

DAY WATER NEWS 2

PROJECT UNDER EU RESEARCH & TECHNOLOGICAL DEVELOPMENT

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**REGIONAL
CONFERENCES**

**END-USER
INTERVIEW**

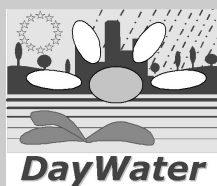
**OUTLINE OF NEXT
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www.daywater.org

The DayWater project has now been running for more than a year and we would like to update you on the on-going scientific progress. Each of the scientific partners organised a regional conference inviting in total 280 end-users (in Oct/Nov 2003) in order to increase interaction between the end-users and ADSS developers. At this time the ADSS structure and functionality are in the process of definition through deep and detailed discussions. A first ADSS prototype is internally available for implementation and testing.

During the first 12 months, the DayWater teams have prepared numerous reports, which are available on our web-site as far as they are designated within the public domain. For example the use of stormwater best management practices (BMPs) in Europe has been thoroughly documented and a report on risk perception, risk assessment and risk management related to the DayWater context has been finalised.

A number of end-users are supporting biotests applied to runoff and re-suspended sediment: the tests will be executed during the next 6 months.

During the first annual meeting in Athens, the scientific officer of the European Commission informed project partners about the upcoming 3rd call for the 6th Framework Programme. The CityNet Cluster steering committee meanwhile agreed on a procedure for the elaboration of a proposal, which will be discussed at the next end-user seminar in Ghent (16-18 March 2004).

During the first year of the CityNet Cluster two CityNet press releases have been disseminated to 78 news services in 10 countries.

DAYWATER (EVK1-CT-2002-00111) IS A PROJECT UNDER THE 5TH FRAMEWORK PROGRAMME OF THE EUROPEAN UNION AND ONE OF SIX PROJECTS FORMING THE CITYNET CLUSTER (EVK1-CT-2002-80013)

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REGIONAL CONFERENCES

Between October and November 2003, 8 End-Users' Regional Conferences were held. The objectives of these meetings were: collecting information and recruiting additional end-users and the presentation of the first ADSS prototype and its functionalities. These Conferences gathered together approximately 280 potential end-users and other scientists working in the field of urban stormwater management.

FLASHBACK ON THE REGIONAL CONFERENCES

The regional Conferences allowed a comparison of the end-users' needs in different countries and the objectives of the DayWater project. Although there were national differences, the discussions with the end-users revealed many common needs and worries.

Small technical services are appreciative of all information about BMPs, and were very reluctant to contribute a case study because of their small project sizes. Large national organisations hesitated to bring in specific projects as case studies because they are often joint venture projects. The ADSS has to be suitable to both types of end-users, proposing technical information (promoting BMPs) and supporting the decision-making process in national or regional projects (master plan).

EMPHASIS OF REGIONAL DISCUSSIONS

Three major topics were discussed in almost every country: technical issues, legal and economic issues, and social and organisational issues.

1. When lacking technical experience, engineers are not used to planning and operating BMPs. Very few technical standards exist for BMPs and there is a high uncertainty about the consequences of using BMPs.
2. Financial support focuses on construction and operation of sewerage systems and treatment facilities. It is very difficult to obtain funding and space for BMP implementation and their operation.
3. Social and organisational influences, through the participation of all stakeholders and public acceptance, are the basis for economical efficiency of BMPs.

CONCLUSION OF END-USER NEEDS

The ADSS should integrate:

- technical examples of successful BMPs,
- assessment of the whole life cost of a BMP and its maintenance,
- knowledge and management of risks of BMPs,
- comparison of end of pipe solutions and BMPs,
- legal and economic formulae adapted to the BMPs,
- negotiation and co-ordination platforms between different actors,
- provide information/promote public awareness of urban water issues and the advantages of BMPs.

