for exploiting testing results
- Final CityNet conference within 10th ICUD in Copenhagen (22-26/08/2005)
- Final DayWater conference/workshop for dissemination of results in Paris (Nov 2005)

Discussion on Final DayWater workshop: (all)

- It is not necessary to copy a big international conference like ICUD: avoid redundancy in topics (MR + KB)
- Budget: possible site visit (bus?), venue (at ENPC or outside), number of participants, avoid high publication costs (CD-Rom would save money), avoid translation cost (target group should speak English) (MR + KH)
- Call for papers: end-users don't have a great interest in publishing papers; scientific partners do (MF+KG)
- Title of the workshop could be DSS, but supported by DayWater project! (MF + PSM)
- Dissemination character: invite as much end-users as possible, promote it together with national technical organisations (ASTee, CIRIA, DANVA, KA etc) (JMM +KH +MF)
- Further target group: invite industries providing BMP material (EA)
- Workshop organisation: scientific presentations (oral + poster) and "case" workshops (stakeholder role game).

11. Summary of the first day:

- Coherence for indicators & criteria (WP5 + WP3)

- Overlapping components: policy instruments & legal aspects of water (WP3 + WP7)
- Set-up for personal password protected access to data administration part of the ADSS prototype (WP2)
- “Internal testing” during development of components; component developers are requested to give the “green light” for end-user testing (all WPs)
- Agreement on integrated testing procedure for selection of case studies (WP1).

12. Friday 1st October – Demo workshops

8 demo workshops / groups of two persons (mainly end-users) per demo: change of demo every 15 min

- | | |
|----------------------------|---|
| 1) BMP catalogue (LS) | CC + CB (Seine St Denis, Syndicat Marne Vive) |
| 2) CHIAT (ANB) | MA + KB (Agence de l'Eau, Stockholm Vatten) |
| 3) ADSS (TM/RS) | TV + MS (Nijmegen, Wupperverband) |
| 4) Cost Tool (EA, SP) | KG + JKL (Karlebo, Tauw) |
| 5) STORM (HS) | AZ + JG (Nijmegen, Chalmers) |
| 6) SEWSYS (ST) | AB + JO (Greek Ministry, Countryside Prop.) |
| 7) Profile definition (EC) | GG + GS (Tauw, Chalmers) |
| 8) FLEXT / GIS/IS (UZ) | NBJ + MF (Copenhagen Energy, ENPC) |

13. End-user feedback on Demo workshops

1) BMP (LS)

- Good knowledge base, useful help
- Include costing tool (WP5 + EA + SP)
- Language problem, any funding for translation?
- Link case studies database with BMP catalogue examples (WP7 + WP5)
- Add local examples, where the user could go to and have a look at
- Great importance of photos (further input needed: all partners!)
- How will it be updated???

2) CHIAT (ANB)

- Good way for restricting the control of the large number of compounds
- More transparency of selection of compounds is needed
- Include possibility of adding site-specific compounds
- Include advice for the choice of chemicals to use (e.g. via examples)
- Clearly state where links to STORM & SEWSYS (WP4 + WP6) are appropriate.

3) ADSS (RS)

- Updating of the ADSS in future, i.e. after the end of the Daywater contract?
- Validation of input data?
- Case studies database should also contain failed projects
- Stakeholders database needs to be adapted to national requirements
- Typical small trees could be prepared by administrator of the system. The tree based on key terms values (user profile) could be then used to lead the user to the most suitable trees matching with his profile
- Is there data available on the change of maintenance cost over time?

4) COST (SP)

- Include external costs
- Property, maintenance & operation costs
- Include benefit when BMP has multipurpose use (recreation etc.)
- Indicate the formula of calculation
- Linked to STORM for already constructed areas (WP6).

5) STORM (HS)

- Includes all types of structural & non-structural BMPs
- Integrate pollution input through a link with SEWSYS (WP6)
- Model limitation: not a hydrodynamic model e.g. no backflow simulation possible
- Export or coupling with other models is possible
- XML file as input for MOA / MCA
- Suggestion: Integrate Monte Carlo calculation in the model.

