



DoReMi-MELODI Training and Education Forum

Introduction and background

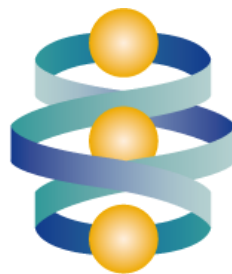
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DoReMi
Integrating Low Dose Research



MELODI
Multidisciplinary
European Low Dose Initiative



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What is the DoReMi/MELODI E&T Forum?

- A practical means to implement **networking** and **support** of E&T within the community involved in the field of research into the risks from low-dose radiation.
- The focus is on ensuring there is a stream of top-calibre students coming into the field to continue essential lines of research into the next decades.
- Our stakeholders are the research centres (and anyone else who may benefit)



Why do we need a Forum? What are the drivers?

HLEG:

A group of 16 international experts (the “High Level Experts Group” – HLEG) were given the task of developing a strategic research agenda and road map for low dose risk research in Europe. Report January 2009:

“Many EU member states **have lost key competences and are no longer capable of independently retaining their current research activities** in radiation sciences, with implications for effectively fulfilling operational and policy needs and obligations.”

“MELODI will respond to these needs and aim at **establishing an integrated approach to E&T** in radiation research in Europe. Particular consideration will be given to the better integration of research and teaching at Universities and at non-university research organisations.”



MELODI

Following HLEG, MELODI (“Multidisciplinary European Low Dose Initiative”) was set up in 2009. The aims are:

- Identifying research priorities in the low dose research
- Establishing and updating a Strategic Research Agenda (SRA) addressing low dose risk
- **Sustaining education & training activities**, maintaining infrastructures and disseminating results
- Promoting interdisciplinary collaboration
- Promoting regular interactions between the scientific community, international radiation protection bodies and stakeholders



- There are currently 19 members of MELODI, representing 13 different European states.
- The structure of MELODI includes a Governing Board, Scientific Committee (up to 20 appointed by the GB), and Working Groups.
- The main focus of the efforts of MELODI since its instigation has been on annual Workshops and development of a Strategic Research Agenda (SRA).
- *The SRA is taken as a guidance document by the EC in formulating new research calls.*

