

**G08.07.03**

## **DIs in EURAMET**

# **Position paper: Status & next steps**

**Wolfgang Schmid, Head of Secretariat**

**Michela Sega, TC-MC Chair**

**Janko Drnovsek, Vice-Chairperson (GA)**

**8th General Assembly – Plenary Session**

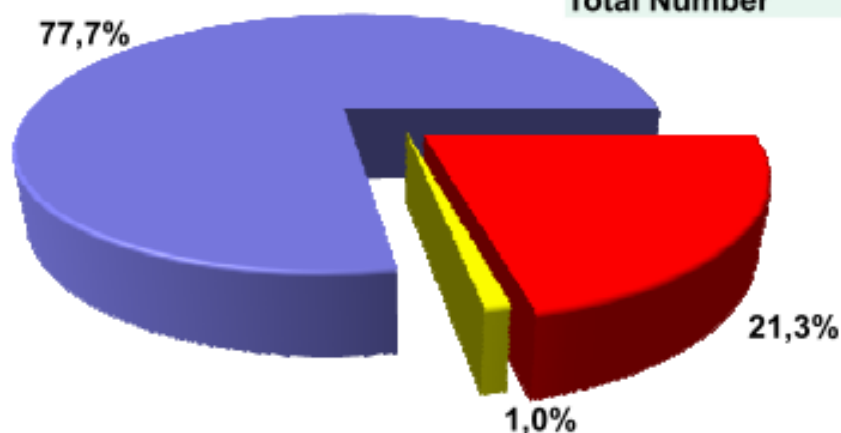
**Cavtat, Croatia, 3 June 2014**

# Role of DIs within the CIPM MRA

## CMCs of Designated Institutes

As at September 2013,

Status	States/Economies with DIs	DIs	CMCs
Have declared	36	115	5181
Have not yet declared	9	27	0
<b>Total Number</b>	<b>45</b>	<b>142</b>	<b>5181</b>



■ NMIs ■ DIs ■ Int. organizations

Type of Participant	Number of CMCs
Declared by Signatory NMIs	18857
<b>Declared by DIs</b>	<b>5181</b>
Declared by Int. organizations	240
<b>Total number in the KCDB</b>	<b>24278</b>

