

# CEMBUREAU AND THE ENVIRONMENT

JEAN-MARIE CHANDELLE, CHIEF EXECUTIVE OF CEMBUREAU, INTERVIEWED BY ROBERT MCCAFFREY  
(PART 2 OF A 2-PART ARTICLE)<sup>1</sup>

Cembureau's role is largely focused on the environment: here its chief executive speaks about Europe's proposed environmental liability legislation, about life cycle assessment and about CO<sub>2</sub> trading schemes. Take note: this is the future of cement in Europe.

Les activités de Cembureau sont en grande partie ciblées sur l'environnement : le directeur général de cette entreprise évoque dans cet article la proposition de législation européenne relative à la responsabilité en matière environnementale, les évaluations de cycle de vie et les programmes d'échange de droits d'émission de CO<sub>2</sub>. Prenez note : il s'agit de l'avenir du ciment en Europe.

Cembureau konzentriert sich in erster Linie auf die Umwelt: Der Geschäftsführer bezieht sich auf die von Europa vorgeschlagene Gesetzgebung zur Umwelthaftung, das Life Cycle Assessment (Ökobilanz) sowie auf den Entwurf einer Richtlinie zum Handel mit CO<sub>2</sub>. Beachten Sie: Es geht um die Zukunft des Zements in Europa.

El papel de Cembureau se centra principalmente en el medio ambiente. En este artículo, su director general habla sobre la legislación en materia de responsabilidad medioambiental propuesta en Europa, sobre la evaluación del ciclo de vida y sobre los planes comerciales respecto al CO<sub>2</sub>. Nota: Este es el futuro del cemento en Europa.

Jean-Marie Chandelle, the chief executive of Europe's cement association, CEMBUREAU, recently spoke with **GCL** on a wide range of issues. This article concentrates on CEMBUREAU's role in the area of the environment.

**GCL** started by asking Jean-Marie Chandelle about the main topics that concern CEMBUREAU. "I think that there are a number of key issues on our agenda," replied Jean-Marie. "One of the key areas that we are engaging is 'valorisation' of waste. Last year the EU adopted a new Directive which opens the door for developing further the use of alternative fuels in the cement industry. We have now adopted an action plan, with the aim of increasing the share of waste burned in cement kilns in Europe. Today the European average is about 12%. If we continue on a business-as-usual scenario, by 2010 cement kilns in the EU will have an average substitution rate of about 17%. If we are more active and obtain strong support at national level, it could be close to 30%. In Switzerland, the substitution rate is already 40%; in France it is more than 26% and, in Belgium, 33%. It's an interesting way to reduce global CO<sub>2</sub> emissions and to

develop an affordable waste management solution for local communities."

"Taxation of energy is also high on our agenda. The idea behind this tax, which was proposed by the European Commission in March 1997, is to shift the burden of taxation from labour – there is no dispute that non-wage labour costs are too high in Europe – to energy. The trouble is that the cement industry is at once very energy intensive and non-labour intensive. There is no way that the proposed tax would have a neutral effect on the cement industry. Furthermore, it has to be kept in mind that, in the cement manufacturing process, energy is used to effect a chemical transformation, i.e. decarbonation, or a physical transformation (grinding). We advocate that this is 'process energy' and that it should be treated in the same way as other instances of process energy as in metallurgical and electrolytic processes where process energy is exempt from the proposed tax. There is also the idea to impose a tax on virgin raw materials, with the aim to create and develop a market for recycled aggregates. In Germany, the amount of recycling of used construction materials is already at around

75%. It should be kept in mind, however, that in the Netherlands, Denmark and Germany, there is relatively dense settlement, and it is easier to operate an aggregate recycling scheme. If you move to countries like France or Spain, the same recipe will not work."

"Access to raw materials is another area where we are very active. The Habitats Directive in the EU is earmarking areas – as high as over 12% of the entire area of the EU – as 'reservation areas,' where you will not be able to start new operations, or where you will not be able to extend existing operations. This will make it increasingly difficult for the cement industry to gain access to the raw materials for production."

## Future trends

"Today the cement industry contributes to about 5% of the total worldwide anthropogenic emissions of CO<sub>2</sub>; in the EU, about 3%. Industry as a whole in the EU creates around 18% of the total. However, in the EU, 40% of the emissions are from the use of buildings. We have lobbied very hard to make sure that the European Commission in Brussels understands that you cannot expect industry to foot 100% of the bill for reducing CO<sub>2</sub> emissions. You should also look at, for example, existing buildings.

"There is no way that the proposed energy tax would have a neutral effect on the cement industry."

