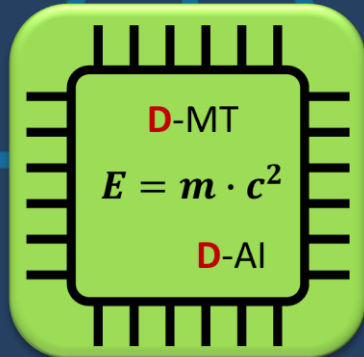


Actionable Key Comparisons



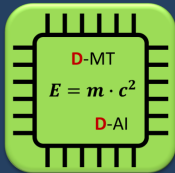
CCM-Meeting 05/2023

B. Rodiek, F. Härtig



CGPM

Digital transformation of the SI



D-MT

Ready Actionable Comparison Infrastructure



IMEKO 2024

Global Cooperation

CPGM: resolution B, Nov. 2022



CGPM



The screenshot shows the CGPM website header and main content area. The header features the CGPM logo, a navigation menu with 'PROGRAMME' highlighted, and links for 'DOCUMENTS', 'CIPM ELECTION', 'ABOUT THE BIPM', 'CGPM >>', and 'CIPM >>'. The main content area displays the title '27th meeting of the CGPM' and the dates '15-18 November 2022'. A yellow callout line points from the 'CGPM' text on the left to the logo in the header.

CGPM

General Conference on Weights and Measures
27th meeting - 15-18 November 2022

[HOME](#) | **PROGRAMME** | [DOCUMENTS](#) | [CIPM ELECTION](#) | [ABOUT THE BIPM](#) | [CGPM >>](#) | [CIPM >>](#) | [SIGN IN](#) | [Français](#)

27th meeting of the CGPM

15-18 November 2022

<https://www.bipm.org/documents/20126/64811571/Draft-Resolutions-2022.pdf/2e8e53df-7a14-3fc8-8a04-42dd47df1a04?t=1644502962693>

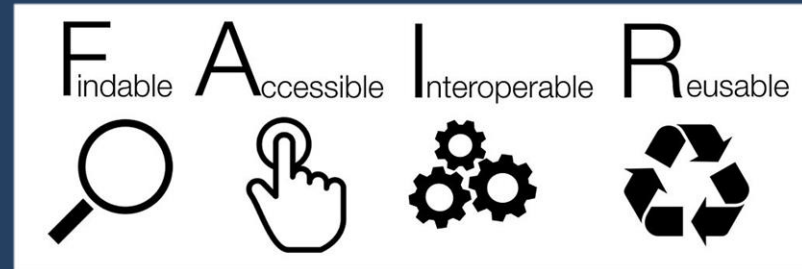
The General Conference on Weights and Measures (CGPM), at its 27th meeting, ...

... encourages

- the CIPM to continue its outreach and engagement initiatives to ensure that the Metre Convention naturally extends its role as the globally accepted anchor of trust for metrology into the digital era,
- the CIPM to undertake the development and promotion of an SI Digital Framework, that will include the following features:
 - # a globally accepted digital representation of the SI, compatible with, and useable within, digital data exchange standards and protocols, whilst maintaining compatibility with existing non-digital solutions,
 - # facilitating use of digital certificates in the existing robust infrastructure for the world-wide recognition and acceptance of calibration and measurement capabilities,

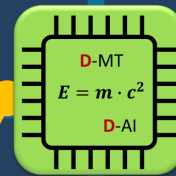
the adoption of the **FAIR principles** (Findable, Accessible, Interoperable, and Reusable) for digital metrological data and metadata, ensuring that other communities recognize the critical importance of metrological traceability for measurement data, the latter being an established requisite for building trust

”
...



Evaluation Modul (FAIR, PID)

- acts as a **D-MT**
- communication master
- using machine actionable content
- calculates relevant data
- AI-modules check validity
- generate report



D-MT

Machine actionable comparison infrastructure

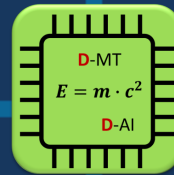


Participant Data

Participant Data e.g.

D-CC (FAIR, PID)

- available at individual server
- communicate via REST-API
- machine actionable
- **D-SI**
- digital signature



D-MT

Machine actionable comparison infrastructure



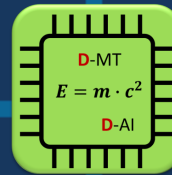
Certificate



Constants

D-Constant (FAIR, PID)

- machine actionable
- available at individual server
- communicate via REST-API
- **D-SI**



D-MT

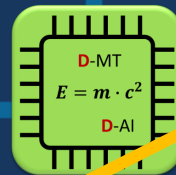
Machine actionable comparison infrastructure



Certificate



Constants



D-MT



Report

D-Report based on DCC (FAIR, PID)

- machine actionable
- provided in XML
- **D-SI**
- covers all relevant information from partners
- human readable possible

