



**Agenda Item 14:**

**OIML Digitalisation Task Group (OIML DTG)**

## 1 Introduction

Following the 57th CIML Meeting in 2022, Dr Sascha Eichstädt took over as Chairperson and Dr Yang Ping as Deputy Chairperson of the OIML Digitalisation Task Group (DTG) on the basis of CIML Resolutions 2022/41 and 2022/42.

## 2 DTG Membership

A new delegate from Korea, Mr Kim Hyunki (KATS) has been welcomed to the DTG. In addition, the newly elected CEEMS AG Chairperson, Mr Jaco Marneweck, had been invited to participate as an observer.

## 3 Meetings of the DTG and its sub-committees

One online meeting of the DTG took place on 21 November 2022 and meetings also took place on 16 January and 15 May 2023.

At the meeting in November 2022, a sub-committee on “SMART OIML documents” was founded. The scope of this sub-committee was defined to be:

- information activity on “machine-readable standards” within the OIML;
- exchange with IEC Strategic Group (SG) 12 and invite industry;
- provide basic guidance and information, and a common understanding of the meaning and role of “smart” OIML publications; and
- prepare recommendations to be submitted by the DTG to the CIML.

Delegates from NMIJ/AIST, Measurement Canada, BEV, INTI, NIST, CECIP and NIM China participate in this sub-committee. In its first meeting, the sub-committee elected Mrs Katya Delak (NIST) as Convener and decided the following key work items:

- the SC decided to begin a single Recommendation, test report and OIML certificate to have a concrete starting point;
- the SC considers working together with a specific OIML Project Group; and
- the SC recognised the need to build a roadmap.

In its second meeting, the sub-committee refined these work items into the initial recommendations to the DTG:

- digital and human readable standards are expected to remain in parallel. In the longer term, the digital version should become the master;
  - develop a tool to read and output the digital version of OIML publications;
  - begin with the revision of OIML B 6 to require future revisions of OIML Recommendations to be formatted in a manner that can easily be digitalised. This includes better structured text that is human readable and unambiguous, and breaking down elements into parts;
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- a reasonable starting point is the definition of clear requirements for the numbering and organisation of sections, as well as harmonised use of vocabulary (e.g. explanation compared to definition) in headers and titles;
- PG to consider discussing the development of a digitalised OIML publication as a pilot. Possible candidates are R 46, R 76, G 22; and
- consider training for TC Chairs on formatting and structuring documents for machine-readability and for future wording/revisions.

In its meeting in January 2023, the DTG decided to establish an ad-hoc working group for the initial preparation of the OIML Seminar on 16 October 2023 in Chiang Mai, Thailand. The working group prepared a draft outline for the CIML Presidential Council in March 2023, which further refined the proposal.

#### **4 DTG Collaboration within the OIML**

The DTG Chairperson actively participates in the RLMO Round Table (RT) meetings and reports about recent developments by the DTG. Digitalisation in legal metrology has become a permanent RLMO RT agenda item.

The DTG had initial contact with OIML TC 1 to discuss a potential digital version of OIML G 18 based on a draft thesaurus system using the open-source software “TemaTres”. Collaboration with TC 1 is intended to be continued in alignment with the revision of G 18. The DTG aims to support TC 1 in a decision-making process towards a machine-readable version of the Vocabulary across OIML Recommendations.

The DTG invited the CEEMS AG Chairperson and Deputy Chairperson to its regular meetings. Furthermore, the DTG analysed the BIPM report on a survey conducted in 2022 across national metrology institutes to investigate their digitalisation activities and interests. The DTG took several conclusions from this survey that may help in supporting a similar survey planned by the CEEMS AG, as laid down in G 23.

#### **5 DTG in international conferences and workshops**

Following its intention to improve the visibility of digitalisation efforts in legal metrology, the DTG partnered with IMEKO TC6 *Digitalisation*, the International Metrology Congress (CIM), and the International Conference on Weighing (ICW).

In September 2023, the DTG organised a special session at the IMEKO TC6 International conference on metrology and digital transformation (M4Dconf2022). The special session consisted of three scientific presentations and a panel discussion with representatives from CEEMS, CECIP, OIML-CS, NMI-A and German market surveillance. The M4Dconf2022 was organised as a completely hybrid event and received very good feedback from the audience. The conference had 221 attendees, 44 scientific papers, 16 invited talks, and 16 sessions.

In March 2023, the DTG Chairperson organised a round table discussion on the impact of metrology in digital transformation at the International Metrology Congress (CIM) in Lyon, France.

Representatives from the BIPM, the PTB, NIST, as well as from companies Endress+Hauser, Beamex, and Trescal participated in the round table.

On 29 March 2023, the DTG together with IMEKO TC6 organised a webinar on blockchain technologies in metrology with presentations from NMI-A, EBSI, Random Red, PTB, NPL, and EUROLAB covering various aspects in the use and implementation of blockchain technologies. The event had over 200 registrations and over 130 live participants.

In April 2023, the DTG participated in the special session on digitalisation in legal metrology at the International Conference on Weighing in Hamburg, Germany.

## **6 DTG activities with the Signatories of the Joint Statement of Intent (JSI)**

An important event in 2022 of high relevance for the DTG was the signature of the Joint Statement of Intent (JSI) “On the digital transformation in the international scientific and quality infrastructure”. According to the DTG Terms of Reference, the JSI provides a framework and a reference point for the DTG’s work.

In 2023, the DTG Chairperson participated in the two meetings of the Signatories of the JSI, one in June and the other in September. After the June meeting, the DTG collaborated with CIPM representatives to prepare a proposal for the future collaboration between the Signatories of the JSI. The proposed JSI round table and a corresponding first international conference on FAIR principles in the quality infrastructure were presented in the September meeting and endorsed by the other representatives of the JSI Signatories. The kick-off of the JSI round table and the conference is scheduled to take place at the BIPM from 5–6 March 2024, back-to-back to the kick-off meeting of the CIPM Forum on digitalisation. A first meeting to form a programme committee for the JSI conference is scheduled for November 2023.

## **7 DTG immediate future meetings**

The next DTG meeting will be scheduled as an online meeting in December 2023.

## **8 Recommendations to be considered by the CIML**

The CIML is asked to approve the plan of the DTG to formulate a roadmap with concrete milestones and work items based on the outcomes of the OIML Seminar “The future of the OIML in the digital era” on 16 October 2023. The DTG recommends establishing a Steering Committee to prepare this roadmap to be discussed in the upcoming meetings of the DTG.