



Using action-research to define public performance: methodological reflections on jointly-produced scientific knowledge in public management

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In France the management of water, an essential public good in which contradictory and diverse stakes are in play, is without doubt one of the most emblematic challenges facing contemporary public management. Firstly, the historic presence of private companies in the management of this public service has, de facto, led to setting up a market driven frame of reference in a sector of activity where technical prowess has sufficed to legitimise the performance of services. Paradoxically, this avant-garde model of "New Public Management", has become, nationally and internationally, the most symptomatic example of the crisis of legitimacy affecting management by the community of public assets, owing to several cases of abuse that have led to adverse public opinion. The shift towards re-regulation begun in the mid-1990s, the reassessment of the role played by politics in the policy-making functions relating to municipal public water services, and renewed interest for municipal water management are all attempts to reforge water public service in France.

One of the major theoretical and managerial challenges invoked by this context for public management is that of evaluating performance, considered as the modern response to the crisis of legitimacy undermining public action. How can performance be defined and measured in hybrid¹ organisations where the difficulty of differentiating public from private constitutes a characteristic feature of the system studied? *In particular, how can the common weal be accounted for in the definition of the performance of municipal public water service which is also marked by this hybrid feature and in which daily management is anchored in technocentric concerns?* This is the issue raised by the action-research carried out in a major urban public water service and that we discuss in this article.

Here, we propose to show how action-research is a method particularly well-suited for research in the field of public management, not only from empirical and theoretical standpoints, but also from a practical one with respect to applying these results for managers. Therefore we ask to what extent action-research is capable of producing both new and valid scientific knowledge while taking an active approach in the situation studied. We shall develop our reflection by focusing in particular on the path taken by the action-research and its effects, leading to the notion of "public performance" in the management of the water service that collaborated in this research.

To achieve this, we start by situating the position of the action-research on the theoretical level and its status in public management, followed by a presentation of our research in the context of the city of Nantes. We then describe the different steps of the action-research protocol implemented and the results obtained from the point of view of the research and that

¹ Organisations sharing the characteristic of being subject to a mix of political (public) authority and that of the market (economic) in varying degrees whose consequence is to make differentiation between public and private difficult.

of the managers of the service. Finally, we conclude with a discussion on the usefulness and validity of this research approach in the production of knowledge in public management.

1. Definition and status of action-research applied to public management

The concept of action-research stems from the field of social psychology and the psychologist Kurt Lewin (1951) is generally agreed to be its instigator. Action-research is defined as a research approach designed to bring about transformation, meaning that it seeks to produce knowledge on a situation of scientific interest *while* contributing to the modification of this situation in agreement with the actors involved (Eden and Huxham, 2001). One may consider that this approach leads to a *double constraint* for the researcher in so far as they must simultaneously conform to scientific requirements while committing themselves to a dynamic of change. The latter cannot be considered as a positive repercussion of the research (if such be the case), rather it is an integral part of the objective sought by the research, whereas the absence of change can be interpreted as a failure of the action-research, whatever the quality of the knowledge produced.

This approach is the main characteristic of action-research. It considerably influences the design of research projects. Since Lewin's initial works, action-research has undergone several changes and improvements, though most authors have the following points in common:

- A negotiated action-research protocol: the priorities of objectives and the research procedure are defined jointly by the researchers and the actors involved and it must satisfy the expectations of both parties (Carrier, 1997; Eden and Huxham, 2001). The actors in the action-research are generally defined as 'partners' or 'participants' in the research rather than as "agents" or "actors".
- Flexible programming: the timetable and steps of the research must be adapted to the demands of the partners. This also implies that the research objectives evolve (regarding both the researchers and the partners in the research) (Trondsen and Sandaunet, 2009).
- Iterative operation: this assumes that the research is conducted "cyclically" via successive going and coming between the researchers and the participants to validate (and/or modify) each of the steps of the project
- The researcher as agent of change: through their involvement in the project, the researcher becomes an active agent of the change desired by the participants (Trondsen and Sandaunet, 2009). They are not limited to producing results that will then be assimilated by the participants.

Beyond these methodological requirements specific to performing A-R, the prerequisite for carrying out such a research project and which contributes to the approach's success is what could be considered as being a "fortunate meeting of circumstances" in which the concerns of public managers (practical questions) coincide with issues of research.

Research works on the topic of public management have different objectives. Many fall within an academic framework relating to the debate on the "scientific" status of public management, highlighting the multidimensional nature of this recent theoretical movement: Gibert (1983); Lynn (1996), Nelissen & De Goede (2003), Hood (2005). Others have taken an analytical and cognitive view of the functioning of public organisations (Laufer & Burlaud,

1980) or else taken a prescriptive stance relating to good practices in public management (Trosa S., 2003, 2007). In line with this, research into public management has produced a large number of studies based on research methods as diverse as opinion polls, quantitative cost analyses, qualitative surveys using interviews, and ethnographic surveys (see Miller and Whicker, 1999 and Partington, 2002). The first work focuses mainly on quantitative methods, whereas the second deals in greater length on different qualitative approaches. Action-research is quite recent and not very developed in French public management. Regarding this, the experiment described here is part of an innovative and pioneering approach, particularly in this context.

2. Presentation of the context, stakes and finalities of the R-A implemented in the Greater Nantes public water service

The Greater Nantes public water service serves 24 municipalities with a global population of 595,000, thus the largest urban conurbation in western France. In Greater Nantes, the water is provided by three operators:

- the public water supply service² (RCE), set up over a century ago, supplies water to 75% of the population and has 251 employees;
- Véolia and Saur, two French private water companies that serve the remaining 25% of the population and whose staff is about 70 employees.

The Nantes Water Board, which is responsible for the overall supervision of both the public and private services, has 47 employees and acts on behalf of the city council. It is the authority responsible for the strategic direction and control of the three operators.

