

SIXTH FRAMEWORK PROGRAMME
PRIORITY [1.1.6.3]
[Global Change and Ecosystems]



Project acronym: **SWITCH**
Project full title: Sustainable Water management Improves
Tomorrow's Cities' Health

**Report on the International Panel of Experts on Water
Demand Management**

1. Introduction

An early activity carried out under Work Package 3.1 was to identify individual academics/experts of international reputation, working in the field of water demand management. These were identified through internet searches, and participation in conferences that dealt with water demand management issues, specifically IWA conferences. Participation in these conferences created opportunities to have audiences with these experts, in which an introduction of the SWITCH Project was made, and the experts informally invited to be part of the Panel. By mid 2007, fourteen experts had accepted to be members of the Panel. This brief report outlines the Terms of Reference for the Panel and the list of members.

2. Terms of Reference

2.1 Background Information

With increasing global change pressures, and existing limitations and un-sustainability factors and risks inherent to conventional urban water management, cities will experience difficulties in efficiently managing scarcer and less reliable water resources, as well as satisfying water uses/services and waste water disposal, without creating environmental, social and/or economic damage. There is a need to convert ad-hoc actions (problem/incident driven) into a coherent and consolidated approach (sustainability driven). The EU, under the Sixth Framework Programme has funded a five-year research project, the SWITCH Project that aims at researching on how urban water managers can best respond to these challenges.

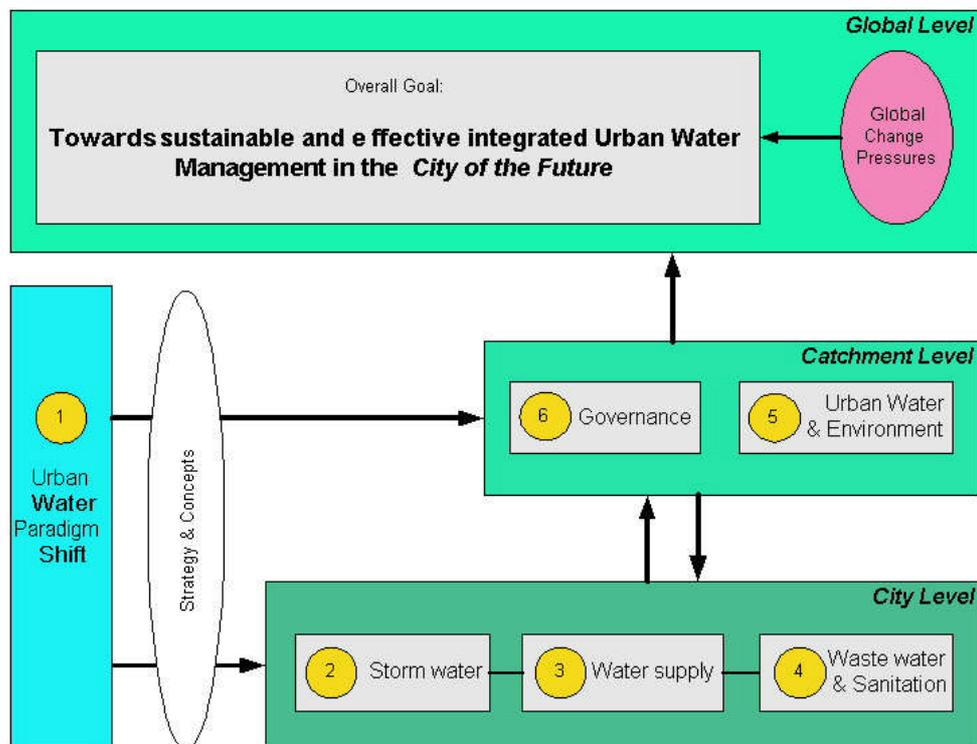
SWITCH is an action research project, which has as its main objective: "The development, application and demonstration of a range of tested scientific, technological and socio-economic solutions and approaches that contribute to the achievement of sustainable and effective Urban Water Management (UWM) schemes in 'The City of the future'". Using an integrated approach, SWITCH aims at causing a

paradigm shift in UWM. The SWITCH Project, which runs from February 2006 to January 2011, is implemented by different combinations of consortium partners, along the lines of seven complementary and interactive themes. The research approach is innovative for the combination of:

- *action research*: address problems through innovation based upon involvement of users.
- *learning alliances*: to link up stakeholders to interact productively and to create win-win solutions along the water chain;
- *multiple-way learning*: European cities learn from each other and from developing countries, and vice versa.
- *multiple-level or integrated approach*: to consider the urban water system, and its components, (city level) in relation to its impacts on, and dependency on, the natural environment in the river basin (river basin level), and in relation to Global Change pressures (global level).

