EURAMET and the European Metrology Research Programme

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TC Mass & Related Quantities

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iMERA

Implementing the Metrology European Research Area

A European Commission “ERA-NET” Coordinating Action

- Consortium
  - 20 partners from 14 countries
  - 14 NMIs, plus JRC-IRMM
  - 5 Ministries as formal partners
  - 3 Years duration
  - Start date 1st April 2005

Countries with an R&D programme in metrology
iMERA work programme

- The work programme is organised into work packages with 37 different tasks that address increasing levels of integration and organised into the following broad themes:
  - Research
  - Supplementary actions
  - Funding and structures
  - Plus Management and Governance
• The European Metrology Research Programme - EMRP
  – A draft document outlining the EMRP is available from Stuart
 Structures - EURAMET

- The new legal entity – EURAMET
  - Incorporated 11th January 2007 in Berlin
- 26 countries joined at inauguration – see list
  - Others expected to join over time
- e.V status added when the financial registration process is completed
- IRMM JRC not expected to become a member (though membership is open to them) – special status to enable participation
- All other EUROMET countries automatically have associate status

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<th>Inaugural members of EURAMET</th>
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Membership in EURAMET is open to:

a) National Metrology Institutes* (NMIs)** which are members of EUROMET at the moment of incorporation of EURAMET,

b) European Commission’s institute working in the field of metrology,

c) NMIs of member states of the European Union and of the European Free Trade Association, which commit themselves to support the aims and tasks of EURAMET.

All existing EUROMET members may join the association automatically within two years of incorporation,

*A National Metrology Institute is an institute appointed by the appropriate national government
**One per country, distributed NMI laboratories can become Associate Members, Designated laboratories can become Associate Members
EURAMET membership

- National Metrology Institutes of other European states than mentioned in section (1) may join EURAMET as a member if they fulfil the following criteria:
  - the traceability routes to the SI shall be identified and have been in operation for the last three years;
  - the National Metrology Institute shall show evidence of appropriate participation in international comparisons;
  - the National Metrology Institute shall show evidence of active participation in EURAMET projects.
Elected Officials

EURAMET

- Chairman Michael Kuehne – PTB (Germany)
- Deputy Chairman Arnold Leitner – BEV (Austria)

EMRP Committee

- Chairman Luc Erard – LNE (France)
- Deputy Chairman Ed de Leer – NMi (Netherlands)

- The first EMRP Committee meeting held 12th January
  - 19 countries currently participate
EURAMET vs EUROMET

EURAMET currently has responsibility for research matters only

EUROMET continues in parallel – at least until the General Assembly at the end of May 2007

Chairman of EUROMET and EURAMET are the same person (Michael Kuehne)
EMRP Participation

- The European Metrology Research Programme - EMRP - is designed to:
  - increase impact from, and
  - improve efficient in
  metrology research supported by the dedicated metrology nationally funded
“programmes” that are considered to be part of the various “national
measurement systems” by operating within a single strategic joint
programme

- In broad terms:
  - Eligibility for funding in core activities is open to EMRP members (NMIs) and
    their DIs (+IRMM) that that have (or in case of Art 169, will):
    • joined the new EURAMET legal entity (special case for IRMM)
    • dedicated metrology research budget
    • able to commit resources to the joint decision process
    • able to contribute to the costs (fees for members only)
    • Able to carry the joint liabilities (members only) and individual liabilities
  - Unfunded participation may be wider (on case by case basis)
# EMRP participants

19 Countries currently participating in the EMRP activities

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<td>Italy</td>
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<td>Norway</td>
<td>IRMM (Permanent observer status)</td>
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EMRP Participation

• The EMRP makes provision for some (modest) funding available for wider access in the “Capacity building” section
  – Researcher fellowships
  – Knowledge transfer fellowships

  – Note all targeted programmes will also have dissemination/exploitation obligations
The EMRP Committee consists of representatives from all EMRP members. An EMRP member is a member of EURAMET who has declared its national commitment to the EMRP to EURAMET and is from a country that has declared its national commitment to the EMRP to the European Commission in order to participate in an EMRP initiative, namely a joint programme of research, most likely to be conducted through Article 169 of the European Treaty.
### Composition of the Research Council

**6 Institutional members** | **9 personal members**
--- | ---
1 outside Europe (e.g. BIPM) | 9 representatives from industry and academia reflecting small and large enterprises, different branches and countries
1 Commission representative and advisors as appropriate | 
1 European Research Council | 
1 European Parliament (ITRE) | 
1 Eurolab | 
1 European standardisation body | 
1 Welmec | 

**Members appointed at the May 2007 GA**
Article 169

“In implementing the multiannual framework programme, the Community may make provision, in agreement with the Member States concerned, for participation in research and development programmes undertaken by several Member States, including participation in the structures created for the execution of those programmes.”

