

11 October 2001

Bridging the Waste Gap

Association for Sustainable Use and Recovery of Resources in
Europe (ASSURRE) Conference

Brussels, 11 October 2001

The Bridge to Sustainability

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The EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy making agents and the public.

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Ladies and Gentlemen,

It is a great honour to be asked to deliver the keynote speech at such a distinguished gathering. I am most grateful to the organisers for inviting me here today.

It is particularly encouraging that ASSURRE, as its name indicates, is seeking to shift the focus of debate and action away from mere management of waste and onto the wider challenge of sustainable management of resources. This is exactly the sort of development that is needed in the business sector more generally if sustainable development is to become a reality.

We must move away from the idea of waste management as a self-perpetuating economic sector if the goals of preventing and minimising waste generation are to be reached. We need waste managers to become resource managers. It is my hope that in the near future, to paraphrase a well-known song, there will be no business like the sustainable resource management business!

As many of you will know, the European Environment Agency is an independent European Community body which has the core task of providing timely, targeted, relevant and reliable information to support protection and improvement of the environment and the achievement of sustainable development.

We do this by collecting data on the current and foreseeable state of the environment, assessing it and turning it into information that can be used by policymakers. In the overload of information available about the environment and sustainable development, we focus our reporting on what is essential to support the policy process. Besides our reporting activities, we are also active in disseminating information on best practice on the environment and sustainable development.

Accurate and usable information is the fundament of any bridge to sustainability. Without it, the bridge either won't get built or it won't hold up long enough for us to get there.

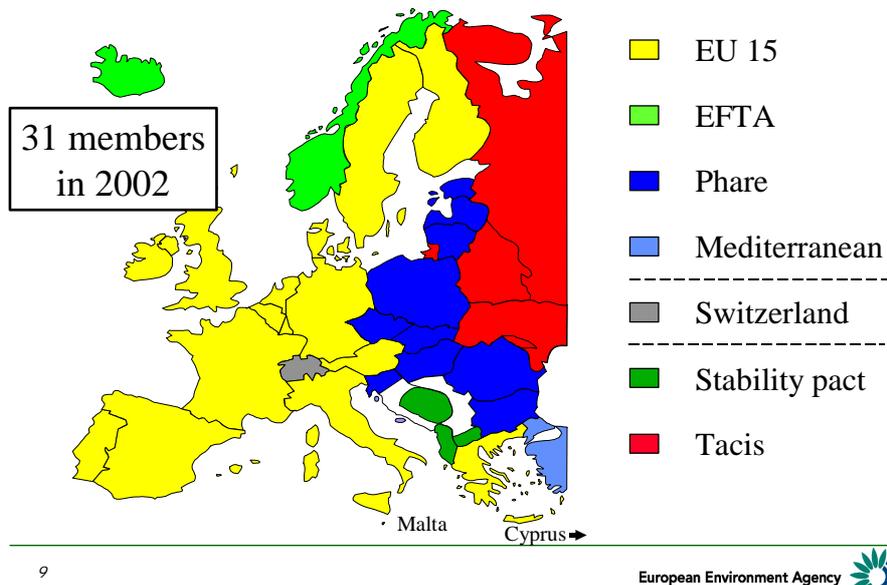
Most of the Agency's information is available through our website at www.eea.eu.int. The site has developed into an important and wide-ranging online resource and I would invite you to make extensive use of it if you do not already do so.

Let me just underline that our remit is not only European but pan-European.

For several years we not only shared the acronym EEA with the European Economic Area but also had the same member countries.

However, in August of this year we became the first EU body to enlarge to the east and south when six of the candidate countries joined our ranks. Since then four more have ratified their membership of the Agency. We hope that most if not all of the other candidate countries will do so by the end of this year and that we can start integrating all of these countries fully into our activities from the beginning of 2002.

EEA membership



The Agency has of course been working with most of the candidate countries since 1996 on specific projects with support from the PHARE programme. However, Agency membership will give the candidate countries the tools both to monitor their environment consistently and to measure how effectively the new environmental laws they are introducing ahead of EU membership are being implemented.

For the EEA, the more regular flow of data and information that will result from their full integration into our activities will allow us to improve the coverage and quality of the environmental and sustainable development assessments we provide to policymakers.

To complete the jigsaw puzzle of our membership, I should mention also that negotiations have started with Switzerland with a view to its eventually joining the Agency.