6) SEWSYS (ST)

- User interface will be more user friendly after integration in STORM
- Indicate absolute number of pollution load per year
- Uncertainty?
- Integrated more compounds

7) Profile definition (EC):

- “Mountain” graphic is a good idea
- Number of questions is acceptable
- Q/A should include a glossary, as the English words may have different meanings
- Add a map of Europe for the definition of climate
- Consider difference between urban renewal and new constructed area
- Urban area: exact land use (offices, industrial buildings etc)
- Difference between urban and suburban in English!!!
- Include knowledge category for ecology and habitat building (flora & fauna)
- Regular update for the information in “Policy instruments” and “Stakeholders”
- Users want to be able to choose multiple answers
- Visualizing (printout) of their way up the mountain appears useful: what was my answer and why?
- There are concerns about the outcome of the “Profile definition”
- Merge all possible ADSS questions into one system
- Ask for guidance to relevant information / tools in the ADSS after the profile definition
- Demand for a good visual representation of the information provided at the end of the “Profile definition”.

8) FLEXT / GIS ES

- Link FLEXT with the Q/A profile definition (WP6 + WP7)
- Where will it be placed within the ADSS shell?
- Integration in risk assessment tool or apart as hazard mapping?
- A FLEXT template will be available on BSCW in the near future.

14. Status of sets of components testing (JCD)

Main objectives: test the possible adaptation of the ADSS to specific users and improve ADSS functionalities

Testing methodology:

- Till now tests started only on 4 sites (2 Greek and 2 French ones)
- **Desired target:** 5 projects per partner country
- **Schedule:** Characterisation EEU-sites D7.1 (questionnaire send out by JFD on 13/09/04) of projects → return from partners on **15/10/04**
Testing of set of components: deadline = end of January 2005
Integrated testing of ADSS: deadline = end of May 2005
- **3 options of testing set of components:**
 1. Mono-user at a specific moment, for a specific need → interview
 2. Multi-user at a specific moment, for a specific need → collective interview
 3. Mono-user for a whole project phase, for different needs → questionnaire and final interview (assessment)
- Report: ca. 2 pages per project → to WP7
- Problems encountered: components are not ready for testing yet! Start with what we have presently and test the other components later!
- Partners' interaction with WP7 / WP2 is needed!
- WP leaders / Component developers give the OK signal for testing!
- End-user comments/suggestions should be sent to WP2 / WP7 and the component developer!

15. Methodology of selection of case studies for integrated ADSS testing (DT)

- Objectives: global test of the ADSS, involvement of several stakeholders
- 2-4 selected case studies for integrated testing
- **Selected criteria:** willingness & manpower, availability of necessary data, diversity of project phases, diversity of stakeholders, diversity in climate & scale
- Strong involvement of scientific partners required during testing!
- Schedule: call for end-user expression of interest by end of Oct. 2004
- Classified list of possible end-users distributed to partners by mid Nov. 2004
- Partner comments on this list: before end of year 2004
- Schedule of integrated testing: February to May 2005.

Discussion:

Shouldn't we concentrate on 2 really good project cases instead of 4 (GS)? On the other hand 4 case studies could also be done with half time employees, to cover the whole period of February to May 2005 (PSM). Will there be a priority for cases which concentrate on impact on receiving water bodies (KH)? Do not rank the criteria "BMPs already available" too high, but favour instead diversity. Case studies with no or less experience in BMP implementation could be also interesting, like Karlebo and Athens (PSM).

16. End-user comments on "Methodology of testing" (KG)

KG collected comments of the core end-users (CEU) **before** the annual meeting:

- Most end-users start to understand what is the ADSS

- There is a need for a short, precise and easy-to-understand description of the ADSS
- (Mis)match between expectations and actual capability of the ADSS
- Open question: how and when will the components be integrated into the ADSS shell?
- How to prevent overlapping features and data
- Provision of best fitting data for a specific case
- Testing is understood as “developing” together with end-users
- There is a demand for workshops dedicated to testing end-users (organised, as regional conferences, at a national level, under the partner responsibility)
- There are concerns about time schedule: there is only one year left!

The end-user requests are mainly coherent to the “procedure of testing” presented by JCD. They see the start of testing as a “turning point” in the DayWater project development.

17. End-user comments on the “Terms of Reference for the ADSS” (MS)

MS requested comments on the ToR from every core end-user, but he only received 6 replies. Here are the major points raised in these answers:

- Is the ADSS covering the four quadrants or just a part of them?
- There is now a much better understanding of the ADSS
- We need more time to play with the ADSS prototype
- ToRs are too long and there is no summary of the document!
- There is no need for a theoretical part in the ToR
- Chapter 2 of ToR is confusing
- Is the expected user an expert? Not all users are experts!
- What exactly is the role of the ADSS in the negotiation process (multi-user)?
- Is the ADSS an open system, free to use?
- Some end-users do not want to use the MCA. But they are interested in the tool: they want to know more about it (till now there is no real description of the MCA/MOA tool in the ToR)
- End-user expectations: catalogue of means, scenarios and models
- What is the real advantage of the ADSS?
- What will become the ADSS after the end of the DayWater contract? Further development? Updating?

