

KCDB REPORT TO THE 19th JCRB MEETING

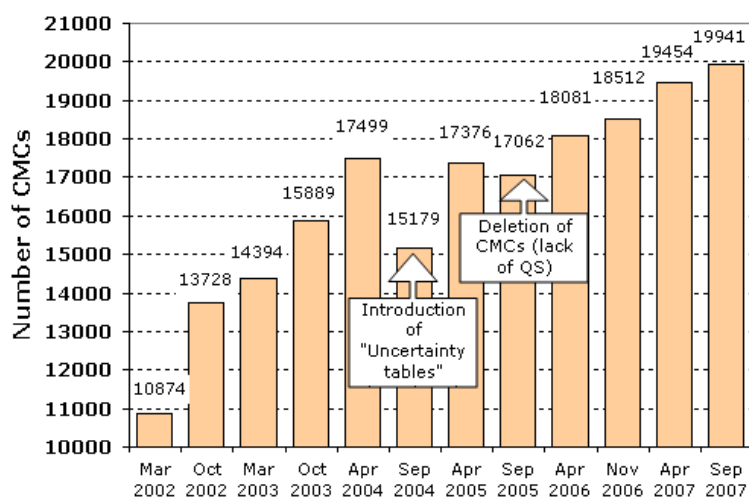
This short report gives the highlights of the work of the KCDB Office since the 18th JCRB meeting in May 2007. A more comprehensive report covering a one-year period will be prepared for the 20th meeting, scheduled for May 2008.

Content of the CMCs database

On 05 September 2007, 19 941 CMCs were published in the KCDB:

- 12 535 in General Physics,
- 3 463 in Ionizing Radiation, and
- 3 943 in Chemistry.

This is an additional 550 CMCs compared to the time of last JCRB meeting. Details on the number of CMCs currently published in the KCDB, per country and per metrology area, are available from the [Statistics page of the KCDB](#), as well as the situation regarding deletion and re-instatement of CMCs linked to approval of appropriate Quality Systems.



Number of CMCs registered in the KCDB: evolution over the last five years and a half

CMCs and Quality Systems

- 28 May 2007: re-instatement of greyed-out CMCs from COOMET (in AUV from Ukraine, and in EM and QM – Organic solutions – from Russia).
- 10 August 2007: deletion of all CMCs from LATU (Uruguay).

There are more than 450 CMCs that were greyed-out of the KCDB and are not yet re-instated, as may be seen on page 5 of the [pdf document on KCDB Statistics](#).

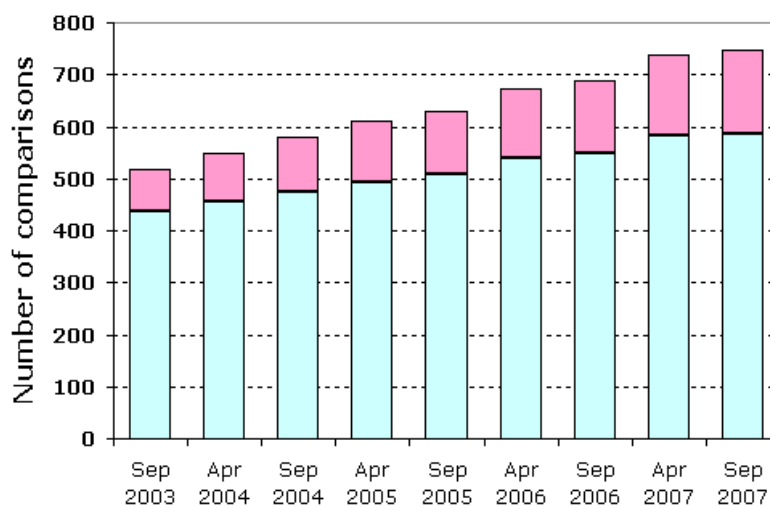
New CMCs publication (since 18th JCRB meeting) – see also [“CMCs News”](#)

- 11 May 2007: EUROMET.PR.4.2006 (DE, TR, and GB).
- 21 May 2007: EUROMET.L.5.2007 (CH, DE, DK, FI, IT, PL, and SK).
- 01 June 2007: SIM.TF.2.2007 (US).
- 05 June 2007: APMP.PR.4.2007 (KR).

