

OUR VISION
FOR ENVIRONMENTAL RESPONSIBILITY
AND SUSTAINABLE DEVELOPMENT

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Almost 300 years ago, in 1709, English industrialist Abraham Darby set into motion the process that gave life to the Industrial Revolution by using for the first time coke - a special form of coal - to separate iron from its ore. The industrial use of fossil fuels started to soar from that moment on.

Three years later, in 1712, the first workable steam-powered engine was developed by Thomas Newcomen and in 1765 James Watt produced its improved and more reliable version of it.

Before the end of the eighteenth century several new machines were developed that revolutionised the textile industry. In 1813, industrial employment overtook agricultural employment in England for the first time, and the pace of industrial progress continued to accelerate. The population of Manchester passed 100,000 in that same year.

In 1852, Scottish chemist Robert Angus Smith first recorded unusually acidic rainfall in Manchester.

Only four years later, 1856 was to be remembered in London as "The Year of the Great Stink": the river Thames smelled so badly that Parliament was evacuated. And one century later, in 1952, London was plagued by its infamous "pea-soup" smog, that took the lives of approximately 4,000 people.

After that date, it's recent history. The nuclear reactor core melt-down in Chernobyl, the pesticide leak in Bhopal, Exxon Valdez spilling 37,000 tons of crude oil in Alaska, are just few of the better known milestones in our race towards a planetary disaster.

But "accidents" like those I just mentioned represent just a small portion of environmental damage. The hole in the stratospheric ozone layer or global warming, as much as water and air contamination, are the direct consequence of wider spread assaults on our natural resources, in a perverse race where developing countries start playing a major role too. Just as an example we may quote China which, in less than half a century since 1950, multiplied its carbon emission in the atmosphere by a factor of almost 40, and with 725 millions of tons per year is now approaching the USA as the #1 polluting country, as far as this specific factor is concerned.

However, the picture I just painted with my simplified chronology of industrial progress and of corresponding environmental damage is not completely true, or at least it's not the whole truth. In order to be complete, the picture should also include positive events and thus describe the global trend in its complexity.

Unfortunately, I cannot go very far back in history to find the first sign of official environmental awareness.

Actually, it is true that today it is quite rare to find somebody who is not familiar with the term "environment" and the associated problems and challenges. Nevertheless, 20 years ago this term was scarcely used and not very familiar to the majority of executives and managers in most of the industry.

The awakening to the presence of ecological problems and the gradual awareness of our inescapable responsibility in handling the "mess" we humans have created was an accelerating process which went through different phases: surprise, indignation, witch-hunt, and then illusion, consternation, indifference, to finally arrive at a more modern and valuable state of assumed responsibility.

Within this overall pattern, the creation of Sweden's National Agency for Environmental Protection in 1967 is widely accepted as representing the first official legislative act in this area.

1970 saw the creation of the Environment Protection Agency in the USA that soon led to the Clean Air and Clean water acts. In 1973 UNEP, the environmental agency of the United Nations was created.

World-wide awareness and concern for environmental issues kept growing in the following years, together with the widespread adoption of more stringent regulations on all forms of pollution and on the use of natural resources. As a matter of fact, innumerable regulations and laws arose like mushrooms in those countries more clearly aware of the possible impact of an ecological disaster. They reflect the empirical approach in trying to solve the problems as they emerged, or rather, as we became aware of them.

Today in the United States, just the current code of federal regulations is more than 11,000 pages long and in Europe, on top of national and local regulations there are no less than 300 Community laws that regulate this sector.

The pattern is clear: in the beginning, the main concern was to create a body of laws and legal enforcers that could seek out and penalise the responsible parties. This created the need for compliance, which was taken, in most cases, as an aggravation and an unwelcome waste of money.

Nevertheless, the concept of prevention of environmental damage started slowly to gain momentum as it was favourably endorsed by all major environmental Agencies throughout the world.

1984 is marked, in my opinion, by a very important development. That year, in Versailles, ICC (the International Chamber of Commerce) and UNEP, organised the first conference of the World Commission on Environment and Development. The Prime Minister of Norway,

Ms. Gro Harlem Brundtland, chaired the conference and the final report of the Commission, presented in October 1987 to the General Assembly of the United Nations, was named after her.

The basic aim of that report was the promotion of an "economic development that satisfies present needs without compromising the possibility for future generations to satisfy their own needs". This concept of preserving the future while not destroying present economic development is the basic foundation of SGS-THOMSON's environmental philosophy. And we are not alone in choosing this approach.

