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ENVIRONMENTAL MANAGEMENT SYSTEMS AND "GREEN CERTIFICATES": THE CASE OF AN ENTERPRISE SUBJECT TO PUBLIC-PRIVATE CONTROL

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Workshop 4 - Environment

Dear Mr. Chairman,
Dear Ladies and Gentlemen,

Thank you for your kind invitation and the opportunity to provide some input to the topic of environmental management systems / environment certificates.

I will be focussing on the
- environmental policy framework conditions
and
- on business practice using the example of Berliner Wasserbetriebe, a company which is managed under public-private ownership.

Ladies and Gentlemen,

Our environment is a resource which is not limitlessly available to us. Awareness of this has grown within industry, society and the sciences and the scientific principles have made huge advances in recent decades. We now have more precise knowledge regarding the variables which influence ecological dysfunctions.

Ten years after the Rio conference and immediately following the multi-national environmental conference in Johannesburg, environmental policy is again at the top of the agenda. The balance is sobering and critical. Yet it is added to by something else which is very topical. This summer, many Central European states experienced violent storms with previously unknown scales.

The enormous quantities of rain which fell in August caused devastating flood damage in many villages, towns and cities and regions which will cost billions to repair. Whether this is to be considered in the context of the climate policy or not, the climate has again become a topic for discussion in the states affected. Further clear CO_2 prevention and the reduction of greenhouse gases are against at the very top of the agenda.

The motto “think globally and act locally“ shows the way. As a result, the major industrialised nations in particular will have to introduce further measures to reduce CO_2 emissions. The consequence of this is that the national economies together with the major industrial companies, small and medium-sized businesses and consumers will have to make additional contributions to the prevention of negative environmental effects.

Politics and industry have agreed a voluntary self-obligation by industry as a way to reduce the emission of CO_2 and other greenhouse gases. Implementation of this in Germany for example is within the scope of the national “Climate Protection Action Programme“.

Definitely a promising way, as the results show. Germany has in the meantime reduced its CO_2 emissions by 19 %.

Socio-political discourse and practical economic action are however still highly characterised by the field of tension between calls for abstinence on the one hand and the wrestling for acceptance limits on the other hand.
But what takes place in business practice, how do companies deal with the challenge, what technical and economic innovation processes are stimulated?

For a long time, the topics of environmental management systems and environment certificates were insider topics which found their interested public within specialist circles. Things have now changed. The topics have been implemented in business practice, albeit with varying intensity.
Environmental protection or environmental aspects have long since become part of corporate action. That which sometimes still had the character of a scaremongering discussion in the 70's has now become a classic management process of today.

Ladies and Gentlemen,

Environmental management systems and environmental certifications must be economically efficient. Thus, a central management task is defined. The organisation and processes must be oriented to this, and at the end of the day a positive contribution to the company's result has to be shown.

I would like to describe the development of Berliner Wasserbetriebe to you as an example of the modernisation of industrial structures under environmental aspects. The company supplies 3.4 million people in the capital with water and at the same time organises disposal of the wastewater.
The state of Berlin has a majority shareholding in Berliner Wasserbetriebe and the company has the legal form of an incorporated public law institution. In 1999, the owner, the state of Berlin, sold 49.9% of the company within the scope of partial privatisation to a consortium consisting of RWE and Vivendi. By the way, the fact that an incorporated public law institution because a publicly-privately owned company has not resulted in any changes to the basic attitude to or basic understanding of the perception of environmentally relevant tasks and objectives.
We consider ourselves to be a service company which needs a high level of technical and ecological competence, because whoever produces drinking water produces more than just a mere economic asset. Sensitive and environmentally friendly handling of resources and securing the highest quality standards must be the top priority, especially for a water supply company. Therefore, we consider environmental protection to be a continuous improvement process which equally takes into consideration planning & design, implementation, checking and improvement.

Ladies and Gentlemen,

The legal environmental framework for companies is set both by the national environmental laws as well as the relevant EU directives. As an example related to our branch, I would like to name the German Federal Immissions Control Act, the Water Management Act in conjunction with the Berlin Water Act as a state-specific implementation act and the Recycling and Waste Management Act.

These result in integrated management of the material and energy flows, the implementation and monitoring of the technical and safety standards with incorporation of the objectives and targets defined within the scope of the environmental management system.

What are we aiming for, what objectives do we pursue?

1. Protection of the natural resources

2. we want to implement sustainable environmental processes and continue to improve our energy management by means of innovative technologies

3. we need legal security and transparency

4. our employees should have high qualification standards

5. together with our employees, we want to achieve a lasting improvement in environmental behaviour at the workplace. This means holistic or integrated thinking and action and begins with training. This is then continued within the scope of the further training and qualification measures.

The introduction of an environmental management system is voluntary. In Germany approximately 3000 companies have set up a standardised environmental management system in recent years according to the EC's Environmental Audit Regulations (EAMS) or have applied for and received certification in accordance with the international environmental management standard ISO 14001.
The trend is clearly visible: Ecologically oriented processes and economic objectives lead to improved efficiency which achieves the two goals.

Ladies and Gentlemen,

In business practice, execution of the statutory regulations leads to a large number of interfaces. These interfaces have to be integrated into the management process. We have therefore set ourselves the goal of developing an integrated management system. For us, this means that economy, quality assurance, operational environmental protection and occupational safety are inseparable. Equally, management structures must be considered systemically and holistically and brought together. We want to develop a dynamic system in which the business processes are reflected and synergy effects are generated.

