

Extrait du discours d'ouverture de la conférence Global 2015, par Christophe Béhar, Directeur de l'énergie nucléaire au CEA, président de la Société française d'énergie nucléaire et président de la conférence.

Directors and chief executives, Ladies and gentlemen, my friends

It is a great pleasure and an honor for me to officially open this 12th edition of the Global conference. Since 1993, year of the first edition, this conference allows us to gather every two year around a very important topic for our industry, namely the nuclear fuel cycle.

Around 500 participants this year, 450 technical papers, and numerous presentations in parallel sessions: these numbers are a testimony of the deep interest worldwide about the issues related to nuclear fuel cycle. Based on this solid technical background, I am sure that the lively exchanges that will take place in the next few days will make this 2015 edition in Paris a real success.

The strength of the Global conferences is to be able to address all the issues relevant to the nuclear fuel cycle, without limitations. Since the beginning, this is a key for the success of these meetings, another one being the flexibility and adaptability of the program. This year for example we will have for the first time a session about Uranium resources and needs. Above all, the Global conference is a forum of exchanges and debates about the future of nuclear industry.

It is the third time that Paris and this « Palais des congrès » hosts the Global conference. In about 2 months, Paris will host the COP21 (Conference of the Parties), whose outcome will be of paramount importance for the future of our planet. In this dramatic context, it is our clear and strong duty to reaffirm that nuclear energy has a role to play in fighting global warming. Energy production is one of the mains sources of greenhouse gases emission, and no change will be possible if we don't move to a low carbon energy mix, composed of course of renewables but also of nuclear energy, which is without questions part of the solution.

Indeed, we have so much to do: experts are more and more pessimistic about the possibility to reduce global warming to only 2°C by the end of the century. Today, more than 70% of the electricity produced worldwide is emitting greenhouse gases, and 66% of the carbon credit of the world has already been used.

This is why the first panel of Global 2015 will address this essential question: how nuclear energy can help fight climate change. This is a key topic, and we have to address it in an honest and practical way, without taboo or dogma.

If reducing the global energy consumption can indeed lead to a decrease of fossil fuel use, it cannot be the only solution to cope with the increase of energy needs worldwide, driven mainly by the increase in the world population that could reach 10 billion in 2050 according to the last estimates. Experts argue that such a large population will lead to the doubling of energy needs on a world level.

Nuclear energy, allowing the production of a carbon free electricity at a competitive price, while ensuring energy independence and security of supply, is a part of energy mixes. After Fukushima, if

some countries decided to phase out nuclear energy production, or to curtail it, this is definitely not the case for the countries that are, or will be, the world major economies. USA, Russia, China, India, Brazil and South Africa are good examples of countries with a current nuclear fleet that are adding newbuilds. Closer to us in Europe, UK decided to start new constructions, and I take note with pleasure that Japan has just restarted its first reactors under its new stringent safety regulations. That's why we will have also a Panel to think about the challenges and opportunities to develop nuclear energy.

We will talk of course about future systems: innovation is a key element to ensure the development of nuclear energy, and continuous progress and innovation have always been part of our approach, especially in the field of safety, illustrated by the different generation of reactors. The Gen III, coming to the fore in terms of operation at the moment is the result of this continuous improvement. But we shall not rest on our laurels, and must keep going on in this virtuous path, in order to keep nuclear energy attractive for tomorrows' leaders.

Many countries are working on generation four systems, in a strong framework of international collaboration, for example through the GIF that I will have to honor to chair next year. These systems must lead to technological breakthroughs, both on the reactor side but also on its associated fuel cycle. Once again, the approach should be a global one, and one has to think in terms of the whole system.

Among these different systems, the priority has to be put, probably, in my mind, on fast reactors: the need for sustainability, the optimized use of scarce resources, and the logic of reusing the nuclear material out of economic and environmental concerns lead us in that way. These systems alone can use almost all of uranium whatever its isotopic composition, and permit Pu multi recycling.

R&D on future systems must be ambitious, and lead to technological breakthroughs as I mentioned earlier. In the fuel cycle the main challenges are Pu inventory management, the full closing of the cycle, the transmutation-separation and the footprint of final wastes on the repository. All these subjects, and others, will be discussed during this conference.

But our reflexion cannot be restricted to technical matters: we should address also education and training issues, and think about the social acceptance of nuclear. There is no future for our industry without the support and trust of public opinion. The panel devoted to those issues will be I'm sure very interesting since exchange of feedback in between participants can only lead to better mutual understanding.

We will finish this conference by a keynote speech by our colleagues from TEPCO and NDF, who will give us the last news about Fukushima 4 years after, and show us the way forward for the future of nuclear energy in Japan.

It is time for me to finish also my welcome address. Thank you again for coming to Paris, enjoy your stay in our capital, and I wish you very good meetings and a lot of fruitful discussion during that 2015 edition of Global conference.

Thank you very much.