"You could substantially reduce CO<sub>2</sub> emissions with existing techniques, by improving the energy efficiency of buildings, using techniques that are already available and at a cost which can be absorbed by the market. A new EU Directive is now seeking to impose energy efficiency in buildings: we know that this will create jobs and opportunities for our industries and we support the Commission's proposal and hope that the hesitations of the Member States will be overcome, under the justified pressure of the European Parliament."

"We have in the cement industry made a number of voluntary commitments or environmental agreements in Belgium, Germany, France, the UK and the Netherlands. We are already reaching the second generation of these agreements in some places, such as those in Germany and the Netherlands. This is a far more efficient way to reduce CO<sub>2</sub> emissions than through energy taxation. The European energy taxation plan suggests that the taxation may decrease CO<sub>2</sub> emissions by 1.47% (according to the GEM-E3 model used by the European Commission). We have already achieved far more substantial reductions under the various environmental agreements at national level. More can be done, of course, if we are allowed to use the right tools to do it: alternative fuels, bringing down the intensity of energy usage and by developing secondary raw materials. Given the high energy efficiency already achieved over the last 20 years in the European cement industry, the improvement which can be obtained now through traditional means and innovation is probably limited to some 2%."

### CO<sub>2</sub> emissions trading

"Reducing CO<sub>2</sub> emissions is probably the greatest challenge that we are faced with today. The European Commission has just approved a Directive on emissions trading."

"The proposal requires operators of installations within certain industrial

sectors to hold a greenhouse gas emissions permit. The permit will lay down monitoring, reporting and verification requirements and obligations to ensure, on an annual basis, that the operator has sufficient 'allowances' (the right to emit a certain amount of greenhouse gas) to match the actual emissions from the installation. The allowances will be allocated to the operators by Member States in accordance with certain EU rules. The operators covered by the trading scheme may buy and sell allowances in order to comply with the obligations of the permit."

"As an industry, we are in favour of having the option to use emissions trading, which is a flexible mechanism to reduce CO<sub>2</sub> emissions. In fact though, the directive, if it materialises, is really a way to further regulate energy intensive industries, which are covered by the IPPC Directive - the lime industry, the steel industry, the paper industry, the big power plants and also the cement industry. The problem is that, in industries like the lime and the cement industry, prices are low and the possibility for us to

buy CO<sub>2</sub> allowances will depend very much on whether or not these are available to us at a reasonable cost. Some of the projections that we have seen clearly indicate that this may not be the case. One floated scenario suggests that permits might be available at around E30/t. At E30 I think that some of us might find it unattractive to produce cement in the EU."

### CO<sub>2</sub> allowance 'farming'

"What we want to be able to do is to negotiate in each Member State - since they each have different commitments - what the target would be in a given company or sector. If you are below this level, you would be able to sell allowances. There is, however, a potential risk. If the price to buy allowances is too high, we may even end up with a situation which is the worst environmental case, where companies outside the EU would import, with the added environmental

burden of transport, to serve EU Markets. In CEMBUREAU, we all want to avoid this 'worst scenario.'"

"The Directive does not impose a cap directly; it just imposes a framework. The Directive will introduce an emissions trading scheme in two steps. The first step will start on 1 January 2005, and will be a transitional stage, where there will be some flexibility in the caps and there will be lower fines. From 1 January 2008, a scheme would apply of which we know very little at the present stage."

"The Commission is looking at a scheme which will operate company by company, but there is a possibility for the companies involved to pool their allowances and to give a role to, say, cement associations as part of the trading scheme, by pooling the allowances at sector level. This may well be something that may yet materialise. The allowances will be exchanged at European level, although the targets will be determined in each country. The scheme will operate under the close scrutiny of the European Commission which will no doubt play a key role."

### Voluntary trading

"Why not leave the operators and governments to determine the cap through voluntary environmental agreements? The European Commission has gone very strongly against this position. It has gone so far as to say that the UK will have to change its own system, which is based on voluntary agreements."

"We live in a strange world. On the one hand we have these national initiatives that go in the right direction, really based on trial and error and learning by doing, and then, on the other hand, you have a very definitive ideological statement that says: 'that's not the way - we want to impose a mandatory cap, and that's it.' The fact remains that voluntary schemes do work - as proven by the cement industry which is already in the second generation of such schemes."

