Workshop on *the mise en pratique* (2012)
Views of NMI directors

22 November 2012
What was the question?

Addressee: all NMIs with projects to redefine the kg

Views of NMI directors on the long-term support for primary realizations

What are your plans to realize the kilogram after the redefinition?
Reactions

I received detailed and constructive reactions from 5 NMI directors

I summarized the answers below
Primary realization

• Resolution 1 of 24th CGPM and Recommendation G1 (2010) of CCM
  strong support
• Primary realization of the kilogram should be available for the foreseeable future (including associated equipment for dissemination)
  strong intention
• Compare watt balance measurement to ensure consistency
• Efforts towards robust and simple watt balance for the future realization
  support from some NMIs
Number of realizations and timing

- No urgency to change the definition (avoid possible negative impact). Estimated time: 5 to 10 years.
  *majority of the responses*
- Give time to experiments to deliver good results (strong scientific result)
- More results (> 3) are needed for a robust and reliable definition
- Encourage NMIs to continue their efforts before and after redefinition (long term)
Discrepancies

• The common effort to resolve discrepancy between NIST and NRC is supported for one additional year (-> fall 2013)
  • Independant value of the *molar mass* for Avogadro
  • New value of *h* from existing NIST watt balance (new examination of all systematic errors)
  • Confirm or solve remaining discrepancy
Other ideas/plans

• Stable ensemble to be used between KCs (on-going KC) for the mep and for the dissemination
• The KCRV must be transferred to this ensemble
• Exploring the primary realization of small masses
• First ideas towards a «commercial» watt balance
Conclusion

• Special thank to all contributors
• Information given for the general interest of the workshop
• The long term support of NMIs for experiments to realize the new definition is important but still premature at this point in time
• The positions of NMI directors have no direct impact on the mep