

ADERESA 1st benchmarking meeting

Buenos Aires 20 – 21 May 2004

**ADERASA benchmarking initiative
Final working document**

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Malmö, Sweden 31 July 2004

Introduction

Background

ADERASA – the Association of Latin American Regulators – arranged their first benchmarking meeting in Buenos Aires on 20 – 21 May 2004. The purpose with the meeting was to set up the strategy for benchmarking within the group, to discuss the indicators to be adopted and to agree on the working methodology.

Attendees at the meeting were members of the ADERASA benchmarking task force, representing all Latin American water and wastewater regulators. Invited to the meeting were also some international experts from other benchmarking initiatives around the world. The group of international experts represented among others the World Bank, IWA, ISO, IBNET and the Scandinavian 6-cities group. The experts were participating in order to share their experiences of benchmarking and to inspire the future activities of ADERASA.

The ADERASA benchmarking meeting in Buenos Aires was financed partially by the World Bank, partially by ADERASA.

Mission of the invited expert from the Scandinavian 6-cities group

The mission of the invited expert from the Scandinavian 6-cities group, Dr Peter Stahre, can be summarised as follows:

1. Participation in ADERASA's benchmarking meeting on May 20 – 21, 2004 in Buenos Aires, Argentina
2. Report, summarizing the benchmarking experiences of the Scandinavian 6-cities group
3. Brief report including recommendations for the ADERASA's benchmarking task force
4. Power Point presentation on the experiences and working methodology of the 6-cities group
5. A summary working document on working methodology for ADERASA benchmarking task force

Item 2 and 4 above was delivered before the benchmarking meeting and was included in the documentation from the meeting. Item 3 and 5 regarding impressions of the ADERASA benchmarking initiative and recommendations for the future work in the group is summarised in this final working document. A short summary of the Scandinavian 6-cities group's experiences of performance benchmarking is also included in this document.

Short summary of the 6-cities group's experiences of performance benchmarking

The Scandinavian 6-cities group

The Scandinavian 6-cities group consists of Copenhagen, Gothenburg, Helsinki, Malmo, Oslo and Stockholm – cities in the range of 266 000 – 845 000 inhabitants. In all six cities the water and wastewater services are in public domain.

The co-operation in the 6-cities group started already in the late 1970's. In the middle of the 1980's the focus of the co-operation gradually changed from design and construction to operation and maintenance. During the intense debate about privatisation of water utilities in Scandinavia in the beginning of the 1990's, it became obvious that the utility companies to great extent were lacking hard facts about the efficiency of their businesses. As a result the managing directors in the six cities took the decision to develop and implement a benchmarking system for a more systematic evaluation of their utilities.

Performance benchmarking in the 6-cities group

In 1995 the 6-cities group started the development of a performance benchmarking system, intended for comparisons of the water and wastewater services within the group. The development was lead by a performance indicator group (PI-group) with representation from each of the six cities.

As a base for the performance benchmarking, an extensive set of performance indicators was identified. The indicators are used to describe the characteristics and the performance of individual features of the systems. Well defined performance indicators is a prerequisite for making consistent system comparisons.

With the help of performance indicators, comparisons and evaluations of system performance can be conducted. It must be emphasised here that the numeric value of an individual indicator is not enough for evaluating the system performance. Performance benchmarking can be carried out with different degrees of sophistication and complexity, see *figure 1*.

