MELODI

The process of setting up the MELODI research platform

May 2009

1. The rationale of the HLEG recommendations on low dose risk research

1.1. The HLEG report has concluded that there are a number of open scientific questions which should be resolved in order to consolidate the European radiation protection framework in the area of low dose exposure to ionising radiation (below 100 mSv and at low dose rate). The report also points out the complexity and interrelation of these issues, which require a multidisciplinary and carefully coordinated approach.

In the report the first steps towards a future SRA are defined, and the HLEG states that several scientific and regulatory bodies in Europe are willing to set up together a R&D platform in order to implement together their recommendations, through what will effectively be a process of sustainable integration of European and national funded research in this area.

1.2. The EU has signalled its support to the recommendations of the HLEG report by including in the 2009 Euratom call the proposal, to create a NoE in the area of low dose research, making explicit reference to the conclusions and proposals of the HLEG report. The EC has declared that the EU is willing to support the development of such an integrated research platform, notably by making use of the SRA for its own prioritisation of financial support to R&D (i.e. through EURATOM calls)

1.3. In order to initiate this process, five of the national bodies participating in the HLEG: BfS, CEA, IRSN, ISS, STUK have signed a " **Letter of Intent** " (LoI) in which these organisations mark jointly their intention to progressively integrate their R&D programmes in the area of low dose with European programmes, to create the platform, MELODI, as proposed in the HLEG report, and to be ready to open this platform to other national R&D and regulatory bodies in Europe willing and capable to sustainably engage in such an integration process. The MELODI signatory organisations will take the initial steps in 2009 to set up a provisional operational governance and organisational structure for MELODI. The signed text of the LoI is

available on the HLEG web site. The platform itself will be open to participation by all interested scientific and regulatory organisations and stakeholders.

1.4. The same national bodies together with other European organisations playing a key role in radiation protection have also taken steps to set up a support network. This network is based on the recommendations of the HLEG report, and is meant to be transitory to support the full establishment of MELODI:

- Facilitate and accelerate the integration process within the MELODI platform, including the establishment of a SRA in the field of low dose risk research,
- Better define roadmaps with more details on the more promising research lines in the key research areas and to scope and prioritise tasks for immediate and medium term action,
- Ensure the continued performance of R&D work in identified priority areas, involving R&D teams across Europe in an open manner, subject to independent evaluation according to EU procedures.

2. The development of the MELODI Platform

2.1. First steps in 2009, under the guidance of the initial LoI signatories

Now that the LoI has been signed by the first 5 partners (April 2009), the following actions will be launched:

- Creation of a MELODI Executive Board, constituted of the designated representatives of the signatory bodies
- Development of the "internal rules" for the operation of MELODI. This will include the procedures for the operational management: admission of members (current and future LoI signatories, members from the scientific community, stakeholders), finance, relations to the EC, deontology, scientific management conditions (development and review of implementation of the SRA, dialogue with the scientific community beyond the membership of the platform)
- Extension of the membership to European national bodies willing and able (notably through government support) to participate fully in the platform.
- The organisation of a **First Open Workshop of MELODI** on September 28th and 29th, 2009 in Stuttgart, Germany.

The workshop's objectives are

- to present the multidisciplinary approach proposed by HLEG and the instruments to implement the recommendations on the EU level - MELODI and support network -, including the process of open participation in the platform (for the scientific and regulatory community as well as for stakeholders), and in the future research programme calls,
- to review the state of knowledge on low dose radiation effects at the international level, with a focus on identifying open questions and uncertainties relevant to radiation protection,
- to develop a SRA for low dose research in Europe and roadmaps for the key research fields as identified by HLEG,
- to scope the research area and to prioritise topics of immediate and medium term action for each of the key research fields,
- to facilitate the launch of calls for research proposals in prioritised topics.

This workshop will be open to all interested parties, from the scientific and regulatory community, and to stakeholders.

