

Working Towards More Effective International Instruments



#### **Snapshots of IO Practices**

#### **World Metrology Day**

#### Organisation(s): Bureau International des Poids et Mesures (BIPM), International Organization of Legal Metrology (OIML)

The Snapshots of IO Practices present examples of specific efforts undertaken by an international organisation to work towards more effective international instruments. They aim to highlight examples of practices within the five focus areas of the Partnership of International Organisations for Effective International Rulemaking (IO Partnership), namely the variety and development of international instruments, their implementation, evaluation, ensuring stakeholder engagement, and co-ordination among IOs. The snapshots are submitted by the secretariats of the relevant international organisations implementing the relevant practice. The practices were compiled by the OECD Secretariat and focal points of the IO Partnership (UNCITRAL, OIE, WHO, ISO, WCO, BIPM, and SIECA), with a brief review to ensure consistency and comparability of the information provided within the snapshots. The inclusion of a practice in these snapshots implies no endorsement or assessment of that practice on the part of the OECD Secretariat or the focal points of the IO Partnership.

1	Overview of the Practice	Answers	Comments and intersections
1.1	Organisation(s)	International Bureau of Weights and Measures (BIPM)	
		International Organization of Legal Metrology (OIML)	
1.2	Area of relevance among the IO partnership focus themes (variety of instruments, implementation, stakeholder engagement, evaluation, coordination).	Implementation of instruments (advocacy mechanism)	
1.3	Name of the practice	World Metrology Day	
1.4	Name of person(s) completing the	Andrew Henson (BIPM)	
	template	Rahima Guliyeva (BIPM)	
		Chris Pulham (OIML)	



2	Description of the Practice	Answers	Comments and intersections
2.1	Please describe the practice shortly, providing information on its core features.	World Metrology Day is the annual celebration of the signature of the Metre Convention by seventeen nations on 20 May 1875. The Convention sets the framework for global collaboration in the science of measurement and in its industrial, commercial and societal applications. The original aim of the Metre Convention - the world-wide uniformity of measurement - remains as important today as it was in 1875, with over 100 countries participating in the activities of the BIPM and its sister organisation the International Organization of Legal Metrology (OIML).	
		Each year World Metrology Day (WMD) is organised and celebrated jointly by the BIPM and the OIML, with the participation of national metrology institutes (NMIs) and regional metrology organisations (RMOs) world-wide. NMIs participate in comparisons co-ordinated by the BIPM to ensure the reliability of measurement results world-wide.	
		The WMD website offers:	
		<ul> <li>a press release prepared by the WMD Team,</li> <li>messages in English and in French from the Directors of the two organisations to the world of metrology, governments, companies, and academics,</li> <li>downloadable A1, A3 and A4 size posters in both Adobe® PDF and Adobe® PhotoShop® formats, which may be modified to allow other organisations to place their logo at the top right and/or adapt them into languages other than English and French, and a list of nationally celebrated events.</li> </ul>	





2.2	What are the objectives of the practice?	It was understood from the beginning that the Metre Convention and its associated instruments are most effective if adopted universally (by all States). The first page of the text states: "les Hautes Parties Contractantes désirant assurer l'unification internationale et le perfectionnement du Système métrique, ont résolu de conclure une convention à cet effet.", "the High Contracting Parties desiring to ensure the international unification and the perfection of the Metric System, have resolved to conclude a convention to this effect.". Thus the concept of universality has remained a fundamental tenet since the earliest days.	Intersection with area of IO Partnership on "Ensuring effective stakeholder engagement" (WG3)
		In addition, a number of notable Resolutions related to universality have been adopted:	
		<ul> <li>Resolution 14 of the 11th CGPM (1960) "Adhésion des Pays à la Convention du Mètre" in which the CGPM recommended that all State Parties of the Metre Convention exercise their influence, using their scientific and technical links in order to engage those countries which did not yet accede to the Metre Convention.</li> <li>Resolution 4 of the 22nd CGPM (2003) 'Value and benefits of the Metre Convention for Member States and for Associates of the General Conference' in which the CGPM welcomed the CIPM initiatives to promote membership and the potential of the network for alerting non-members of the merits of membership.</li> <li>The objective of the practice is advocacy to increase participation in the activities of the BIPM (and in parallel in the activities of the OIML).</li> </ul>	



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The world-wide metrology system underpins much of the modern world but is largely unknown. World Metrology Day provides an annual focal point to highlight the central role that both scientific and legal metrology plays in the lives of the citizens of the world in areas of science and technology, education and sustainable development. World Metrology Day provides an opportunity to explain the value of accurate and internationally accepted measurements, the role of the metrology system and its importance in exploiting opportunities and addressing the challenges of the modern era.