An example are the materials management, maintenance, structural, civil and plant engineering, occupational safety and corporate communications departments.

What are the instruments of our environmental management system?
We have prepared an environmental management manual and specified the objectives and targets and measures within the scope of a relevant programme, which regulate responsibilities and the means and deadlines for realisation of the objectives. The manual explains the organisational structure, the areas of responsibilities and tasks of the members of the environmental coordination and describes the structure and functionality of the whole environmental management system. It is thus also a guideline for external contractors and suppliers.

A training plan for the employees accompanies this process. Internal audits, updating procedures and work instructions and finally the preparation of an emergency manual complete this concept.

I would like to give you a few examples of several content and organisational changes which we have made:

1. Setting up an environmental protection committee headed by 2 members of the board of directors. Here all the relevant facts are brought together and the environmental management objectives are strategically defined and their implementation checked.

2. We use regular internal audits to check that the environmental management documentation and the actual processes agree with respect to the effectiveness of the whole system. Here it is important for the auditors to be able to operation independently and that they arrive at neutral assessments.

3. In 1997, a separate environmental protection department was set up. Organisationally, it is directly attached to the Chairman of the board. It has 14 employees in total, including the officers for water protection, immissions and works accident protection and for waste and hazardous goods appointed by the legislator and coordinate all the relevant facts.

4. The Berliner Wasserbetriebe prepare an annual environmental report for water supply, we are still working on the preparation of a corresponding report for wastewater.

5. Our 9 waterworks are now certified to ISO 14001, 2 of our 7 wastewater treatment works are certified to date, the others will also be certified insofar as they are not due to be shut down.

Certifications to ISO 9001 or 9002 and/or the Eco Audit Regulations have been introduced in 7 business units. We realised the certifications named within the scope of project management and the involvement of external advice. The employee representatives were also involved in the process.

The certifications are also important for us in another context.
We want to market out technical know how internationally. Business abroad is highly competitive. The verification of certification is now a standard requirement for invitations to tender and within the scope of the financing of projects by international institutions such as the EU or the World Bank.

At the Berliner Wasserbetriebe we have set up a modern waste management system in recent years. I would like to present a few of the results.
We were able to reduce the amount of waste produced by the waterworks by approximately 40% between 1998 and 2001, under both recycling as well as under disposal parameters. This is mainly due to the introduction of a comprehensive waste separation system.

As a disposer of wastewater, we operate 7 large wastewater treatment works and a widely branched system of pumping stations.
A large amount of energy is associated with wastewater treatment: We need around 560 thousand tonnes of diesel fuel and 30 thousand megawatt hours electrical power to run the pumping stations. The major energy guzzlers are however the wastewater treatment works where we use 3.4 mln. tonnes heating oil, 4.5 mln. m³ natural gas, 10 thousand tonnes precipitants and flocculants and 140 thousand megawatt hours electrical. The electrical power consumption for wastewater disposal alone adds up to around 175 thousand megawatt hours which equates to the consumption of a medium-sized city with 170,000 inhabitants.

Within the scope of an improved energy management process, we have increased the proportion of in-plant generation or the substitution of electrical power from the wastewater sludge and sludge and biogas combustion to 25%. This also reduces our material costs and in the long term is both economically as well as ecologically purposeful.
For example, we use the biogas produced during the digestion of the sewage sludge to run 2 environmentally friendly combined block heating and power stations, and others are to follow. Our energy balances have improved. The amount of CO_2 emitted by our business was reduced by approximately 20% between 1998 and 2001.

Once the wastewater has been treated, a large number of substances remain, including the contaminated sewage sludge. As a waste product of wastewater treatment, sewage sludge is subjected to constant investigation with respect to the contaminants and their limiting values. Depending on the contaminants fraction, it can be used for agricultural purposes, i.e. the material can be used for landscaping subject to the proviso that it does not come into contact with the food chain.
A large part of the waste products from the sewage sludge process are added to the recycling process as economic assets, for example ash, gypsum, screenings and the dewatered or dried sludges.
In many cases, the sewage sludges still end up on landfill sites. However, this method of disposal is finite, because in Germany the possibility of disposal on landfill sites ends in 2005. We already decided in favour of an alternative method of disposal several years ago. The Berliner Wasserbetriebe dispose of part of their sewage sludge by means of combustion or gasification. In addition, we use the disposal facility of a highly modern recycling centre in East Germany.

In this way, we organise a cycle conserves resources on the one hand by recycling the waste and at the same time creates new recycling possibilities.
We can be satisfied with the economic balance achieved to date, even though we have not yet fully reached the targets set.
The company's disposal costs have been reduced by 15 % to date, potential for further savings exist and will be systematically developed during the course of further optimisation measures.

Ladies and Gentlemen,

As companies in public-private ownership, the Berliner Wasserbetriebe have found two partners in RWE and Vivendi who apart from an economic orientation, also attach a great deal of importance to ecological interests in their business actions. We provide a service which is of a general economic interest for our customers and act in the conviction that, especially as a water supply and drainage company, we have a distinctive responsibility for environmental objectives. Economic efficiency under the consideration of environmental aspects is not mutually exclusive. On the contrary, both can positively supplement and complement each other. We want to make a regional contribution to the realisation of the higher-ranking global environmental targets and will resolutely continue along this path.

Many thanks for your kind attention