Ladies and gentlemen, sustainable use and management of resources is an important new paradigm that shifts the focus of action beyond waste and into such areas as material flows and resource productivity.

Unfortunately, the vast amounts of waste we are still confronted with are a clear indicator of how far we still have to go to achieve sustainability in resources use.

What is the waste situation today? It is actually not easy to get an accurate picture of the situation in Europe, even within the EU. The problem is the limited data available, their limited relevance and consistency, and to differences in the definitions of waste used in different countries. The EEA often has to estimate trends based on data from a limited number of countries.

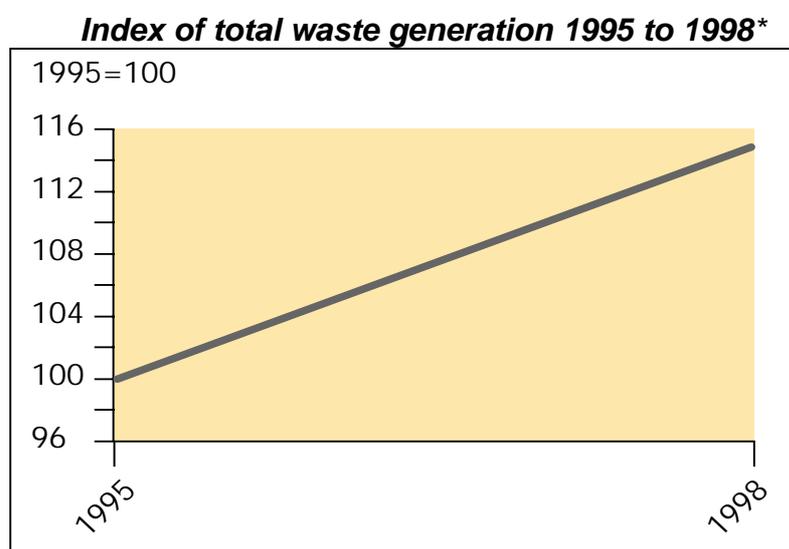
The "waste gap" is as much an information gap as a gap between ambition and current reality.

Even as we seek to go beyond waste we still need better waste statistics, but they have to be statistics with a purpose. They have to be statistics that directly serve the policy framework, not statistics that tie up untold numbers of government officials in needless number-crunching.

The proposed EU waste statistics regulation should bring dramatic improvements in this regard. We can only hope for its adoption by the Council and Parliament as soon as possible.

As our report *Environmental signals 2001* shows, the limited data that are available indicate that waste generation in the EU is continuing to increase and remains closely linked to economic growth. I hardly need point out that this trend is at odds with the general objective of waste prevention.

The total generation of waste in the EU amounts to some 1,300 million tonnes a year. Manufacturing, mining and quarrying are the biggest sources of waste. The limited data available show that waste quantities from manufacturing seem to be constant or in some cases falling while those from all other sources are increasing.

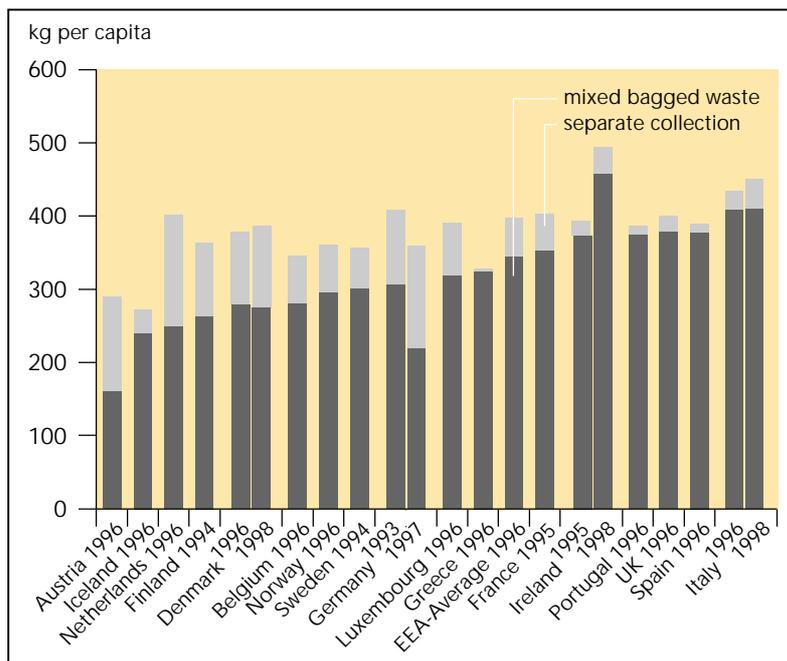


**Based on a selection of illustrative national trends (Denmark, Ireland and Italy).*

As with many other environmental issues, the challenge we all face is to decouple waste generation from economic growth.