In 1991, the ICC, at the 2nd World Industry Conference on Environmental Management in Rotterdam, once again organised by the ICC itself and by United Nation's UNEP, presented a "Charter for Companies for SUSTAINABLE DEVELOPMENT" . And, of course, the widely accepted definition of SUSTAINABLE DEVELOPMENT is the one I already quoted from the Brundtland report, where today's economic development must both satisfy present needs and, at the same time, not compromise the possibility for future generation to satisfy their own needs.

At the Rotterdam conference, Ms. Brundtland stated:

"Business should not wait for governments to act. The more industry realises its own responsibilities, the less government will have to intervene. Large corporations, operating on an international level, to a great extent control or influence all parts of the production chain, from primary production - often in developing countries - through research and development to manufacturing and marketing. True environmental responsibility must be applied to all parts of this chain from cradle to grave".

Following this, the ICC has actively encouraged its associates and other companies to express their support to the charter which provides a basic framework of reference for action by individual corporations and business organisations throughout the world. In just over one year more than 1,000 companies - half of them European - had subscribed to adopt the 16 principles for environmental management of the ICC Business Charter for Sustainable development.

Needless to say, SGS-THOMSON has adhered with enthusiasm to this initiative, and the very concept of Sustainable Development is one of the pillars on which our environmental philosophy is based.

I will discuss this philosophy in a few moments. But let me first make one more comment on the history of industry that will help in better understanding the overall trend and the specific evolution in our approach to the environment.

If we look back over history with an eye on how the concept of a business enterprise has developed down the generations, we can see five distinct phases. Take for example the idea of corporate responsibility. In the early days, it was believed that companies had only one responsibility - towards their owners (or to use a more up-to-date term, their shareholders). Then came the realisation that there was also a responsibility towards the customers. Then, in a new step forward, it was realised that firms have a responsibility towards their own employees - the men and women who work in them and who represent their key resource. A few years later another idea began to gain ground - the idea of the firm's responsibility

towards its own partners. We are now beginning a fifth phase, in which firms are also aware that they have a solemn responsibility towards society - in the broadest sense of the term - and, above all, towards the environment.

We are all aware of the very serious dangers our planet is confronted with and we bear the collective duty to contribute and reduce those risks. This is why environmental protection must become one of the key missions of our company.

Three basic motives are behind this statement. The first and most important is no doubt an ethical one that stems from our responsibilities as a corporation towards society as a whole.

The second reason is of economical nature. It could be summed up with a slogan: Ecology is free. Why? For two reasons: because companies that independently and voluntarily make their own activities conform to increasingly stringent environmental protection standards certainly have an advantage over those who only do so when they are forced to by the law. Moreover, environmentally-friendly technologies and processes are also leading-edge ones, as well as more efficient and less costly.

Finally if SGS-THOMSON Microelectronics becomes an environmental champion, it will have greater appeal for young talent and the best human resources, which will help us to grow in line with our goals. Whoever comes to work for SGS-THOMSON in future will want to know that they are working for a "clean" company. Companies which in the long term do not have the proper environmental awareness will not only contribute to destroying the environment - they will also have serious problems competing on international markets.

With the statement I just made - particularly when I mentioned the second reason for our environmental commitment - I put the accent on purely economical aspects, that are to be taken in consideration in parallel with ethical and social aspects. I would like to be very clear as far as this point is concerned: the two aspects are not contradicting one another.

Actually, the sole scope for any business enterprise is that of creating wealth, that is to say it must operate as a resource amplifier. It's as simple as that: you input a certain amount of resources and the output must be greater than the input. If this is not true, then it's not a business enterprise, it's a parasite. Well, since our corporation is a business enterprise, then our duty as employees and managers is that of amplifying the financial resources we are given by our shareholders, by making the best use we can of them, through a complex industrial process that includes other resources, both material and human.

Well, I am deeply convinced that - while applying this industrial process to our reality - the attitude of caring for the environment is not only compatible with our business scope, but it also gives us a competitive advantage.

Those that deny this are fighting a war of the past. It just reminds me of what was said 15 years ago about quality. Bad companies would say: "Quality is very nice, but unfortunately we cannot afford it, it's too expensive". At the same time, good companies realised that quality was free and that, on the contrary, non-quality was too expensive for a company to bear its cost in the long run.

Of course I don't mean that there are no costs involved in environmental protection. Simply, I am sure that the benefits largely offset the undeniable costs.

As I said, we had this concept very clear in our minds since the very beginning when we started moving towards achieving our environmental mission, which is:

"To eliminate or minimise the impact of our processes and products on the environment, maximising the use of recyclable or reusable materials and adopting, as much as possible, renewable sources of energy, striving towards a sustainable development".