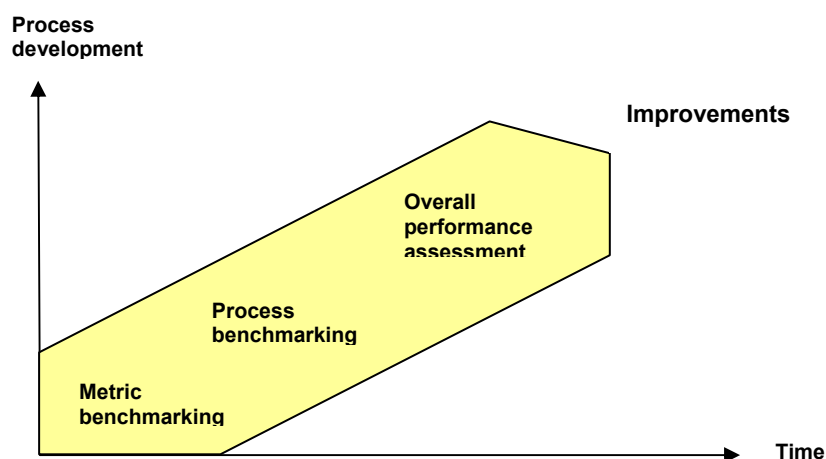


Figure 1. Overview of the different levels of performance benchmarking applied in the Scandinavian 6-cities group.

Metric benchmarking

Metric benchmarking is a quantitative comparative analysis that enables a utility company to follow the performance of their system over time and to compare this performance against the performance of other companies. Areas of good performance as well as areas where there is a need for improvements can be identified. The most important function of metric benchmarking is to focus on how quality, environmental efforts and costs are developing over time. This is the first step to describe in what direction the utility is going.

The 6-cities group started with a set of 197 basic data for the metric benchmarking. After 4 years the amount of basic data was reduced to 109. This was a result of a review of the performance benchmarking system, which was carried out within the group.

The yearly metric benchmarking activities in the 6-cities group follow well established routines. The applied working model is schematically illustrated in *figure 2*. Some special features of the metric benchmarking will be commented very briefly below.

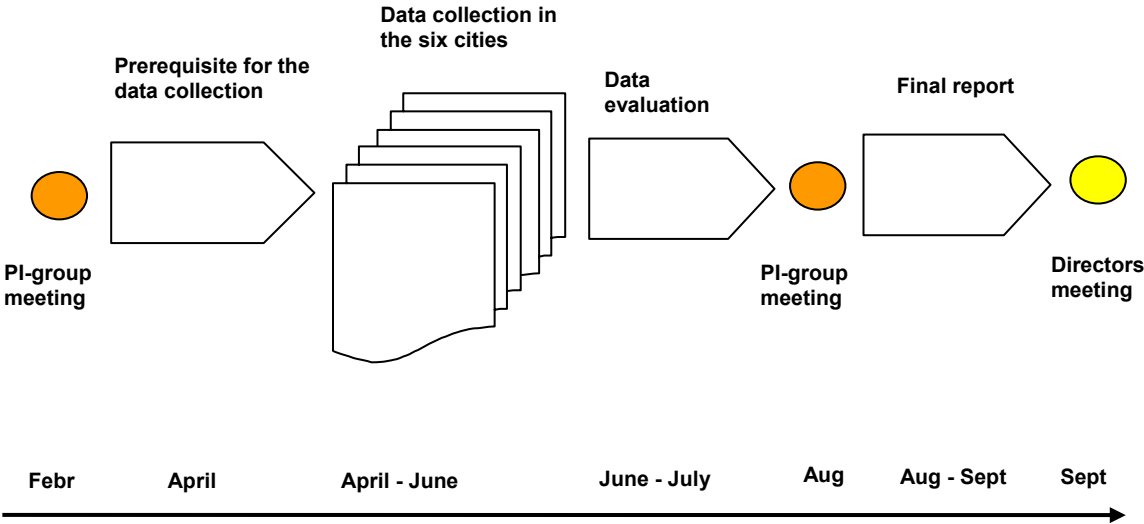


Figure 2. Working model for metric benchmarking in the 6-cities group

To be able to compare cities that “import” drinking water or “export” wastewater for treatment in another city, “net costs” are calculated. The income that the city gets from the sale of drinking water to, or the treatment of wastewater from other municipalities reduces the corresponding costs. Other incomes from activities that have created operation and maintenance costs for the utility are deducted from the total costs. By this method the “net costs” for serving the inhabitants within the boundaries of the city are calculated.

