

A common international approach to Quality Infrastructure – recent developments

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12 November 2019

Outline

01 – Global Quality Infrastructure – recent developments.



02 – Metrology in QI. Role of the BIPM and the recent SI revision.



Quality infrastructure – new definition agreed

“The system ..

comprising the organizations (public and private) together with the policies, relevant legal and regulatory framework, and practices

needed to support and enhance the quality, safety and environmental soundness of goods, services and processes.

it relies on

- *metrology*
- *standardization*
- *accreditation*
- *conformity assessment, and*
- *market surveillance” (in regulated areas)”*

“The quality infrastructure is required for the effective operation of domestic markets, and its international recognition is important to enable access to foreign markets.

It is a critical element in promoting and sustaining economic development, as well as environmental and social wellbeing.”

***adopted in June 2017 by the DCMAS Network
BIPM, IAF, IEC, ILAC, ISO, ITC, ITU, OIML, UNECE and
UNIDO + the World Bank.***

Recent changes in 'QI' world

- DCMAS Network is being renamed to **INetQI – International Network on Quality Infrastructure**



Launched November 2018

and renewed its commitment to promote quality and enhance cooperation in promoting the understanding, value and acceptance of the quality infrastructure as well as providing guidance and support for its effective implementation and integration worldwide in responding to the challenges of globalization, trade and sustainable development.

The following **12 international organizations are part of INetQI:**
BIPM, OIML, ILAC, IAF, ISO, IEC, ITU, ITC, UNIDO, UNECE, WBG and WTO

National Quality Infrastructure

Quality infrastructure – new definition agreed



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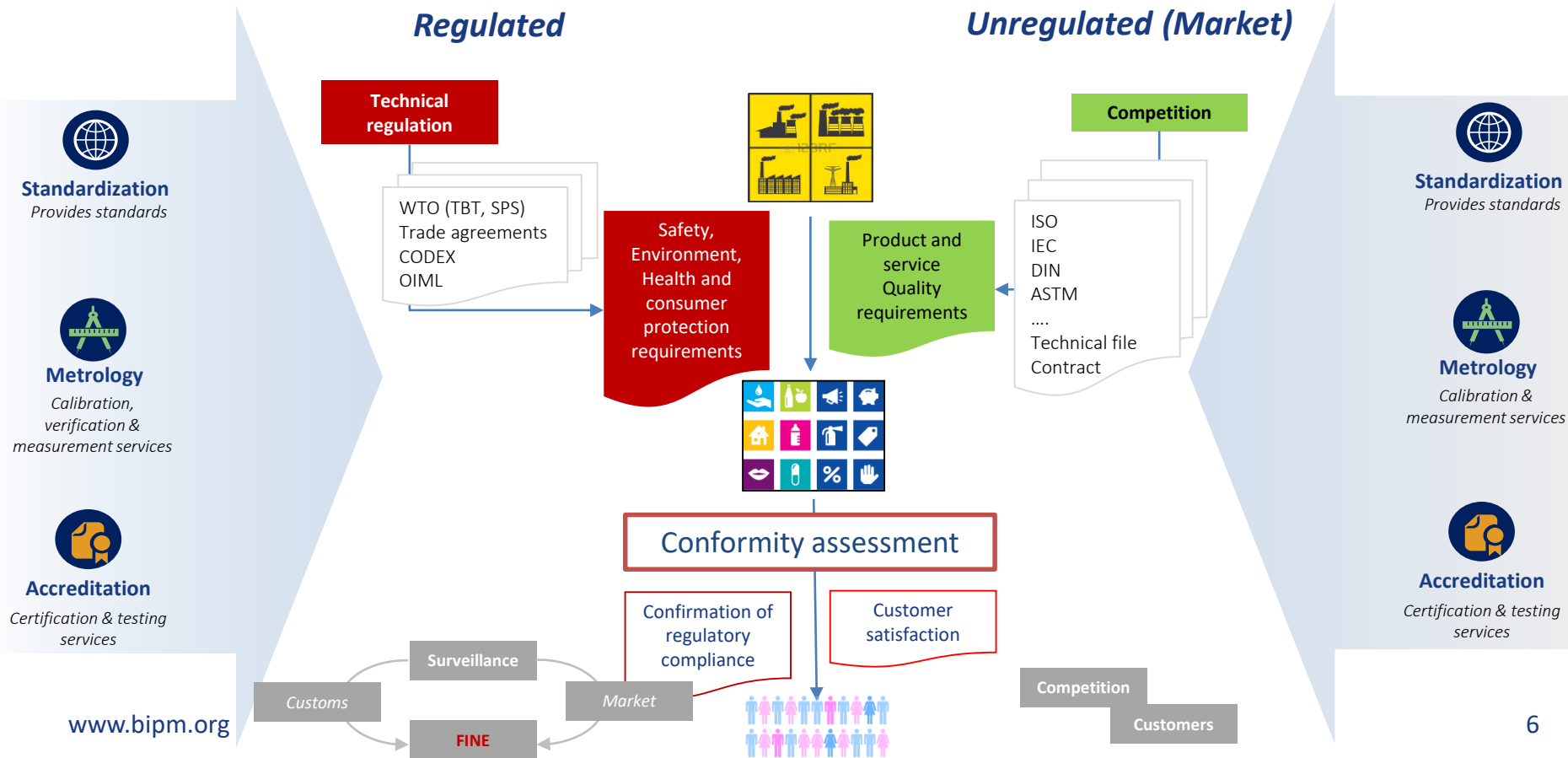
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“The NQI are the national institutions that provide the framework and services to advance the quality and safety of products and services offered in local and foreign markets.”

