

27.03.08 at SWITCH

**Sustainable Water Management Improves
Tomorrow's Cities' Health**



NEWS FROM SWITCH

Welcome to the third edition of the SWITCHED ON! Newsletter. It is hoped that this will include something for everyone who is interested in the future of urban water management, whether involved directly in the SWITCH project or not.

SWITCHED ON! aims to keep you up to date on what have been the recent highlights and achievements of the SWITCH project, the key events, and any publications and products which may be of interest.

The contact address for the newsletter is switchnews@lboro.ac.uk if:

- you have news and information for inclusion in the next newsletter
- you do not wish to receive SWITCHED ON!

Contents

1. **SWITCH City Posters**
2. **Spotlight on Birmingham city**
3. **New googlegroup for city website development**
4. **Calling all SWITCH trainers!**
5. **Report on SWITCH Symposium on Strategic Planning**
6. **Life-Cycle Cost Assessment (LCCA) Tool available for download**

1. SWITCH City Posters

A series of SWITCH City Posters are now available, which briefly describe the following areas for each city:

- the activities of the Learning Alliance;
- the vision and goals for urban water management;
- measuring sustainability;
- water systems and pressures;

- demonstration activities;
- potential future scenarios; and
- research focus areas.

All posters are available at <http://www.switchurbanwater.eu/page/2670>

2. Spotlight on Birmingham city

- **The Birmingham LA website**

Birmingham LA is pleased to announce that its city website has now gone live and is accessible at <http://switchbirmingham.wordpress.com/>. We would encourage you to look at the site, find out about the interesting research occurring in Birmingham and to engage in discussion.

- **Birmingham Visioning Workshop**

The second visioning workshop took place on 3rd March 2008, the aim of which was to visualise how Birmingham will look in 2030-2050. This was a follow up to the first visioning workshop which happened in October 2007 in which the stakeholder representatives were divided into three groups to envision the future based on different scenarios; old world, new world and sustainable world. This workshop discussed the outcomes of the first and how the visions of the Birmingham LA can link with other visions such as Birmingham's City Vision and Defra's Future Water-The Government's water strategy for England. We also heard from Severn Trent Water's Business Strategy Manager who presented details of their 25 year plan. Full details will be published at <http://switchbirmingham.wordpress.com/> shortly.

- **Birmingham Demonstrations**

A number of demonstrations have now started in Birmingham. These include the construction of brown roofs at the University of Birmingham to assess the effectiveness of the construction material and to quantify its effectiveness at encouraging biodiversity. A model is being constructed to assess the whole water balance, which is an extension to an existing model "Aqua cycle". An additional experiment at The University of Birmingham has also begun looking at virus transfer through sandstone aquifers in addition to investigating contamination of watercourses due to pollutants in the groundwater. For further details on these projects see <http://switchbirmingham.wordpress.com/research-demonstrations/>.

- **Birmingham Eastside**

Birmingham is undergoing considerable regeneration. The Eastside regeneration project aims to act as a demonstrator on sustainable regeneration and is being used as an example project in the water balance model being developed in conjunction with the University of Birmingham. The Eastside site is a multi-use development in the heart of Birmingham and will incorporate housing, workplaces and the first, new city centre park for over 100 years. A number of issues have already been investigated such as the power/telecoms/water supply and demand balance, potential for combined heating and power and the use of canal water for heating or cooling. A visit to Huddersfield University has been arranged to view a cooling system which uses canal water.

3. New googlegroup for city website development

A googlegroup dedicated to the creation of websites for Learning Alliances has been set up by ICLEI and the IRC. The group's objective is to serve as a learning and sharing platform for those involved in SWITCH city websites development such as LA

facilitators, city coordinators and core persons in charge of the website. The group can be viewed at <http://groups.google.com/group/switch-websites> and requests to join can be made to switch-websites-owner@googlegroups.com.

4. Calling all SWITCH trainers!

ICLEI is currently in the process of publishing trainer profiles on the SWITCH training desk <http://www.switchtraining.eu>. If you want to promote your trainer capacities for IUWM, do not hesitate to contact us for more information or send us the completed template, distributed within the LA googlegroup on January 11, directly: we only need a short description of yourself and a photograph!

5. Report on SWITCH Symposium on Strategic Planning

Strategic planning for water sustainability in the city of the future

The world is changing and urban water managers need to adapt to the new realities. Adapting to fast-changing circumstances is not possible on an ad-hoc basis, not even with planning horizons of 1 to 5 years. There is a need for strategic planning with a much longer time horizon: 25 to 30 years.