The event provides an annual opportunity for individual States to celebrate the impact of measurement on our daily lives in whatever way they think best with their stakeholders. In practice this day is used to raise awareness of the importance of scientific and legal metrology and to reinforce the links between NMIs, ministries and other decision-makers, industry leaders, scientists, academics and the public at large to address the world's most pressing problems using accurate and internationally accepted measurements.



2.3	What have been the key results of the practice?	Previous World Metrology Day themes have included topics such as measurements in light, energy, safety, chemistry, science and technology, trade, transport, environment, sport and health.	
		During the last three years, celebrations in more than 20 countries were listed on the WMD website ( <a href="https://www.worldmetrologyday.org">https://www.worldmetrologyday.org</a> ) and posters in more than 15 languages were produced by various countries and RMOs.	
		An indication of the growing recognition of the World Metrology Day "brand" can be seen by carrying out a Google search on "world metrology day"; this returned more than 4.6 million results at the time of writing.	
		It is notable that the world metrology community chose the 2019 World Metrology Day for implementation of the revisions to the International System of Units (SI), which had been voted for at the 26th meeting of the CGPM (2018). (see Decision CIPM/105-13 of October 2016 <a href="https://www.bipm.org/utils/en/pdf/CIPM/CIPM2016-Decisions-EN.pdf">https://www.bipm.org/utils/en/pdf/CIPM/CIPM2016-Decisions-EN.pdf</a> ).	
		The joint BIPM-OIML 2018 World Metrology Day focused on the expected changes from the SI revision, and launched an international awareness campaign.  The publication of the 8th edition of the SI Brochure coincided with the 2006 World Metrology Day and the 9th edition with World Metrology Day in 2019.	
		The 2009 World Metrology Day theme of 'Measurement in Commerce' provided the BIPM with an opportunity to highlight the ten-year anniversary of the CIPM MRA.	





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2.4	In what year was the practice introduced?	In 1999 the CIPM encouraged the fact that 20 May should be celebrated as World Metrology Day. The first celebration of World Metrology Day took place in 2000 and has run annually since then.	
2.5	Has the practice been updated/reformed since then? If yes, when and how has it evolved over time?	Yes, it has.  In response to the CIPM's encouragement in 1999, the celebration of World Metrology Day by means of a poster was initiated by the National Metrology Institute of South Africa (NMISA). In 2007 the BIPM took the lead in this celebration. In 2008 the OIML joined the BIPM in its efforts, and the logos of the BIPM and OIML have both been included on the posters since 2008.	Intersection with area of IO Partnership on "Maximising the opportunities for coordination across IOs" (WG5)
		In the early 2000s an increasing number of countries started to translate and use the posters. To ease this process the style of the posters was changed, reducing the number of words and making them more conceptual and less detailed in the description of metrology.	
		The dedicated website <a href="https://www.worldmetrologyday.org">https://www.worldmetrologyday.org</a> was launched in 2010. The format of the posters evolved so that it became easier for the NMIs of the participating States to place their own logo on the posters and to have their translated posters and events uploaded to the World Metrology Day website.	
		The web pages, which were redesigned and upgraded in 2011, also included supporting information in the form of "Frequently asked questions" and "Copyright" pages.	
		In 2013 it was proposed that the RMOs should take the responsibility in turn to propose designs for the World Metrology Day poster from 2014 onwards.	



	Video clips and also some links that lead to related websites, and which deal with metrology in one form or another, are listed on the World Metrology Day resource website.	
	The website also includes three video messages for World Metrology Day 2021 presented by the President of the CIPM and a message presented by the Directors of the BIPM and the BIML.	
	In addition, the Director of the BIPM presented a special video message for World Metrology Day 2020 in the context of the COVID-19 pandemic, particularly how national metrology laboratories and quality infrastructure systems around the world have addressed the fast-moving challenges that have arisen as a result of the crisis.	





