

Exchanging knowledge amongst stakeholders:

**Why do researchers, policymakers and businesses
find it so difficult to collaborate, and what might we
do about it?**

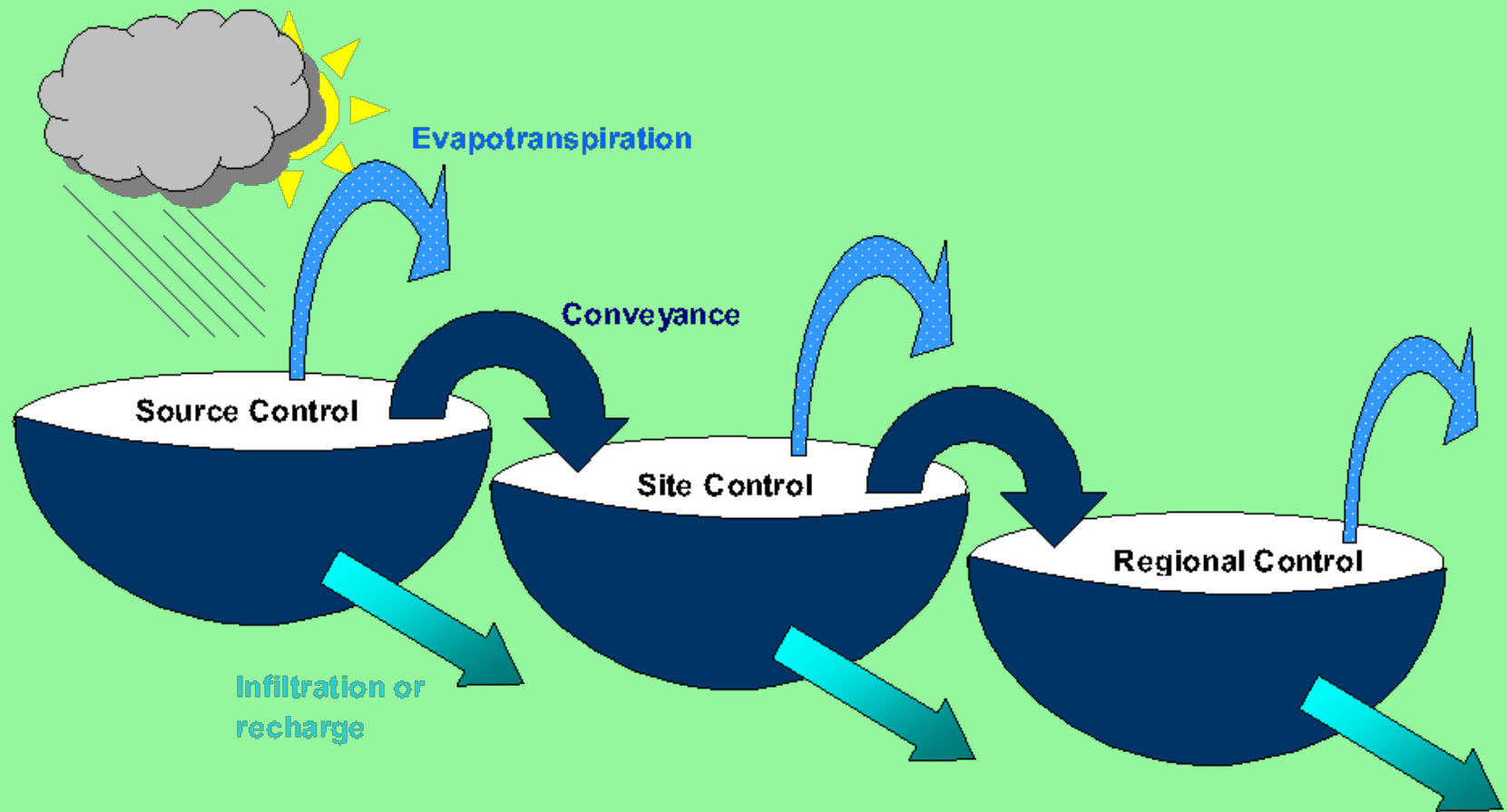
Carolyn Roberts
The Knowledge Transfer Network

National Capital Initiative Dialogue Session on Flooding, British Library,
22nd September 2014

A couple of stories...



The SuDS Management Chain











Danger
Deep water

The story was about...

