CIPM Vision 2023
Transforming the International System of Units for a Digital World

Daniel Hutzschenreuter (PTB, CIPM EG)

Online Briefing on the establishment of a Forum for Metrology and Digitalization, 22nd May 2023
An overview

Forum progressing development of vision and implementation of SI Digital Framework

Updates of Grand Vision
Broader picture based on IOs’ and BIPM’s developments

Mission to develop SI Digital Framework
Call to NMIs/Dis and IOs to make this collaborative effort (& Joint Statement with IOs)

Transforming the International System of Units for a Digital World by establishing various data, services, and tools (all based on FAIR principles) building an SI Digital Framework
Vision & Objectives

The SI Digital Framework – the network of tools, services, and applications that instantiate the Digital SI – assures that measurements are FAIR, machine-readable, machine-actionable, and support digital metrological traceability.

PRODUCTS
- SI Brochure
- VIM
- GUM
- KCDB
- MeP
- SI-defining Constants
- UTC

PRINCIPLES
- Findable
- Accessible
- Interoperable
- Reusable

MATURITY
- SI Digital Framework
  - machine-actionable
- Smart Standards
Highlights of mission & joint efforts

Core mission (resolution)

- A globally accepted digital representation of the SI
- Facilitating use of digital certificates in existing infrastructure
- Adoption of FAIR in metrology
- Other communities recognize importance of metrological traceability (trust)

Joint efforts (Forum, IOs, …)

- SI core representation & data services, defined by CIPM & implemented by BIPM
- Data services provided by the NMIIs and related organizations
- Applications in the broader metrology community & research that rely upon SI
More information

CIPM Task Group on the SI Digital Framework
(CIPM-TG-DIG)