### Environmental liability

Jean-Marie Chandelle was formerly a practising lawyer, and his legal back-

"With CO<sub>2</sub> emission permits at E30/t, I think that some of us might find it unattractive to produce cement in the EU"

ground will certainly help him in the coming few years as he attempts to optimise forthcoming legislative changes for the cement industry. "No-one knows when the environmental liability system will come into practice, but at the moment, there is a proposal that is being debated within the European Commission. The proposed scheme would impose a liability in the form of restoration costs for 'Significant Environmental Damages.' These are defined as damage to natural resources and contamination of land."

"In the document as it now stands, there is no retroactivity: it would only apply to significant verifiable environmental damage which has occurred after the Directive has come into effect. Of course there can always be some element of uncertainty in deciding when something that goes on in time has actually taken place: when did it really 'start.' If you say, 'This happened before the act came into force,' then presumably the operator would have to demonstrate that that was the case."

"The important feature is that the proposed scheme, unlike schemes that were discussed earlier, will not impose a liability directly upon the operator: it will impose a liability upon the state to take action to prevent or to take action to restore the environmental quality that has been destroyed or damaged. But, of course, there is also a provision that will allow the Member States to recoup their costs from the operators under certain conditions. You might say that it imposes indirectly a burden upon the operators via a burden imposed upon the Member States."

"In this context, it is important that the requirement of causation is retained (this seems to be accepted) and that compliance with a permit still be a valid defence (a point that is still under discussion)."

"All of the activities of the cement industry will be covered by this legislation. The regime for the cement industry and all other industrial activities is strict, but ours is not the industry that will be hit the hardest; for that you have to look at chemicals and steel. It's a regime where negli-

gence does not have to be established, but it's a scheme that would take precedence over national law. According to the document under discussion at the moment, it is estimated that the total cost of the regime would reach around E1.5bn every year, one quarter of which would fall on Member States. This is not the cost to the cement industry: this is the cost for all industries. I am not sure that the impact on industrial competitiveness would be as insignificant as suggested by the European Commission."

### Life cycle analysis

"Over the last two years, CEMBUREAU has joined forces with other European trade associations (BIBM, EFCA, EISA, ERMCO and UEPG representing respectively precast concrete, admixtures, reinforcement steel, ready mixed concrete and aggregates) in carrying out a fully-fledged Life Cycle Inventory and Life Cycle Analysis of a number of functional units in concrete. The work was contracted out to INTRON, an LCA consulting company in the Netherlands, and it was peer-reviewed by IKP, a body attached to the University of Stuttgart in Germany."

"For CEMBUREAU, this is only the first step, albeit a significant one, towards a more systematic use of life cycle thinking in the concrete industry. Already we have a peer-reviewed database with which to confront those who unfairly denigrate concrete products. The next step will be to work with other building materials and solutions to develop life cycle tools that would allow one to consider the profile of more complex units such as a house, a bridge or a road. Once you start this life cycle thinking process, it never ends."

### Global Cement Association?

GCL went on to ask Jean-Marie Chandelle whether he believed that CEMBUREAU might have a part to play as the nucleus of a Global Cement Association? "This question was

raised a few years ago, and in those days it was felt that it was not necessary. In April 2001 CEMBUREAU floated the idea that if we don't need an *organisation* at world level, perhaps we should have a *network* at world level. We would not wish to have a permanent organisation with a staff and so on, but we need to devote some resources to try to tackle world problems together. These clearly include CO<sub>2</sub>. We are talking to the Australians, to the PCA in the US and to the Canadian association, to FICEM in Latin America and to the Japan Cement Association."

"We have direct contacts on the CO<sub>2</sub> issue and on life cycle analysis, where we think that we must be able to look at these questions with a world perspective. We are working closely with UNEP, the United Nations Environmental Programme. Some cement companies have worked together with the WBCSD and CEMBUREAU has helped. We now have a unanimous position on how to report CO<sub>2</sub> emissions: based on the greenhouse gas protocol, developed by the World Resources Institute with WBCSD."

### CEMBUREAU: What's next?

"CEMBUREAU has been going on for 54 years, but it's difficult to predict what will happen in the next 50. All I know is that there have been a lot of changes in the industry, and that we have had to adapt to those changes. I'm pretty sure that in 50 years time we will still have the EU in one form or another. Perhaps by then the EU will have no Member States - who knows? There will still be the need for some kind of organisation acting as a spokesman for the cement industry."

"This assumes that there will still be a cement industry in the EU and that producers have not by then been driven out of the EU by excessive regulatory requirements!" **GCL**

### Reference

1 'In conversation with Cembureau - I' Robert McCaffrey, **GCL: Global Cement and Lime Magazine**, December 2001 - January 2002.

"If we don't need an *organisation* at world level, then perhaps we should have a *network* at world level."