We have:

- outline commitment of some 273 million € for a 7 year programme from the participating countries
- requested 250 million € from the Commission
Looking at the EMRP Art 169

Annual National Contribution to the EMRP [kEuro]

- Germany; 15960
- United Kingdom; 10000
- France; 4240
- Italy; 3140
- Netherlands; 1500
- Switzerland; 890
- Finland; 820
- Spain; 620
- Czech Republic; 340
- Denmark; 310
- Sweden; 300
- Norway; 140
- Belgium; 100
- Portugal; 100
- Slovenia; 60
- Austria; 60
- Estonia; 60
- Turkey; 220
- Slovakia; 200
- Estonia; 60
- Finland; 820
- Switzerland; 890
- Netherlands; 1500
- Italy; 3140
- France; 4240
- United Kingdom; 10000
- Germany; 15960

Estonia; 60
Netherlands; 1500
Finland; 820
Spain; 620
Switzerland; 890
Czech Republic; 340
Sweden; 300
Denmark; 310
Norway; 140
EMRP weighted voting

Voting in the EMRP-Committee

- Germany: 10
- United Kingdom: 8
- France: 6
- Italy: 5
- The Netherlands: 4
- Switzerland: 3
- Finland: 3
- Spain: 2
- Sweden: 2
- Turkey: 2
- Denmark: 2
- Czech Republic: 2
- Austria: 1
- Slovenia: 1
- Portugal: 1
- Belgium: 1
- Norway: 1
- Estonia: 1
- Slovakia: 2
- Turkey: 2
- Sweden: 2
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- Switzerland: 3
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- Spain: 2
- Sweden: 2
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- Slovenia: 1
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- Sweden: 2
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Road towards Art. 169

- EC committed to 4 named Article 169 initiatives during the 7 year FP7
  - EUROSTARS (R&D performing SME)
  - EMRP
  - Ambient Assisted Living (AAL)
  - Baltic Sea Research (BONUS)
Bad news

• Timing of the Commission launch is not clear

• Our mantra MUST remain

“Commission to commit in 2007 to go to Council of Ministers and Parliament for Co-decision in 2008”

  – If we don’t continue lobby we don’t get!

• We would greatly benefit from any support we can get from any of the EC Policy DGs
New in FP7: ERA-NET Plus
Topping up a single joint call organised by an ERA-NET
✓ MS launch a joint trans-national call for research
✓ EU provides 1/3 of the funding
Good news – ERA-NET Plus

Good news
• Bridging measure based on new “ERA-NET Plus” mechanism successfully negotiated for EMRP (and for BONUS) in the last few weeks of 2006
  – iMERA and BONUS are identified by the Commission as “Special cases” in the “Cooperation” Specific Programme

• As the mechanism is new there are LOTS of issues related to the contractual aspects.

• We expect many of the constraints to impact on the processes we have/are developing for Article 169
 Extract from *FP7 Cooperation Work Programme ANNEX 4* published 22/12/06 and available on Cordis at:


“The Commission will provide its financial support to EURAMET (the legal entity to be set up for the implementation of an ERA-NET Plus action in the field of Metrology) in order to bridge the gap between the "iMERANET" ERA-NET project and a joint European research and development programme in the field of Metrology (the science of measurement) to be implemented on the basis of Article 169 of the Treaty.”
A Community grant to the ERA-NET Plus in the field of Metrology will be 21 million €, to be committed in 2007. This financial support will be provided through a grant which will be paid on the basis of a grant agreement between the Commission and EURAMET (the legal entity to be set up for the implementation of ERA-NET Plus project in the field of Metrology).

Proposals must demonstrate that national research programmes are committed to support the call. Selected proposals will have to provide evidence that a commitment has been made by the relevant research programmes.”

However, note that Annex IV also states, in the section dealing with the special cases:

“These actions will be subject to the same eligibility and evaluation rules mentioned in the ERA-NET Plus activities in this annex.”
Two ERA-NET Plus actions have been identified in 2007 Cooperation WP to bridge FP6 ERA-NETs towards FP7 Article 169 Actions.