RMOs	DIs	CMCs
AFRIMETS	0	0
APMP	21	592
COOMET	15	2017
EURAMET	75	2182
SIM	31	390

Source:  
JCRB 31.10.  
BIPM-presentation



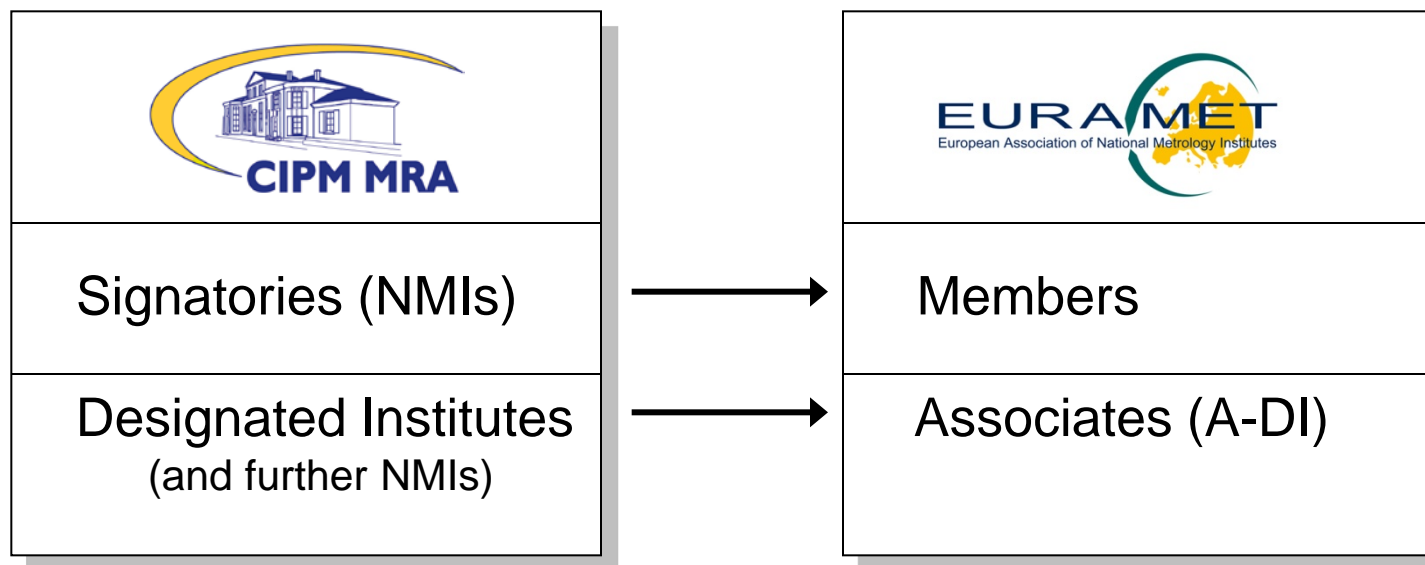
CIPM 2005-07

## NMIs AND OTHER DESIGNATED INSTITUTES

### 1. The current situation

1.1 Paragraphs 1.4 and 1.5 of the CIPM MRA introduced the concept of "designated institutes" as responsible for certain national standards and associated services that are not covered by the activities of the "traditional" NMI. As the importance of metrology grows in chemistry, medicine and food, so traditional concepts of traceability to the SI are less clear than in physics and engineering and it is rare to find all these competencies in a single, clearly identifiable NMI.

# NMIs and DIs within EURAMET



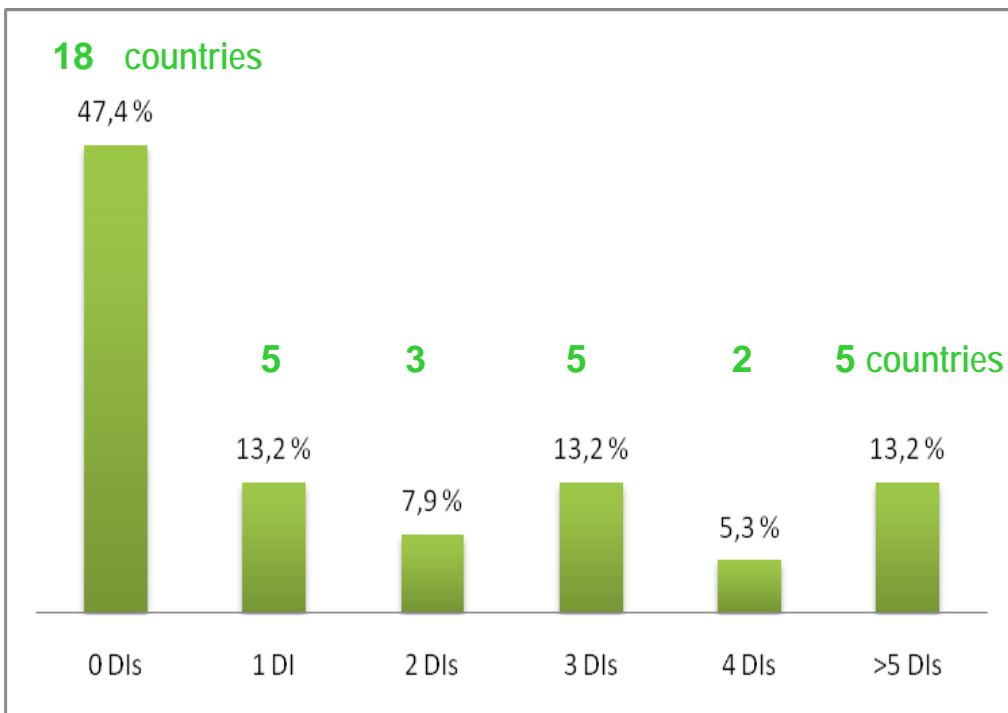
## CIPM-MRA

introduces concept of  
“Designated Institutes” (DI)  
as responsible for national  
standards not covered by  
the “traditional” NMI

