

Ernst-Christoph Stolper,
Ministry for Environment and Conservation, Agriculture and Consumer Protection of the
State of North Rhine-Westphalia
Director General - Planning and Co-ordination, Sustainable Development -

Sustainable Management – Cooperation between Industry and Government

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Thank you very much for inviting me to your congress to talk about experience we have gathered in the field of sustainable management in North Rhine-Westphalia.

The format and contents of environmental policy have dramatically changed over the past decades. Initially, the overriding objective was to provide a minimum level of protection of the environment and human health – in North Rhine-Westphalia this was summarised in the phrase, ‘turning the sky over the Ruhr blue again’ – whereas today, our efforts are focussed on management itself, on the economic and ecological efficiency of our production processes, products and services.

This is reflected by the concept of sustainable development which has become universally accepted since the 1992 Rio Conference at the latest and which has not been seriously contested ever since, and by the fact that increasing importance is being attached to strategies for strengthening Cleaner Production and establishing an Integrated Product Policy, Environmental Management Systems and Corporate Social Responsibility.

The efficient use of resources is a cornerstone of that strategy for sustainable management. This implies the question of how we might reduce the consumption of resources by industry – or, to put it more aptly: how to generate a maximum of wealth from one unit of material or energy? Professor Ernst-Ulrich von Weizsäcker and Professor Friedrich Schmidt-Bleek – who both worked with the Wuppertal-Institute for Climate, Environment and Energy of the State of North Rhine-Westphalia – long ago already said what needs to be said in this regard.

The fact that - due to the boom in the economic development in China - raw materials and energy prices have been on the rise globally for two years now demonstrates that the statement that our approach to production and consumption cannot in this form and shape be universally applied is neither mere theory nor nonsense talked by a few stubborn ecologists, but rather is indicative of one of today's most formidable challenges.

And China is only the beginning. Other countries such as India, Indonesia, and Brazil have long since started to strive for more economic growth - and who are we to blame them?

Whether the currently leading European, Northern American and Japanese economies will still be at the top in 20, 30 or 50 years hence, largely depends on whether they succeed in enhancing resource efficiency in the context of a strategy for economic modernisation.

The format of environmental policy has changed in parallel with its contents. It is true that regulatory instruments now as before are indispensable and even have to be improved in some areas, as the debate about the proposed introduction of the REACH system in the EU has shown, but on the other hand, it has long since become clear that we will not succeed in making sustainable and resource-efficient management a common practice by regulation alone.

With a view to achieving that objective it will be crucial to improve overall economic conditions and to develop and implement joint strategies on the basis of collaboration between government and industry.

Taxes, duties, licences and other instruments aimed at influencing overall economic conditions as a general rule come under the jurisdiction of national governments or, when there is a risk of distortion of competition, even of supranational institutions such as the EU, whereas cooperative measures are essential elements of regional strategies for promoting sustainable management. Their success relies heavily on close cooperation between government and industry. Far from being confined to ecological aspects these regional strategies are comprehensive and integrated concepts designed to promote innovation, reinforce competitiveness and hence to create and secure jobs.

I now would like to introduce to you the three cornerstones of our strategy for promoting sustainable management in North Rhine-Westphalia:

1. the strategy for sustainable development, Agenda 21 NRW,
2. assistance for small and medium-sized enterprises, and
3. implementation of strategies for specific industries.

1. The strategy for sustainable development - Agenda 21 NRW

Over the past three years, we have developed a state-wide strategy for sustainable development in North Rhine-Westphalia, the Agenda 21 NRW, in cooperation with partners from industry, politics, the research community, trade unions, environmentalist and consumer organisations, the Churches and other community groups.

One of the six priority subjects of the Agenda 21 NRW explicitly addresses sustainable management, while the others are concerned with issues such as energy, transport, spatial management, consumer protection, health, social policy and global responsibility – it goes without saying, though, that all these are likewise of crucial importance to economic development and the environment.