2.6	What do you consider to be the primary strengths of the practice?	World Metrology Day provides a focal point that allows the world-wide metrology community to raise awareness of the importance of metrology as one of the key pillars of quality infrastructure, among stakeholders and the general public. It also ensures that a consistent message is broadcast from the metrology community to the wider world.	
		World Metrology Day has become a widely-used opportunity for NMIs from both developed and developing countries to raise the profile of metrology nationally. Numerous national events are organised on the occasion of World Metrology Day to draw attention to the practical applications of metrology. In developing countries, World Metrology Day can often form the basis of political events that initiate or help initiate the first stages of the establishment of a metrological system in the country.	
		World Metrology Day continues to be a major focus of promotional activity. A number of NMIs in States which do not yet participate in the activities of either the BIPM or the OIML also take advantage of WMD to hold national information events. These focus on drawing attention to the importance of metrology and persuading Governments of the value of becoming involved in the work of the BIPM or the OIML. BIPM staff attending national celebratory events organised by Associate States promote the benefits of participating in the activities of the BIPM as a Member State. Study visits to NMIs are also organised for the BIPM staff.	
		The involvement of RMOs in the preparation of the poster and the development of ideas for the theme of World Metrology Day has increased the impact and allows wider audiences to be reached.	





2.7	What do you consider to be the main challenges faced during the implementation of the practice?	The BIPM and the OIML, and the wider stakeholder community, need to identify relevant themes and develop mechanisms to adopt decisions as to which theme to adopt in the given year, which is not always easy.	
		The BIPM and the OIML partner with a different NMI each year to produce a poster. Consequently the BIPM and the OIML have to undergo a new learning curve with the NMI each year to design the poster.	
2.8	Does the practice have a formal/normative basis within the organisation or is it conducted informally? Does this basis make the practice mandatory or voluntary?	The formal basis for celebration of World Metrology Day is the formal encouragement of the CIPM at its 88th meeting (1999), which makes it voluntary ( <a href="https://www.bipm.org/utils/en/pdf/CIPM/CIPM1999-EN.pdf">https://www.bipm.org/utils/en/pdf/CIPM/CIPM1999-EN.pdf</a> ).	
	If there is formal basis, please provide the relevant link or documentation.		
2.9	At what frequency is the practice applied? i.e. is it conducted once or on an iterative basis?	World Metrology Day is the celebration conducted world-wide each year on 20 May.	
2.10	Is this practice applied systematically, (for example, with respect to every normative instrument, according to specific criteria or on an <i>ad hoc</i> basis)?	Systematically.	
2.11	Please provide specific details or examples to illustrate the practice (including supporting links and documents).	World Metrology Day resource website https://www.worldmetrologyday.org/	





3	Design of the Practice	Answers	Comments and intersections
3.1	Who designed the practice (for example, was it developed internally, in collaboration with other organisations, etc?)	The CIPM provided the original encouragement that 20 May, the day of signature of the Metre Convention, should be celebrated as World Metrology Day. This evolved under the guidance of the BIPM and the OIML in consultation with RMOs.	
3.2	Which stakeholders were engaged with in the design of the practice?	Member States (i.e. NMIs).  World Metrology Day projects are realised jointly by the BIPM and the OIML.	Intersection with area of IO Partnership on "Ensuring effective stakeholder engagement" (WG3)
		Since 2014 each RMO collaborates with one of its metrology organisations to develop a poster to reflect metrological issues in its region.	
		The BIPM and the OIML retain editorial control over the poster and overall control of the project.	
3.3	How long did it take to design the practice?	The project evolved over time and was initiated in the late 1990s. The BIPM assumed control in 2007 to centrally co-ordinate the initiative.	
3.4	What resources were needed to design the practice initially (i.e., staff, budget etc.)?	Staff resources. Largely, the idea evolved organically rather than being designed (other than the formal encouragement by the CIPM in 1999).	
3.5	What challenges were encountered during the design of the practice and how were they overcome?	Globally, the idea evolved organically rather than being designed (other than the formal encouragement by the CIPM in 1999).	