The integrated nature of the SWITCH Project is illustrated in Figure 1. Research and demonstration activities are being conducted in 15 collaborating cities. Although research is organised through themes and work packages, there is a deliberate effort to ensure that all the work packages ‘talk to each other’. Vertically, activities at city, and catchment levels should be synchronised to address the global concerns.

Figure 1: The Organisation of SWITCH Research Project showing the six themes



2.2 Work Package 3.1: Research on Water Demand Management

Water, Engineering and Development Centre (WEDC) of Loughborough University is participating in Theme Three dealing with ‘efficient water supply and water use for

all'. WEDC is leading Work Package 3.1: Demand management for Optimisation of Urban Water Services. The overall objective of Work Package 3.1 is

'...to develop and test holistic demand management tools, encompassing commercial and physical aspects, with the aim of reducing water wastage and providing educational material on the two main components of losses (commercial and physical) to enable local operators (public or private) to effectively manage demand in their water supply systems'.

The activities under Work Package 3.1 are:

1. Establishment of an international panel of European and developing country experts on demand management.
2. Development of innovative cost-effective methodologies of reducing unaccounted for water, encompassing both physical losses (leakage detection and management techniques) and commercial losses (unregistered or illegal connections);
3. Development of innovative methodologies of mainstreaming demand management within utility management, through use of tariffs
4. Production of innovative educational material, and training programmes, for selected target groups in various social, economic and geographical conditions; and
5. Facilitation of capacity building in the area of demand management, by using the tools and material developed in the project.

These activities, spanning during the period up to January 2011, are being undertaken by WEDC, Zaragoza City Council and IRC. They include research in the cities of Zaragoza (Spain), Alexandria (Egypt) and Accra (Ghana). The following activities are planned for the period February 2007 to July 2008:

- Literature review on WDM approaches currently in use
- Research and demonstration activities in Zaragoza
- A training course for water utility staff in the City of Alexandria, in collaboration with Institute for Sustainable Futures, University of Technology Sydney (Australia) and the Centre for Environment and Development for the Arab Region and Europe (CEDARE), Egypt.
- Case study of WDM issues in Accra

The project also includes establishment of an International Panel of Experts on WDM to guide the researchers on their work, and to contribute to dissemination of best practices.

2.3 Scope of Work for the International Panel of Experts on WDM

The International Panel of Experts on WDM will be composed of 12 leading professionals from all over the world. These will be drawn from both the developing and developed countries, and are invited to contribute to the SWITCH Project on a honorary basis. Communication and discussion will usually be by email. The main roles will include, but not limited to

1. Advising on research issues, gaps and priorities
2. Reviewing of research plans, reports and papers

3. Helping to connect the SWITCH research with previous and current work being undertaken elsewhere, and with utilities and cities
4. Advising on the dissemination pathways, and assisting in the dissemination

2.4 Duration

The assignment will start in mid-2007, and each expert will be invited to serve for a three-year period, after which the membership of the Panel will be reviewed.

3. List of Members of the Panel, June 2007

	Country	Status
1. Stuart White	Australia	Accepted
2. Kala Vairavamoorthy	UK/NL	Accepted
3. M. A. Jalil	Bangladesh	Accepted
4. Roland Liemberger	Austria	Accepted
5. Malcolm Farley	UK	Accepted
6. Bekithemba Gumbo	Zimbabwe	Accepted
7. Tony Gregg	USA/Jordan	Accepted
8. Rob Westcott	UK	Accepted
9. Bambos Charalambous	Cyprus	Accepted
10. David Butler	UK	Accepted
11. Hannes Buckle	S Africa	Accepted
12. Mary Ann Dickinson	USA	Accepted
13. Cyrus Njiru	Africa	Accepted
14. Maria do Céu Almeida	Portugal	Accepted