The Agenda 21 NRW is composed of 4 elements:

1. concrete Agenda 21 projects
2. examples of best practice
3. networks, and
4. visions, aims and indicators.

Agenda 21 NRW started early in 2002 with inaugural conferences on the six priority subjects, and the activities that had been undertaken until November 2003 were presented during a conference on the progress and prospects of the Agenda.

In addition, the North Rhine-Westphalia government established a Council on the Future headed by Prof Schmidt-Bleek. The "Zukunftsrat" ("Future Council NRW") was composed of 26 high-ranking representatives of industry, society, the research community and the media, including the President of the Chemical Industry Association, the head of McKinsey in Germany, officials of large companies such as Deutsche Telekom and Gerling and of small business, but also artists, athletes and representatives of the Churches. The Council's terms of reference included offering advice to the government, developing strategies for sustainable development in North Rhine-Westphalia and giving

fresh impetus and orientation concerning the contents of Agenda 21 NRW. The Future Council NRW submitted its final report in March 2004.

With regard to sustainable management the Agenda 21 process in North Rhine-Westphalia has set a number of priorities, especially in terms of

1. increasing resource efficiency
2. promoting the introduction of sustainable management in craft businesses and small and medium-sized enterprises
3. fostering the use of renewable resources, and
4. encouraging sustainable investment.

One of the networks that have been established in the context of the Agenda 21 NRW is the ecoprofit network NRW.

Ecoprofit stands for 'ecological project on integrated environmental technologies' and originated in the city of Graz. The initiative, which has been launched jointly by industry and local authorities, is intended to help save energy and operational resources and reduce waste and waste water by means of environmental management programmes. Altogether, the North Rhine-Westphalia Environment Ministry has so far authorised 59 projects involving over 660 firms from a wide range of industries including craft establishments, hotels and restaurants, metal-working and mechanical engineering companies, forwarding agents, care and nursing homes and municipal enterprises. The size of the companies varies between 10 and more than 1,000 employees, with small and medium-sized businesses with up to 250 employees accounting for over 70 per cent of the firms taking part in the projects.

The concrete results of those 36 ecoprofit projects that are already completed are quite impressive:

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| • reduction in waste | 18,993 tonnes |
| • saving in energy | 133.8 mio. kWh |
| • saving in water | 726,756 m ³ . |

Thanks to these annual savings operating expenses have been reduced by 13.634 mio. Euros in 441 firms certified under the ecoprofit scheme, i.e. an average of some 31,000 Euros for each firm, in most cases generated by simply improvig processes. Considering the almost universal need for cutbacks, these figures are very pleasing and encouraging news for all those involved. Altogether, 132,669 people are employed with those 441 companies, and the ecoprofit programme thus also contributes towards securing their jobs.

In its March 2004 report, "*Ressourcen nutzen, Regionen stärken*" which means 'taking advantage of resources, strengthening the regions', the Future Council NRW suggested that, in the context of sustainable management, a strategy for sustainable regional development should be conceived.

On the basis of an analysis of the strengths and shortcomings of the various regions in North Rhine-Westphalia, a tailor-made programme for action including a progress scenario should be drawn up for each region using the 'cluster approach' which has already been tested with great success on many occasions.

The Future Council NRW recommended that the strategy for sustainable management should be oriented towards the following three objectives:

- creating 1 million new jobs;
- securing economic growth at an annual rate of 3 to 3.5 per cent, and
- doubling productivity of resources by the year 2015.

2. Assistance for small and medium-sized business

There is a wide range of instruments and approaches that can be employed to enhance resource efficiency. These include the Cleaner Production concept which is designed to optimise production processes in order to obviate the need for expensive end-of-pipe interventions, the product-related approach to environmental protection, which is called 'Integrated Product Policy' at the European Union level, resource cost accounting and, last not least, the introduction of environmental management systems.

Numerous large-scale companies – especially those that are doing business on the global market – have already made great efforts to use resources more efficiently by means of those instruments whereas most small and medium-sized firms simply do not have the necessary R&D resources, staff units etc. to take advantage of those tools - which is a problem given that small and medium-sized business plays a crucial role when it comes to economic and ecological modernisation.