The action-research programme designed jointly at the end of 2005 by our research team³ and the Nantes public water service is rooted in circumstances and stakes that have to be situated in their context in order to better understand the object and the ambition of the project.

a. 2.1. The context

The managerial history of the Nantes public water service is closely linked to the choice made in favour of municipal management. This decision was taken after 50 years of public/private partnerships that came to an end due to a dispute between the city and the private operator of the time, the group now known as Véolia. Consequently, concern with providing proof of the efficiency of the public water management has been constant for both the political and executive hierarchy and for the managers of the service. Initially the stake of performance stems from the issue of public health (to guarantee drinking water standards) and the need for major infrastructures. From the 1990s, in an unsettled national context of unprecedented rises in water prices (Guellec report, 1995)⁴, the City of Nantes set up *the first performance contract in 1995* for the public water service. This original approach heralded the emergence of a managerial function hitherto inexistent between political management and the engineer-manager of the service. *In 1997, the quality tool*, which belongs to the same rationale as the performance contract, was introduced as a new instrument for managing the performance of the public service. Indeed, although the impact of the performance contract on the price of

² The notion of RCE (*régie communautaire de l'eau*) in France describes municipal management that co-exists at national level with management delegated to the private sector.

³ Cemagref is a public research institute involved in applied research in the field of land and water management.

⁴ Guellec, A. (1995). The price of water: from explosion to control? Assemblée Nationale. Information report 2342.

water (3.6% annual increase) did not lead to conflict at local level, the actors felt that one of the channels for justifying this policy was a factor that had previously been left out of the discussion, i.e. the need to take the user into account. The hypothesis that setting up a quality approach was the ideal means of achieving this was therefore formulated. An ISO 9001 type quality management system piloted by a quality team was organised. Although the quality approach has proved to be a globally positive measure on the managerial level (introduction of a culture of participatory management, drafting of targets to be reached, discipline for evaluating performance), it does not permit stepping beyond a technocentric view of performance and tends to reinforce the technical logic in play (Tsanga Tabi, Verdon et al, 2008).

In 2001, two major events marked a new stage in the managerial history of the Nantes public water service:

- the enlargement of the territory covered by the service which increased from 6 to 24 municipalities following the Chevènement law no. 99-586 of 12 July 1999 relating to consolidating and simplifying inter-local authority cooperation,
- mixed management modes that resulted from this enlargement and which brought into play a new category of actor, in particular two private operators.

Public action became more complex and new stakes that were not linked to technical concerns alone emerged. Henceforth the local authority had to define a strategy for the public service for the whole of the new territory, develop expertise on which decision-making could rely, organise mixed management modes and ensure the control of the operators. This new context brought to light new requirements in terms of urban governance. From a political standpoint, the immediate priority was given to unifying the price of the service throughout the territory. The economic result of this political objective (an average increase in the price of water 1% higher than inflation) allowed maintaining financial balance for the key aspects.

In parallel, reflection was started internally to rethink the triangular relationship between the actors, i.e. "elected representatives-operators-users", and explain the rules of operation and the expectations of the stakeholders. The socio-political dimension of public action at work was placed back on the agenda and the role of organising authority in the process of public decision making and takeover of governance was reasserted.

Lastly, it is important to point out that local political stability is also one of the traits characterising the context of the public action studied. In particular, the successive re-elections of the political team in place⁵ favoured the continuity of the managerial project implemented in the service.

It was in this context of emerging new stakes relating to social and economic regulation in public water management in 2006, that the action-research programme was designed jointly between our research team and the management of the water service. This 4 year project only concerned the public operator, RCE.

2.2. The object and the stakes of the action-research

The significant characteristic of the changes occurring in the contemporary background of Nantes water management is the quest for performance in which the approach moves from a public service perceived as a "technical object" to one in which it is perceived as a "system of public action" that incorporates both politics and society. This new dimension given to public

⁵ The incumbent mayor of the city is in his third term of office.

action requires the identification of new stakes to be incorporated in public service management.

The action research programme is fuelled from the outset by three levels of new stakes:

- placing emphasis on the economic performance of the RCE in view to situating the "*fair price for the service*", by introducing the constraint of efficiency in its monopolistic operation. This stake was subjected to an initial cost evaluation mission that applied the activities based costing method (ABC)⁶ ;
- democratising the management of the "technical citadel"⁷ by setting up "*community dialogue*"⁸. This constitutes the second mission of the action-research;
- the organisation of a household water consumption observatory in view to building a knowledge base and performing forward analysis of the population's use of water, which is the aim of the third mission.

Although these stakes express a need to justify and legitimate municipal management in the context of mixed management modes, the ambition and the challenge set by the action-research above all consist in shedding the corset of evaluating performance only on the basis of the technical justification embedded in the traditional model of the "technical citadel" and specific to large urban services. The question raised is that of the added value provided by the RCE as a mode of public management in comparison to the private mode. *On what grounds can performance be defined and evaluated in a general context of crisis of legitimacy by justifying action through the sole criterion of technology?*

2.3. *The finalities of action-research*

Due to its twofold vocation, the finalities of action-research can be identified at two levels :

- *from the operational viewpoint and for the actors in the field*, the aim is to internalise the new stakes of the public water service in its management through new approaches and tools defined by the three missions. The challenge here is to initiate a process of learning how to evaluate performance based on wider managerial dialogue and genuine public debate;
- *from the scientific viewpoint and that of research*, the aim is to propose a conceptual model for analysing and evaluating public services responsible for performing essential tasks for the community, better able to satisfy the new stakes of the society in which these organisations function.

3. **The protocol for carrying out the action-research and stage-setting the issue of "public performance"**

Given the magnitude of the action-research to be carried out on the one hand, and the specialization by discipline underlying the topics dealt with by each mission on the other, the

⁶ Acronym for a method used in Anglo-Saxon countries. The tool in question is currently in the process of integration.

⁷ The image of the "technical citadel" (Tsanga Tabi, 2003) used by us to symbolise the operation of major urban public water services stems from the primacy and weight of technocentric logic in the management of the service.