IAAC at the WTO


And internationally the QI is the sum of the NQI + the transnational institutions and systems that effectively link them


National Quality Infrastructure in practice




World Metrology Day 2019

World Metrology Day





The International System of Units
Fundamentally better



20 May 2019
www.worldmetrologyday.org

www.bipm.org

World Standards Day 2019

World Standards Day 2019



14 October 2019

Video standards create a global stage






World Accreditation Day 2019



Accreditation:
Adding Value to Supply Chains



World Accreditation Day
9 June 2019

(#WAD2019)

UNIDO-BIPM-OIML Joint brochure



UNIDO-IEC-ISO-ITU Joint Brochure



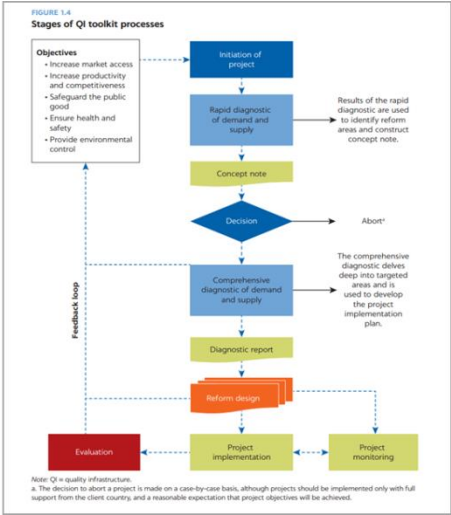
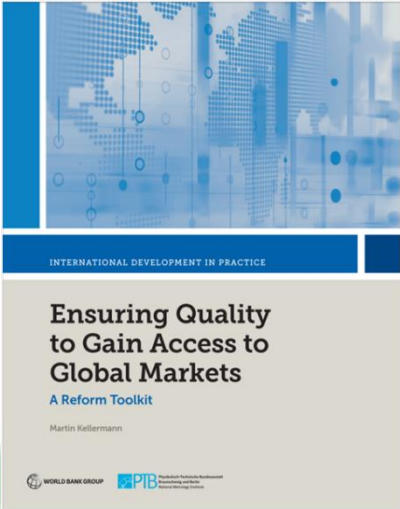
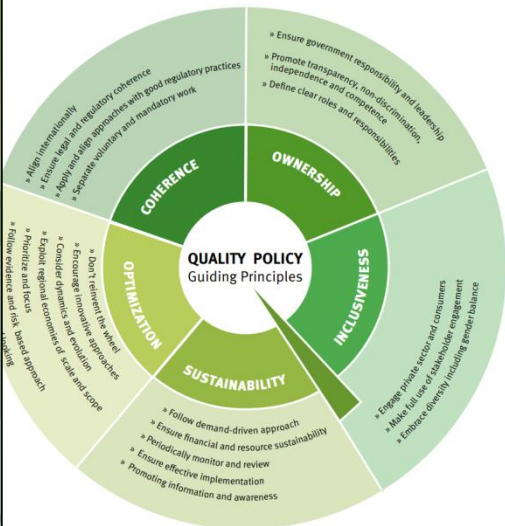
UNIDO-IAF-ILAC Joint Brochure