- 09 June 2007: EUROMET.TF.3.2006 (ES, FI, and TR).
- 15 June 2007: SADC MET.QM.5.2007 (ZA), and SIM.M.7.2007 (CA).
- 22 June 2007: SIM.QM.8.2007 (BR, MX, and US), COOMET.QM.11.2007 (BY, RU, and UA), and EUROMET.PR.5.2007 (FI).
- 12 July 2007: APMP.T.2.2007 and APMP.T.3.2007 (AU, TW, HK, ID, JP, KR, MY, SG, and TH), and COOMET.T.4.2007 (RU).
- 26 July 2007: EUROMET.QM.13.2007 (DK, DE, EU, FR, IT, PL, SE, SK, NL, and GB).
- 08 August 2007: SIM.L.3.2007 (CA).
- 14 August 2007: SIM.T.4.2007 (AR, BR, CA, CL, MX, and US).
- 31 August 2007: APMP.QM.10.2007 (AU, CN, and JP).

Content of the Key and supplementary comparisons database

On 05 September 2007, the database covered 588 key comparisons (78 from the BIPM, 302 from the CCs, and 208 from RMOs) and 161 supplementary comparisons.



Number of key comparisons (in blue) and of supplementary comparisons (in pink) registered in the KCDB: evolution over the last four years

Among the 588 key comparisons that are registered:

- 88 correspond to exercises prior to the implementation of the CIPM MRA, and will never have results published in the KCDB (they were “Approved for provisional equivalence”, and
- 269 have their Final Reports approved and posted in the KCDB, providing a total of about 800 graphs of equivalence displayed in the KCDB.

The results of 63 RMO key comparisons (against 57 at the time of last JCRB meeting) - 23 conducted by APMP, 4 by COOMET, 33 by EUROMET, and 3 by SIM - are published in the KCDB - see also “[Comparisons News](#)”. Linkage has also been carried out for 11 bilateral key comparisons subsequent to full-scale CC key comparisons; their results are added on the appropriate graphs of equivalence (see the example of [10 V Josephson standards](#): six comparisons linked together).

Updated graphs illustrating the participation in [key](#) and [supplementary](#) comparisons were made available from the [Statistics page of the KCDB](#) on 29 May 2007.

Newly registered key and supplementary comparisons (since 18th JCRB meeting)

- 09 May 2007: [EUROMET.QM-S3](#), and [SIM.EM-K3](#).
- 21 May 2007: [CCEM-K3.1](#).
- 19 June 2007: [SIM.T-S1](#).
- 20 June 2007: [SADCMET.L-S1](#), and [SADCMET.L-S2](#).
- 22 June 2007: [SIM.M.FF-S4](#).
- 17 August 2007: [APMP.L-K11](#), [SIM.M.P-S1](#), and [EUROMET.M.P-S4](#).
- 20 August 2007: [APMP.M.D-K4](#).
- 30 August 2007: [APMP.EM.RF-K19.CL](#).

Design of the KCDB system

On 09 August 2007, the acronym "EURAMET" was introduced in the KCDB system (database and programming) as follows:

- the part of the KCDB on CMCs uses only the wording "EURAMET";
- the identifiers of the key and supplementary comparisons that were registered in the KCDB until 1st July 2007 have not been modified, but starting 1st July 2007, all new EURAMET comparisons registered in the KCDB will have a "A" in their comparison identifiers and the previous numbering scheme will continue. For instance the next supplementary comparison in EM will be identified as "EURAMET.EM-S29", the last one being "EUROMET.EM-S28".

The system has been set up in such a way that all free-text entry search engines of the KCDB operate equally if the user enters "EUROMET" or "EURAMET".

Publicity

The KCDB website was demonstrated:

- at the PTB-BIPM Workshop on the Impact of Information Technology in Metrology, in Berlin (Germany) on 6 June 2007, and
- in the exhibition hall of the NCSLI Conference (Saint Paul, Minnesota, United States)¹ on 1st August 2007.

[Issue 7 of the KCDB Newsletter](#) was launched on 8 June 2007.

Action 18/7 from the 18th JCRB meeting

"Re-instate into the KCDB those CMCs from COOMET which have gained COOMET Recognition". Done on 28 May 2007.

Follow-up of Action 17/1 from the 17th JCRB meeting

"Future KCDB reports to the JCRB are to include the information on CMC statistics (per RMO) thus avoiding the inclusion of this information in the RMO reports to the JCRB.9".

Status as on 05 September 2007

APMP: 3853 CMCs

COOMET: 1507 CMCs

EUROMET: 9905 CMCs

SADCMET: 336 CMCs

SIM : 4101

IAEA : 13 CMCs

IRMM : 226 CMCs

All details by metrology area and by country are available by clicking [here](#).

¹ The BIPM is grateful to NRC for hosting the KCDB demonstration on their stand.