MELODI

Maximizing European research for radiation protection

EURATOM in Horizon 2020
Giornata Nazionale di Lancio dei Bandi 2014-15
MIUR - Roma, 18 dicembre 2013
Contents

• Why MELODI? key issues for low dose radiation protection in Europe
• Current achievements and developments of MELODI
• Next steps, preparing for Horizon 2020
• Conclusion
Contents

• Why MELODI?: key issues for radiation protection in Europe
• Current achievements and development of MELODI
• Next steps, preparing for Horizon 2020
• Conclusion
The European Commission and a number of EU Memberstates involved in the Euratom Programme set up in 2009 a “High Level and Expert Group on European Low Dose Risk Research” (HLEG) aimed at better integrating European (national and EC) research in the field.
2009: The HLEG Report on low-dose risk research

- **Major societal and scientific questions**
  - Dose/effect relationship at low dose/low dose rate exposures,
  - Individual sensitivity
  - Non cancer health effects
  - Internal exposure, associated to chemical contamination; influence of radiation quality

- **A need for a Strategic Research Agenda (SRA) and associated priority road map**
The HLEG Report on low-dose risk research

• A fragmented research community
  – Need for better integration of national and European programs

• A lack of sustainability of R&D efforts
  – Need for a permanent platform gathering the key actors, and interfacing with key stakeholders
DoReMi: a network of excellence to accelerate the implementation of HLEG recommendations

• To prepare and update a Transitional Research Agenda (TRA)
• To contribute to long-term Strategic Research Agenda (SRA) of MELODI
• To address the main scientific questions and cross-cutting issues set by HLEG
DoReMi: a successful NoE

Joint Programme of Research

- Tissue sensitivities
- Internal emitters
- Radiation quality

Shape of dose response (cancer)

Individual sensitivities

Non-cancer effects

Low Dose Risk
DoReMi: step by step integration

Phase 1
Months 0-18
- Establishment of integration plan
  - Strengths and weaknesses
  - Coherent structure
  - Harmonised procedures
  - Best practises
  - Transition plan

Phase 2
Months 19-36
- Consolidation of Integration plan
  - Joint Programme of Activities
  - Application of procedures and best practises
  - Approaches to communication; training knowledge management
  - Infrastructures

Phase 3
Months 37-54
- Creation of permanent entity
  - Clear structure with accountabilities
  - Organised, permanent entity

Phase 4
Months 55-72
- Transition plan for sustainability
  - Permanent management structure
  - Long-term funding plan

Relevant indicators for the measurement of the degree of integration
Similar evolutions in other areas of radiation protection R&D problematics

• Environmental issues: the future of European radioecology
  – European Radioecology ALLIANCE / STAR NoE / COMET EC-funded project

• Emergency preparedness: a renewed priority after Fukushima
  – NERIS / PREPARE EC-funded project

• Dosimetry: metrology as a key research resource and instrument for optimisation of exposures
  – European Radiation Dosimetry Grup EURADOS
Contents

• Why MELODI?: key issues for radiation protection in Europe
• Current achievements and development of MELODI
• Next steps, preparing for Horizon 2020
• Conclusion
MELODI Association: Status, membership

• Legal entity: non profit Association under French law

• Statutory mission: art II: « The purpose of the MELODI Association is to constitute a European Research Platform in the field of low-dose exposure to ionizing radiation and of radiation protection from such exposure aiming for a progressive integration of related national and European activities…/… MELODI defines priority scientific goals and implements research. »

• Membership rules: Founding members, with national role for RP R&D, committed to R&D integration, Ordinary members, contributing to MELODI work
Current MELODI membership

