



How useful is the Berlin Centre of Competence for Water for the urban management of water supply? A contribution to an inter-organisational analysis in the field of sustainable innovation.

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Introduction

1. Context :
 - In recent decades wave of privatisation in the sector of public services
 - Consequence of the liberalisation process (opening of the markets to foreign investors)
 - Process encouraged by the international bodies (IMF, World Bank, European Union)
 - Goal : lower costs and increased performance in the management

2. The state of the water management in Germany
 - Water utilities (*Stadtwerke*) = public and local
 - Utilities are under control of the towns or community of towns
 - "Municipalities hold "the majority and often the entirety of the shares" (Drouet, 1988: 45)
 - Today : precarious situation of German municipalities = financial crisis
 - Introduction of multinational multi-utilities in the German water sector

Introduction (2)

3. The case of Berlin and the creation of the Berlin Centre of Competence for Water
 - 1999 : Berlin sold 49,9% of its water utility shares (*Berlinerwasserbetrieb*) to a consortium composed of Veolia and RWE.
 - Creation of the Berlin Centre of Competence for Water is issued from one of the agreements made between Veolia and the Senate of Berlin.
 - 2001: Establishment of the Centre composed by Veolia, Berlin Water Utility, Technology Foundation of Berlin and the Technical University of Berlin.
 - Target of the Centre: establishment, receipt and dissemination on the theme of water.

Question

- Goal of this paper: to explore the scope and the limits of a collective action to improve the sustainable management of water.
- How organisations of different types (public/private, local/global and German/French) which try to cooperate toward a common goal, can be successful?
- What are the scope and the limits of such cooperation in the field of sustainable water management ?

Method: documents analysis

- 6 Scientific reports describing the activity of the Centre (issued by it)
- Contents of the reports :
 - 1) editorial and some information about the Centre
 - 2) description of the projects supported by the Centre
 - 3) description of the organisational activity of the Centre
- Goal: - institutionalisation description of the cooperation between the different actors involved directly or indirectly in the Centre
 - Analysis of the projects scope supported by the Centre towards the water management and the different actors.

Method (2): Documents analysis

- Two axis
 1. The cooperation / the partnership
 - identification of the actors: how are they represented
 - What do they do :financial support, contribution to projects
 - Find out the eventual asymmetries between the actors
 2. The knowledge management
 - identification of the different forms of knowledge
 - Identification of the different forms of knowledge transfer
 - Identification of the actors exchanging and creating the knowledge

Method (3): Interviews

- Semi-structured interviews with experts of the water sector belonging to different fields (science, politic, management), and above all with members of the Berlin Centre of Competence for Water, Veolia Water and the Berlin Water Utility.
- Goal : - to collect the perceptions from different actors about the activity of the Centre
 - to shed the light on “cultural” differences of the water management in Germany and in France that could influence the cooperation between the different organisations = “path dependency”
- Understanding approach : to draw a link between the protagonists action, their motivation and the context in which they operate.

Theoretical Framework : What is an organisation and how can it be learned?

1. Difference between institution and organisation
 - Institution : “rules of the game of a society” (North, 1990: 3)
 - Organisations: “groups of individuals bound by some common purpose to achieve objectives” (North, 1990: 5)

2. The concept of organisational learning
 - “generically an organization may be said to learn when it acquires information (knowledge, understanding, know-how, techniques, or practices) of any kind and by whatever means” (Argyris/Schön, 1996: 3)

3. The Nonaka model of organisational learning
 - difference between explicit and implicit knowledge (Nonaka, 1994: 16)
 - Transmission of knowledge : externalization, internalization, socialization, combination

Theoretical framework (2): Definition of a sustainable innovation

1. Innovation = source of economic profit induced by the introduction of a new product or process on the market
2. Innovation has to be analysed as a collective process
 - a long time between the idea and its implementation on the market (= process)
 - Not the product of an isolated actor = strong interactive characteristic
3. A sustainable innovation considers not only the economic profit but also the impact on the nature.
4. Difference between environmental innovation (aimed at reducing the use of environmental services) and sustainable innovation (including the three dimensions of sustainable development).