The ADSS can also be seen as an educative tool, as it helps to communicate and to use a common language. There is a strong demand for more workshops or interaction in general!

18. Conclusions of the ASB meeting

Advisory Steering Board participants: TM, DT, GG, ML, KH, GS, MV, MR, PSM, MF, JCD, HS

- Proposal by GG of a **work meeting on 25-26 Nov. 2004 in Prague**: Small group (1 person per partner + 2 end-users) will work on two real cases using the ADSS components. This meeting should clarify overlaps and additional links between the different components.

- First step of testing of set of components: **meeting of partners with their national end-users** → end of development and testing phase: **end of Jan. 2005**
- Second step of integrated ADSS testing → **end of May 2005**
- Nomination of a DayWater end-user contact person: Marc Scheibel & Claire Beyeler

19. Conclusions of the end-user meeting

The end-users participants: CB, CC, KG, TV, AZ, MS, JO, MA, AB, EC (as meeting secretary)

- The urban dynamic part is missing! Its interest is to link BMP and urban and social issues!
 - There are concerns about the efficiency & development of ADSS prototype
 - What will happen with the ADSS after the DayWater project is finished?
 - There is a demand for open (adaptable) tool, with possibility to include locally existing tools.
 - The tracking function very important, esp. for the decision-making process, in order to avoid back steps and to explain the decisions taken (KG +CC)!
 - Expectations: substantial community, stakeholder and local government expectations to deliver sustainable communities including BMPs (e.g. Cambridge case, JO) (AB+CB).
 - Need to balance political and technical aspects of projects (JO)
 - It is difficult to test the ADSS on ongoing project, as there is not enough time (MA). We prefer completed projects.
 - The ADSS should support WFD compliance (MS)
 - Will there be information on private BMP & maintenance (TV)?
 - Case studies should include social aspects
 - Cost tool: don't forget that costs can also be shared between private & public
 - Some end-users are ready to enter data directly in the databases, in order to speed up the ADSS development process!
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- **ANNEX: Results of the core end-user questionnaires filled after the numerous demonstration workshops.**

ANNEX: Results of the core end-user questionnaires filled after the numerous demonstration workshops

A set of questions were answered by the end users **after the demonstration workshop session**, on Friday 1st October 2004, at 13:30.

Following comments were included into the questionnaire:

The ADSS core software and tools are still under development; the demonstration shows how they will look like in the prototype version and how the prototype could be used in the future. The aim of these questions is more to have your **first impression and your personal opinion** than detailed comments. We will ask for a detailed commentary once you have actually tested some of the ADSS tools and databases during the first loop of field testing.

Participants to these demonstration workshops:

Name	Institution	Function
Aikaterina Boumpa (AB)	Ministry of Environment, Urban planning & Public Work	Direction of hydraulic work of Attica District
Matthieu Ahyerre (MA)	AESN Water Agency	Studies responsible
John Oldham (JO)	Country Side Strategic projects	Director
Mark Scheibel (MS)	Wupperverband	Project manager
Aantal Zuurman (AZ)	Municipality of Nijmegen	Consultant/ designer urban water management
Ton Verhoeven (TV)	Municipality of Nijmegen	Policy water/ adviser water
Knut Bennerstedt (KB)	Stockholm Water	Chief of unit
K. Gammelgaard (KG)	Karlebo Municipality	Project manager
Claire Cogez (CC)	Conseil Général de Seine Saint Denis	Vice Director
Claire Beyeler (CB)	Syndicat Marne Vive	Chargé de mission

1. Was the demonstration easy to understand?

AB- Unfortunately, my group did not have time to attend the demonstration of cost and storm tool, but regarding all the rest, I have to comment that they were very understandable. The only thing is that especially for software presentation, 15 minutes was not enough to have an overall idea of their functionalities.

MA- It was very well done. That was very nice to share the researcher's enthusiasm concerning their tool.

JO- Yes.

MS- Easy, but not enough time (I missed one).

AZ- Yes, it was technical mainly. But that is my background and I could understand everything easily.

TV- Yes, most of it. I did not understand it all because I am in charge of water policy, an not technician. My colleague did understand more, but was also positive on one hand and sceptical on the other hand, because some tools are very premature.

KB- The most important one was the ADSS demo. Too little time (I didn't attend Wednesday morning session) There were many unanswered questions. The others were easy.