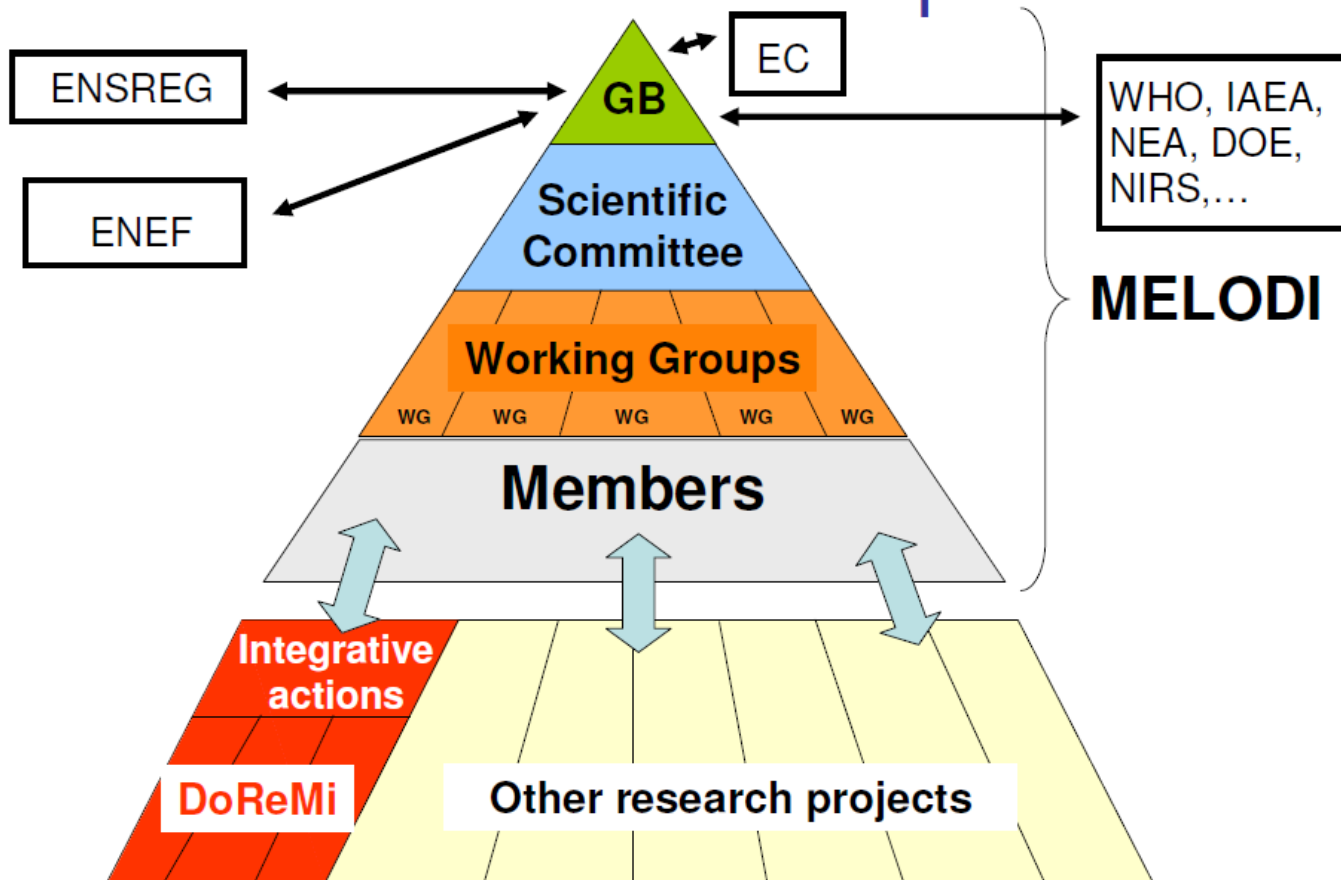


DoReMi

- DoReMi “Low Dose Research towards Multidisciplinary Integration” is a “Network of Excellence”
- funded by Euratom FP7 to implement the objectives of HLEG through development of the MELODI platform.
- It was started in January 2010 and runs for 6 years.
- The relationship between MELODI and DoReMi is given in the following diagram:



MELODI and DoReMi: complementarity





Two key workpackages of DoReMi are:

WP2: Structuring MELODI.

- The objective is to create an open multidisciplinary platform in Europe (MELODI) with funding bodies and research organisations that have significant contributions to low dose risk research.
- Part of Task 2.3 (Dissemination) Establishing and updating the Joint Programme of Spreading Excellence (JPSE) is:
“Establishing and maintaining a support structure for training and education (in collaboration with WP3)”

WP3: Support of E&T for low-dose research

The purpose of the WP is to:

- Investigate how DoReMi should support E&T
- Develop an “Integrated Training and Education Network” (ITEN)
- Develop a programme of short courses on topics that are key to low-dose research
- Develop sustainability in collaboration with MELODI so the support will continue on beyond the end of DoReMi



DoReMi Courses

- Sponsored by DoReMi and organised by partners
- Course topics based on the partner's main research interest
- Pitched at the MSc – PhD level
- No course fee for students and accommodation is usually provided
- [In most cases the courses do not have internationally recognised accreditation]
- There have been two series so far with positive feedback.

A third series will begin in December 2012:



10-21 December Molecular Consequences of low dose and low dose-rate exposures: impact of individual susceptibility on outcome and biomarker development, IC/CEA, Paris, France

28 January – 15 February Training course in Radiation Epidemiology and Radioecology HMGU, Munich, Germany

18 Feb – 1 March Radiation-induced effects with particular emphasis on genetics, development, teratology, cognition as well as space-related health issues, SCK-CEN Mol, Belgium

18 – 29 March Training course in molecular mechanism of radiation carcinogenesis, HMGU, Munich, Germany

22 April – 3 May Cellular effects of low doses and low dose-rates with focus on DNA damage and stress response SU, Stockholm, Sweden

6 – 17 May TIETO – training course on the non-cancer effects of low dose radiation, HMGU, Munich Germany

27 May – 7 June Modelling radiation effects from initial physical events UniPv, Pavia, Italy

10 – 22 June Interdisciplinary radiation research, BfS, Munich, Germany

24 – 28 June Environmental Radiobiology (5 ECTS accredited course) UMB, Oslo, Norway