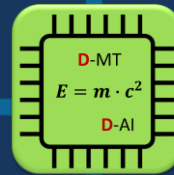
Machine actionable comparison infrastructure



Certificate



Constants



D-MT



Report

Converter
- converts to CMC format



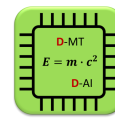
Converter



KCDB

Machine actionable comparison infrastructure





Follow our pilot platform grow:

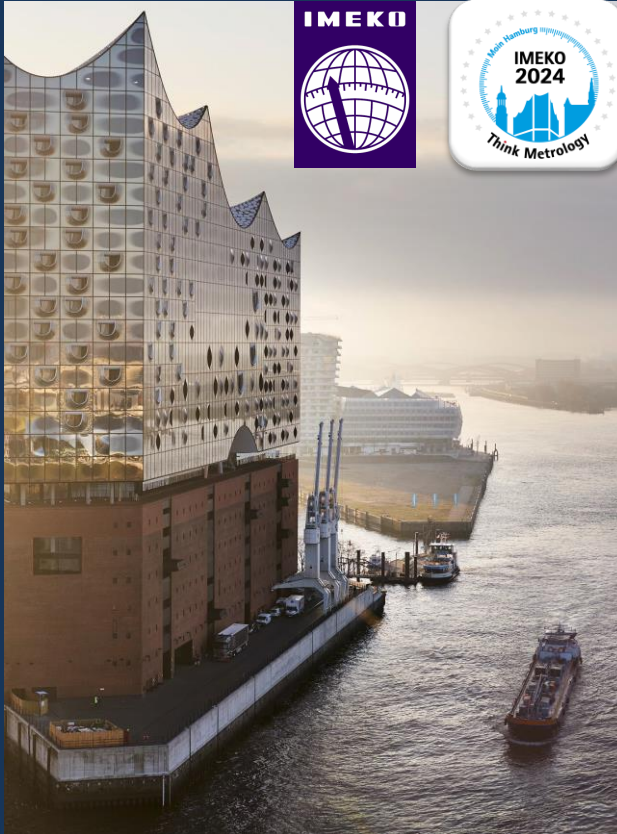
<https://d-si.ptb.de>



Contact:

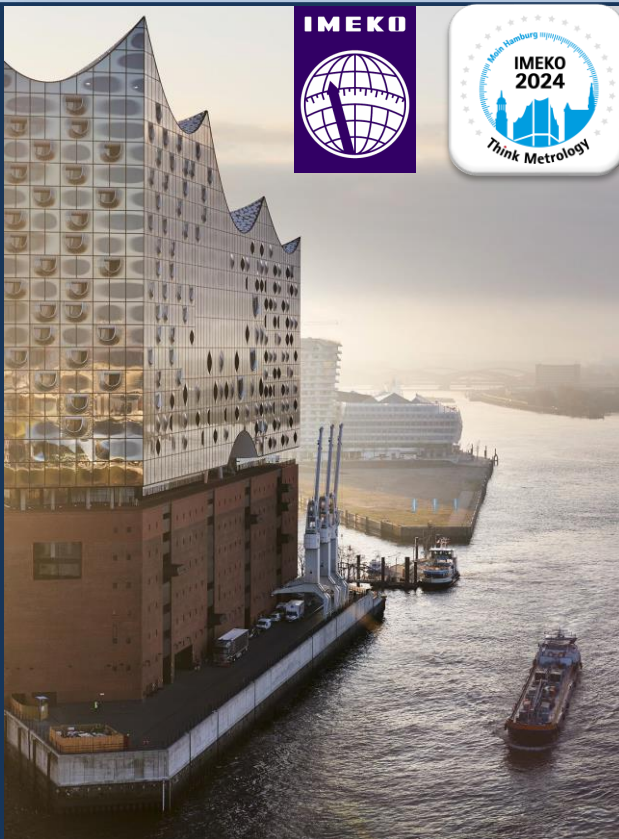
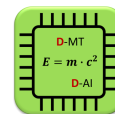
frank.haertig@ptb.de (strategic contact)

daniel.hutzschenreuter@ptb.de (technical contact)



- **D**-SI
- unit converter
- ontology database
- **D**CCs pre-normative documents
- **D**CCs in industrial applications
- **D**CCs used by intercomparisons
- **D**CCs in QI-Digital
- **D**CoCs
- DPP (digital product pass)
- ...
- workshops & exhibition
- show your developments

IMEKO World Congress 2024



26-29 August 2024
Hamburg, Germany



www.imeko2024.org



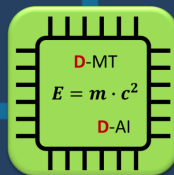
Actionable Key Comparisons



CGPM



End



D-MT



and



IMEKO 2024



Thanks