⁸ This mission was the subject of a PhD thesis on the issue of the modalities of democratisation of a water supply service. The thesis will be defended in the second quarter of 2010.

responsibility and management of the action-research were shared between three researchers of our team. The following items of analysis and reflection are linked only to the first mission dedicated to introducing the criterion of economic performance in managing the public water service and for which we are responsible.

3.1. Presentation of the research protocol and its procedure

The organisation and procedure of the research is based on a protocol inspired by constructivist approaches (in the meaning of K. Lewin, 1951 and Alex Mucchielli, 1991) due to the nature of the phenomena studied. Indeed, the latter are characteristics specific to human actions resulting from perceptions, theories specific to the actors, convictions, and "*local perceptions*" that the researcher observes and attempts to decipher so as to "understand how genuine effects are created at a given moment within an organisation" Atkouf, (1987). Thus how is it possible to concretely go about managing the link between action-research (the interaction between theory and practice) and ensure that the research and the action develop simultaneously ?

The action-research protocol allows the researcher and the actor to understand and explain reality, and conceive the modalities through which they will grasp this reality in view to producing new knowledge useful to decision-makers and transferrable in research. For the researcher, the protocol is above all the means by which they manage the distance that necessarily exists between the researcher and the actor (Desroches, 1981) since, if interaction exists between the research and the action, the roles played by the researcher and the actor are nonetheless dissociated. Although it is negotiated between them, the protocol is also a space in which the exteriority of the researcher is expressed, and which endows them with the relative authority they require when carrying out their analysis. "It is the researcher who takes on the role of interpreting the reality studied and remains in this role in the field and during their analysis. It is they who are responsible for situating the meaning given by the actors to their actions in an ensemble that is complex, reasonably consistent and faithful, by taking into account knowledge available in the scientific community and contributing to updating it", Racine (2007). In particular, it is this position that permits passing from an experience of action to a theoretical position.

The research protocol formulated with the actors in the field to carry out the action-research in the framework of the "costs task" was a cyclic and iterative process based on flexible programming of the different steps and actions to be planned to achieve the objectives defined.

On the operational level, the process relies on seven components:

- setting up the "costs task" management and coordination team made up of managers⁹ and a researcher assisted by post doctoral staff and students;
- the systematic collection of data at different moments of action-research according to different approaches: participant observation, interviews, audio recordings, etc.;
- debriefing sessions and permanent reflexive feedback (researcher-actors in tandem);
- intensive collective debate and discussion about the intermediate results with the employees of the service,
- keeping a logbook to keep track of the research, trace its history and key events, to chronologically record the researcher's conclusions, etc.
- utilising and analysing the different materials collected (textual data analysis),

⁹ In this case the person responsible for long-range planning, and programming and the manager of operations and the water consumption observatory.

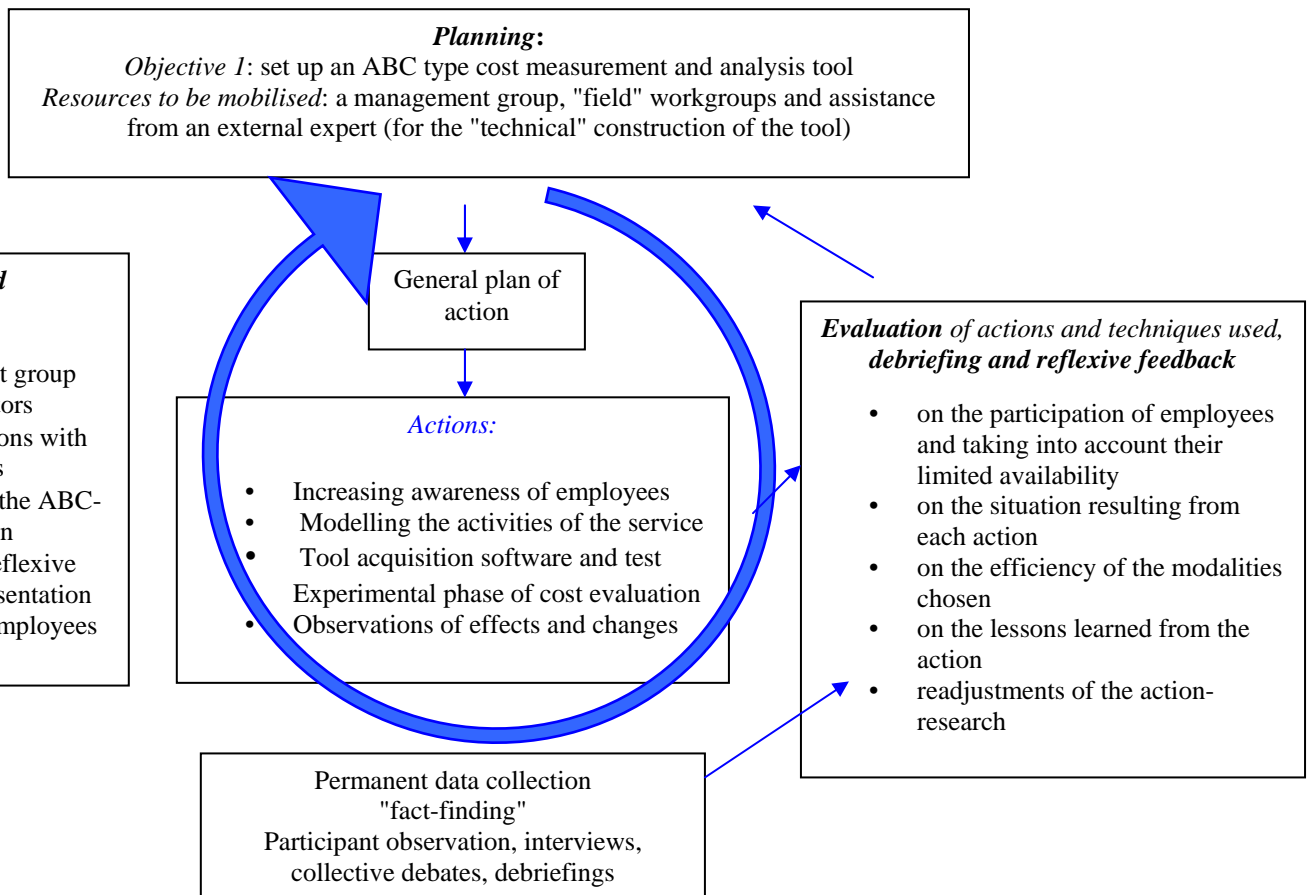
- comparing the results of the research and communicating them to the scientific community.

