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Energy Commissioner

**The Energy Challenges in the EU:  
Security of Supply, Sustainability and  
Competitiveness – Focus on Nuclear**

Check Against Delivery  
Seul le texte prononcé fait foi  
Es gilt das gesprochene Wort

Speech at the Sustainable Nuclear Energy Technology Platform

**Brussels, 21 September 2007**

Ladies and Gentlemen, Distinguished Guests,

It is a pleasure for me to participate in and contribute to this launch event of the "Sustainable Nuclear Energy Technology Platform". As a physicist by training, I will be preaching in my own chapel today as I am deeply convinced about the power of research and innovation to open up new horizons and find new solutions to outstanding challenges. This technology platform is exactly what we need in order to turn the three-dimensional challenge of competitiveness, sustainability and security into an efficient and optimal reality for our future energy supply.

As we now all know, a "business as usual" approach is not sustainable as it would result in a greater dependence on imports of gas and oil, from ~50% today rising to 65% or more by 2030. This would go hand in hand with increasing CO<sub>2</sub> emissions, contrary to our recent common commitment to precisely reduce emissions.

To rectify this trend and to move out of fatality, the Commission has proposed to set up an overall Strategic Energy Technology plan (SET plan) as part of its energy package to free considerable resources towards the development and early implementation of a low-carbon energy economy.

I shall focus my intervention first on the context of nuclear and its intrinsic challenges, then on the structured response the Commission has set up, and finally, on Research & Development and more importantly, the positive contribution the Sustainable Nuclear Energy Technology Platform (SNE-TP) can have to find solutions.

## **Context**

At the Heads of State and Government summit of 8/9 March 2007 the European Council noted the Commission's assessment of the contribution of nuclear energy in ensuring security of supply and the reduction of CO<sub>2</sub> emissions, while reaffirming that the exact structure of the energy mix in Member States rests with national authorities.

It also stressed that nuclear safety and the management of radioactive waste have to be further improved as an important precondition for the further development and use of nuclear energy. We therefore have a red line in this matter coming from the highest level, and shared by many in our populations.

The recognition of nuclear energy as a valid source in a low-carbon energy economy is indeed threatened by a low public acceptance in some countries or even by the refusal of nuclear energy in others, sometimes merely due to a lack of knowledge and transparency.

The Council of Ministers on 8 May 2007 drew its own conclusions setting out a list of possible actions and extended cooperation with international partners and instruments such as the Convention on Nuclear Safety, the IAEA, OECD/NEA and WENRA;

The main conclusions of the Council included the following:

- To strengthen existing international contexts at EU level in terms of common approaches and good practices to the safety of nuclear installations;
- To coordinate national follow-up actions among Member States and the Commission to achieve common approaches to safety and regulatory issues;
- To create more openness and co-operation, exchanging information on research and providing all Member States with the opportunity to be informed on national and Euratom activities with respect to nuclear safety issues.
- A need to increase the level of transparency on nuclear safety related issues;
- To develop strategies for the safe management of all types of spent fuel and radioactive waste;
- To review the national systems on the financing of Decommissioning funding with the aim of finding a common understanding and availability of adequate financial resources in each Member State.

Turning back to the March Summit, the latter had come to the broad political conclusion that in the area of nuclear energy, a three pillar approach should be followed to address some of the outstanding issues:

- To establish a High Level Group of nuclear Regulators with the mandate to further improve nuclear safety and facilitate solutions in the area of radioactive waste management;
- To further support solutions in radioactive waste management under the 7<sup>th</sup> Euratom Framework Programme;
- To launch a broad discussion among all relevant stakeholders on the opportunities and risks of nuclear energy in a new Nuclear Energy Forum.

I am glad to say that we have been very quick in responding to the orientations given by the European Council in March as all three proposals have already been followed up by the Commission with the result that:

- We assist today in the launching of the Sustainable Nuclear Energy Technology Platform as part of the SET plan;
- On 12 October, we will hold the first meeting of the High Level Group on Nuclear Safety and Radioactive Waste management;
- On 26-27 November, the first meeting of the new European nuclear energy Forum, also called the Bratislava/Prague Forum, will open a new era of consultations and transparency with all stakeholders.

Allow me now to say a few words on these distinct but complementary initiatives. I would like to start with the High Level Group and the Forum before I come back to the importance of the today's initiative.