In a move to overcome those obstacles the North Rhine-Westphalia government set up the "Effizienz-Agentur NRW" ("Efficiency Agency NRW") in 1998 and commissioned it to offer advice and assistance to small and medium-sized companies. In close cooperation with partners from the business community, technology centres, research institutions and marketers of technologies the Efficiency Agency NRW initiates and organises forums on various aspects of Cleaner Production such as process water treatment, surface refinement and membrane technology. The Agency coordinates the transfer of know-how, gives advice with regard to promotional programmes and helps initiate demonstration projects. It also operates a website on production-integrated environmental protection under www.pius-info.de.

However, the Efficiency Agency's top priority is making available counselling tools to small and medium-sized enterprises.

One of the key services the Efficiency Agency offers to small and medium-sized companies is the so-called PIUS check which is a low-cost and easily accessible counselling and evaluation tool. Altogether, a PIUS check costs between 5,600 and 6,400 Euros. 70 per cent of these costs are borne by the Efficiency Agency using government funds, while the remainder, i.e. some 1,700 to 1,900 Euros, has to be paid by the firms themselves.

During a nine-day check the environmental performance of the company's production processes is analysed by an adviser who can be freely chosen by the firm. Following an introductory discussion with the Efficiency Agency, the external adviser examines the firm for its potential for optimising processes and cutting costs and then develops a plan for action.

The measures that are implemented on the basis of the PIUS check range from simple organisational improvements to completely new production facilities. The results of the programme are evaluated after a period of six to nine months.

Altogether, more than 300 PIUS checks were started or completed until June 2005, and in 114 companies improvements were realised which triggered capital spending in excess of 18 mio. Euros and thus helped businesses achieve annual savings totalling 4.5 mio. Euros (as at June 2005), not including reductions in costs owing to quality management and longer maintenance intervals. A major part of the capital expenditure pays off after two years already.

The measures that have so far been carried out result in some 680,000 m³ of water and 7,800 tonnes of waste being saved every year.

Even after the PIUS check is completed, the Efficiency Agency continues to offer advice and assistance in order to help firms optimise their structures and processes, and thus, 85 per cent of the proposed improvement measures are actually implemented.

Another instrument, resource cost accounting, is still being tested. Resource cost accounting is a business management tool and hence the counterpart of the technology-oriented PIUS check.

Building on a company's existing cost accounting system, resource cost accounting focuses on all resource-related expenses, makes them more transparent and thus contributes towards reducing costs. Resource cost accounting for instance reveals the total cost of a tonne of waste caused by an inefficient production process which includes not only the cost of the disposal of that waste but also the cost of squandered materials and human resources.

Following a joint project involving 9 firms from three different sectors of industry, resource cost accounting manuals have been published for a number of industries. On that basis a new counselling tool has been developed that will be offered to a greater number of small and medium-sized enterprises before long.

However, if we want to further improve resource efficiency, it will not suffice to confine our efforts to Cleaner Production, but rather, the product as such will have to be designed in an environmentally sustainable way. The objective therefore could be defined as 'product-related environmental protection' or, as the European Union puts it – Integrated Product Policy.

Next to the manufacturing process of a product, we must also consider how it is developed, which materials are chosen, how the product is used and how it can be recycled or disposed of when it is no longer needed.

In cooperation with North Rhine-Westphalia's Chambers of Industry and Commerce the Efficiency Agency commissioned a survey of 350 business firms in order to find out what they know and think about and whether they are already engaged in product-related environmental protection.

The study found that 71 per cent of the companies that were interviewed develop their own products. But it also showed that small and medium-sized enterprises in particular are faced with major problems in the field of product development. Processes are poorly structured, and many innovative approaches to product development are simply unknown to those firms. On the other hand, the survey revealed that companies that introduced systematic product development processes which also take account of ecological aspects succeeded in conquering a bigger share of the market and increasing their sales revenue.