- **Engineering...**
- **Complexity...**
- **Fear....**
- **Legislation....**
- **Expense....**



The 2007 floods and understanding the limitations of the Environment Agency map





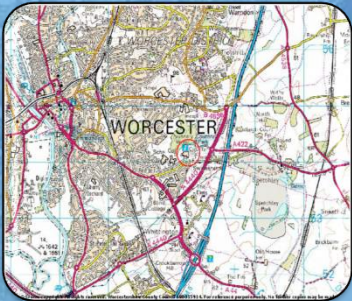
Virtual seminars

Through Second Life, participants take part in a virtual seminar, framed around basic and research-related material and case studies, using personal avatars



Scenario-solving participant-led seminars

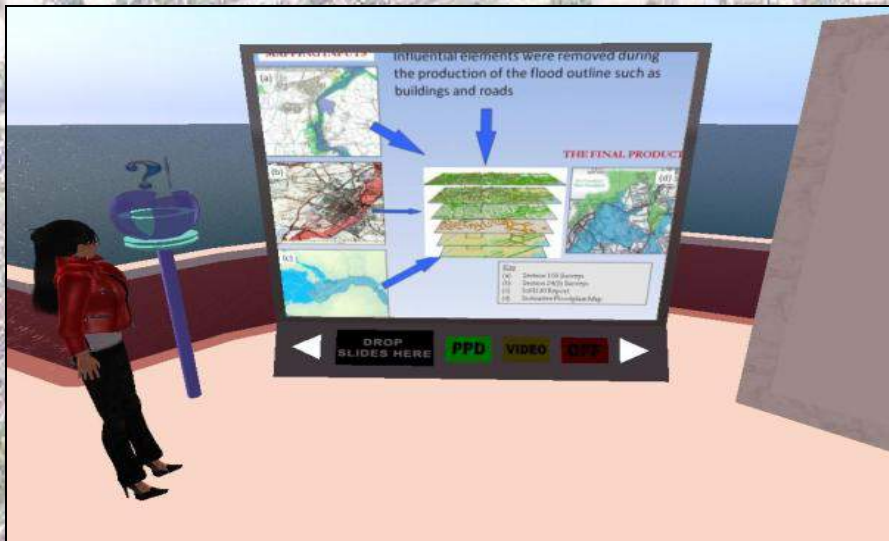
Participants interact, socialise and gain knowledge through case study related role-plays, drawing upon research materials when they see a need



Conventional tutor-led seminars

Basic and research-related material presented to the participants through seminars and participatory activities

SecondLife™ interactions



Evaluation of participants' responses, using semi-quantitative and 'grounded theory' approaches

- **100 pre-workshop questionnaires (24% Councillors)**
- **83 post-workshop questionnaires (20% Councillors)**
- **36 individual pre-workshop interviews**
- **29 individual post-workshop interviews**
- **Five partner focus groups, and three partner interviews**
- **Three facilitator interviews**
- **Observations of workshop sessions**

Perceived impact on knowledge



Participants' self-ratings of sufficiency of flood-related knowledge for professional role: rated from 1=entirely insufficient to 10=entirely sufficient, * denotes statistically significant difference between pre and post-workshop mean scores ($p < 0.05$).

‘Wicked’ problems (Rittel and Webber, 1973)

- **Poorly formulated and complex issues, that may not be fully understood by the decision makers**
- **Physical and human/social dimensions**
- **Many ‘actors’ or stakeholders**
- **Competing value systems**
- **Ambiguous terminology and language**
- **Spatial and temporal interdependency**
- **Lack of clear, agreed solutions**
- **‘Wicked’ planning problems require new, more fluid ways of thinking, sharing of ideas and taking decisions even in the light of uncertainty**
- **Empowered participation is required**



Key influences on attitudes to learning (and understanding)

- Prior knowledge and skills (information, technical, spatial, temporal understanding)
- Motivations, such as job role
- Institutional and legal aspects
- Economic and financial aspects
- Networking aspects
- Individual personal and cultural characteristics
- Procedural aspects of interactions

Procedural Aspects of Interactions

- Choice of content, including local exemplification, and currency
- Integration of ‘expert science’ with basic principles
- Role of specialist *versus* generic delivery teams, and their credibility in various realms
- Role of ‘leaders’ as deliverers or facilitators
- Acceptability of interaction methods – face-to-face is better!
- Availability and navigability of ICT systems

General lessons about communicating

- Work in **partnership** from the start – listen to, and act on, stakeholders' needs
- Use the language of **opportunity**, not fear
- Scientists must provide straightforward, concise and **jargon-free** information
- **Define** terminology and methods used clearly
- Be **clear about the uncertainty and assumptions** embedded in models
- Use **visualisations and animations** of risk and uncertainty

The Knowledge Transfer Network

Enabling Collaboration

Strategic



Connecting people who wouldn't usually meet to solve innovation challenges

Interdisciplinary



Bringing together businesses and researchers from different sectors

Entrepreneurial



Linking people with new ideas and technologies to partners and customers

Commercial



Introducing innovators to public and private funders and investors

Knowledge
Transfer
Network

Innovate UK
Technology Strategy Board



The KTN

Connecting people who accelerate innovation



Independent

a trusted, impartial intermediary, we work with public, private and academic partners

Professional

with extensive commercial experience we understand the needs of business

Knowledgeable

from bioscience to designer fashion, we have deep sector expertise across industry

Connected

businesses, entrepreneurs, innovators, investors: if we don't know, we know someone who does

Knowledge
Transfer
Network

Innovate UK
Technology Strategy Board