## **High Level Group**

As I said, nuclear safety and waste management are crucial to the use and eventual development of nuclear power in the EU. This is why the Commission has adopted a Decision creating the High Level Group of national regulators and safety organisations to cross-fertilise and eventually prepare the ground for the establishment of an improved Community framework for nuclear safety and radioactive waste management.

The High Level Group will be constituted by all 27 EU Member States and it will be up to the Group itself to set the priority issues to be dealt with over the next two years. One of the first expectations, as formally laid down in the Commission's Decision for its establishment, will concern transparency, an important and needed aspect of nuclear energy. The HLG shall consult extensively with all stakeholders and the interested public.

The Commission is confident that the Group will swiftly identify relevant safety issues, help coherent action by the Member States authorities and make recommendations on whether any course of action should be taken at EU level.

The high level of representation expected from countries that operate or possess nuclear installations as well as countries that have chosen not to use this form of energy generation, should facilitate Europe wide cooperation as well as increase confidence in the levels of safety currently implemented in European facilities.

Specific areas of action of the group include the safety and decommissioning of nuclear installations as well as the management of spent nuclear fuel and radioactive waste.

Agreed approaches and recommendations of the High Level Group will be regularly reported to the European Parliament and the Council. The chairperson of the group will be available to explain the reasons for the priorities indicated and the means needed to achieve the objectives.

## **Nuclear Energy Forum**

The future of nuclear energy is heavily dependent on public acceptance. Multiple and most recent Eurobarometer surveys have demonstrated and confirmed that public acceptance depends strongly on the level of information and knowledge available. On the basis of an increased access to concrete information a majority of EU citizens was in favour of nuclear energy, near to 60% (before less than 50%), and those who wanted to reduce use of nuclear were dropping below 30%. These figures stemmed from the fact that EU citizens thought that:

- Nuclear Energy helps to reduce the dependence on fuel imports from certain regions of the world;
- Nuclear produces 1/3 of the electricity in the EU;
- Nuclear Energy is broadly CO<sub>2</sub> free.

Therefore, a broad stakeholder involvement and a transparent communication policy are vital elements to provide the information and share the knowledge that is necessary for increasing confidence and get public adherence to common policy initiatives that touch people in what is most important, i.e. their health and well being. The need for a structured dialogue has been recognised and endorsed by the Heads of State and Government.

I am glad that two of our Member States, the Czech Republic and Slovakia, volunteered to jointly host, on an alternate basis, the European nuclear energy Forum. This is a strong and highly symbolic signal as it is the first time an energy forum will be co-hosted, moreover by two Member States sharing a special relationship. I am also happy to see this strong and helpful commitment in the field of energy by Member States which joined the EU not that long ago.

The broad discussion with all relevant stakeholders will therefore involve high level participants from public authorities, nuclear industry and electricity companies with nuclear power plants, energy intensive consumers, the financial sector and civil society. But, to ensure coherence between structures, the chairperson of the High Level Group and the leading research organisation for the SNE-TP will also be invited, enabling mutual exchange of information and best practices between the three pillars mentioned before.

Following the mandate from the Heads of State and Government Summit, the discussion will concentrate on opportunities and risks of nuclear energy. But any other issue the European Nuclear Energy Forum deems relevant in the context of the use of nuclear energy will be possible.

It is obvious from its mandate and the structure already outlined, that the success of this new instrument is fully in the hands of those participating. Nothing will be imposed in advance. An open and constructive discussion on the opportunities and risks of nuclear, followed by proposed actions towards solutions is the key to its success.

The Slovak Prime Minister honoured me in inviting me to participate in the first meeting of the Nuclear Forum, which I will of course do. I will more generally personally follow with great interest its development and I can assure you of the high commitment of my services to support the Czech and Slovak Republics to guarantee success. But as I said already, efficiency and added value will largely depend on the commitment and inputs of all stakeholders involved.

### **Sustainable Nuclear Energy - Technological Platform**

Having now outlined the complementary content of the first two pillars – the High Level Group and the Forum – this brings me back to the third pillar, namely the Commission's response to the energy policy challenges with respect to nuclear energy.

Europe has so far always enjoyed leadership in the area of nuclear technology. We have mastered all aspects of the nuclear fuel cycle, and we market equipment and services throughout the world. This is a non negligible part of the EU competitiveness and surely a valid input to our Lisbon strategy on growth and job creation.