- 11 countries with « founding members »
- 4 countries with « ordinary members » only
- 1 application from Croatia
- 12 countries still without MELODI members
<table>
<thead>
<tr>
<th>Country</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>SCK-CEN, ISP</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>NCRRP</td>
</tr>
<tr>
<td>Croatia</td>
<td>IMROH</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>UNIVERSITY OF SOUTH BOHEMIA</td>
</tr>
<tr>
<td>Finland</td>
<td>STUK</td>
</tr>
<tr>
<td>France</td>
<td>CEA, IRSN</td>
</tr>
<tr>
<td>Germany</td>
<td>BFS, HMGU, KIT, KVSF, UNIVERSITY OF ROSTOCK,</td>
</tr>
<tr>
<td>Greece</td>
<td>DUTH</td>
</tr>
<tr>
<td>Hungary</td>
<td>HUNGARIA ACADEMY OF SCIENCE, NRIRR</td>
</tr>
<tr>
<td>Italy</td>
<td>ENEA, INFN, ISS, UNIVERSITY OF PAVIA</td>
</tr>
<tr>
<td>Netherlands</td>
<td>RIVM</td>
</tr>
<tr>
<td>Portugal</td>
<td>ITN</td>
</tr>
<tr>
<td>Spain</td>
<td>CREAL, UAM, URV</td>
</tr>
<tr>
<td>Sweden</td>
<td>SSM, SU</td>
</tr>
<tr>
<td>Switzerland</td>
<td>IRA</td>
</tr>
<tr>
<td>UK</td>
<td>PHE, UNIVERSITY OF BELFAST</td>
</tr>
</tbody>
</table>
MELODI structure

Scientific Committee

Working Groups

Members

Integrative actions

Future joint research projects

GA / Board

WG WG WG WG WG

International organisations: HERCA, UNSCEAR, ICRP

Other low-dose R&D programmes (USA,...)

WGs: E&T, SRA Infrastructures .. + Joint groups with other RP R&D platforms

R&D operational activities

EC

Alliance
NERIS
EURADOS
EUTERP ...

European organisations:

MELODI structure

R&D operational
activities

WG: Working Group
MELODI deliverables (1)

In the area of low dose exposure risks

- SRA, R&D priorities and « roadmap »
- Scientific opinions
- MELODI Award
- MELODI open workshops
- Organisation of open R&D calls (OPERRA WP3)
- European and national R&D integration strategy
- Education and training strategy and coordination
- Infrastructures strategy and coordination
MELODI deliverables (2)

Acting together with other RP specialised research associations, through a MoU for transversal cooperation

- Ensuring European overall coherence of R&D programs in response to priority RP needs (environmental protection, emergency preparedness, dosimetry, medical domain, E&T)
- Operational support to other EU FP7 projects: CO-CHER, COMET
- Preparing for H2020
Contents

• Why MELODI?: key issues for radiation protection in Europe
• Current achievements and development of MELODI
• Next steps, preparing for Horizon 2020
• Conclusion
MELODI / OPERRA: a prototype of a future JEP instrument for Horizon 2020

- Joint SRA and R&D priorities development
- Administration of open R&D calls, with a methodology designed to prevent conflicts of interest
- Enhancing European integration of national R&D programmes and key infrastructures
- Reaching out to universities, new EU Member States, key stakeholders and to society
MELODI: From low-dose risk research to radiation protection R&D integration

• A cooperative action between MELODI, Alliance, NERIS, EURADOS, EUTERP

• Reaching out to the medical R&D community
On 5 December 2013, in Brussels, MELODI, the European Radioecology Alliance (ALLIANCE), NERIS and EURADOS have signed a Memorandum of Understanding (MoU)

• to promote joint research needs
• to establish strategic priorities
• to develop cooperation in the implementation of research, in particular through a better integration of national R&D programmes within a holistic European approach
MELODI is presently considering a possible strategy for cooperation with the medical word represented by the European associations competent for radiology (ESR), nuclear medicine (EANM) and radiotherapy (ESTRO)
The publication of the Euratom first call for H2020, on December 11, has confirmed the JEP approach for radiation protection.

On December 16 the first OPERRA and COMET calls have been published at http://www.melodi-online.eu/operra_comet_calls.html.

Deadline: March 14th, 2014 at 17:00 Brussels time.
Conclusion

• Radiation protection research addresses important stakes for Europe

• MELODI and sister platforms form a reliable and open instrument to progress towards European research integration

• With EC and Member States support, the next step may be the formation of a JEP proposal, gathering national R&D bodies committed to integration, and MELODI as an integrative platform, supported by the other European R&D RP structures
Thank you for your attention

Further information:
melodi.secretariat@sckcen.be

Presentation prepared by J. Repussard, Chair of Melodi
presented by M.A. Tabocchini, Treasurer of Melodi
The OPERRA Project aims to build up a coordination structure that has the legal and logistic capacity to administer future calls for research proposals in RP on behalf of the EC. Among OPERRA’s initiatives are the set up of a sustainable organization to manage radiation protection research in Europe; the involvement of key partners in RP as well as national and international funding agencies; and the enrollment of universities and academic partners, notably from new EU Member States, major stakeholders and authorities as well as other technical platforms inside and outside Euratom.