Sequencing the actions carried out through time is done in 2 cycles.

- The first cycle from 2006 to June 2008 focused on the integration of cost efficiency in the organisation, the construction of the cost measurement tool¹⁰, and understanding the dynamics of change occurring in perceptions of the performance by the actors relating to the new tool and its social impact.
 - The second cycle lasts from July 2008 to the end of 2010 and is focused on taking into account the effects of cycle 1. It gave rise to a "parallel public values task" not programmed initially and a process of reorganising the management of the performance of the service.

The diagram below illustrates the protocol formulated to manage cycle 1 of the action-research on the "costs task";

Diagram 1: Research protocol formulated to implement cycle 1 of the "costs" task



Source: diagram based on the approach proposed by Kurt Lewin

3.2. From the question of the finalities of economic performance to the issue of the "public" performance of the water service

¹⁰ The technical construction of the tool was entrusted to an external partner in the framework of an agreement between the water service and another research organisation.

Initially, although the idea of "public" performance was not raised as such as the finality of the action-research, it emerged as the research progressed and gradually took root in our reflection to finally reveal itself to be not only richer on the conceptual level but more fruitful for the managers of the service.

Indeed, one of the first questions that the employees of the service asked the "ABC" task was that of the finalities of measuring the economic performance of the service. In the context of water management by the local authority, it is understood by all the actors that the quest for efficiency underlying the "cost task" could in no way be assimilated with the goal of profitability present in private water management, even if ensuring the public interest must integrate economic rationality which demands that costs are covered by the price paid by the user. However, for a number of reasons linked to the context of water management i.e. local monopoly, lack of democratic management, absence of explanation of objectives from the politicians, and the reluctance of private operators to furnish their financial data, the economic status enjoyed by the services in which their current industrial image is rooted is not accompanied by an evaluation or a debate on this economic performance. Certainly, the introduction of a tool that analyses this new dimension of performance (economic performance) stirred strong expectations from senior management : knowledge of the costs of the service represent a stake given increased demands for justifying the price of the service provided¹¹. For yet others, measuring the cost of the water service at last provided a means of comparison with the private operators active in Greater Nantes¹². These expectations contributed moreover to a context propitious for launching the project. For all that, the awareness by the actors of all the implications relating to the deployment of the new tool appeared to have little relation to the effects observed in the organisation.

Very quickly the collective work sessions carried out with the employees of the service to model the map of its activities according to the ABC method focused on the value produced by the activities in question, leading to an internal discussion on the organisation's identity and reason for being. What is more, the absence of political direction and strategic goal relating to this new quest for performance triggered concern from some of the employees who interpreted it as a disguised method of bringing the public water service into competition with the private companies in view to delegating the water service to the latter. Lastly, the introduction of the ABC tool configured according to the activities based approach in the same way as the existing quality tool entered into conflict with the model already in existence, which resulted from the quality approach. These questions and the concern expressed by the employees in the field led the group coordinating the action-research to set up an ad-hoc think tank¹³ composed of the action-research coordination group and middle management to both "reassure" the employees and consider the different "values" produced within and specific to the water service. This collective interrogation on the specific characteristics of the performance of the water service converged with the Anglo-Saxon concept of "public value" discovered at a symposium organised in 2007 at Florence by the Institute of Public Management on the theme of new figures and frontiers of the public sector. It therefore seemed increasingly obvious for both our research and the managers that the classical

¹¹ Only recently (2006, 2007) a national association of consumers -UFC Que Choisir- published a report on the price and cost of water, leading to unprecedented and heated debate among local authorities, private and public operators.

¹² Measuring the performance of private and public operators has shown that they achieve comparable technical results owing to the service charter that ensures uniformity of the service rendered throughout the territory covered by Greater Nantes.

¹³ A group given the title "global performance management" which aimed for a wider approach to the question of performance.

evaluation of performance via the criterion of performance linked to that of efficiency, or crossed with another criterion (social, environmental) highlighted in the ad-hoc group, did not allow grasping the full "value" produced within the water service.

3.3. The "performance and public values" task

Theoretically, reflection on public value began in 1974 (D. A. Dillman & J. A. Christenson), but it was not until the 1990s that the notion was to spread beyond academic circles with the work of the Harvard political scientist, Mark Moore. His works (1995) focusing on the creation of public value and the strategic management of public organisations obtained only a limited reaction, which, paradoxically, was stronger from the business world than from that of public management.

Moore's works were rediscovered at the beginning of the 2000s, and were developed by the British academics and think-tanks close to Tony Blair's government and the concept of public value was to form one of the keystones of New Labour's policy underlying the renewal of public services during its second tenure. The concept was to spread throughout every level of the public administrations and establishments in Britain as the guiding principle of the evaluation of public action, and it was also taken up and applied in other Anglo-Saxon countries such as Australia and New Zealand. In these countries in which economic liberalism holds sway, taking into account public value and its creation were presented as the principles justifying public action in opposition to market mechanisms.

This renewal of interest begun in 2000 has led to the development of more conceptual works such as those of B. Bozeman that seek to establish public value as a new frame of reference for public performance in reaction to the theory of New Public Management.

In France, there is practically no reference in the literature to this concept and only a few French-speaking countries such as Canada have started to take an interest in it.

