



# Application of Science in SWITCH Cities– Background

**5<sup>th</sup> Scientific Conference 2010,  
Lodz, Day 2**

12/11/2010



## Overview of Presentation

- Project hypothesis about “successful” application of science*
- Project design/reality*
- SWITCH Cities – different contexts for success*
- Researchers in SWITCH*
- Action-Research – process indicators*
- Feedback from City Stakeholders*

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## Project Hypothesis

*Conventional Approach – (i.e. Researchers/disciplinary experts define problems, identify and promote solutions), has not produced adequate results sustainable IUWM*

• *“Wicked” challenge – achieving sustainable IUWM requires multi-stakeholder involvement at city level, and interdisciplinary research at international level,*

*Better to use an action-research approach with City Learning Alliances to undertake:-*

- Problem exploration – “demand-driven research”,*
- Identifying and testing options to address these problems,*
- Promoting the uptake of promising options/technologies via training, demonstrations, information sharing*

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## Action Research –

Ideal conditions

SWITCH SITUATION

*Complex situation, multiple stakeholders, “wicked” problem/ - YES*

*Relevant “Entry points” (e.g. regeneration programme, recent climatic events, new supportive policies) – IN MANY CASES “YES”*

*Stakeholders empowered to contribute/participate (time, confidence, interest, permission, altruism) - VARIABLE?*

*Resources to support action-research process - experienced facilitation, funding time for engagement, communication tools, quality technical inputs (from experienced researchers and practitioners) – VARIABLE?*

*Experienced researchers wanting to – engage with non-researchers, learn with stakeholders, cross disciplinary boundaries VARIABLE?*

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## Project Limitations to Action research

*Researchers are also stakeholders with competing interests*  
– have existing products to promote and test – the “easier option”,  
– have own/organisational targets – publications, ph ds, research funding,

*EU research project requirements inflexible vs a vs “process projects” – e.g.*  
• clear deliverables required at project design stage,  
• management of project performance by quality & quantity of written outputs rather than quality of engagement process (e.g. joint exploration of problems and design of products with stakeholders),  
• funding rules limit scope of engagement, researcher mobility etc – inhibits  
• resources placed with research organisations – city stakeholders have limited power to influence research and limited scope and incentives for engagement  
• Language - English the project language but not the working language in most of the cities – implications for communication of new ideas,

*Sheer size and scale of the project limited the management’s capacity to integrate a multi-disciplinary research effort – some work packages created subject area ghettos – e.g. most of social scientists in WP 6,*

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## Adjustments to accommodate Action research

*Learning Alliances were given budgets to support facilitation of stakeholders and monitoring of the stakeholder engagement process – linking researchers with stakeholders,*

*Management push researchers for “user-friendly” deliverables,*

*Some partners were not “traditional” research organisations –e.g. municipal authorities, consulting companies,*

*Special meetings –e.g. city water summit,*

*City assessments to encourage reflection and focus on results in cities,*

*Project meetings provided platform for researchers to link with new cities and other researchers – to further test and develop their products – and take forward future research opportunities.*

*Individual researchers:-*

- built on existing linkages with city stakeholders – to agree problems during the project inception stage,
- moved away from their “comfort zone” – compromised their academic ambitions for the sake of achieving impact in cities,

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## Importance of City Context *Opportunities for Action- Research & Innovation*

### *European Cities –*

- *Regeneration initiatives – with planners and private developers,*
- *Retro-fitting opportunities*
- *Climatic events and risks being given high national priorities*
- *Policies and water governance arrangements more favourable to SWITCH goals,*

### *Cities outside Europe -*

- *Extent of Democratisation – e.g. participatory budgeting,*
- *Rapid urbanisation processes – high demand for water related services*
- *Severe water shortages and competition for water,*
- *Policies and water governance arrangements more favourable to SWITCH goals,*
- *Scope for researchers to play “trusted broker” role – in context of mis-trust between other city stakeholders,*

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## CITY Stakeholders – each facing own challenges

*UTILITY COMPANIES - privatisation & “modernisation” processes -*

*PLANNERS & POLICY MAKERS – political influences, fashions,  
implementing new policies, EU & global agreements*

*LOCAL/METROPOLITAN AUTHORITIES – changes of leadership*

*Developers and Development Initiatives/Projects – credit crunch impact*

*NGOs and Civil Society organisations – funding, legitimacy, social  
inclusion*

*Other city based research and consultancy organisations  
complementary projects - competition, limited incentives to collaborate*

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## Scientist's Background

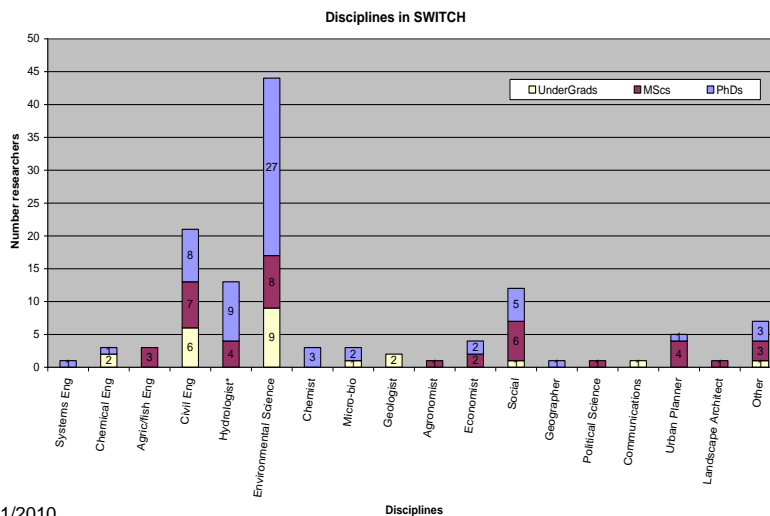
### How Researchers Got involved in SWITCH?