This is our environmental mission, and I believe it pretty well describes our environmental policy. But let me say, however, that the true final objective we must aim for is "environmental neutrality". Let me go into this a little more deeply.

A hundred years ago when a farmer ran his own holding, he did no damage to the environment. He recycled everything, using manure from his animals to fertilise his fields and eating the produce from the land. If after twenty years' farming he closed down the holding, he left the environment exactly as he had found it two decades earlier. This is what I mean by an "environmentally neutral" activity, the same as I would like SGS-THOMSON to achieve. Is this merely a dream? Perhaps. But this is the direction we must all work in.

And let me say we are doing it.

Is it an easy job or a short-term one? Of course it's not.

The challenge doesn't stop there either. Actually, I see our progress evolving in two phases, which are characterised by two different attitudes or roles SGS-THOMSON is playing, as far as environmental commitment is concerned.

The first phase is typically that of the "follower mode".

The second one is that of "proactive mode".

Let's discuss them in detail.

In the first phase, we simply made sure that SGS-THOMSON was in strict compliance with all the laws and regulation that were in effect at all our sites, throughout the world.

Too obvious, one could say. You may even think this was a trivial task, but it was not. As I mentioned earlier, the body of rules that must be followed is so complex that they often create a confusing, heterogeneous and sometimes contradictory scenario.

Nevertheless we achieve this goal every day. And, as an added step in this phase, we decided to move ahead and set for ourselves the target of adopting at all our locations worldwide the most stringent of all regulations originating from any country where we operate. This means that if, for example, Germany has the most stringent regulations on packing of goods and requires the adoption of fully recyclable boxes, we will adopt the same recyclable boxes throughout the company, even in those countries where non recyclable boxes are still acceptable.

As I said, we define this phase as that of being in a "follower mode" since we are following external indications. To be precise, the second step in this phase probably deserves the definition of "follower mode plus".

The next phase is the one we are in today. We are evolving from a rather passive role to a "proactive mode": it's an important step forward.

In this phase we want to anticipate national or local regulations, moving as far and as fast as we can in the direction of becoming a company that is "environmentally neutral".

To do this, we must adopt inside our corporation a set of specific norms that are tougher than those imposed by external authorities. Once again, in choosing this strategy we are fully convinced that this is the right thing to do, not just for ethical and social reasons but also because, in anticipating the inevitable evolution of environmental legislation, we can certainly be rewarded by an additional competitive advantage.

In practice, we have set for ourselves a number of simple, concise and unbreakable rules together with a number of goals, cast in stone which are our environmental decalogue. You have just received a copy of it - in a (recycled and chlorine-free) paper version, of course.

Although you will have ample opportunities to see more on these subjects while visiting the exhibition dedicated to our environmental projects, I think this is a good occasion to have a quick overview of the Decalogue, which we define as "Our Vision for Environmental Responsibility and Sustainable Development".

Let's briefly see all ten points.

- The first one is on regulations. I already mentioned the decision of extending worldwide the adoption of all most stringent regulations originating from any country where we operate. On top of that, our goal is to anticipate by at least one year the improvement deadlines set by official authorities at any of our plants, throughout the world.
- Point number two is on conservation. Here we set for ourselves three important targets related to the conservation of Energy, Water and Trees.

At equal production levels, we want to reduce total energy consumption by at least 5% per year and the consumption of water by at least 10% per year.

Also paper consumption, which is directly linked to deforestation, should be reduced - in absolute value - at a rate of 10% per year. Just as an example, thanks to the wider adoption of electronic information media, like CD-ROMs or the Internet, we are reducing paper consumption for our sales documentation by more than 40% this year, and next year we will consume one quarter of what we used in 1994.

- The third point deals with recycling, an aspect which is of vital importance since it has direct implications on other parameters like pollution or the conservation of natural resources.

Here we defined a target for 1999 of 90% recycling of water and 80% recycling of most used chemicals, like for example sulphuric acid.

Under this point we cover also the adoption of new energy sources, either renewable or co-generation, with at least 3 pilot plants installed by the end of 1999.

- The fourth point, dedicated to pollution, is another heavy one.

Here the most significant aspects are probably those relating to air emissions and land-fill.

We want to phase-out all class 1 Ozone Depleting Substances from our factories by the end of 1996. Those are the substances that destroy the ozone layer: we have already eliminated by mid 1993 all such substances that were in direct contact with our products during the manufacturing process, but now we are aiming at eliminating them from all other equipment well ahead of the date foreseen by the Montreal treaty and its amendments.