“ITEN” – Forum

- The concept has arisen following the first 2 years of investigating the most effective means of integrating and promoting E&T.
- An E&T Workshop held in conjunction with the 3rd MELODI Workshop in Rome, 2011 endorsed the concept, and a Steering Committee was formed.
- The Forum will be a working meeting for the purpose of:
 - Discussing priorities for E&T
 - Discussing the practicalities of networking, sharing resources and students
 - Setting up working groups to develop courses, documents, etc.
 - Discussion of funding possibilities, formation of lobby groups



The “Themes” of the Forum

Theme 1: *Financial support*

- Funding is an essential support pillar of E&T. Research into the risks of low-dose radiation is a **Public Good activity** rather than RTD for commercial exploitation, so we can not simply rely on private investment initiatives or user-pays.
- Money in support of E&T for low dose research must be committed from national or international programmes as **an integral part of the research effort** to make the use of radiation safer for humans and the environment.



What are the options?

The final Euratom Work Programme 2013 for Nuclear Research and Training Activities states that:

“A significant part of the support for human resources and training will continue to be implemented by encouraging the embedding of this support within the funded projects. **It is considered that 5% of the total budget** of these should be dedicated to training activities for:

- The development and **delivery of training courses**, aiming at sharing RTD results in the subject matter of the EC funded projects. . .
- The **exchange of research workers** aiming at improving synergies between private and public research organisations at international level. . .”



There is a call in the 2013 Work Programme for E&T:

Topic Fission-2013-5.1.1: Euratom Fission Training Schemes (EFTS) in 'Nuclear Fission, Safety and Radiation Protection'

Aligned with the above principles of the 'European Credit system for Vocational Education and Training' (ECVET), an EFTS should address the challenges of borderless mobility and lifelong learning in specific domains. This implies: (i) modularity of courses and common qualification criteria, (ii) common mutual recognition system, (iii) facilitation of mobility for trainers and trainees across the EU, and (iv) feedback from the 'employers' from public or private sectors.

Funding scheme: **Maximum of three Coordination and Support Actions**
(coordinating)

Beyond FP7 . . .

Proposal for COUNCIL REGULATION

on the Research and Training Programme of the European Atomic Energy Community (2014-2018) complementing the **Horizon 2020** – The Framework Programme for Research and Innovation

This includes the section:

“5. PRIORITY SETTING

In order to ensure that the indirect actions of the Euratom Programme mutually reinforce research efforts of the Member States and the private sector, **the priorities of the work programmes shall be established on the basis of inputs from** national public authorities and nuclear research stakeholders grouped in bodies or frameworks such as technology platforms and technical forums for nuclear systems and safety (SNETP), management of ultimate waste (IGDTP) **and radiation protection/low-dose risk (MELODI)**, the European Fusion Development Agreement, or any relevant organisation or forum of nuclear stakeholders.”

The pipeline runs from this Forum, through MELODI, to MELODI members, and ultimately the EC.



Theme 2: *Integration operations*

This section will deal with all of the practical issues of integrating and supporting E&T for low-dose research. The issues to be addressed are:

- How do we take maximum advantage of existing E&T facilities, capacity, and resources?
- How can we achieve mutual recognition of courses and course modules so they can be integrated into MSc and PhD programmes, so that students can gain credits for their degrees?
- How can we strengthen networking and communication among members of the community?
- Other groups to be invited into the Forum: other platforms, EC projects with 5% E&T commitment, etc
- Feedback on the Forum: is it serving its purpose? How can we improve it?

What do we hope to achieve from this Forum?

We would like to finish the day with:

- Greater awareness of the E&T needs
- Greater awareness of the E&T options and opportunities
- Development of strategies, targeted strategy documents to be written
- Setting up of Working Groups for producing documents, lobbying, developing coordinated E&T initiatives (eg Erasmus Mundus, FP7 proposals, etc.)
- Report to the MELODI Workshop summarising the Forum discussions, and giving recommendations for representation of E&T resolutions from the Forum within the MELODI policy development process, and recommendations for the new version of the SRA.

This must NOT be just a talk-fest!



Thank you !

*We look forward to your
contribution*