KG- Yes ! And very useful!

CC- Easy in general. I didn't test FLEXT. Not enough time for ADSS core software.

CB- It depends on the subject, when it was difficult it was because: the logical link was not build yet, we were faced with a sum of data/ the link with the ADSS or the tools within the ADSS was not described

Conclusion: Globally, most of end users understood the presentations. Nevertheless, it was easier for persons with technical background. There was not enough time for demo. Some questions are still unanswered, mainly concerning link within the whole ADSS.

2. If the prototype was operational, would you use it in your everyday work?

AB- The decision making procedure of a BMP is not the everyday task of my job, but in case such a project is under study, definitely it would be a very useful tool.

MA- We will use it sometime because it's not concerning the real field of our job.

JO- Yes- My engineers and urban/ landscape designers could.

MS- If I want to use in everyday work, it has to be guarantee that the system is supported after finishing or "open" in a way that it could be serviced or maintain it our selves.

AZ- Yes for BMP&ADSS, sometime/ maybe for STORM & SEWSYS, no or rarely for GIS, CHIAT.

TV- I think part of it only, because not everything is useful for us as municipality, because our core tasks in comparison to the water board, who has the responsibility of maintenance AND water quality AND water quantity. We are only partner in that process

KB- Not everyday but whenever we have a question, task, maybe once a week. The biggest use will be in new project

KG- Yes! I think most components are relevant.

CC- Not that much in my current function but I will recommend it to my colleagues.

CB- Yes- "everyday" means each time I have a USWM question or not only "problem" or "project".

Conclusion: Most of end users would use ADSS or at least a part of it, if it was operational. Not all of components would be used by each end user. ADSS may be used regularly in a everyday task but not every day.

3. Does your institution have personnel that could learn to use the ADSS on a regular basis?

AB- Yes, it has, but there is a restriction regarding language problems, i.e. it is expected that only younger engineers will be able to understand the program.

MA- We are two in the institution who want to use it, and we will try to recommend it to other colleagues.

JO- Yes.

MS- Yes.

AZ- Yes.

TV- Yes.

KB- Yes.

KG- Yes, but only a few!

CC- Yes several.

CB- Yes, the only and one engineer. I am not sure for the moment that it has to be in every city of our consortium.

Conclusion: All end users have personnel that will be able to use ADSS. It is not obvious that everybody could use it. There may be a problem with language.

4. Can the ADSS be a useful tool for the work of your institution?

AB- Yes, it is, and as well as for the private sector which is in very close co-operation with the ministry of environment.

MA- Yes, it is the reason why we are participating.

JO- Time will tell.

MS- Could be in a different way (but there are already some of the functions existing –so it was to be open to different models or database for example).

AZ- Yes

TV- Yes, see before. But it seriously depend on what will be offered soon for testing. Else the components are more important for us.

KB- Yes.

KG- Yes, I find it most useful.

CC- Yes but maybe, more for training than in real project (that may be too specific)!

CB- Yes for these two characteristics: 1. Source of different data on BMP, pollution – 2. Help to imagine and implement project.

Conclusion: All end users think that ADSS would be useful. But maybe some components will be more useful than all the structure. It may be used only for training.

5. What do you think about the ADSS core software?

AB- Very useful as far as context is concerned but a more user-friendly mode should be developed. The user is not able, at the moment, to see what is behind each Hydropolis task. A site map is needed, as simple as possible, in order to provide user with a general information regarding functions of the software. As many case studies as possible to provide an extra (and very strong) criterion for decision making

MA- ToRs are quite clear, nevertheless links between external tools and shell ADSS are not very precise.

JO- Enough understood for a brief introduction, no doubt the problems will surface when it is under test.

MS- Got only a brief impression, I have to “play” with the program with real data.

AZ- More open to INTERNAL user. They don't follow the overall structure that you provide. A start screen with options and look up function would be nice.

TV- I only saw a little because of lack of time. I think it is still a prototype and must be developed further on. But I think it will work well if you have multiple ways to using it. At the beginning, you may use it all, but when you are experienced you only will use a part of it, I think. Certainly a project leader who is working in a municipality and not in a water board.

KB- Today, I found that the ADSS is a number of rather isolated program that didn't have connection with each other very much. As an end user I strongly recommend a way of using the ADSS that Govert was trying to show us.

KG- Unfortunately I missed exactly that.

CC- System looks user-friendly. Announced functions seem to be envisaged. Tasks and vocabulary have to be tested. Notion of “alterative”, “indicators”, “criteria”... are not very clear yet.