Moore developed the notion of public value on the basis of accounts written by student managers in vocational training at Harvard. When listening to his students, Moore realised that they sought or proposed resources to improve the results of their activity. This was followed by reflection on what allows considering whether a public manager does a good job and improves the results of his or her activity. Taking as starting point the private company, in which the success of managers is evaluated as a function of their capacity to generate profits, thus producing (private) value for shareholders (in the form of dividends and/or increased share value, measurable in terms of money), Moore then proposed that the equivalent of private value in the public sector is public value, considered as all the benefits that the activities performed by the managers of the public service permit producing for society (Moore, 1995). The questions that immediately come to mind after such a premise are: What can be considered as a benefit for society and above all how can it be measured? According to Moore, to produce public value, the manager has to take into account the context that authorises their actions (instructions from elected representatives, legal framework, public will), the capacity of their organisation to respond to these expectations (resources, motivation of the personnel, etc.) and the transposition of these aspirations and capacities into realisable goals.

Bozeman introduced the notion of public value to counterbalance that of economic performance, in order to develop an alternative to approaches in terms of market failure traditionally used to justify government/public intervention in areas of political action. For Bozeman:

"a society's 'public values' are those providing normative consensus about (1) the rights, benefits, and prerogatives to which citizens should (and should not) be entitled); (2) the obligations of citizens to society, the state and one another; (3) and the principles on which governments and policies should be based." (Bozeman, 2007).

In this approach it is the way in which public action fulfils public values that permits justifying the success or failure of a public policy. The central point advanced by Bozeman in favour of public action is that it permits justifying government intervention without market failure occurring beforehand.

These reflections on public values have provided paths for researchers and partners in action-research that permit them to consider the evaluation of public performance. Consequently, they set up a project devoted to this theme at the end of 2008. It began by exploring the literature (almost exclusively Anglo-Saxon) on the subject and discussion with research partners on the possible importation and operational implementation in the context of the Nantes water service.

4. The first findings and main inputs of the action -research

Sequencing the path taken by the action-research (cycles 1 and 2) constituted what we consider, with hindsight, to be the most interesting angle of analysis for interpreting the observations performed throughout the procedure. Indeed, giving meaning to the observations recorded in our logbook was done progressively according to an iterative rationale of construction-deconstruction-reconstruction of the frameworks used to analyse the changes observed and their dynamics, and related to the hypotheses and postulates of the research tested in the action-research (ontological framework of the action-research). Thus, although the notion of "cycles" was not a characteristic identified as such at the start of the action-research programme, we felt that the reality of this notion was perceptible and interesting to consider in the middle of the action-research project. Today it appears obvious to us that the results we are now in the process of obtaining stem from a process related to time. The first cycle of the action-research consisted in introducing the different innovative management actions into the organisation. It was also the moment for "tracking down patterns" (Mintzberg, 1979) done by us in our specific role as "participant observers". For the managers, it was the moment for confronting the action-research with their daily management and the moment for them to become aware of its effects. Cycle 1 appeared to be a part of the knowledge building process, when "moments of truth" become visible as the new dynamic for change is generated in parallel with the analysis of interactions between the research and the action. Cycle 2 entails taking into account and turning into action the items of knowledge resulting from cycle 1. The task relating to public values, for example, emerged from cycle 1. In parallel, for the researcher, it is the post-field analysis phase that permits seeing things with the distance provided by the long process involved with the action-research. It is also that of formalising the new knowledge produced by contact with reality in the field.

4.1. From renewed understanding of the stakes of performance to a new model of piloting and evaluating performance

Two types of input linked to cycles 1 and 2 respectively of the A-R, stand out clearly **for the actors in the field**:

- *The first input is situated on the cognitive level* and raises the subject of the new knowledge resulting from the confrontation and interference of the action-research with daily management.
- *The second intervenes on the organisational and managerial level.* It concerns the change in the position of management tools in the organisation and the change in the behaviours of some of the actors. These changes in behaviour that have affected the methods used to measure and manage performance have been observed for at least a year.

4.1.1. Renewed understanding of the stakes and malfunctioning of the organisation and new perception of the performance of the service

The action-research has interrupted the "steady hum" of the technical citadel characterised by the "reign of means as opposed to the issues of the finalities and meanings of public action" (extract from the interview with the financial and planning manager). In the context of the "technical citadel" where technical prowess has so far been sufficient to legitimise the performance of the service, opening the "ABC task" spurred a new type of question : *how can the performance of the public service be situated in the new context of mixed management subject to the new rationality of efficiency?* In particular what objectives of economic performance should be assigned to this quest for performance given the vocation of the water service which, although it does not escape the requirement of economic rationality, nonetheless does not make it a finality¹⁴.

There were no immediate answers to these questions. They emerge from a new and unscheduled event resulting from the unplanned confrontation between the new ABC tool and the method already in existence for measuring performance: the quality approach. This confrontation which was to become a "conflict" between tools, and also between the action-research management group and the quality team, originates from the existence of a denominator common to both tools: the notion of activities. Indeed, since modelling the organisation of the service underlying the construction of the ABC tool is based, like the quality tool, on the definition of the service's key activities and their grouping into processes, it was necessary to decide on the model to be privileged? The stake behind this decision was to open, or leave closed, the door to a genuine outlook for change. The question of creating consistency between the two tools was asked to the employees from the outset. An internal debate then followed between the employees, the quality team and the action-research management group on the respective finalities of the two tools with the aim of investigating the **usefulness and meaning given to public action in the framework of the two approaches.**

a) The conflict between the ABC and Quality methods

The trial of strength that arose from the conflict between the tools was removed by setting up reflection groups that bring together different levels of senior and operational management. The broad consensus achieved in the service regarding the soundness of collective discussion benefited from a new and unplanned element: the results of the certification audit of the 2008 quality approach which criticised the emphasis placed on the performance of operational management and the absence of links with strategic management. This calling into question of the quality approach acted as a catalyst that gave the employees the freedom to speak about the malfunctioning experienced with the quality approach and triggered greater sensitivity

¹⁴ Contrary to the private operators active in the area of the water service.

from the quality team. The fatigue and "solitude" of the process managers linked to the absence of managerial responsibility, the drift towards procedural conformity to the detriment of meaning given to the action carried out, and the priority given to operational activity¹⁵ that emerged from this internal evaluation, contributed to the salutary resetting in perspective of a performance measurement system fossilised in the mould of technique. Finally, the "ABC" model was chosen.

b) The quest for a new justification of performance

This collective awareness was to favour the action-research that henceforth played the role of a mirror in which the conceptions of performance present were reflected. Highlighting the "lack of strategic management" of the technical citadel resulting from the absence of political directives found its place on the agenda of discussions and the question of the strategic finalities of the public water service and their legitimacy was to take on new importance. The backdrop was set by the organisation in parallel of the "participatory democracy" mission managed in the form of deliberative community forum in view to proposing the modalities of governance of the water service that involve the citizen. This created a new space of dialogue between the actors in water with the challenge of expressing the contemporary stakes that could be used to forge a new frame of reference for evaluating the performance of the public water service.