COMPOSITION OF REGIONAL CONFERENCE PARTICIPANTS

Country	City	Participants (external + CEU+ DayWater partners)	Municipalities or technical services of cities	Regional or national non profit organisations	Private companies
France	Paris	25 + 7 + 7 = 42	9	6	4
Czech Rep.	Prague	22 + 0 + 10 = 32			
Greece	Athens	71 + 7 + 10 = 87	36	7	3
Netherlands	Deventer	14 + 1 + 13 = 28	7	5	0
Germany	Berlin	27 + 3 + 10 = 40	4	1	1
Sweden	Stockholm	14 + 2 + 5 = 21	10	1	
United Kingdom	Braintree	30 + 2 + 5 = 37	5	5	10
Denmark	Jütland	18 + 4 + 5 = 27	6	2	5
TOTAL		221 + 26 + 65 = 312	77	27	23

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DAYWATER STRUCTURE

OVERVIEW OF THE DAYWATER STRUCTURE

The DayWater project is structured into 7 work packages (WP), each of them placed under a different leadership:

WP1: Project co-ordination, meeting organisation, dissemination of results, web-site, file-server and newsletter (Cereve-ENPC)

WP2: Adaptive decision support system (ADSS) production, literature review of decision support tools, first ADSS prototype (DHI-Hydroinform)

WP3: Urban dynamics, core end-user (CEU) questionnaire exploitation, comparative study on decision making processes in Europe (TAUW)

WP4: Risk perception, risk assessment and risk management related to urban stormwater, methodology for evaluation and prioritising environmental hazards, definition of potential priority pollutants (Environment & Resources, DTU)

WP5: Multi-criteria analysis of structural and non-structural best management practices (BMPs), criteria relevant to assess BMP performance (Middlesex University)

WP6: Sources and flux models (SFM) and integration into the hydrological model (Chalmers University)

WP7: Elaboration and exploitation of CEU questionnaires, objectives of regional conferences, inventory of CEU sites for a first field testing, list of components to be tested, terms of reference of the ADSS (Cereve-ENPC)

THE END-USERS

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END- USER INTERVIEW : COUNTRYSIDE PROPERTIES

Countryside Properties is one of Britain's leading residential and commercial property developers. The Company was founded in 1958 and was listed on the London Stock Exchange in 1972.

The Group has grown significantly during recent years from its Essex base and now has a major and expanding development programme covering London, the South East, the South West and the North West regions of the country.

The Group has a future development programme totalling around €9 billion, reported an annual turnover in excess of €600 million and directly employs well over 900 people.

We have built up an acknowledged expertise in the development of sustainable mixed use and mixed tenure communities, both on green and brownfield sites.

We are often praised for our ethical approach to new development and in particular our attitude towards the environment.



Our house-building subsidiary provides a wide range of developments from traditional designs using local building materials in rural areas and suburban communities to architecturally exciting and innovative homes in urban regeneration projects.

The Group also undertakes commercial property development across the full range of market sectors including retail, leisure, industrial and office schemes and we also integrate commercial development with housing to create mixed-use schemes.

My work in the Group is in the development of large strategic development sites. The Group has planned, promoted and delivered a range of complex new mixed-use, mixed-tenure communities which are widely regarded as examples of best practice in the development industry.

I have put forward three possible case studies. The wetlands created over a decade ago at Great Notley Garden Village, Braintree, Essex, a new mixed-use community of 2,000 homes with commercial, leisure, retail and communal uses; the re-development of the former MAFF (Ministry of Agriculture, Fisheries & Food) government offices at Brooklands Avenue, which is a site within the City of Cambridge for mixed-tenure housing and the creation of a new southern city quarter for Cambridge on the urban edge providing a major extension to a regional hospital and a bio-medical research campus plus around 2,500 new homes. Both the Cambridge schemes are linked by an environmentally sensitive water course built to provide water to the Cambridge Colleges around 400 years ago. The Brooklands Avenue development commenced construction in summer 2003, while the southern quarter is still at the pre-development stage but will be used as a case study of community engagement.

For us DayWater should help to raise the profile of sustainable urban drainage solutions and most importantly help to put forward solutions regarding the adoption of these systems.