The differences in the way different construction projects are financed in the six cities have made it necessary to establish specific rules for how to handle these costs. For example the costs for pipe network improvements and renewal must be separated from the costs for operation and maintenance.

The results from the metric benchmarking in the 6-cities group is summarised in internal annual PI-reports. The PI-group is responsible for working out these reports. The PI-report includes all collected basic data and all calculated performance indicators. It also includes

time series illustrating the development of selected indicators over a 5-years period. The manual for data collection is also included in the PI-report.

Process benchmarking

Process benchmarking focuses selected processes in the business and not the business as a whole. The goal with process benchmarking is to improve the processes and to increase the efficiency by “learning from others”. Process benchmarking includes comparisons and evaluations of goals, best practices, working routines etc, as well as basic data and performance indicators for the selected processes. The use of process charts has proved to be most helpful in the process benchmarking. The applied working model is schematically illustrated in *figure 3*.

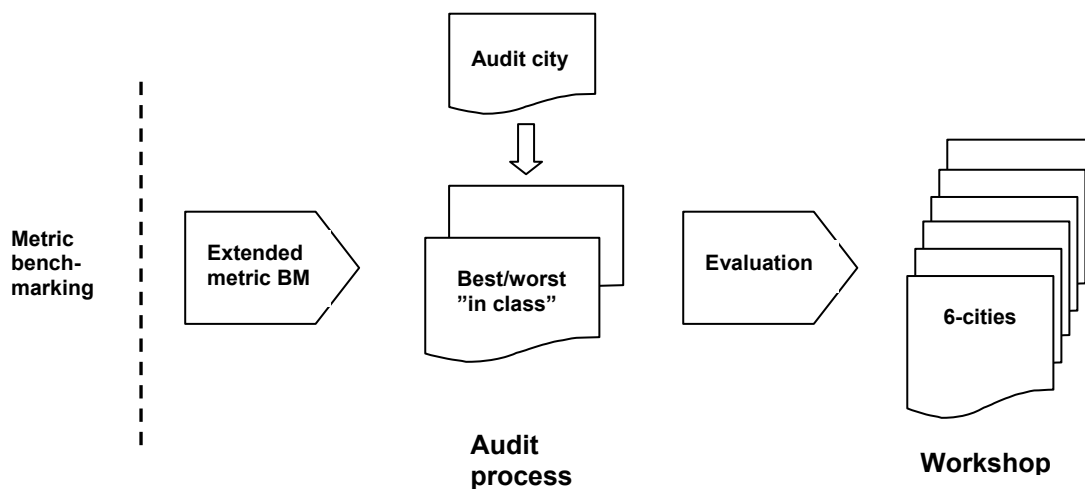


Figure 3. Working model for process benchmarking in the 6-cities group

Process benchmarking based on performance indicators was introduced in the 6-cities group around 2001. Important goals were to clarify in depth how performance indicators should be interpreted when comparing the different cities and to identify the significance of relevant explanation factors. The following four process benchmarking projects focusing network operation and maintenance have been initiated:

- Water losses
- Service interruptions in delivery of drinking water
- Sewer blockages
- Rehabilitation of pipe networks

The approach used for each of these studies involves an extended metric benchmarking, an audit process, an evaluation of best practices and a concluding workshop. Typically two cities are selected for a more thorough analysis. Normally the “best” and the “worst” in the 6-cities group are compared. One of the other four cities is acting as the auditor. An extended metric benchmarking is forming the base for the audit process. The audit city is evaluating goals, processes, working routines etc in the two selected cities. The outcome of the audit process is documented in an audit report. This is discussed at a workshop at which representatives from all six cities take active part.

Besides getting a better understanding of relevant explanation factors the process benchmarking projects also highlight examples of good performance.

Overall performance assessment

The goal with an overall performance assessment is to rate the overall efficiency of the utility company in quantifiable terms. To be able to assess the performance it is necessary to make an integrated analysis of a variety of factors. The relationships between these often form a very complex puzzle. In performance assessment, indicators are used together with other type of information (system characteristics, environmental factors etc).