CB- From the presentation we got, it looks quite sophisticated in term of information but the detail skeleton remains a bit vague to me.

Conclusion: Most of end users don't have a very clear idea about the ADSS structure (and links between elements). But they appreciate how it looks like for the moment. Hydropolis interface should not be seen as the only way of user-friendliness. You may need preliminary information on how the Hyropolis map works.

6. What are your comments on the other tools (Chemical hazard identification tool, GIS risk screening tool, BMP & indicator tables, STORM, SEWSYS etc)?

	CHIAT	GIS Risk	BMP & indicators DB	STORM	SEWSYS	ADSS
AB	Very useful combined with identification of possible pollution generating sources.	Very advanced tool but not GIS database available for all areas. Extra work required as input from end-user part.	Case studies very important to provide as much information as possible regarding decision making process, unexpected problems, operation, etc.	Yes, anxious to use it as unity.		
MA	Nice tool. I'm very afraid that you don't manage to finish because it's very complex.	Interesting, I don't understand clearly the role of expert system and its field of validity.	That's great. We are waiting for hat.	Super, I'd like to try it!!!	I don't believe at all processes used in the models are not validated.	It's necessary to precise links with the external tools, the way we will have access to them...
JO	As a package very useful PS: who will maintain the system when the projects end? EU needs to maintain this. Otherwise the project will be like a broken pencil: "pointless"!					
MS	Missed	GIS was presented on the other purposes than risk, but looks familiar.	Who will be responsible for supporting? Good library, if the database can be implemented to locally conditions.	Already in use.	Useful, we'll try to use it.	
AZ	Selection process from 100 000 to 300 pollutants, has to be clear to avoid any discussion.		- Plain technical - Story behind cost number → what is taken into account? - What is the relation between environmental data and data from SEWSYS?	Complex processes are presented as simple one. I hope not too simple.	A lot of data used as input. A lot of knowledge required to evaluate	- Look up function with key word - Save profile and make possible to compare projects - Newsletter monthly for update

	CHIAT	GIS Risk	BMP & indicators DB	STORM	SEWSYS	ADSS
TV	Not seen.	Useful tool but not for us: more for a water boarder of a large city with much land use plans; in Nijmegen we don't have that anymore.	Very useful and we will bring in our data. Concerning the cost tool: much overlap with BMPs. This should be integrated examples etc. This tool is just what we are looking for.	Looks nice, can't oversee if it is useful for us.	Useful, but we already known a lot in Nijmegen or don't use that details information for making choices.	
KB	It is important that the ADSS can give the water manager a number of possible solutions on a storm water problem. And that, only defining the problem in the profile definition. After that, we can test the interesting propositions by using the tools above. GIS must receive in data from the profile definition, BMP...					
KG		FLEXT is very interesting	BMP should include prices and be integrated with storm. Cost must include different level of benchmarks: 1. Planning (identified by indirect indicators like km ² , number of inhabitant, type of cat. etc.) 2. Components capacity 3. Break down in prices.	Possible integration between storm and GIS risk ?		

	CHIAT	GIS Risk	BMP & indicators DB	STORM	SEWSYS	ADSS
CC	<p>Possibility to create a link with an interactive film for all kind of public about « micro pollutant and safety » (biennale 93/2004, data AESN, Claude Uniguard)</p>		<p>Introduce the notion of vulnerability. Create a link with the project concerning security aspect (Access to BMP...ex: avoid to create a detention basin in an already living area). Cost: don't forget question of land cost (ratios is not a solution) Talk about the over cost in urban project. Give real scale of cost value. STORM proposes to deal with "enlarging work in place": give the cost for comparing such solutions.</p>	<p>Create a links (or an exportable file) concerning impact on plant or natural receiving water.</p>	<p>We know the limit of the models concerning quality: what happens in the sewerage? Local problem → model must contain warning and precaution for using tool. Results if they are used in « comparison with » could be interesting for the user.</p>	
CB	<p>Have a possibility to start this step with a questionnaire on what activity there are in our catchments area. And warm the user of what kind of activity or chemical should not be in the water basin</p>		<p>The data must be organized and very "pedagogic": photo, drawing presenting the principle of the technique and some data about case studies and efficiency. Think on the indirect cost: maintenance, access to the equipment or BMP...</p>	<p>Very interesting: I was afraid and I found a "friendly tool".</p>	<p>No time to see it.</p>	<p>Concerning profile: linked with ADSS: we insisted on what we would have in hand after. At the top of motivation.</p>