Recent publications of INetQI members

WBG and PTB 'A Reform Toolkit'

UNIDO 'Quality Policy - Guiding Principles'



Outline

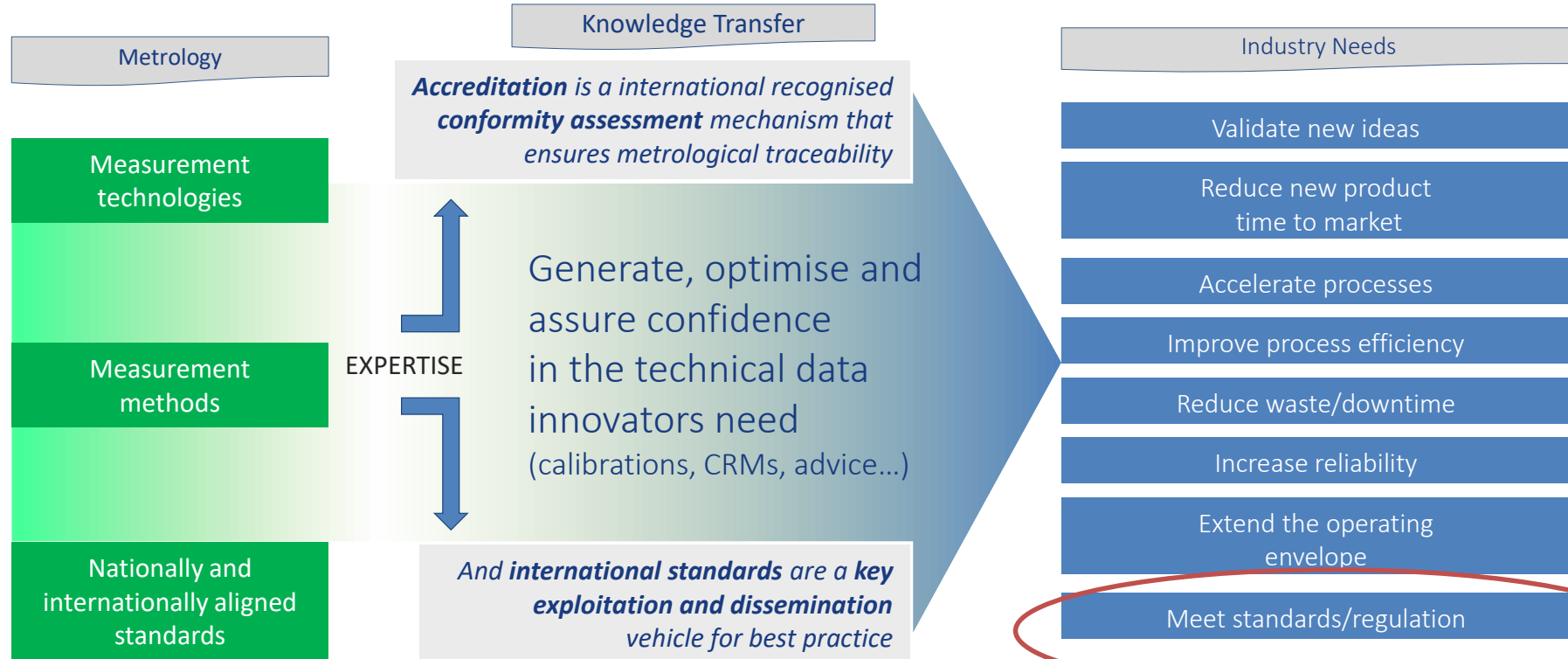
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Benefits of metrology within QI



The work of the BIPM

The BIPM is the intergovernmental organization through which Member States act together on matters related to measurement science and measurement standards.