As far as land-fill is concerned, our goal is to reduce at least by one half every year the percentage of waste that is not either burnt with recovery of energy, or recycled or reused. Of course the best way for reaching our goal is that of simply reducing the creation of waste and this is our #1 priority.

- Point 5 - contamination - requires that we, once more, apply the most stringent of all regulations in the handling, storing or disposal of all potential contaminants and hazardous substances.
- Point 6 - waste - attacks two problems: manufacturing waste and packing.

We aim at recycling 80% of all manufacturing byproduct waste and our target is to advance at such a rate that the difference between the actual situation and the goal is at least halved every year. Let's make an example. Imagine that today we recycle only 40% of our manufacturing byproduct waste: then we should be recycling at least 60% next year, 70% in 1997 and 75% in 1998.

And we want to apply the same improvement pattern to packing, where the goal is to reach again 80% of recyclable, reused or biodegradable materials.

- Point 7 - products and technologies - attacks environmental responsibility from a different angle. The idea is to design products that are inherently less power hungry or that allow more efficient applications so that energy consumed in their operation by the year 2000 is one tenth of what it is today.
- Then we come to point 8. Well right now, with this meeting, we are complying with point 8 - proactivity.

It states that we will sponsor an annual environmental day at each site: today we are launching this initiative with this first SGS-THOMSON corporate event.

We will also proactively support local environmental initiatives, such as "Clean-up the world". Proactivity includes, among other things, adding an environmental course to the program of the SGS-THOMSON University and offering it to suppliers and customers.

- Point 9 - measurement - sets the reference framework to specify, quantify and check the progress in achieving the goals defined in the decalogue.
- Last but not least, point 10 - validation - is another pillar of our environmental policy.

It states that we aim at having 100% of our sites validated - or approved - as being compliant to the European EMAS environmental regulations or similar standards. We would probably be the first company in our sector to achieve such a result and it would put an official seal on the effectiveness of our action towards environmental responsibility.

Well, we have seen the 10 "commandments". But as I already said that's not all.

Our environmental Decalogue is the document that brings SGS-THOMSON into "proactive mode", the second phase of our environmental progress. Today's event, other similar meetings throughout the world, the hard daily work and the dedication of all the colleagues that are and will be involved in environmental issues, will bring awareness inside SGS-THOMSON at very high levels. We will very rapidly make the step function from mandatory compliance to external rules, to the acceptance of stricter, self imposed standards.

We are trying to make a cultural change happen in a rather short time. This may be painful in traditional industrial environment: as a rule it is not at SGS-THOMSON. Continuous innovation and sudden changes are the rule of the game in the semiconductor business.

I am sure that we will soon see successes in our action, in the form of targets reached in time. And I am even more sure that we will see the positive economic effects of our environmental choices materialise: investments that pay-off in just two years, for example. Positive momentum will build up and a virtuous circle will be experienced throughout our corporation. Good, will bring good, and improvement will spark enthusiasm for even further improvement.

Almost in parallel, we will start to extend our message to the reality that surrounds our sites worldwide and we will act as the one of the centers of aggregation for companies like ours which have similar environmental projects. We will first talk to our best customers and suppliers, and then, with their help, we will reach out and try spreading this message to a larger audience. We would like to see the creation of informal associations or clubs that have the mission of diffusing a shared culture of environmental responsibility and sustainable development.

Whenever possible we will in the future associate local authorities to this educational effort. You see, for symmetry we could define this phase as that of "proactive mode plus".

But in our mind this process of reaching out should not be oriented in one direction only.

Although we progressed a lot in a very short time, we are far from being perfect . We don't know all the answers yet. Probably we don't even know all questions. We still have a lot to do, and a lot to learn.

For example, this is the beginning of a dialogue with you, our public, and we will extend this dialogue to responsible environmental organisations.

We certainly want to share with you what we are doing, and what progress we are achieving. But we also want your help and participation. We need to learn from you what are your concerns and needs, and priorities. We will listen to you and accept your advice on where and how we can do better.

We all have a stake in the environment. We are all responsible together for the kind of world we leave to our children, and their children. It will be a long journey to undo the harms that have been done in the past, and to positively create a better world for the future.

Today you will see some examples of the first steps we are taking on that journey. As we go forward, we wish to invite you, the local authorities, the community representatives, the environmental organisations, our partners in the industry, together with all SGS-THOMSON people worldwide and their families, to travel with us, to assist us and to support us - towards a better world.

Thank you.