First results: activity of the Centre

- Three areas of research are defined: information technology in water economics, sustainable management of water resources, technological innovation in the field of wastewater treatment.
- Within these three areas: 30 projects jointly run by the different partners must contribute to the reduction of the costs of the water management and the increase of the quality of drinking water (KWB, 2001: 4)
- Protocol of the Centre: to identify the important points of R&D, to contribute to the transfer of innovation and technology in the field of sustainable water management, to present results of the research, to organise training, workshops and seminars of experts, to create a network with small and medium businesses through the different projects
- Funding: Veolia (50 Millions Euros over 10 Years), the Berlin Water Utility, the European Union, the Federal Environmental Agency.

First results (2): inter-organisational cooperation & knowledge management

1. The Centre as a cooperation between heterogeneous actors
 - Veolia = multinational (global), private, evolving in a traditional French context
 - Berlin Water Utility = local, public, evolving in a traditional German context
 - Two different structures, perception of the water resources and approaches of the water management

2. The Centre as a place of exchange and creation of new knowledge
 - Socialization: application of new technologies and shared work of the employees through the different projects
 - Combination: symposiums, work groups and seminar of experts organised by the Centre
 - Internalization: training, work experiences, PhD scholarships.
 - Externalization: publication (Schriftenreihe Kompetenzzentrum Wasser Berlin)

First results (3): Scope and limits of the Centre

1. The innovation within the Centre: two concrete projects
 - Mobile IT Service Field Operation: ran from 2000 till 2003, Fund of 592000 Euro, introduction of PDA (Personal Digital Assistant) for the field work.
 - Correspond to Socialization and internationalization = passage from tacit and explicit knowledge to tacit knowledge.
 - Gain in efficiency on the field (access to information in real-time/ better coordination)
 - NASRI (Natural and Artificial Systems for Infiltration and Recharge): ran from 2002 till 2005, Fund of 6.8 Millions of Euro, improvement of conditions for reprocessing groundwater.
 - Include 7 partners and give raise to a new project in India

First Results (4): scope and limits of the Centre

2. What benefit from the Centre for the different actors involved in it?
 - City of Berlin: benefit from the know-how of Veolia (Test City), access to international markets, name in the field of water research, benefit of funding.
 - Veolia: gain in legitimacy at the local, national and international scales, can be also considered as an instrument of marketing, dispose of a city test to implement innovations.
 - Benefit from a large network in the field of water management (profit to Veolia at the local scale and to Berlin Water Utility at the global scale)
 - However : dominant position of the global protagonist player excludes the introduction of the local SMEs, private seems to profit of the public (Moss, Von Schlippenbach, 2007: 16)

Conclusion: Further perspectives: to go deeper into the analysis

- At this stage, the project remains mainly descriptive = description of the organisation and its activity
- On the theoretical level: - it is necessary to stress more on the link between the knowledge management and the implementation of innovation
 - stress more on the different paths followed by the organisation to better understand the cooperation but also to be able to identify eventual path breaking and path creation
- On the empirical level: - to conduct more interviews with expert involved directly or not in this organisation.
 - to analyse other documents than the reports of the Centre (from NGOs, Lobbying groups, newspaper)
 - to complete the study with observation made within the Centre, during conferences or seminars

Questions

- How would it be possible to further analyse the different projects ?
- Would it be better to analyse only some projects or all the projects ?
- Is there a better way to get contacts with the managers of the Centre ?
- Is there a way for a social scientist to study such innovations ? It would be perhaps a good way to have an inter-disciplinary approach.
- Is there any other empirical sources possible to analyse this object ?
- How is it possible to study the direct repercussions of this Centre on the environment and on the different actors ?

THANK YOU !!!!!

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