ENVIRONMENTAL BENCHMARKING IN SMALL AND MEDIUM – SIZED ENTERPRISES

Dr. Lucia Liberková Technical University of Košice Faculty of Mechanical Engineering Department of environmental studies and process control Park Komenského 5, Košice 04001 Slovakia

Prof. Dr. Igor Liberko, Dr. Ján Dobrovič University of Prešov in Prešov Faculty of management Konštantínová 16, Prešov, 08 001 Slovakia

ABSTRACT

The article describes benchmarking function in small and medium-sized enterprises as a theoretical starting point for benchmarking process in enterprises. All of benchmarked companies must have a possibility to improve in there field of effectiveness and working habits. The benchmarking can help enterprises to move forward and implement there systems in new control process. **Key words:** benchmarking, benefit, performance benchmarking

1. INTRODUCTION

The point of benchmarking is to focus your efforts where you can get the best return. You want the most improvement with the least investment. The goal of benchmarking is basically to learn from others best practice. It has to be noted that, especially concerning environmental issues, costs and benefits cannot always be expressed in quantitative terms. Also, benefit like the creation of network and partnership are difficult to quantify. These qualitative aspects have to be taken into consideration when assessing the usefulness of benchmarking study in the environmental field. The scope of environmental benchmarking needs to encompass all areas of an organization's activity production and consumption. Global warming, the loss (depletion) of stratospheric ozone and tropical forests, marine pollution and soil erosion, world-wide air pollution and the world-wide loss of biodiversity can no longer be denied. Only if every individual adapts his or her activities to the limits of our environment, can the targets presented here be achieved. In the debate on consumption patterns in industrialized societies it is assumed that at least 30 to 40 percent of all environmental problems can be traced back directly or indirectly to current consumer behaviors and one of many tools to eliminate this problem is also benchmarking.

Benchmarking is a process where companies compare their performance over time against their competition. You'll find there are areas where you are better than most. You'll also see areas where significant improvement is available.

2. ENVIRONMENTAL BENCHMARKING FOR LOCAL AUTHORITIES

The reasons for benchmarking in local authorities are basically the same as for private companies. The responsibilities for environmental protection and providing environmental services are increasing, and so are the costs related to them. Communities want to improve the quality of their services, and they have to do it in a cost-efficient way. With general cost pressure, the public sector is increasingly adapting practices used in the private sector, and concepts like 'new public management' (NPM) (37) are gaining importance in public services. Local authorities have to increase transparency —towards the government as well as towards the public — about how they are using the taxpayers' money. This also applies to environmental responsibilities. The public wants a healthy environment; however, it still has to be affordable and traded off against other needs. This means that local authorities have to learn how to identify and improve areas of insufficient performance. Often, municipalities use legal standards as benchmarks concerning environmental quality, and therefore set their goals according to these standards (e.g. environmental quality standards, emission limits). However, especially concerning costs of environmental protection or the citizens' satisfaction concerning environmental services, due to lack of comparison municipalities often do not know how well or how badly they are really performing and at what level they should set their goals. Comparisons with other cities and towns can in this sense help them to find out where they stand and where the performance gaps are. Environmental friendliness is also increasingly used as a marketing argument for cities in order to be more attractive for tourism or business. Such competition between communities provides further incentives to measure their environmental performance and to compare themselves with other communities. Even if a local authority knows where it is not performing well, it might not have enough resources to develop own tools or own technologies, which can lead to the envisioned improvement. Certain processes are chronically performing badly and the involved persons might run out of good ideas on how to improve them. The core idea of benchmarking is to learn from others' best practices. It can prevent trying to reinvent the wheel by simply looking at how others do it. Best or good practice databases on sustainable urban management are increasingly built up with the aim of exchanging ideas and practices, and they can support benchmarking efforts. Environmental issues and ways for improvement should not be tackled in an isolated way. Improvements in the environmental dimension have to be compatible with financial constraints and social issues. This report takes this into consideration, focusing on areas and processes, which concern environmental responsibilities of local authorities.

3. WHAT CAN BE BENCHMARKED IN SMALL AND MEDIUM -SIZED ENTERPRISES?

It has to be clear what has to be benchmarked in small and medium sized enterprise and what should be the expected outcome. Overall, it can be said that **the idea is to find out how other communities manage to be 'eco-efficient',** meaning how they manage to get a required degree of environmental protection and citizen satisfaction with the lowest use of financial resources. Local authorities have many responsibilities that are environmentally relevant. Depending on the size and the structure of the community, these responsibilities are carried out by a separate department or integrated into another department. The following list provides an overview of some of the main responsibilities.

Those are only a several types of possible benchmark commodity in enterprises:

- ✓ Procurement (in-house ecology, procurement for public buildings, etc.)
- ✓ Urban and spatial planning
- ✓ Traffic policy (public transport, traffic reduction measures, road safety, etc.)
- ✓ Construction
- ✓ Maintenance of green areas and biodiversity
- ✓ Energy management (energy planning, building design, standards in insulation, heating efficiency, etc.)
- ✓ Noise abatement
- ✓ Water management (providing drinking water, protection of water, wastewater treatment, etc.)
- ✓ Air (emission control, enforcement, etc.)
- ✓ Soil protection (identification and remediation of contaminated sites, protection from erosion, acidification, etc.)

✓ Waste management (education of public, waste collection, reuse, recycling, proper disposal, etc.)