## EURAMET

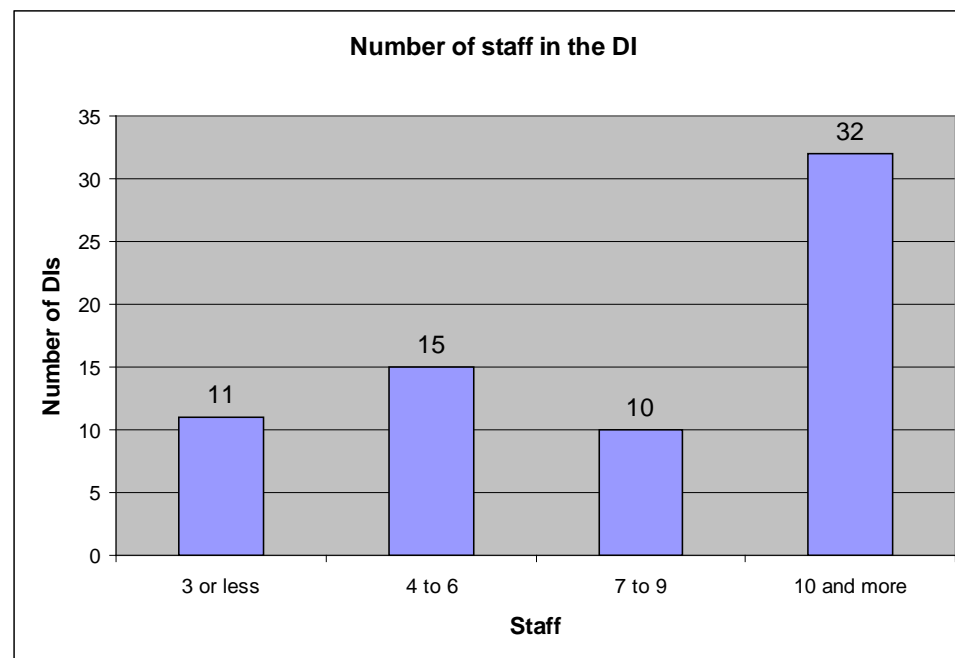
requests a formal registration of a DI as Associate  
before carrying out the measures related to the  
CIPM MRA

- participation in EURAMET KCs and SCs
- review of the QMS by the EURAMET TC-Q
- review of the CMCs by the concerned EURAMET TC



**Half of EURAMET member countries have DIs**

**Half of the DIs are small or “very small”**



# DIs per metrology area (EURAMET)

Metrology Area	AUV	EM	F	IR	L	M	MC	PR	T	TF	Total
Number of DIs	2	7	8	16	8	10	18	4	10	6	89
having CMCs	2	7	6	13	6	8	8	4	9	6	69
	100%	100%	75%	81%	75%	80%	44%	100%	90%	100%	
having TC/SC-CP	2	5	6	16	3	5	6	2	6	4	55
	100%	71%	75%	100%	38%	50%	33%	50%	60%	67%	

Note: DI's which are active in several metrology areas are registered for each of these fields  
(therefore the total number is larger than 68)

- Highest number of DIs in Ionising Radiation (IR) and Chemistry (MC)
- Only 44% of the DIs in MC have CMCs:
  - many of them are new and just started with the CMC process
  - inter-regional CMC review in MC is complicate and takes much time

# Discussion paper: Role of DIs within the CIPM MRA



Feb 2013      Discussion paper on “Role of DIs within the CIPM MRA”  
initiated by TC-MC at its annual meeting  
with support from Robert Kaarls (CIPM Secretary and CCQM past president)

# Discussion paper: Role of DIs within the CIPM MRA

**B20.10.03**

**Discussion Paper**

**Role of DIs within the CIPM MRA**

W. Schmid, M. Segal, J. Drnovsek, B. Güttler, R. Kaarls, R. Brown  
Version 29-08-2013 – For information

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## **Objective of the paper:**

The objective of the paper is to summarise the role of DIs within the CIPM MRA, their duties and responsibilities, as well as their interactions within national metrology systems and their NMIs. It emphasises the importance and value of DIs, acting at the same metrological level and under the same strict requirements as NMIs. These activities are much broader in scope and conceptually different and more demanding than just calibration activities. The paper aims to facilitate the operations of DIs, designation processes at a national level, managing processes at the RMO (EURAMET) level and interactions with BIPM (and CIPM). The paper is based on existing EURAMET and BIPM documents, EURAMET questionnaires and is actually a compilation of current good practices and experiences of operation.



# Discussion paper: Role of DIs within the CIPM MRA



The paper gives guidance and recommendations to

## **1. National authorities**

on the decision process for the designation of a DI and its sustainable operation.

