BIPM Capacity Building & Knowledge Transfer Programme

2017 "Sound beginning in the CIPM MRA" course

PRELIMINARY AGENDA

Course Dates: 13 to 24 November, 2017
Location: BIPM, Sèvres Cedex, France

Course content and dates of instruction may change marginally.

<table>
<thead>
<tr>
<th>Date</th>
<th>Course Topic</th>
<th>Outline of content</th>
<th>Instructors</th>
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<tr>
<td><strong>Week 1</strong></td>
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| Day 1         | Global Quality infrastructure and its key components                          | • Importance of Quality Infrastructure  
• International organizations (BIPM, OIML, ISO, ILAC)  
• Roles and responsibilities  
• Role of metrology  
|                |                                                                              |                                                                                    | Invited lecturers  
BIPM, OIML, ISO, ILAC              |
| Day 2         | Introduction to the Metre Convention, the CIPM MRA and its role in the wider quality infrastructure | • Interactions with NMI Directors, Member States and Associates  
• Roles and responsibilities specifically related to the CIPM MRA (including JCRB)  
• Roles of Designated Institutes  
• CIPM Requirements and documentation  
• Intra-regional CMC review process  
• JCRB – inter-regional CMC review process  
• KCDB – search facilities  
|                |                                                                              |                                                                                    | BIPM                              |
| Day 3         | Quality management systems  
Regional metrology organization approaches and specifics                       | • CIPM requirements and documentation on quality system  
• RMO approaches in quality systems and specifics  
• How to organize a metrological laboratory  
• How to establish a quality system acceptable to the RMO  
• Certificates with the CIPM MRA logo and Statement  
|                |                                                                              |                                                                                    | BIPM, Invited lecturers  
Leading NMI quality managers  
+ Expert from Developing NMI          |
| Day 4         | Measurement comparisons                                                       | • CIPM Requirements and documentation  
• Roles and responsibilities in the comparison process  
• Key measurement comparisons (BIPM and CC, RMO)  
• Supplementary measurement comparisons  
• Participating in measurement comparisons  
|                |                                                                              |                                                                                    | BIPM, Invited lecturers  
Leading NMI technical                  |
### Group work on comparisons:
*How to participate in comparisons?*
*How to pilot a comparison?*

+ Case study

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<th>Day 5</th>
<th>Friday Nov. 17</th>
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| Calibration and measurement capabilities | Planning and monitoring measurement comparisons  
Piloting a measurement comparisons  
Calculation of reference values and associated uncertainties  
Writing Comparison Reports  
Common pitfalls  

Group work on comparisons:
*How to participate in comparisons?*
*How to pilot a comparison?*

+ Case study

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<th>Day 6</th>
<th>Saturday Nov. 18</th>
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<td>Homework on CMC review</td>
<td>BIPM</td>
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### Week 2

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<th>Day 7</th>
<th>Monday Nov. 20</th>
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| Hitting the target session | Step 1: Define the Impact / Goal  
Step 2: Define the Purpose / Outcome  
Step 3: Define the Outputs  
Step 4: Define the Activities  
Step 5: Check the vertical logic back up Column  

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<th>Day 8</th>
<th>Tuesday Nov. 21</th>
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| Hitting the target session | Step 6: Define the assumptions at each level  
Step 7: Re-check the design logic  

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<th>Day 9</th>
<th>Wednesday Nov. 22</th>
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| Hitting the target session | BIPM, Invited lecturers  
Leading NMI technical experts  

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<th>Day 10</th>
<th>Thursday Nov. 23</th>
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| Brainstorming and participants’ presentation on their implementation plans | Implementation of the CIPM MRA  
How to achieve 'right first time' submissions into the CMC peer review system  

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<th>Day 11</th>
<th>Friday Nov. 24</th>
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| | BIPM, Invited lecturers  

Last update: 20.03.2017