The SWITCH project is encouraging its demonstration cities (Accra, Belo Horizonte, Alexandria, Beijing and others) to develop strategic planning processes. In that context, a symposium on strategic planning was organized on March 7th at UNESCO-IHE in Delft to exchange experiences among cities. Some of these cities have already gone through strategic planning processes; others are just about to start the exercise.

The city of Rotterdam in the Netherlands is challenged by a number of water-related changes. Severe precipitation events are increasing, the discharge volumes from the river Rhine are increasingly fluctuating and the sea level is rising. Despite these threats, the citizens of Rotterdam still demand flood-free streets and a clean environment, as they will in the future. Therefore, the Rotterdam Municipality, together with the water boards, has embarked on the preparation of Waterplan Rotterdam for the year 2035. John Jacobs, project manager of Waterplan Rotterdam and speaker at the symposium says: "Urban water management is one of the main instruments in adapting to climate change. By solving the water problems, we will be able to add extra value to the public space and thus improve the quality of the urban environment."

A key aspect of strategic planning is that traditional boundaries in urban water management have faded away. Urban water is no longer the exclusive field of sanitary engineers and surface water quality managers. Architects and town planners are now very involved in water system designs. This is the way to move forward into the future as only integrated approaches can provide the creative and innovative solutions needed to address the challenges that cities face. An example of this water-sensitive urban design is the development of parks and squares that serve both recreational and storm water storage purposes, as it is planned in Rotterdam and already practiced in Belo Horizonte, Brazil.

During the symposium, scientists and practitioners from municipalities, utilities and water boards discussed what key factors in strategic planning exercises are a prerequisite to success. The contribution by academics was through a special workshop. How can we be assured that the innovations that are available in universities and laboratories are actually applied in practice? Do scientists and

practitioners speak the same language? How can cooperation be improved?

Several UNESCO-IHE MSc participants have already put this integrated concept into practice by doing their MSc research in urban development at Leidsche Rijn, near Utrecht (Netherlands). This new development (about 30,000 houses) claims to have a truly sustainable urban water system. The drainage system in Leidsche Rijn is completely separated from other systems, with only the wastewater being collected in the sewers. The storm water is discharged into ecologically-designed surface waters. Most street pavement is permeable in order to reduce storm water generation. The surface water is continuously circulated through a large man-made wetland, in order to maintain surface water quality of the highest standards.

This system presented at the symposium was a result of cooperation between municipalities and water boards. Integration of city planners, water managers and engineers is not easy. Nevertheless, it is the only way forward, and the combination is a successful one. As the Leidsche Rijn project manager, Cas Verhoeven, says: "Anyone who is reluctant will find an excuse not to integrate, but those who want to move forward, will find a way. Success is brought by action."

6. Life-Cycle Cost Assessment (LCCA) Tool available for download

ECO.SWM is a tool to calculate the so-called "net present value" for different planning scenarios in water management. It was developed within WP2 (Stormwater Management) but is applicable in ALL FIELDS OF WATER RELATED PLANNING.

The software is available for download [here](#). Install the software by double-clicking setup_ecoswm.exe. The programme will be installed under c:\program files\ips\Eco.SWM. A demo file (sample.kvr) is stored in the samples folder.

Because it is often time consuming to collect prices for different alternatives and to present results properly Eco.SWM has been developed as an application with access to a web-based database. In the database unit prices, operational cost per unit and lifetime expectancy for many different measures can be stored.

To connect to this mysql-database the user needs an internet connection and an user account. For SWITCH partners the following login data can be used:

username: switch

password: switch

Feel free to test ECO.SWM in your projects. Please report bugs and suggestions for improvements to:

Heiko Sieker

IPS

h.sieker@sieker.de

SWITCH Contact Details

The CENTRAL MANAGEMENT UNIT is UNESCO-IHE, which is responsible for the day-to-day coordination of the integrated project. The CMU is located at:

UNESCO-IHE

Westvest 7, 2611 AX Delft, Netherlands

Tel. number: +31 15 2151771

The CMU consists of:

Kala Vairavamoorthy, Scientific Director, k.vairavamoorthy@unesco-ihe.org

Carol Howe, Project Manager, c.howe@unesco-ihe.org

Adje Kerkhof, Management Assistant, a.kerkhof@unesco-ihe.org

Visit the SWITCH Website

<http://www.switchurbanwater.eu/>

For issues relating to the SWITCH newsletter, contact SWITCH -
switchnews@lboro.ac.uk