Wetlands created at Great Notley Garden Village, Braintree, Essex

John Oldham

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RESULTS: CITYNET KICK-OFF MEETING

At the CityNet kick-off meeting, 21-23 February 2003 in Paris, the major aims were to identify cross-project links and collaboration potential, define the common objectives of CityNet, identify what will be achieved at the end of FP5 and formulate research needs for upcoming EU framework programmes (i.e. FP6 and beyond). During a brainstorming procedure involving 80 participants divided into 10 groups expected research results and needs were identified (see table below).

Topics	Available by 2006	Still missing by 2006
1 Systems analysis	Understanding the system	What happens outside the system boundaries
2 Performance assessment	First-order approach tools for DS	Basis for complex-order tools
3 Integrated modelling	Basic models are operational	Link to "outside world", uncertainty
4 Operation, RTC	Subsystems and off-line integrated RTC tools ready	Tools for integrated real-world applications and complex goal functions
5 EU-WFD implementation	Role of urban catchment is assessed	Large scale understanding and end user implementation
6 Source control	Tools and methods are identified	But: implementation is a question of technology
7 Infrastructure maintenance	Investment optimisation for asset management	Optimising the operation of maintenance
8 Public acceptance	Better information of public with regard to decisions to be taken	Public involvement as a consequence of the "big issues"
9 Results vs. privatisation	Solutions accepted as long as cost-efficient	Improved transparency and background information
10 Groundwater wastewater system	Models and decision tools available	Validation and uncertainty with regard to future developments

A summary of the solved and unsolved research topics by the end of the FP5 period was prepared by Peter Krebs (co-ordinator of CD4WC, TU Dresden) based on the results of the brainstorming procedure mentioned above.

Solved

- The goals that were set are achievable
- The validity is referring to the defined system boundaries, i.e. mostly the urban catchment
- Models and tools are further developed and "theoretically operational"
- Decision support is available

Unsolved

- Generally, implementation will be weak
- Characterisation of interfaces
- Links to socio-economy and public acceptance not well developed
- The knowledge on the outside of the system boundaries is not developed enough
- Complex systems behaviour cannot be described

Disagreement

- Data completeness and availability
- Coupling of models
- Optimistic and pessimistic view of what can be achieved by technology
- Health risk assessment

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OUTLINE OF NEXT ISSUE

DAYWATER NEWS III (JUNE 2004)

- ❑ Improved ADSS prototype including additional components
- ❑ Choice of case studies for Adaptive Decision Support System (ADSS) testing
- ❑ Comparative description of decision making processes related to urban stormwater management
- ❑ Methodology for carrying out attractor analysis
- ❑ Methodology for assessing environmental risk to surface water, soil and ground water
- ❑ Database for benchmark indicators for BMPs
- ❑ Specification of GIS database structure

PUBLICATIONS

Novatech 5th International conference on sustainable techniques and strategies in urban water management, Lyon, June 2004:

"Stormwater management in Europe: Analysis of institutional contexts and mobilisations in BMPs implementation"; J.F. Deroubaix, C. Carré, E. Chouli, J.C. Deutsch

"Urban stormwater source control management in European countries: DayWater project"; M. Förster, D. Thévenot, G. Geldof, G. Svensson, P.-S. Mikkelsen, M. Revitt, E. Aftias, J. Krejčík, H. Sieker, M. Legret, M. Viklander

"An approach for identification of problems related to chemical compounds and handling of rainwater locally"; E. Eriksson, A. Baun, P.-S. Mikkelsen, A. Ledin

"Contextual water management from necessity to opportunity"; P. Lems, R. Valkman

Ecohazard 2003 IWA conference, Aachen:

"Development of a hazard identification approach for chemical compounds and local handling of non-potable water"; E. Eriksson, A. Baun, P.S. Mikkelsen, A. Ledin

Journal of health, social & environmental issues 4(2), 37-40, 2003:

"A European project investigating the integration of stormwater source control into sustainable urban water management strategies"; L. Scholes, M. Revitt, B. Ellis

TechniCité, 58, 17-19, 2003:

"Lutte contre la pollution des eaux de ruissellement urbaines: l'Europe à la rescousse"; J.-F. Deroubaix, J.-C. Deutsch

EUROPEAN PROGRAMME OFFICER'S WORD:

Reiterating the challenges ahead for the research community, the end-users, the consumers, the entire society, with regard to global change and urban water management may sound trivial. Still, Integrated Water Resource Management (IWRM) concepts question our understanding and practice of urban water management. There is a clear demand for RTD to keep continuously the pulse of our societal and technological ingenuity, ecosystem welfare, competitiveness, economic growth and employment in Europe and at global level. At the same time, without forgetting that system performance is judged by sustainability indicators. The management of metropolitan areas in Europe and the phenomenon of mega-cities in developing countries, the position of the urban catchment within the framework of river basin management are only some indicative issues to be tackled in order to pave the way to IWRM and sustainable development. The EU Water Initiative, the Action

Plan to improve the development and wider use of environmental technologies (ETAP, adoption by the Commission on 28/01/2004) reflects the view of EU Member States that wider strategic, open and transparent public-private partnerships are essential for success. DayWater is one of the various testing grounds to benchmark and consolidate such partnerships, which are imperative for new knowledge and scientific excellence to the benefit of the society.

Zissimos Vergos (Programme Officer, European Commission, Directorate I - Environment)

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DAYWATER AGENDA

CITYNET CLUSTER

INTERNATIONAL CONFERENCES

NOVATECH, LYON - FRANCE;
5TH INTERNATIONAL CONFERENCE ON SUSTAINABLE
TECHNIQUES AND STRATEGIES IN URBAN WATER
MANAGEMENT
6-10 JUNE 2004
WWW.GRAIE.ORG/NOVATECH

HYDROINFORMATICS IN SINGAPORE;
6TH INTERNATIONAL CONFERENCE ON
HYDROINFORMATICS
21-24TH JUNE 2004
WWW.ENG.NUS.EDU.SG/CIVIL/CONF/HIC2004/

IWA 4TH WORLD WATER CONGRESS IN MARRAKECH
- MAROCCO;
19-24TH SEPTEMBER 2004
WWW.IWA2004MARRAKECH.COM

INTERNATIONAL CONFERENCE ON WATER SENSITIVE
URBAN DESIGN, CITIES AS CATCHMENT IN
ADELAIDE - SOUTH AUSTRALIA
21-25 NOVEMBER 2004
WWW.PLEVIN.COM.AU/WSUD2004/

10TH INTERNATIONAL CONFERENCE ON URBAN
DRAINAGE ICUD, COPENHAGEN - DENMARK;
SEPTEMBER 2005
<http://10icud.er.dtu.dk>

CITYNET ACTIVITIES

PROCESS DATA AND INTEGRATED MODELLING
WORKSHOP FOR JUNIOR SCIENTIST IN LYON,
FRANCE
11-14TH MARCH 2004
www.citynet.unife.it

"INTEGRATED URBAN WATER MANAGEMENT"
SEMINAR FOR END-USERS IN GHENT, BELGIUM
16-17TH MARCH 2004
WWW.CD4WC.ORG

CITYNET CLUSTER

DayWater belongs to the CityNet project cluster of six individual research and development projects (2001-2005), which focus on different aspects of integrated urban water management (water supply, sewage, drainage), including their urban-rural interfaces (raw water sources, receiving waters, groundwater).

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CARE-W PROJECT ENDED 31/01/2004

The CARE-W project has produced a system and software meant for decision-support for water network rehabilitation. The software consists of a Performance Indicator tool for surveying and monitoring the general condition of the water network, a system for long term strategic planning of upgrading water assets and a system for selecting and ranking rehabilitation projects. This is supported by tools to predict future failures and to estimate the water supply reliability. It is all facilitated within the CARE-W manager, which organises information flow from various data sources via computing tools to result presentation files.

CARE-W has been extensively tested by 13 end-users, which has provided very valuable corrections to the system. It is now being commercialised, and other cities are welcome to utilise CARE-W.

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