4.1.2. A new frame of reference for perceiving the organisation and a redefinition of the model of managing and evaluating performance

Finally, the decision to choose the ABC model as the simplified representation of the activities and processes of the water service led to updating the initial map which changed from 40 processes to 8 by reducing the 14 management processes to a single process and the 26 operational processes to 7. For the actors, the main advantage of this new model built collectively resides in its non hierarchical character and in its cross-disciplinarity whose aim is to put an end to compartmentalised expertise within the service and set up strong cross-disciplinary teams.

This new frame of reference for perceiving the organisation sets the stage for three new requirements:

- The need to harmonise all the management tools of the service in view to managing global performance,
- Setting up a new system of coordinating performance management,
- In parallel, the stake of strategic decision-making and the new priority given to the strategic finalities raise the need for a new frame of reference for evaluating performance.

a) Harmonising the service's management tools

This requirement that stems from the confrontation between the "ABC" and "Quality" tools is widened to all the service's management tools, in particular:

- the "safety" tool set up to improve employees' working conditions and ensure their protection while taking into account the safety of the infrastructures,

¹⁵ Although the initial objective of the quality approach was to measure the user's satisfaction, ignored by the technical citadel, the performance measurement that results from it does not diverge from the basic operational stakes of water production.

- the environmental approach being implemented and which aims at evaluating the environmental impacts related to the activities of the water service,
- the programming and budget monitoring tool.

The new map of the service's activities was considered as a criterion for harmonising the performance monitoring and management tools and henceforth provides the common basis for measuring performance in a now global outlook.

b) Implementing a new driving force for coordinating performance management

Beyond the organisational changes described above, one of the most directly visible impacts of the action-research is related to the changes in the behaviours of the actors and their perception of their role in the organisation. The immediate consequence of these changes will be the implementation of a new driving force behind the coordination of performance management.

The modifications of behaviour and conception first affected the managers of the action-research management group most involved in the action-research process. During the 2nd cycle of the action-research, a clear change in the role of these managers¹⁶ in the organisation was to be seen and took on a dimension in which they became "facilitators of change and coordinators" of the new model of performance management. A new grammar of performance management has emerged : freedom, employee empowerment, pertinence of performance indicators, decompartmentalisation, cross-disciplinary management of expertise. Cross-disciplinary management groups aimed at exchanging expertise to provide more coherent management solutions and stimulate reflection on the efficiency of management have been set up.

The quality team was both a stakeholder in the process from the beginning and the body most "disturbed" by the effects of the action-research. It was also the actor with which conciliatory solutions had to be sought permanently in view to achieving through discussion an agreement that brought the parties closer together. Continual debate on the content of the service's performance has now led to it reconsidering its perception of management. This has changed from a function of producing management documents based on assistance given to employees who supply information, to a mission of coordinating feedback in which the managers of processes and employees are free to judge on its utility and pertinence.

Our perception of the change in *middle management and operational employees* is less clear and more partial due to the more occasional observation to which they were subject (participation in field sessions, annual feedback and collective debates). Although there is no doubt that the introduction of the new ABC tool was felt to be an additional constraint to managerial instrumentation, we noted strong mobilisation relating to the issue of the finalities of public service. It appears advisable to hold ex post interviews to hone our analysis.

The senior management and political authority (director of the water service, managing director of municipal services, and the city councillor responsible for water) involved in the strategic management of the action-research displayed strong intellectual interest in the project that they feel is an innovative approach in the area of public water management. For all that, they are obliged to take an ambiguous position because they are unable to take what may be considered as politically unacceptable decisions.

¹⁶ As a matter of interest, the forward planning and programming manager and the operations and water consumption monitoring manager.

