

WELCOME ADDRESS

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Ladies and Gentlemen,

It is a great pleasure for me to welcome you today to this 6th Information Exchange Meeting on Actinide and Fission Product Partitioning and Transmutation.

I would also address more especially my warm welcome to the many young and enthusiastic people, who are starting to work in this very exciting field.

It is the second time that the European Commission co-organises this Information Exchange Meeting with the Nuclear Energy Agency of the OECD. I would like to express here my deep satisfaction of the excellent relationships that we have established with OECD/NEA in the field of Partitioning and Transmutation (P&T), where we share a common understanding. This synergy enables both international organisations to maximise the co-operation in this area between their different member countries and also to invite representatives of China and Russia to participate to this meeting.

I would also like to thank both CIEMAT and ENRESA for hosting this meeting and for the hard preparatory work they have done to make this meeting on its way to a great success.

I am happy that this meeting is taking place in Spain, a country which is very active in the field of nuclear waste management and disposal. Earlier this year, in March, an International Conference on the Safety of Radioactive Waste Management was held in Cordoba and organised by IAEA in co-operation with the EC, the OECD/NEA and the World Health Organisation. From what I heard, it was a great success.

As you all know, P&T aims at reducing the inventories of long-lived radionuclides in radioactive waste by separating them from the waste and then transmuting them into radionuclides with a shorter lifetime. However, there will be always a need for appropriate geological disposal for the existing high level waste and the waste containing the long-lived radionuclides, which cannot be transmuted. Nevertheless, the techniques used to implement P&T could alleviate the problems linked to waste disposal. P&T is still at the research and development stage, which will require long lead-times.

There has been a renewal of interest in P&T worldwide at the end of the eighties (OMEGA programme in Japan, SPIN programme in France). Meanwhile, sufficient progress has been made in accelerator technology to consider as feasible the use of accelerator driven systems (ADS) for waste incineration. Proposals to develop ADS have been made during the nineties by the Los Alamos National

Laboratory in the USA with the ATW (Accelerator driven Transmutation of Waste) programme, by CERN in Europe with the Energy Amplifier (EA) and by JAERI in Japan. In addition, there is a number of research activities on ADS going on in several EU countries (Belgium, France, Germany, Italy, Spain, Sweden), Czech Republic, Switzerland, Korea and Russia.

The interest for P&T in the EU is reflected in the increase of funding in this area over the last three EURATOM Framework Programmes, 4.8, 5.8 and about 26 million € for the 3rd, 4th and 5th Framework Programmes respectively. Research work is also carried out at the Joint Research Centre of the EC, mainly at the Institute for Transuranium Elements in Karlsruhe.

Ladies and Gentlemen, I would also like to take this opportunity to inform you about some recent thoughts about the future energy supply in Europe that has been developed by the European Commission. At the Industry-Energy Council on 5 December, the Vice-President of the Commission in charge of Energy and Transport, Ms. Loyola de Palacio, presented a Green Paper entitled "Towards a European Strategy for the Security of Energy Supply" in order to launch a debate.

The starting points are:

- If no measures are taken, in the next 20 to 30 years, about 70% of the Union's energy requirements will have to be covered by imported products (today 50%). The energy dependence of the Union will be increasingly alarming. This will affect all sectors of the economy.
- The fight against the climate change is difficult: inversion of the trends is more difficult than it appeared to be three years ago. Thus, while the Union stabilised its emissions of greenhouse gases in 2000, the forecasts of the European Environment Agency consider that they will increase by 5.2% between now and 2010.

The Green Paper offers for discussion a plan for a long-term energy strategy, in 5 main fields:

- A genuine change in consumer behaviour and energy consumption.
- A truly alternative transport policy.
- Doubling the share of renewable energies from 6 to 12% in the energy balance between now and 2010 (financial measures).
- Solutions at the Community level (e.g. reinforced strategic oil and gas stocks, a fiscal policy for energy to steer towards more environmentally friendly sources).
- To analyse the medium-term contribution of nuclear power taking into account the phasing out decisions of the majority of the Member States and issues related to waste management, global warming, security of supply and sustainable development.

It is proposed that the European Union must retain its leading position in the field of *civil* nuclear technology, in order to retain the necessary expertise and develop more efficient fission reactors and enable fusion to become a reality.

Research on the technologies of waste management and their practical implementation under optimum safety conditions has actively to be continued. This applies to geological disposal as well as to partitioning and transmutation.

Ladies and Gentlemen, our work these coming days are thus of great interest. I wish you all a very fruitful and successful meeting as well as a nice stay in Madrid.

Thank you for your attention.