Assessing the overall performance of a utility company is not just a question of comparing costs. It is basically a matter of finding a balance between costs on one hand and quality of delivered services (customer service, environmental quality, drinking water quality) on the other.

In Scandinavia – like in many other countries – there is a debate whether private operators can run the water and wastewater utilities more efficiently than public operators. This is an area where the assessment of the overall performance of the utility operator can be applied. The 6-cities group has recently carried out a survey of international best practices for overall performance assessment of water and wastewater services. This conducted study will form the base for developing a practical model for performance assessment. This is an extremely complex task that cannot be easily solved.

Lessons learnt about performance benchmarking in the 6-cities group

Systematic performance benchmarking has been carried out in the 6-cities group since the mid 1990-ies. Despite of country boundaries, different languages and different currencies it has been possible to compare the results. The experiences from these years can be summarised as follows:

- Clear definitions of basic data and performance indicators are of utmost importance for a successful result
- Do not start the benchmarking with too high ambitions. Do not collect too much information from the beginning. Try to keep it simple
- Follow the long-term development of a selection of relevant performance indicators
- Comparisons of performance indicators is a first step towards process benchmarking
- An active involvement from the top management in the organisation is necessary
- Information about performance indicators must not be kept on the managerial level in the organisation but be communicated to the staff responsible for operation and maintenance

Impressions of ADERASA's benchmarking initiative

ADERASA's benchmarking initiative is impressive and also unique in many respects. Among the special features of the initiative can be mentioned the following:

1. The benchmarking activities were initiated by the association of national regulators for water and wastewater services (ADERASA). On the international arena it is quite unique that regulator authorities from different countries join forces and initiate consistent comparisons among their countries.
2. The ADERASA benchmarking initiative covers the whole of Latin America, representing a large number of countries. It can be difficult to find a methodology for the benchmarking that suits all participating countries.
3. The ADERASA benchmarking task force is highly competent and experienced and has a good international network of contacts. The chairman of the task force has for example taken active part in the IWA's development of their international benchmarking scheme.

The overall impression of the ADERASA benchmarking initiative is that it is run in a very professional way. There is an active involvement of the members of the benchmarking task force. They clearly see the advantages of learning from the experiences from other benchmarking initiatives around the world. They are also well aware that a benchmarking scheme in the ADERASA group must be based on the special conditions and needs within the member countries. To duplicate a benchmarking scheme from another part of the world is likely to lead to a lot of unnecessary data collection. This is especially true for a benchmarking system for regulatory purposes.

Recommendations

Goals for the benchmarking?

Different benchmarking initiatives are conducted all over the world. Somehow, benchmarking in the water and wastewater sector in recent years seems to have become “latest fashion”. Obviously there is a great interest in the results of benchmarking from many players on the international arena. It is of utmost importance to make clear what the goals and ambitions are with each individual benchmarking initiative. These goals and ambitions of the ADERASA benchmarking should be agreed upon by all participating countries and be taken as a base for developing the framework for the benchmarking. One must be aware of the fact that developing and implementing a benchmarking system normally takes several years.

A flexible benchmarking system with different levels

The ADERASA benchmarking task force has adopted a basic framework for metric benchmarking. This system and the relevance of the associated performance indicators, was discussed at the Buenos Aires meeting. One problem in this connection is that the ambitions and the needs for benchmarking are not the same in all the participating countries. This is quite natural as there obviously are big differences between the different countries. As examples of differences can be mentioned:

- administrative framework for managing the water and wastewater services (private/public)
- size if the service supplier (local-municipal/regional-intermunicipal)
- laws and regulations in the water and wastewater sector
- technical standards
- national priorities
- framework for financing the water and wastewater services
- different currencies etc.

As a comparison can be mentioned that even the 6-cities group, representing four countries located in the fairly uniform region of Scandinavia, had some problems agreeing on the basic framework for metric benchmarking.