## **2. DIs**

on their role in the CIPM MRA and EURAMET's expectations to them.

## **3. NMIs**

for an effective cooperation with DIs within the national metrology system.

## **4. EURAMET TC's and authorities**

for the effective integration of DIs to the activities of EURAMET

# Discussion paper: Role of DIs within the CIPM MRA

Feb 2013	Discussion paper on “Role of DIs within the CIPM MRA” was initiated by TC-MC at its annual meeting with support from Robert Kaarls
Mar 2013	BoD/TCC-meeting: Paper was discussed and updated
May 2013	EURAMET GA: Paper presented and discussed
June/July	Paper updated with comments from GA
Aug/Sep	reviewed and endorsed by BoD
Sep 2013	Paper presented to 31 <sup>st</sup> JCRB (Beijing)
Mar 2014	Paper was discussed at 32 <sup>nd</sup> JCRB (BIPM)

RMOs welcomed EURAMET DI paper and supported statements

Minor comments were received from APMP and SIM

RMOs suggested to further develop paper to a JCRB position paper

## JCRB Action 32/8:

*EURAMET to collaborate with the BIPM to produce a generalized version of the paper “Role of DIs within the CIPM MRA” for wider use by the other RMOs and for possible adoption by the JCRB.*

Dec 2013 Paper was sent to A-DIs, asking for their comments  
Delegates were informed on this step

Jan/Feb 2014 Numerous and detailed responses were received (33 out of 72 A-DIs)

Category	Total
A Full acceptance (no / minor comments, or emphasising on specific statements)	25
B Acceptance, in principle (specific comments / suggestions for changes)	6
C Conditional acceptance (major specific comments)	2
D Refusal	0
<b>Total</b>	<b>33</b>

# Some aspects which are emphasised upon

- |  |           |
|--|-----------|
| 1) NMIs and DIs should be considered at same metrological level / treated equally in terms of criteria of operations (QMS, research) | <b>7</b>  |
| 2) When DI is part of the large institute, general management should be aware of the specific role of the DI                         | <b>6</b>  |
| 3) DIs in private sector need special attention and considerations for sustainability reasons  |           |
| 4) Importance to assure/guarantee financial stability  |           |
| 5) Emphasising on responsibility and competence of designating authority   | <b>10</b> |
| 6) DI to maintain active relationships with both NMI and designating authority   |           |
| 7) Have clear rules if number of DIs is growing / prevent fragmentation / request for a critical mass of a DI                        |           |
| 8) Role of NMI towards DI should not be overemphasised   | <b>1</b>  |
| 9) Involvement of DIs into metrology system has benefits (promotion of metrology)  | <b>1</b>  |

Revised version was prepared considering comments from A-DIs, SIM, APMP

**TB08.8.08.01**

**Discussion Paper**

**Role of DIs within the CIPM MRA**

W. Schmid, M. Segal, J. Drnovsek, B. Güttler, R. Kaarls, R. Brown  
Version 27-05-2014,

Updated by Schmid, Segal, Drnovsek,  
including suggestions from EURAMET DIs and RMOs (JCRB)



## Objective of the paper:

The objective of the paper is to summarise the role of DIs within the CIPM MRA, their duties and responsibilities, as well as their interactions within national metrology systems and their NMIs. It emphasises the importance and value of DIs, acting at the same metrological level and under the same strict requirements as NMIs. These activities are much broader in scope and conceptually different and more demanding than just calibration activities. The paper aims to facilitate the operations of DIs, designation processes at a national level, managing processes at the RMO (EURAMET) level and interactions with BIPM (and CIPM). The paper is based on existing EURAMET and BIPM documents, EURAMET questionnaires and is actually a compilation of current good practices and experiences of operation.

## Next steps:

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|-----------|--|
| after GA  | Conclude internal review   |
| 16 June   | Send paper to EURAMET Delegates (for review) and A-DIs (for information) |
| 18 July   | Receive feedback from TC-Chairs and Delegates (NMI & DI comments)        |
| 31 July   | Prepare updated version (final draft)                                    |
| August    | Send final draft to Delegates for approval                               |
| September | Publish as EURAMET Guide   |
|           | Send to JCRB and RMOs  |
|           | Initiate work with BIPM to prepare JCRB position paper                   |

**THANK YOU  
FOR YOUR ATTENTION**