2.2. Steps in 2010/2011, with the support from the proposed NoE

- The approval of the overall SRA for low dose radiation research in Europe by MELODI, taking account of the results of the First Open Workshop of MELODI and the preparatory work developed in the NoE's respective WP's within the first year of the NoE.
- The migration from the HLEG website to a MELODI website.
- The creation of a scientific committee to advice the MELODI Excecutive Board on the development and implementation of the SRA, the roadmaps and the priority areas. This committee will in particular include the NoE WP leaders.
- The achievement of the first steps of operational integration of R&D programmes between the members of the platform. On the basis of preparatory work developed by the support network, a policy document will be established by the MELODI Executive Board to describe this process, and allow its ongoing management by MELODI.
- The enlargement of MELODI to further members, whilst retaining the momentum for further integration of national low dose R&D programmes. A mechanism will be created in order to include appropriately in the platform all the partners involved in the NoE operations. The internal rules will be reviewed to specify the respective roles of all the organisations participating in MELODI.
- The organisation of institutional relations with the regulatory bodies in the field of radiation protection, and with the EU (EC, EP, relevant official committee structures). This could be achieved trough the setting up of a dedicated structure within the MELODI organisation.
- Contacts will be organised at the appropriate level with organisations outside Europe involved in significant low dose R&D programmes (i.e. US/DOE, Japan) in order to seek scientific cooperation and coherence wherever possible.
- The creation of an independent reviewing committee, to oversee the development and implementation of the low dose radiation research programme under the auspices of MELODI. Members of the committee should be high ranking scientists and regulators in the field of radiation protection and who are not personally involved in MELODI or its support network.

The Platform will also start to produce the following deliverables, in principle on a yearly basis:

- A report to the EC and to the governments in the participating countries in order to enable the preparation of successive EURATOM calls in support of the progressive implementation of the SRA. This report will in particular trace the progress of the integration of national programmes.
- An annual assembly of the MELODI platform, during which the results of the SRA implementation will be promoted, the representatives of the organisations involved will be nominated to the governance structures, and the SRA will be reviewed in the light of the achieved results. The independent reviewing committee will give a report to the annual assembly. During the operation of the NoE, this will be organised in conjunction with the NoE WP operators. These assemblies will also serve to ensure that the widest scientific community continues to adhere, and to

contribute to the implementation of the SRA. Continued financial support from the EU/Euratom programmes will obviously be instrumental for achieving such a goal.

2.3. Beyond 2011, until the termination of the proposed NoE contract

According to EU current practice, a "R&D platform" is a structure, with legal status (association, etc…), formed by a number of European bodies active in a given field of research in order to:

- Engage in dialogue with stakeholders about the objectives and priorities of R&D in that field,
- Formulate jointly a "strategic research agenda", which should guide the orientations of EU R&D in the field of low dose,
- Engage jointly in the implementation of the SRA, by "integrating" their R&D programmes into a joint cooperative effort.

With the initial support of resources allocated to the NOE operations, the MELODI platform will seek to fulfil these objectives, and in particular:

- consolidate its legal structure and its capacity to achieve the full integration of research in Europe in the low dose field,
- become a broadly recognized forum for all stakeholders in this field, producing qualified and trusted recommendations on science and on policy,
- develop appropriate links to other R&D major partners in this field across the world, particularly in the USA (DOE programme) and in Japan,
- promote the MELODI approach and results at the international level (NEA, IRPA, ICRP, UNSCEAR, IAEA), and through appropriate scientific and general media communication.

2.4. After the end of the NoE contract

It is likely that reaching the goals defined by the HLEG report will require a long term strategy, supported by EU/EURATOM programmes as well as by national funds. These programmes should also be conducted as much as possible with major international partners outside the EU. This international approach will become particularly useful if the scientific evidence from low dose R&D points to the possibility of significant alterations in the current radiation protection doctrine, since the capability to build up an international consensus on these issues will be necessary for the regulatory system to be reviewed successfully. The MELODI platform should therefore be viewed as a sustainable structure, rather than a conjectural short term initiative.