There appears to be a close link between economic activity and the generation of construction and demolition waste. In the manufacturing sector it seems, on the basis of field studies, that while use of cleaner technologies is reducing waste generation per unit of production in some countries, these gains are being overwhelmed by growth in the quantity of goods consumed.

Waste generation from daily household and commercial activities



One of the targets set in the Fifth Environmental Action Programme (5EAP) was to stabilise the generation of municipal waste at the average EU level of 300 kg per person by 2000. But the data show that in 1996 each person in the EU produced 400 kg of waste from daily household and commercial activities alone, which are only part of the municipal waste stream. This, together with the trend of increasing waste generation in countries for which data are available, suggests that the 5EAP target is far from being reached.

Some countries, especially in southern Europe, continue to use landfilling as the principal method for dealing with biodegradable municipal waste. They will face considerable problems in meeting the reduction targets set in the landfill directive.

From Gothenburg to Barcelona – how to measure and manage sustainability

The road to the EU Sustainable Development Strategy

- June 1998: Cardiff summit starts process of integrating environment into policy sectors
- March 2000: Lisbon summit begins integration of economic and social spheres
- June 2001: Gothenburg summit approves SDS, adding environmental dimension to Lisbon strategy
- From 2002, annual spring summits to review progress in developing and implementing SDS on basis of Commission's annual synthesis report

The past three years have seen a major evolution in high-level policy developments on environment and sustainable development within the EU.

The June 1998 Cardiff summit of EU leaders put sustainability thinking on to a faster track by starting a process of integrating environmental considerations into sectoral policies, such as transport, agriculture, the internal market and even foreign relations.

Sustainability thinking then advanced rapidly during Sweden's EU presidency in the first half of this year. First, the Stockholm summit in March committed EU leaders to adopting a sustainable development strategy that would add the environmental dimension to the process of bringing together the social and economic aspects of development that was begun at Lisbon in March 2000.

Then a sustainable development strategy was agreed by the Commission and presented to the Gothenburg summit in June, which in turn issued conclusions on it and launched the process of implementing and further developing it. Implementation is to be reviewed at the EU's annual spring summits, starting at Barcelona in March 2002. The EU leaders also asked at Gothenburg for the environmental integration strategies that have been developed for the various economic sectors under the "Cardiff process" to be finalised and implemented in time for the Barcelona summit.

Gothenburg thus concluded a process of bringing together the three pillars of sustainable development - economic, social and environmental – in an integrated policy framework. It also marked the beginning of a new policy-making approach based on the principle that the economic, social and environmental effects of all policies should be examined in a coordinated way and taken into account.

The sustainable development strategy singles out a number of objectives and measures as general guidance for future policy development in four priority areas. These are:

- Combating climate change
- Ensuring sustainable transport
- Addressing threats to public health; and
- Managing natural resources more responsibly.

As far as this last area is concerned, breaking the links between economic growth, the use of resources and the generation of waste is a key headline objective. As you see we are far from achieving this but there appears to be a clear determination to move in this direction as shown by the Commission's initiative to develop an Integrated Product Policy in cooperation with business to reduce resource use and the environmental impacts of waste.

What is also important is that the Commission has taken the initiative to develop the tools and indicators to manage the policy to pursue this objective and make it accountable. The Commission will propose a system of resource productivity measurement to be operational by 2003.