This strong leadership was notably based on research, to which the Community contributed through six Euratom Framework Programmes, mainly concentrating on radioprotection, safety and waste management. An amount in the order of € 2billion has already been spent since the first Framework Program in 1984, either to support national research (40%) or for research in the Community Joint Research Centres (60%). For the new 7<sup>th</sup> Framework Program, € 287M are programmed to support national research in addition to the € 517M for the JRC.

For example, in the important area of waste management, a sensitive issue where the public shows a great interest, the European Community has already invested around € 200 M under the research framework program, a considerable amount being allocated to geological disposal of high-active waste; however implementation is still lagging behind. Indeed, for example, the currently planned deep geological repositories (Finland, France and Sweden) will indeed only be available in 2020-25.

A similar discrepancy between basic research and implementation is experienced for innovative reactor systems, which could make nuclear energy fully sustainable. More coordinated and less fragmented research programmes could lead to earlier market penetration.

Therefore, we now need to come-up with additional efforts to optimise our European research and development, in better co-ordinating, in setting common goals and in having a larger participation and commitment from industry. The obvious advantages of such an improved approach will be to overcome both fragmentation and overlapping activities. Without it, the European Union risks not only losing its leadership in innovative markets, but could also fail to ensure its long-term supply of competitive, low-carbon base-load energy. This is of particular relevance for the competitiveness of heavy electricity consuming industries in Europe.

That coordinated, structured cooperation also has a high potential of break-through innovation. This is not theoretical potential as we have already good concrete examples in Europe. I will give you two prominent examples from the nuclear sector:

- the first one is where a bilateral joint effort has led to an important quantum leap in technology: the development of the European Pressurised Reactor, a joint French-German effort which has set by its development, a new standard of reactor design and level of safety (also known as Generation III);
- the second one will be a fully Community coordinated programme: the ambitious and forward-looking fusion research programme ITER.

This not only demonstrates the strength of cooperation but also the responsibility Europe has in this technology sector. Developing nuclear safety to the highest possible standard is a responsibility not only for Europe, but for the world; not only for us but for the next generations. And the healthy competition and stimulation that may stem from such an ambition is not to be underestimated. By going ahead, Europe indeed stimulates similar developments by others and thus contributes to a continuous wider improvement; therefore not only our competitiveness, also our responsibility is at stake.

For setting up a SNE-TP in line with the SET plan, I therefore want to congratulate all those involved at all levels in providing a response towards this responsibility.

With the SNE-TP we are going beyond strict bilateral cooperation. Today, a joint European response is offered, an action which aims at near market penetration: a cooperation beyond research alone, integrating industry, technical support organisations and dialogue with regulators where required.

When it comes to financing important milestones – such as pilot plants –, the community and national research budgets are no longer sufficient; industry must therefore have a clear commitment from the very beginning to be prepared to financially support these milestones. A private-public-partnership creates the necessary dynamism within the technological platform, and any subsequent undertaking.

The Technology Platform is of course not the end of the story, it is a first step to reach more ambitious objectives in the medium and long term in gathering a critical mass of funds and knowledge necessary for the elaboration of large-scale integrated initiatives.

## **Conclusion**

Ladies and Gentlemen,

Let me now summarise:

- The Commission, fully supported by the highest political level in Member States, is launching several initiatives and actions at various levels in nuclear energy to make the latter both more efficient and more acceptable.
- The Commission hopes that the High Level Group on Nuclear Safety and Radioactive Waste Management, the Nuclear Energy Forum and the Sustainable Nuclear Energy Technology Platform, will mutually re-enforce each other and will fully stimulate the necessary research to address the issues of nuclear safety and radioactive waste management, amongst others.
- This three-pronged approach will go far in tackling the challenges of competitiveness, sustainability and security of supply which the EU currently faces.
- I emphasise once more; we have many challenges ahead. We must combine ambition with safety considerations. I believe we will now have a sounder framework and thereby an excellent opportunity to move ahead with address nuclear issues in the broadest sense. Nuclear energy is part of the EU energy mix, and will need investments. Our three Directorates General – JRC, RTD and TREN – are keen to jointly assist you. I am convinced that for those who seize this opportunity, the rewards will be great.

Thank you for your attention.