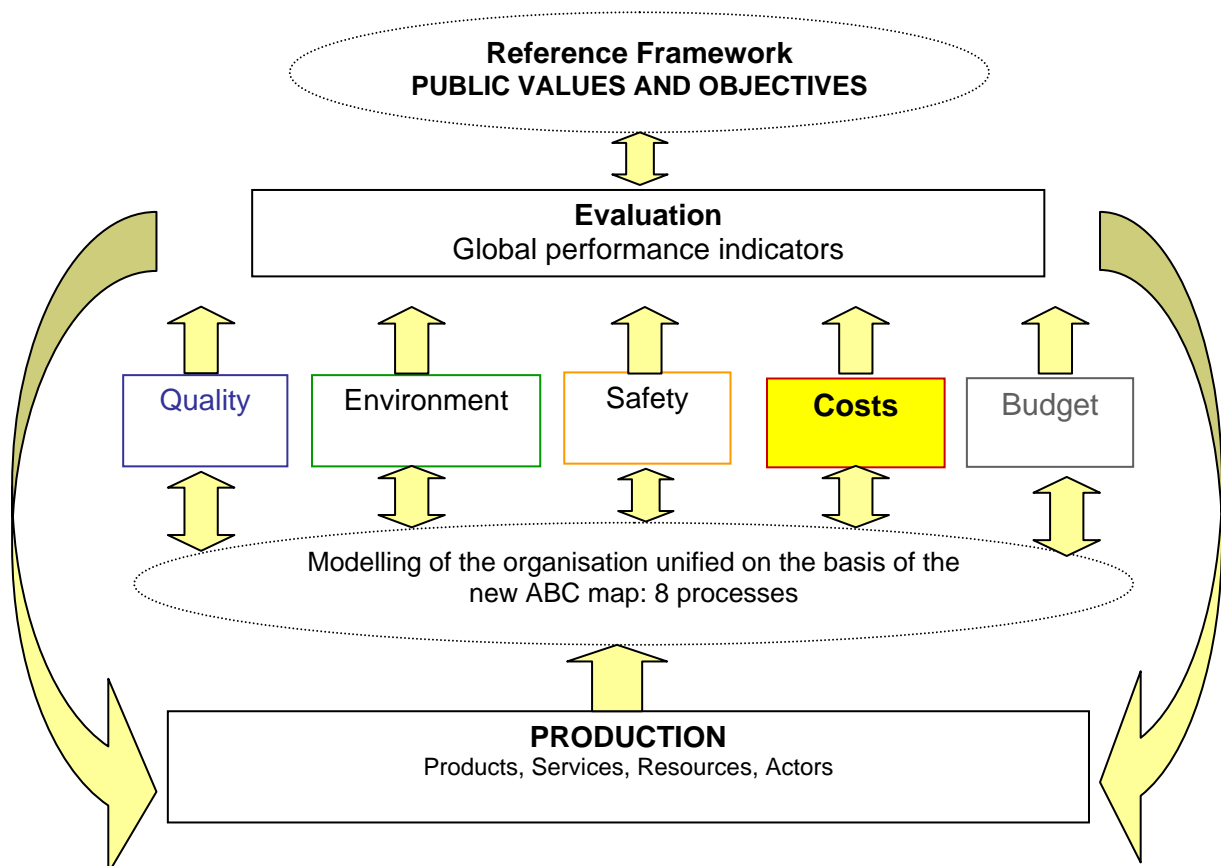
c) *The need for a frame of reference for evaluating the performance of the service: the emergence of the question of "public values" of water*

The response to the new stakes of evaluating performance brings us to the quest for criteria that will be used as the normative scale for evaluating the performance of local public services. The stake related to this is the translation of "value" in the framework of public water management¹⁷.

Indeed, the work on public value is fully derived from the action-research process. It clearly illustrates the unpredictable branches taken by the process in terms of both theoretical reflection and of the work done by the partners in the research. Regarding the latter, the notion of public value allowed them to take their reflection further on the issue of evaluating performance. For both middle-management and the ordinary employees, public value is seen as a concept that allows them to justify and give meaning to public action. It is at political-senior management level that the appears less well perceived for the moment, due to a lack of clarity regarding the evaluation tools to be planned for quantifying the criteria in question, and above all due to the fact that it brings into question the performance objectives currently in use in the organisation (the long-term action plan).

Lastly, the dynamic of change brought about by the A-R results in the following model of performance evaluation :

Diagram 2 : *Reconfiguration of management tools and the new model of performance evaluation*



Source : Authors

¹⁷ Question dealt with at length in part 3 of our contribution.

4.2. The scientific inputs of the A-R: building an empirical and normative model of "public performance"

Although we do not yet have the results of the "public values" task now in progress, there is nonetheless enough material to fuel our reflection relating to public performance on the normative level.

The problematization of the idea of "public performance" has found in the framework of the action-research an empirical basis whose content appears to echo current theoretical reflections in a way that we did not at all expect. Indeed, positioning the question of the justification of performance (by non technical criteria due to the crisis of legitimacy of justification through technique) and its contextualisation (mixed private and public water management and the difficulty of establishing the difference between them), logically led us to question the *specific basis of the performance of the public water service*. The response to this question constitutes the justification of "public performance" and its concretisation, the new criterion for legitimising the continued choice for the direct management of the water service by Greater Nantes.

The "public values" mission was the final missing piece of the puzzle of our problem of evaluating public performance. This mission found a theoretical link in the notion of "public value" (initially developed by Moore) which Bozeman used to back-up the theory of "normative publicness". This theory poses the question of the **nature of public values**, far removed from the economic value to which the private sector refers. Identifying this question, which the author considers as difficult, is nonetheless useful in order to avoid simplistic methods of public/private differentiation.

Furthermore, in an overall context in which the new response to the quest of performance refers to New Public Management, which ignores differences between public and private, our research runs counter to its theses and, on the contrary, defends the idea of the specificity of public services that can be expressed in particular in the framework of public values which requires evaluation.

It should be stated that our position did not result from an ideological bias. It expresses a tangible reality, that of water management, a symbol of an "essential public service" and marked by a number of controversies and a specific debate on "values" difficult to define and objectify on both theoretical and managerial levels. How can the values of public action be expressed at operational level ? This question, which raises that of the formulation of strategic objectives of public action, is most pertinent in reflection on public management.

What is more, we situate our work in line with those on publicness and as a contribution to the question of evaluating public action. The aim of this research is to empirically identify public values and make them visible for the public manager in a context (the technical citadel) that is at first view a difficult task (Bozeman, 2003). Indeed, the specialised literature on this question has remained "normative" and very little attempts have been done **to illustrate** the concept of public values. Although the issue of public values has been dealt with in the specialised literature (Jorgensen, 1997), Van Wart, (1998), (Jorgensen & Bozeman, 2002), on the contrary, almost none of these works have really identified the public values specific to each category of actor and aggregated them due to their sheer number and the difficulty of measuring and conceptualising them (Bozeman, 2007). From this point of view, our research

(the qualitative survey is in progress and a statistic survey is planned), is groundbreaking and original, at least in France, where no work on the subject has been carried out¹⁸.

The specific added-value provided by the stance of actor-researcher resides in a situation of privileged immersion and observation that permits identification, being aware of the strategies and logics of the actors involved and trying to understand the managerial and political reality of managing a given organisation. This position contributed to the robustness of the empirical and theoretical hypotheses of our research.