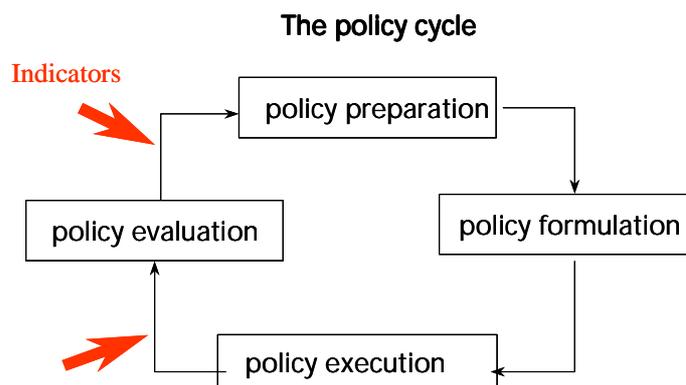
This links up with the goals pursued under the thematic strategy on the sustainable use and management of resources planned under the Sixth Environment Action Programme, as reflected in the Council's common position. This include the development of:

- an estimate of materials and waste streams in the Community, including imports and exports, for example by using the instrument of Material Flow Analysis

- the establishment of goals and targets for resource efficiency and resource use reduction, breaking the link between economic growth and negative environmental impacts
- indicators of resource efficiency.

Developing and using indicators to assess and then report on the degree of progress made towards achieving policy goals is where the European Environment Agency comes into the picture.

Indicators can play a valuable role within the preparation and evaluation stages of the policy cycle. Their importance becomes clear when we bear in mind that we can manage only what we can measure.



By demonstrating the extent of progress achieved, indicators create transparency and make policymakers accountable for the success or otherwise of their policies. In providing the basis for reporting on progress towards meeting sustainability objectives, indicators will thus be a key tool in managing sustainability.

As you may be aware, the European Commission will evaluate implementation of the sustainable development strategy by adding a number of headline sustainability indicators to the structural indicators contained in the “synthesis” report on economic and social integration that it produces early each year.

The expanded report will enable the spring summits of EU leaders to review progress in developing and implementing the sustainable development strategy. The summits will give policy guidance as necessary.

As we have already seen, the key sustainability objective in the area of waste and resources is that of “managing natural resources more responsibly”.

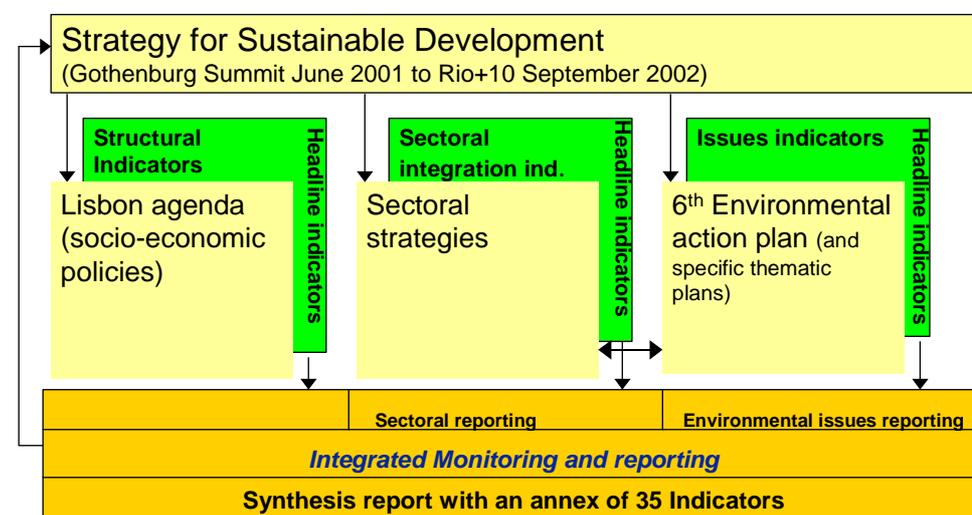
The initial choice of indicators to measure progress towards this objective will be determined to a large extent by the availability of data. Two indicators that are seen as immediately feasible are being considered for use in the short term. However, they are purely waste-focussed. The two are ‘Municipal waste collected, landfilled and incinerated’ and ‘Recycling rate of glass, paper and cardboard’.

I understand that the European Commission is aiming to propose the set of sustainability indicators to be used at the Barcelona summit within the next few weeks. The EEA looks forward to taking responsibility for producing a number of these indicators.

The Agency is also working with our partners in the other EU institutions to establish an interlinked system of indicator sets to follow progress in the various policy “corridors” that come together in the sustainable development strategy.

The sustainability indicators will be embedded in a wider set of indicators that will, for example, allow us to assess progress towards meeting the specific subtargets mentioned in the 6th Environmental Action Programme (6EAP) and the specific thematic strategies that will follow on sustainable use of resources, waste recycling and other themes.