71 staff from 18 countries



3 international databases



- KCDB
- JCTLM
- IMRR

5 Departments



- executing the WP projects
- coordinating comparisons
- providing calibrations

10 Consultative Committees



- CIPM Consultative Committees
- Plus 67 WGs, etc.

4 Joint Committees



- JCGM
- JCRB
- JCTLM
- INetQI

19 CBKT projects



- projects:
- 16 completed
 - 3 ongoing

Seven base units



Approved by Resolution 1 of the 26th CGPM (2018)

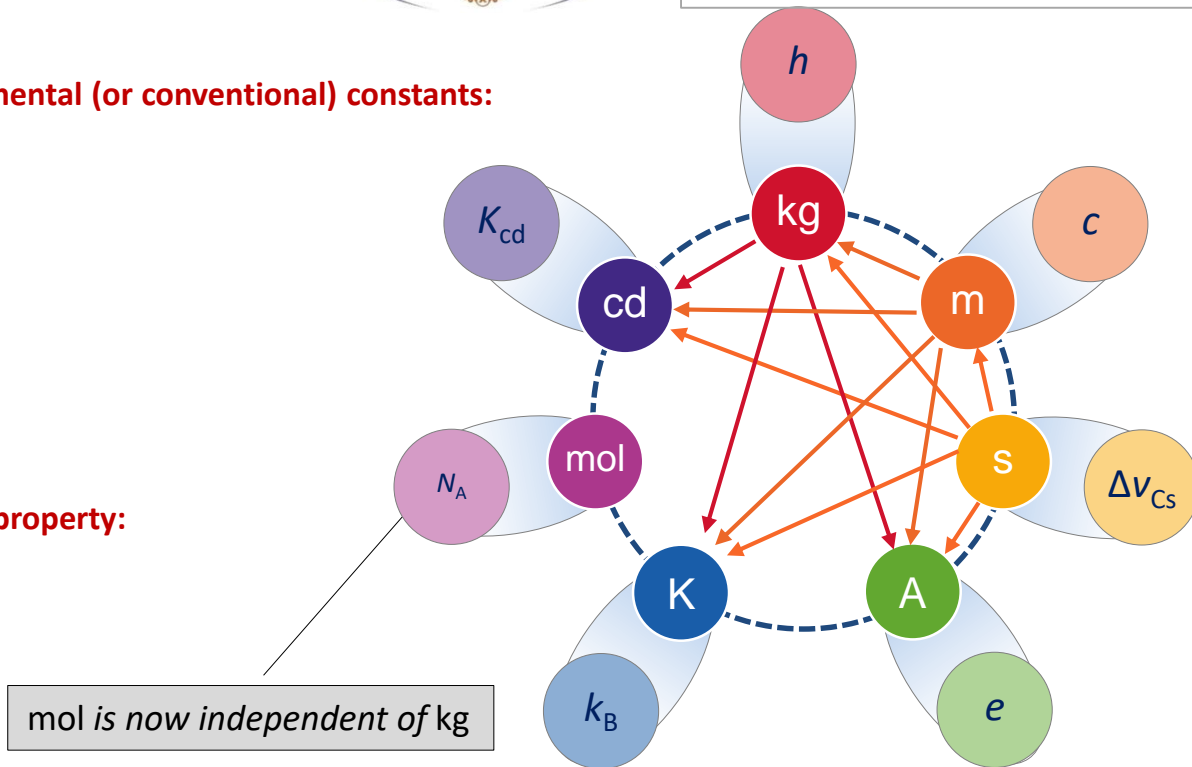
Implementation date was 20 May 2019

6 definitions based on **fundamental (or conventional) constants**:

- metre (c)
- candela (K_{cd})
- kilogram (h)
- ampere (e)
- kelvin (k_{B})
- mole (N_{A})

1 definition based on **atomic property**:

- second ($\Delta\nu_{\text{Cs}}$)



Conclusions

- ◆ The world economy, society and citizens depend on the international “quality infrastructure” – metrology, standards and accreditation, particularly when underpinning conformity assessment activities.
- ◆ The value of metrology isn’t easy for the everyday person to understand.....
- ◆ The BIPM is the intergovernmental organization through which Member States act together on matters related to measurement science and measurement standards.
- ◆ Revision of the SI ensures that role of metrology remained reliable at science and advanced technology.