Lastly, our research describes an attempt to take policy into account in public management whose position is viewed by specialists as ambiguous due to the political rationales present and inherent to its role (Gibert, 1983). Since public values belong to a collective construct emanating from all the stakeholders of the service, they are a means of combining managerial efficiency, in no way lacking in the service studied here, with the legitimacy expected by the users and sought by politicians.

5. Conclusions and discussions

To the question posed at the beginning of our article "*to what extent does action-research allow producing new and valid scientific knowledge while acting on the concrete situation under study?*", we feel that it is possible at the end of our argumentation to answer that the action-research experiment presented here has permitted defining and producing a model for evaluating "public performance" (cf. diagram 2) on the basis of this research conducted in the field.

This structure of this model of "public" performance evaluation consists of 5 main elements:

- The base of the model comprises a representation of the organisation (key activities and processes of the occupations in the service) resulting in a negotiated collective construct forming the common basis and the factor harmonising the different management tools;
- The performance management and measurement tools reconsidered not from the angle of how they are used and the resulting managerial instrumentation but from that of their evaluative usefulness and their social added-value in the organisation (the meaning given to the action);
- The actors integrated in an impetus for change characterised by a process of self-criticism that is reflexive and open to new reasoning and "*new values*" (Lévin, 1951);
- A pool of performance indicators resulting from the transformation of public values into strategic objects and fuelled by the different management tools;
- At the top of the model, a frame of reference based on public values, built collectively and legitimised at political level.

From this construction we establish the position according to which ***the "public" basis sought in the evaluation of the performance of public services can be found in the link forged between the strategic and operational management of these organisations and public values, considered as a collective construction bringing together all the stakeholders in the management of the service and highlighting stable values, provisions and perceptions widely shared in society.***

¹⁸ The only works found up to now in the French-speaking world have been carried out in the framework of a PhD thesis in Canada

This model of "public performance" is particularly adapted to contexts such as the management of essential public goods marked by the primacy of technical rationales and by the absence of consensus relating to the definition of performance, the lack of democratic management and the weakness of political and social regulation.

Before starting a discussion on the scientific validity of these findings, which basically questions the status of knowledge produced by action-research, we feel it useful to situate the novel nature of our model.

Firstly, this model is novel due to the approach that inspires it. It draws from the practical dimension of action subjected to a type of critical appraisal and from dynamic contact with new concepts for the organisation studied (activities, cost-performance, evaluation, public values). Secondly, it is novel because it aims, through the implementation of a qualitative approach, at understanding "the common weal" in the hybrid and problematic context of public service organisation. Indeed, it is accepted that the interpretation of the common weal poses a problem for politicians, managers and users alike.

The approach implemented to identify public values in water specific to each category of stakeholder combines a number of approaches ranging from immersion in a service during which interviews with members of the personnel (technicians, administrative personnel, middle management, senior management, etc.) were conducted, to setting up focus groups representing each category of the actors¹⁹ in which the researchers attempt to get the members to express themselves on public values (and begin ranking them). The first examinations of this phase are in progress and allow stating that the basic aim of supplying quality water at an acceptable cost, the issues of proximity with users, the accessibility of the service and the working conditions of the service's employees were expressed vigorously. This phase of the qualitative survey will be followed by a survey questionnaire given to a sample of the population of Greater Nantes during the second semester of 2010, in order to structure and rank the public values identified. It is therefore here that the novelty of our model for analysing public performance resides, creating a link between public management and public values.

Let us now return to the scientific validity of the data produced and which raises the question of the degree of reproducibility of the research method and the generalisation of the results.

In order to answer this question, it is first necessary to situate the nature of the approach used. The research conducted is qualitative and constructivist, meaning that the applicable procedures of scientific validation cannot be implemented from a positivist viewpoint (Carrier, 1997, Mucchielli, 2007).

Generally, action-research *methodology* is not linear, rather it is iterative, recursive, cyclic, and systemic. Its validity resides in the confrontation of hypotheses with real facts and the evaluations of the actors. This validity is built gradually as the research proceeds. Before returning to the theoretical hypotheses tested, a flexible approach was defined to order the data collected and achieve the final construction of the "model". It is assumed that a priori knowledge relating to the phenomena studied is ignored temporarily during the interpretation, a method known in phenomenology as "epoché", though the analysis continues to rely on induction (Mucchielli, 2007). Also, this methodology is not reproducible in the meaning

¹⁹ 4 focus groups were formed: a focus group with the employees of the water service, a second focus group formed by the employees of one of the private companies, a third group composed of users and a fourth group composed of different actors from the senior and political management.

understood by experimental sciences. However, there are techniques and principles specific to action-research²⁰ with which conformity is a criterion for validating the method (from the formulation-construction of the problem to the definition and sequencing of the protocol and to the analysis and interpretation).

Regarding the question as to whether the results are generalisable or not, it is important to underline that by definition, action-research belongs to a highly contextualised approach performed with partners situated in an ensemble of social relations on which the research must act and from which it is not possible to determine the result beforehand. Therefore a general theory cannot be built on the basis of an action-research project.

Nonetheless, as has been shown by a large number of philosophical and anthropological works, generalisation does not permit defining the scientific or non scientific nature of a position (in natural, human or social sciences). According to the philosopher Isabelle Stengers, a theory is not a formula or even a guide to interpretation that can be applied to any project in any place and at any time. Neither is it a "general point of view making it possible to situate [an] action" (Stengers, 2006: 122). A "theory" must permit an abstraction in view to carrying out an action, since an abstraction is a "*shared idea*" capable of "*resisting time and space, and producing renewed pertinence in circumstances yet to come*" (Stengers, 1997: 39). Understood in this sense, the aim of an action-research project is not to produce general proposals, but to produce generic ones, that is to say proposals with a creative dimension capable of driving the actors to act in a new and pertinent way as a function of the problems they encounter (Stengers, 2006).

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²⁰ Much literature exists on this subject (Mintzberg 1979, Levin 1951, Mucchielli 1991, 2007, Liu 1997, etc).

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