**Action 1:** ERA-NET iMERA on Metrology

**Action 2:** ERA-NET BONUS on Baltic Sea Research
ERA-NET Plus - issues

Key Issues:

• Simply understanding a new mechanism (for us and for the Commission)
  – Commission documents are just appearing, often drafts, and interfaces with the Commission contractual modality (Coordinating and Support Action) and the “Model Grant Agreement” (also still a draft) crucial

• We have developed - and agreed within iMERA - procedures and processes based on the freedom we expect under Article 169
  – First look at the ERA-NET Plus stuff implies that the Commission expect the joint Call to closely mirror standard EC call processes, which are not compatible with the proposed EMRP ways
ERA-NET Plus - issues

Sticking point:

• The Article 169 process is based around independent evaluation of Targeted Programmes which are then delivered by joint research projects
  – a strategic approach based on the jigsaw model

• The ERA-NET Plus mechanism requires evaluation at project level, and assumes evaluation on a project by project basis, each project being evaluated independently from surrounding activities
  – a bottom up process leading to a ranked list of independent and unconnected projects
Sticking point solutions:
• We have not resolved this yet.
• Further complicated because the Commission documents that define what we can do are drafts - we are able to (and are) influencing them
• We will not be able to get away from evaluation at project level
• We may well be able to retain a strategic element

• Possible concepts being discussed include one promising possibility – the TP and core/optional projects basis

• At this stage it is vital you think - at least initially - in a targeted programme frame of mind, rather than a project frame of mind.
ERA-NET Plus process

- Each eligible laboratory with research capability submits an Eol describing:
  - Objectives that fall within the Call context/EMRP and TP
    - Objectives
    - Capability
    - Key deliverables
- Each laboratory sends one expert per TP
- Eols for the building blocks – task (and challenge) is to
  - Assemble the strategic targeted programme
  - Then develop the JRPs
  - Reconcile expert group views with independent referees views

- Remember – a Targeted Programme means just that…NOT a shopping list of everything on all the Eols
- Experts will be required also to include some KT/capacity building elements
III ACTIVITIES

III.1 Grand Challenges

III.2.1 Grand challenges on fundamental metrology

Health
Energy
Environment
New technologies for nano sciences and security

III.2 R&D for fundamental and applied metrology

III.2.1 Grand challenges on fundamental metrology
III.2.2 Focused single discipline and applied metrology
IR, E&M, T&F P&R T, Mass and mechanical (inc acoustics), L, Chem, Bio, materials

III.3 Capacity building and Future EMRP Activities

III.3.1 Capacity Building
III.3.2 Future EMRP Activities
ERA-NET Plus call

- Decision of EMRP committee (12 Jan 07): 2007 ERA-NET Plus call will cover:
  - Research related to the redefinition of the constants and the SI, incl. Mathematical/computational tools (Avogadro and Watt balance)
  - A horizontal TP on metrology underpinning "health", incl. relevant clinical analysis and health related ionising radiation
  - Research in Dimensional/length metrology, including the relevant sections listed under "new technologies" in the EMRP
  - Research in Electromagnetic metrology including the relevant sections listed under "new technologies" in the EMRP

- TP will include some Capacity Building measures
ERA-NET Plus call

- The EMRP Committee also approved a special case to include a subset of the existing Pilot joint research projects (JRPs).
  - However this is proving complex in terms of compatibility with the Commission Rules, some pilot JRPs in the above themes could be dealt with as part of the theme, but not all are in scope.
  - Issue still being resolved.
III ACTIVITIES

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III.2.1 Grand challenges on fundamental metrology
- Health
- Energy
- Environment
- New technologies for nano sciences and security

III.2 R&D for fundamental and applied metrology

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III.2.2 Focused single discipline and applied metrology
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III.3 Capacity building and Future EMRP Activities

III.3.1 Capacity Building

III.3.2 Future EMRP Activities
Time line

There are two distinct but related activities

- ERA-NET Plus Action
  - Despite being listed as a “special case” in the FP7 Cooperation 2007 Work Programme we - EURAMET - are still obliged to submit a proposal for the ERA-NET plus action
  - This proposal will be evaluated (by external evaluators) before awarding a contract

- ERA-NET Plus Call
  - Where EURAMET launches a Call to the metrology community

- Clearly, whilst we can (and are) press ahead with preparatory work at our own risk we can not publish a Call under the second bullet before we have reached the appropriate stage under the first bullet
- Unfortunately we are ahead of the general FP7 line of advance (because we are a special case)
  - Consequently the Commission processes are not yet ready
  - Guidelines, peer evaluation, submission software etc etc
ERA-NET Timeline

Commission requirements not yet fixed, dates are indicative - all 2007:

Proposal for the ERA Net Plus action submitted to Commission end of March

Commission completes evaluation and gives a “Go” for contract negotiation by end of May

We (maybe!) risk launching the Call for Expressions of Interest in June, deadline end July

NMI experts assemble TPs and outline JRPs to allow evaluation end of September/early October

Review Panels (NMI experts and referees) in October

List to the Commission in December