Against that background, the Efficiency Agency and the Aachen-based Fraunhofer Institute for Production Technologies (IPT) are jointly developing a counselling tool that

will be made available to small and medium-sized firms in North Rhine-Westphalia in a move to enable them to optimise their product development processes with due regard being paid to ecological requirements.

Next to Cleaner Production, product-related environmental protection and resource cost accounting, environmental management systems also play an important role in the context of resource-efficient and sustainable management.

These especially include the European eco-management and audit scheme (EMAS) and the internationally accepted ISO 14001 standard. Both systems enable environmental management to be systematically integrated into operational processes, they increase legal certainty for companies in environmental matters, and they help save resources and reduce costs by identifying potential for optimisation and innovation. In addition, they tend to improve the firm's image, both externally and internally, and hence increase staff motivation.

The North Rhine-Westphalia government has simplified administrative procedures and requirements for those firms that have implemented environmental management systems on the basis of the EMAS and ISO 14001 schemes. The government has issued ordinances that make it easier for these companies to comply with administrative regulations, especially by avoiding duplication and overlap of work, e.g. as far as reporting obligations are concerned.

North Rhine-Westphalia was one of the first States in Germany to grant relief from administrative requirements for both the eco-audit scheme and for environmental management systems under ISO 14001 which is becoming increasingly recognised and widespread at the international level. We are thus paying due regard to the fact that North Rhine-Westphalia's industry is closely interrelated with global markets. These approaches to deregulation have been developed in cooperation with the business community.

Moreover, the North Rhine-Westphalia Environment Ministry also grants financial assistance towards the introduction of EMAS and ISO 14001 systems in small and medium-sized enterprises given that smaller companies have to catch up in this regard.

3. Implementation of specific strategies for individual sectors of industry

Under its global Responsible Care initiative, the chemical industry early on has committed itself to sustainable development and to due care for all aspects of environmental performance, health and safety.

The chemical industry plays an important role in North Rhine-Westphalia, and we therefore have launched numerous projects in cooperation with that branch of industry.

When it comes to using resources efficiently, waste management is of paramount importance to North Rhine-Westphalia, given that our industry produces some 50 million tonnes of waste every year.

The annual total amount of hazardous waste that calls for special regulation and monitoring is some 4 million tonnes, with the chemical industry accounting for about a fourth, i.e. approximately 1 million tonnes, of that waste.

This is the reason why the Environment Ministry has initiated a special programme in cooperation with the North Rhine-Westphalia Chemical Industry Association. Under the programme some 1,100 chemical plants and facilities requiring operating licences are

analysed for any additional potential for avoiding and recycling waste and waste water. The results of that study will be used to prepare a manual that will present the best available technologies for a number of selected processes.

The improvement measures that will be set out in the manual are designed to be implemented jointly by authorities and plant operators. Considering that the study is still under way, the actual potential for achieving reductions cannot yet be quantified. Nevertheless, I am firmly convinced that our common efforts will be crowned with success.

Furthermore, a joint working group has been established which is composed of Ministry officials and representatives of the Chemical Industry Association. The group's terms of reference include discussing and implementing measures to make it easier for firms to comply with administrative regulations and requirements, especially with regard to notifications of emissions and reporting obligations.

An excellent example of imaginative solutions that have been developed on the basis of close cooperation between industry and government is the framework agreement between the Environment Ministry and the Chemical Industry Association on the publication of environmental monitoring data on the internet. Under that agreement, companies which in addition to submitting their emission data to the competent authority also publish it on the internet thus making it known to the general public are entitled to use a simplified reporting procedure. This means killing two birds with one stone: the firms benefit by a simplified procedure and citizens by more transparency.

The successful approaches and instruments which I have outlined illustrate that concrete cooperation can go a long way towards improving resource-efficient and sustainable management.

The North Rhine-Westphalia government therefore will continue and develop that cooperative approach to promoting sustainable management. There is no alternative to a strategy for economic modernisation that also aims to substantially increase resource efficiency.

Thank you very much for your attention.