Different aspects concerning these areas can be the focus of a benchmarking effort:

- state of the environment (environmental quality, e.g. air quality, soil quality);
- resource management (e.g. water saving, waste reduction);
- costs of environmental protection (e.g. waste management costs, soil remediation costs);
- quality of provided environmental service, measured in customer satisfaction. The customers are in this case

the citizens and the businesses/organizations located in the area (driver might be increased or chronic complaints);

- efficiency and effectiveness of enforcement (driver for improvement might be high costs, low customer satisfaction, or insufficient environmental performance of enforced processes);
- monitoring and performance measurement methods;
- environmental management systems;

• policies for influencing the drivers of pollution.

Benchmarking can be performed for a very specific process, or it can be on a higher level and relate more to organizational issues or policies. Deciding what to benchmark does not necessarily pre-define the purpose of the project. The goal of the improvement might concern the actual quality of the state of the environment in one case, whereas in another case the focus could be on environmental costs or the satisfaction of the citizen's with environmental services. The public's needs and opinions should in any case be taken into consideration when deciding on which processes to improve and benchmark. After all, the citizens' notion of environmental quality and the willingness to pay for it might differ very much from one city or region to another. Which one is the most appropriate depends on the objectives of the benchmarking and the chosen area. The different types of benchmarking require different tools and yield different benefits.

The type of benchmarking used and the objectives of the benchmarking will influence the criteria for choosing benchmarking partners. Factors that might influence the criteria for choosing partners for environmental benchmarking at local level are as follows:

• *Demonstrated performance*. The benchmarking partner should have a good or 'best' performance in the area that is planned to be benchmarked.

• *Geographic location*. The location of a partner, the climate and the geographical features might weigh heavily on selection criteria, especially in the environmental field.

• *Organizational structure*. The allocation of environmental responsibilities can differ very much between local authorities of different countries, which does not always allow comparability.

• *Type of government*. In some cases, it may be important that a partner represent a particular form of government. Differences in legislation can constrain comparability and adaptability considerably. A best practice that is applied in one city might not be applicable in another city because the competencies are distributed in a completely different way.

• *Size of partner community or organization*. Certain environmental problems or the design of policies might be very much tied to the size of the community.

• *Work processes*. The simplest benchmarking project is one that directly compares a particular function or process to virtually the same process or function in another organization. The more experienced and proficient an organization becomes at importing best practices, the better able it is to search for partners that are less similar to it self. A city could also find benchmarking partners for certain processes in the private industry.

• *Performance measures*. A community may prefer to select all partners from a common database in order to have a guarantee of data availability and better comparability

4. BENEFITS OF PERFORMANCE BENCHMARKING IN ENTERPRISES

Performance benchmarking is a good tool to find out where you stand, whether you are 'doing it right', and which the areas that need improvement are. It provides the basis for benchmarking that should go further and into more detail, like process benchmarking. Comparing performance measures against own benchmarks (e.g. goals, legal limits) within an environmental management system or the

total quality environmental management system of a community is absolutely necessary in order to know the progress over time and the effectiveness of implemented policies and measures in order to reach certain goals. In fact, it is simply environmental performance measurement and control. However, performance measurement and control are a prerequisite for any benchmarking activity. The advantages of internal performance benchmarking are that it is often easier to define comparable activities, data and information are easily accessible, and often on a standard format. Internal performance benchmarking between different departments of a community, for example concerning energy use or time used for issuing permits, can be a very good tool to stimulate competition between different departments. No department likes to be the worst performer and will therefore strive for improvement. Internal data benchmarking can also help to show where within the community there might be good practices, and where the others could learn.

Internal performance benchmarking

Within their own environmental or quality management, communities are increasingly measuring their performance concerning environmental issues in order to analyze progress over time, to compare with the set goals, or to compare performance of different departments within the community. Data have also been gathered more systematically as communities started to do environmental reporting. Data and information are collected and communicated concerning the state of the environment, the emissions into the environment, the costs of environmental protection, or the satisfaction of the citizens with environmental services. As mentioned above, the use of indicators is increasing. A limited set of indicators can simplify the analysis, and they may also be easier to communicate to decision-makers and the general public.

5. CONCLUSION

If properly implemented, benchmarking can lead to dramatic improvements in an organization's processes. However, there are several pitfalls that can undermine the efforts and turn benchmarking into an expensive process, which does not yield the benefits, expected The following points is important to consider for a successful benchmarking exercise, especially in the case of process benchmarking. Benchmarking efforts should be tied to anorganisation's strategic objectives. It is critical to follow the dictates of integration and consistency, so that the processes and systems selected for benchmarking are the most important ones for achieving the organization's strategic intent with regard to the environment. Setting out to benchmark a process requires the organization to carefully scrutinize its own process (es) prior to talking to any other organization. Often, once an organization has committed to benchmarking a process, the eager team immediately wants to get on an airplane and benchmark another organization. This is called 'professional visiting'. The team will have a nice visit, but most likely they will not be asked back, no long-term contacts will be established, and it is unlikely that any serious information exchange will take place.

6. REFERENCES

- [1] Liberko, I., Šutaj Eštok, A., Mihok, J.: Vybrané kapitoly z manžmentu. Štúdijná publikácia skriptá, Technická univerzita v Košiciach, Strojnícka Fakulta, 2005, ISBN 80-8073-310-4.
- [2] Liberková, Lucia Badida, Miroslav: Environmentálny benchmarking. In: Trendy v systémoch riadenia podnikov : 9. medzinárodná vedecká konferencia : Zborník príspevkov : Herľany, 26.-27. október 2006. Košice : SjF-TU, 2006. 8 s. ISBN 80-8073-660-X.
- [3] http:// www.eltis.org/benchmarking/intro.htm
- [4] http://www.sheiiba.org
- [5] http://iclei.org/ecobudget
- [6] http://www.enviro-mark.com/
- [7] http://www.eebn.org
- [8] http://www.sbic.sk