The 'three corridors model' to follow progress in sustainable development



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The EEA's annual indicator-based report *Environmental signals* will develop into a multi-purpose tool for reporting overall progress on issues and sectors. The next edition, *Environmental signals 2002*, is being developed in good time to feed into the early stages of preparation of the synthesis report for Barcelona. *Signals 2002* will be published in the spring and will contain both the main indicators needed for the synthesis report and a selection of background indicators in a structure and logic that will seek to serve wider needs.

A strategic approach to improving resource recovery and efficiency

As I've noted, the two indicators that are being considered for use in the short term to measure progress towards the sustainable development strategy's goal of "managing natural resources more responsibly" look only at waste.

To help us move beyond waste and towards sustainable management and use of resources, we will need to look for other ways of measuring progress in the medium to long term. One relatively new indicator we believe would be useful is Total Material Requirement (TMR), which we calculated for the first time in our *Environmental signals 2000* report.

T o t a l M a t e r i a l R e q u i r e m e n t

- I n d i c a t o r o f e c o n o m i c b u r d e n o n e n v i r o n m e n t
- E x p r e s s e s m a s s o f a l l p r i m a r y m a t e r i a l s e x t r a c t e d t o s u p p o r t h u m a n a c t i v i t i e s
- F i r s t c a l c u l a t i o n s h o w s E U m a t e r i a l r e q u i r e m e n t s g r o w i n g a l m o s t a s f a s t a s e c o n o m y

What is TMR? TMR measures the mass turnover of all domestic and imported primary materials that are extracted from nature to support human activities. It indicates the extent of environmental impacts associated with resource extraction, materials and energy use and generation of emissions and waste. In short, TMR makes it possible to calculate the EU's overall burden on the world environment.

Earlier this year the Agency issued a report based on the first calculation of TMR for the EU as a whole, undertaken for us by the Wuppertal Institute. It showed that the EU countries have made little headway towards preventing economic growth from translating into higher natural resources use. The EU's material requirements have been growing almost as fast as the economy.

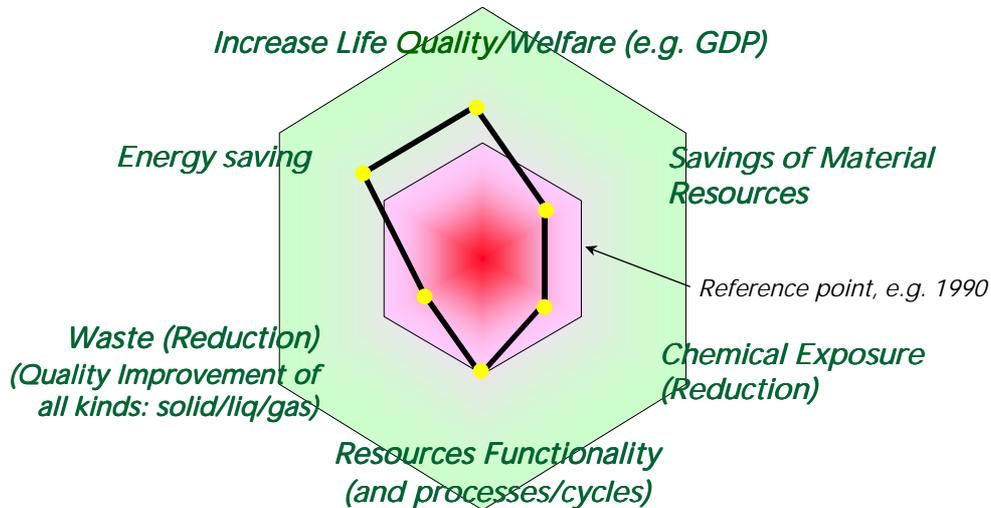
Between 1995 and 1997 TMR rose by 3% from 18.1 billion tonnes to 18.7 billion. The increase was due entirely to increased imports of materials, particularly precious metal ores, whose extraction creates large volumes of mining waste.

This first calculation up to 1997 shows us that around 50 tonnes of materials a year have to be extracted from the Earth to support the lifestyle of each EU citizen – much less than the US level of 84 tonnes in 1994 but above Japan's level of 45 tonnes that same year.

We have made only limited progress towards improving the efficiency with which we use those resources, or what is called "material productivity." Between 1988 and 1997 TMR per capita in the EU rose by 11% while the economy grew by 18%. This means there was some decoupling of TMR from economic growth but not to any significant extent. It is worth noting that Japan's lower TMR but higher economic growth in per capita terms means that its material productivity is some 1-1/2 times higher than the EU level.