- *Networked in – e.g. invited to project design meetings, - attracted by project design – learning alliances, action-research involving stakeholders, international multi-disciplinary research*
- *Response to funding & career opportunity (Ph D & M Sc) - Impact on age & experience structure – Senior researchers & professors – plus their research students*
- *Roped in by their “bosses” and colleagues,*

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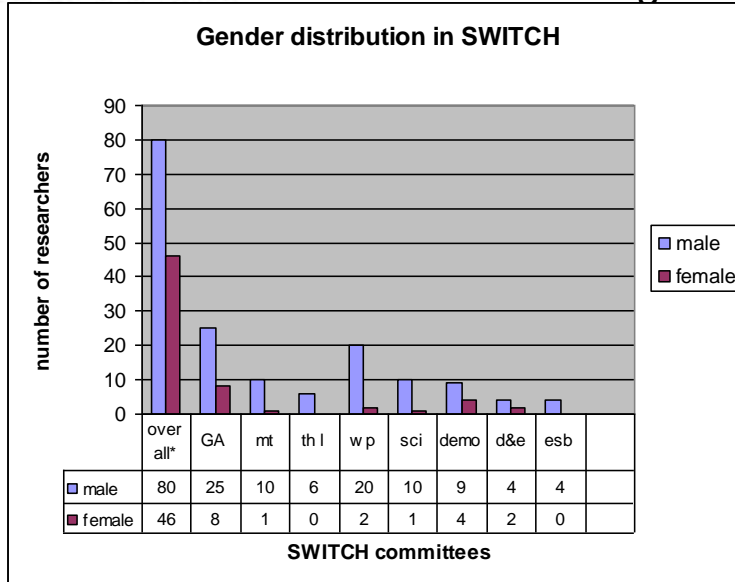
## Scientist's Background



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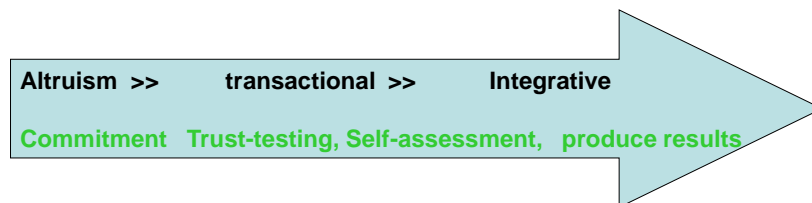
## Scientist's Background



\* results based on response from 17 partners, including most major partners



## Action Research Partnership Process – “Staged Progression”



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## Action-Research – Process Indicators

Deliberate design and implementation process (**or opportunism**),

Selecting “right” partners – “relational risk assessment” (**or bandwagon**)

Partners develop acceptable procedures for operation (**free for all approach**)

Partners grapple with complexity – “social learning” – co-construction of knowledge, (**or stick to disciplinary research doing what you know**)

Persistence, effortful, unusually demanding (“painful?”) (**take easy route stick to the day job**)

Inter-organisational relations fostered (**promote interests of own organisation**)

Levels of engagement increase over time (**disengagement & disenchantment**)

Realignment is ubiquitous and iterative - partners deliberately adjust their roles to sustain momentum (**partner roles don't change**)



## City Stakeholder – Feedback Delft Nov. 2009

### GLASS HALF-EMPTY?

**NEED FOR EVEN DEEPER ENGAGEMENT** -“it would make more difference if we were all engaged more “deeper” - raising awareness about the importance of the topic

**NEED FOR MORE INTEGRATION OF RESEARCH & PRODUCTS** “It seems that researchers are not working together and this fragmented research on specific aspects of water management are not useful for us. There is also lots on the internet, but how to find it? SWITCH should provide integrated solutions and information, not separate books for each work package.

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## City Stakeholder – Feedback Delft Nov. 2009

### GLASS HALF-FULL?

**STRONG CONSENSUS DEVELOPED-** *“There is strong consensus on the goal: Strategic Planning for water and developing indicators. If this succeeds it could benefit everyone, and departments in municipality would be more coordinated and have greater understanding of water management.”*

**GOOD LOCAL & INTERNATIONAL LEARNING OPPORTUNITIES, LOCAL INITIATIVE BIRTHED** *“people come from different backgrounds with their own specialisms. We share ideas and learn new things from one another, not only to benefit yourself but also to benefit the community we are dealing with. For example the urban agriculture discussion in the LA has resulted in the Municipality having a project now to support urban agriculture at the local level. We have the World Water Summit and this has given us that international learning platform - learning from other nationals, new ideas and innovations from other countries*

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