On one hand there are many advantages in using a common framework for the benchmarking. On the other hand it is likely that all countries are not motivated – at least not from the beginning – to deliver a complete set of data. A solution to this problem can be that the benchmarking system, which has been adopted by ADERASA is divided in three levels, representing different levels of ambition. Examples of such levels are:

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| Level 1 | A “minimum level”, including only a selected number of data that all countries in the ADERASA group must deliver for metric benchmarking |
| Level 2 | A “normal level”, including a larger number of data and that at least half of the participating countries are prepared to deliver |
| Level 3 | A “complete level”, including the complete set of data that is suggested by the ADERASA task force. |

The approach with three different levels of data, gives every country the choice to start at a level which is appropriate for their specific conditions and needs. In due time more and more countries will go over to level 3.

Many benchmarking initiatives around the world have started with too high ambitions. By doing that there is a risk that the initiative is disrupted. By using benchmarking scheme with different levels it is possible to “start small” and to increase the ambitions later on.

Strategic decisions for the benchmarking

Before a more systematic benchmarking is started one must make some strategic decisions of importance for the data collection. As examples can be mentioned:

1. Shall every water and wastewater utilities in the participating countries be included in the benchmarking exercise or only utilities with more than a specified number of customers? Which size of the utility shall be chosen?
2. Can private operators refuse to deliver data to the benchmarking initiative? Is there a way for the regulator or the owner (=municipality) to force them to deliver data?
3. Shall figures about the costs for the water and wastewater services be included in the benchmarking? If so, these figures should be picked from the yearly economic report from the utility company. To be able to compare the cost figures these have to be normalised to a chosen currency.
4. Shall figures about the customer fee be included in the benchmarking? This is a very complex task as the structures of the tariffs are quite different in the different countries. The simplest way is probably to define a couple of “type houses” for which the fee is calculated with the respective tariffs in different countries.

Some of these items are dealt with by other ADERASA working groups. The results from the activities in these other groups should be included in the ADERASA benchmarking system.

Process benchmarking is a necessary complement to metric benchmarking

ADERASA is an association of national regulators for water and wastewater services in Latin America. There is an obvious interest in reviewing and comparing how the water and wastewater sector is regulated in the participating countries. This can be done by a series of process benchmarking initiatives, aiming at a more systematic exchange of experiences and know-how within the ADERASA group. The process benchmarking can preferably be conducted in parallel with the on-going metric benchmarking. Examples of such process benchmarking initiatives are:

1. Review of basic strategies for the regulation of water and wastewater services in the different countries. The aim is to get inspiration and learn good practices from each other.
2. Review of how the service suppliers in the different countries present their yearly economic reports. If these reports – on an overall level - could be structured in a uniform way comparisons between different countries would be very much facilitated.
3. Review of the structure of the customer fee in the different countries. The aim is to make it possible to compare the situation in different countries.

There is a lot to gain by conducting the type of process benchmarking studies mentioned above. Of great importance is the fact that the regulatory authorities in the ADERASA countries get the chance to deepen their contacts and increase the understanding of the

differences between the countries. This process will no doubt give a valuable input to the development of common view on the regulation task. Within this process it is obvious that new indicators will be identified. These must of course be included in the ADERASA benchmarking scheme. To facilitate this, a close cooperation between the different ADERASA working groups is necessary. Such cooperation can lead to that the benchmarking scheme in due time can be used also for overall performance assessment.

Information from the activities of ADERASA

The metric benchmarking in the ADERASA group is documented in special benchmarking reports. These reports are of greatest interest for the specialists in the field. They are however not suited for politicians and other decision makers in the participating countries. As it is very important that this group really understands the role of and the strategy for water regulation, it is suggested that some form of brochure, describing all ADERASA activities, is produced. In such a brochure the overall goals of ADERASA should be stated. Further it should give examples of what has been achieved and in what direction the future work is going. The brochure must be easy to read and well illustrated.