

# International Conference on Knowledge Management in Nuclear Facilities (18–21 June 2007)

Opening Statement

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On behalf of my director, Pablo Fernandez Ruiz, I would like to share with you some thoughts about my approach to nuclear knowledge management and the way we can better synergize with the Agency here.

Knowledge management, in general, should be put in broad perspective. It is already at the heart of the so-called R3D cycle, this is: Research, Development, Demonstration and Deployment.

The European Commission has policy and proper instruments for the front end – Research and Development- and for the back end – Demonstration and Deployment- of this RDD cycle. So does also the Agency.

Research and development is taken care of by the Research policy, which is often represented by the Knowledge Triangle. The 3 corners of this triangle are Research, Innovation and Education. The main Community instrument in this regard is the framework programme (FP 7 just started, as you may know: 2007-2011). In each Community research project, we try to have a balance amongst Scientists coming from research organisations, from the innovation sector (for nuclear fission, this means: Vendors and Utilities), and from universities – as well as from technical safety organisations or assimilated International organisations, such as IAEA and OECD/NEA are of course welcome to participate in all Euratom research projects. A number of IAEA documents (especially those related to safety and many state –of –the –art reports) are quite naturally used in Euratom project. Non-EU organisations are also welcome, provided they they contribute to create the knowledge and the know-how that the specific European Consortium has agreed upon in their work programme.

The European consortium covers in fact a variety of scientific and technological issues, related to all generation of nuclear power plants – which is also common with the Agency.

The nuclear facilities, that are at the heart of this conference, take advantage of the results produced by the above research. Even Generation IV research can be of interest to Generation II: for example, multiscale modelling of radiation effect on the degradation of material properties. Some utilities plan to use their advanced numerical modelling tool- once it is fully developed and qualified – to better predict the residual lifetime of their nuclear installations.

Beside Research and Innovation, the Euratom Framework programme has also a number of activities in education and training. Education is at the heart of the European Nuclear Education Network (ENEN) that bring together 35 universities and 6 research organisations. Training is taken care of in most community projects of the large size: it is almost mandatory in all so-called integrated projects and networks of excellence.

Demonstration and Deployment is taken care of by the Energy policy, which is often represented by the Energy Triangle. The 3 corners of this triangle are Sustainability, Security of Supply and Competitiveness. The main community instrument in this regard are of the economic or legal types. Economic instruments are, for example, a risk-sharing finance facility (RSFF) that was recently agreed upon by the EC and the European Investment Bank (EIB). Other examples are fiscal incentives for industry conducting research or loans from the Regional Funds. These economic instrument can be used in particular, to fund “large research infrastructures”, an activity that has come on top of the agenda. Legal instruments are, for example, the Community legislation (until now, mainly in the area of radiation protection) and cooperation agreements with third countries. Another interesting legal

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instrument is the “Open method of coordination”, that has led to a number of “private-public-partnerships”, aimed at boosting the deployment of initiative of common interest (e.g.: education).

In conclusion, the European Commission aims at a holistic approach that covers all aspects of the RDDD cycle (Research, Development, Demonstration and Deployment). Knowledge management is naturally at the heart of this process, being for production, dissemination or exploitation. The Agency naturally shares a similar approach.

I would like to finish by mentioning the key role of the “Sustainable Nuclear Energy” Technology Platform. This is an action of the main stakeholders of the nuclear fission community in the EU (remember: the research organisation, the industry/vendors and utilities/ universities and the technical safety organisations). They produced a Vision Report that will be officially presented on 21 September 2007. Their aim is to produce a European Research Agenda and an Industrial Deployment Strategy. If successful, this action will ultimately become a Joint Technology Initiative – which is the way we would like to structure Community research in the future. (FP-8....etc.)

Thank you for your attention.