The shift to sustainability will surely mean using less materials and energy but using them more efficiently – a shift from quantity to quality, one could say. To guide us we will need some kind of "sustainability compass." TMR can be helpful in showing how successfully we are following the compass's directions.

The Sustainability Compass: an example



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Ladies and gentlemen, the task of working towards Gothenburg's goal of managing natural resources more responsibly falls to all policy sectors as they continue the "Cardiff process" of integrating environmental considerations into their thinking. However, for now the most detailed set of goals and actions in this area comes from the 6EAP.

How is the European Environment Agency supporting the 6EAP?

With the help of our Topic Centre on Waste and Material Flows we are currently developing a conceptual framework for waste and material flows from which a core set of relevant indicators will be derived. The framework will reflect our twin aims of improving information about the current and future waste situation while at the same time assisting the shift "beyond waste" into the area of sustainable use of resources.

The indicators will need to be sufficiently relevant, robust and reliable to make it possible to evaluate the environmental performance of the 6EAP and the thematic strategies on sustainable resource use and waste recycling that will flow from it. The effects of legal instruments such as the directives on packaging, landfill, end of life vehicles and waste from electrical and electronic equipment will also need to be evaluated.

Particular emphasis will be placed on the causal link between resource use and the generation of waste. And the conceptual framework will supplement data collection – the "classical" approach to information gathering – with modern information assessment tools and methods.

Suitable indicators will be needed on material flow accounting, a methodology that follows materials from their origins to their end use and which should allow us to start 'closing the loop' of inputs and outputs.

Simple models using coefficients for material inputs and waste outputs for economic processes will be developed. These will provide insights into how to design a closed loop economy that prevents or minimises waste generation.

The Agency is also working in the field of predicting future trends in waste generation and assessment of dangerous substances emitted into the environment by waste treatment and disposal. A computer model has been developed and tested on an important waste stream, namely waste from electrical and electronic equipment. The model is currently being evaluated and modified to make it applicable to other waste streams as well.

The aim of this initiative is to prepare an integrated model which can help the Agency and its clients, such as DG Environment and national authorities, to assess all major questions associated with any waste stream, including forecasts of future waste quantities and the preparation of scenarios.

Ultimately, by applying the set of indicators, information assessment tools and models I have described, we should be able to

- Assess waste quantities produced by major economic activities and relevant emissions of dangerous substances
- Analyse economic activities by using material flow analysis and allocate waste quantities at each stage of the production process
- Predict future trends in waste generation and prepare “what if” scenarios
- Describe the most important environmental impacts caused by waste collection, treatment and disposal
- Evaluate best available techniques for waste prevention/minimisation and the effectiveness of policies and measures implemented.

It should at last become feasible to make reliable predictions of waste quantities and impacts caused by various activities on the basis of reliable socio-economic data, for instance on industrial production, without the need for accurate basic data collection. We hope to reach this position in around five years' time.

In the more immediate future, we will be publishing reports over the next few months on a number of resources- and waste-related topics that I hope will be of particular interest to this audience. These will cover:

- Specific aspects of waste minimisation
- Strategies and instruments related to organic waste
- Emissions from various waste treatment schemes, and
- Construction and demolition waste and other waste streams.

Finally, ladies and gentlemen, permit me to mention briefly our activities regarding best practice.

We promote best practice through printed publications but, more importantly, through a feature on our website called EnviroWindows, a cost-free information resource for businesses, local authorities and their stakeholders.

Through sets of “portals” linking mainly to information from outside the EEA, EnviroWindows facilitates public access to information on companies' products, best practices, use of natural resources and environmental performance. It also helps local authorities to communicate with concerned citizens, professionals, policy makers and companies.

Current participants include, for example, business networks promoting exchanges of experiences in cleaner production and benchmarking of industrial environmental performance.

Sharing best practice information is essential for accelerating the transition towards sustainable development and EnviroWindows is an excellent platform for doing so. We are continually developing EnviroWindows and would be delighted to welcome ASSURRE and other business groups dedicated to sustainable resource management as participants.

Providing opportunities for people to do better, and to share their experiences, reflects the EEA's preferred approach of focussing on what to do rather than what not to do as society strives for sustainability.

I thank you for your kind attention.