

SEANCE D'OUVERTURE DE LA CONFERENCE
SOFT (Symposium On Fusion Technology).
24.09.2012.

Monseigneur,

Monsieur le Gouverneur,

Monsieur le Bourgmestre,

Monsieur le Recteur,

Ladies and Gentlemen,

First, I would like to say that I'm really honored to be here today to attend this international event.

Indeed, it is a great privilege for me to be a keynote speaker in front of such High Level Experts. It is also a great privilege for our country, and for the City of Liege, to host it.

I quite do measure the complexity of the reflection that you will have for the next days and which will imply numerous questions and issues that need to be solved quickly.

But I tell myself, and that is why this event is so important, that here in Liège, today, tomorrow and also after tomorrow, we could take the first steps to what could be our alternative energetic scenario.

Questions, first. As for example, these about climate change, exhaustion of the oil and gas fields or the nuclear threat.

For all these fields, we all know that most of the time, we tend to be constrained in the phase of reacting, more than in the one of planning and anticipating.

Yet, it will never be too late regarding the development of answers that must respond to the current needs without compromising the capacities of future generations to answer to their own challenges.

The answers we are trying to offer, while always looking for better solutions, has enabled us to diversify our energetic options and to limit our consumption.

And I think it is true that we are doing our very best in the medium term. We all launched proactive policies in this field.

Here in Wallonia, we chose to dedicate one of our Poles of Competitiveness, a major cluster, to sustainable development.

Also, our Activity Zones and our Scientific Parks have all developed good practices speaking of energy consumption.

We multiplied the initiatives to moderate the prize of energy to support the competitiveness of our enterprises, and to help the individuals in their current ways of life.

In the field of aerospace for example, another field we are leader in, some of our advanced technologies can be linked to what is realized in the field of fusion technology, speaking of materials or process.

Belgium is currently participating to the project ITER (International Thermonuclear Experimental Reactor). Thanks to this program and its large scale involvement, new hopes have appeared.

As you know, the access to energy and the economic development are closely linked.

And currently, the global energy demands are exponentially growing.

One of the main reason is of course the economic growth of emerging countries, and we can understand that.

It is also in our own interest that the economies of these emerging countries continue to grow, as our economies are now tied to them, through our trade exchanges and investments.

Energy mix, shale gas, nuclear fusion, or still non-identified sources, which scenario will allow us to guarantee our energy security for the future ?

And what if the future was there, in the reverse process of the nuclear fission ? What if the future was, as Einstein would have said, in the encounter between deuterium and tritium ?

If you are attending this Symposium today, introducing your work, your reflection, your researchs,...and your hopes, it is for solid reasons.

Fifty years for the fusion ? Fifty years for a safety system, without CO₂ emission, and which could guarantee supplying safety ?

I tell you that, because I know that there are still details to fix.

And, particularly, challenges such as approaching temperatures of more than one hundred million degrees while maintaining in the meantime the plasma temperature in the « tokamak ».

I'm quite sure it won't be necessary to define this word for the experts of this Assembly.

But for the non-experts, it maybe useful to know that « tokamak » is the name given by Andrei SAKHAROV to the nuclear fusion reactor or to the device using a magnetic field to confine a plasma in the shape of a torus.

Milleniums ago, at the very beginning of writing, on the banks of the Nile, people venerated the Sun.

And though, Pharaohs certainly didn't know that inside this star, six hundred millions of tons of hydrogen are transformed every second into five hundred ninety-five millions of tons of helium.

Perhaps, we are now really close to a planetary Heliopolis. Perhaps, we are even at the eve, of figuring out an answer to our energy supply for the next millenium. And what are fifty years compared to the scale of the Universe ?

Have a successful day at SOFT.

Thank you for your attention.

Jean-Claude MARCOURT