3.6	Has the practice been tested before implementation (i.e. pilot phase)? If yes, please describe.	No.	
4	Implementation of the Practice	Answers	Comments and intersections
4.1	Which units are responsible for implementing the practice within your IO?	The BIPM International Liaison and Communication (ILC) Department leads and manages the WMD joint project, in close partnership with the OIML.	
		The WMD website is maintained by the OIML Secretariat (the International Bureau of Legal Metrology or BIML), which also provides IT support and collaborates more widely on the project.	
4.2	Are IO members involved in implementing the practice? If so, how?	Yes, Member States and Associates (i.e. NMIs) produce posters in their national languages and organise national celebratory events, for example workshops, roundtables, etc. The brief information on these events, links and video clips from NMIs are available on the WMD website.	
4.3	Are external actors beyond the organisation or its membership involved in implementing the practice? If, so how?	Yes. The six RMOs organise a competition for designing a poster and send their proposals to the BIPM and OIML for the final decision.	Intersection with area of IO Partnership on "Maximising the opportunities for coordination across IOs" (WG5)



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The WMD poster may be used for non-commercial purposes only by any organisation having an interest in metrology, notably:

- intergovernmental, international, regional or national organisations; and
- public, private, non-profit and academic organisations.

The BIPM and the OIML liaisons - International Organization for Standardization (ISO) and International Laboratory Accreditation Cooperation (ILAC) also publish feature articles on World Metrology Day on their websites, highlighting the deepening relationship within the global quality infrastructure.

The BIPM has another liaison - The National Conference of Standards Laboratories International (NCSLI) - which vigorously promotes World Metrology Day in North America.

Commercial companies with a legitimate interest in metrology may use the poster, with their logo, exclusively in a non-commercial general promotional context (e.g. in their newsletters), however any posters or events will not be posted on the World Metrology Day website. Commercial companies must contact the WMD Team (composed of the experts of the BIPM, RMOs and the BIML) to obtain authorisation and conditions prior to using or adapting the WMD material.



4.4	Which resources are needed to implement the practice (for example, staff and budget)?	Several person weeks of resources at both the BIPM and the OIML at several stages during the year. Initial efforts centre on the selection of the theme, and the identification and briefing of the NMI partner for that year. The next peak effort centres around the selection of the preferred poster design and then finalising and refining it. The final effort is concentrated in the run up to 20 May and focuses on the website design, uploading the posters and their translations submitted by NMIs from around the world, preparation of the Directors' messages and the press release, video clips, events, etc.	
		Use of the services of the Webmaster at the OIML.	
		Various resources at the NMIs and RMOs to identify the partner NMI.	
		Significant resources at the partner NMI to design the poster with the external contractors.	
		Staff and budget (for example, typically several staff members from both Organisations travel to Member States, Corresponding Members and Associates to participate as guest lecturers in national celebratory events organised on the occasion of World Metrology Day).	
		Running the World Metrology Day website does not incur any significant financial cost other than the time of the BIML Webmaster and, to a limited extent when the site is made live every year, the BIML's IT specialist. The BIML already hosts its webservers in-house so the maintenance of the World Metrology Day domain is not an issue in terms of server space or cost. Because the BIML is a relatively small entity, reactivity is very fast and posters/events can usually be posted immediately or within a few hours, and any IT problems attended to instantly.	





5	Outputs and Evaluation of the Practice	Answers	Comments and intersections		
5.1	Has the practice been evaluated or reviewed?	No formal evaluation, however feedback is gathered from RMOs and NMIs at meetings of the Joint Committee of the Regional Metrology Organisations and the BIPM (JCRB) and NMI Directors and State Party Representatives.			
5.2	If yes, who carried out the evaluation (please specify whether it was done internally or externally)	Not applicable.			
5.3	If yes, please describe the evaluation methodology? (for example, were any quantitative or qualitative indicators/criteria used to measure/assess the outcomes of the practice?).	Not applicable.			
5.4	If yes, what were the conclusions of the evaluation, and has the practice evolved subsequently? If possible, please attach related documents or provide a link.	Not applicable.			
6	Additional comments and information	Answers	Comments and intersections		
6.1	Is there any more information or documentation that would be valuable to share in relation to the practice (for example, links, reports, meeting minutes, supporting documents)?	Not applicable.			
	Sources	Sources			
	BIPM Director's Annual Report (2008-2009) o	BIPM Director's Annual Report (2008-2009) on the Activity and Management of the BIPM <a href="https://www.bipm.org/utils/en/pdf/DIR/DIR2009-EN.pdf">https://www.bipm.org/utils/en/pdf/DIR/DIR2009-EN.pdf</a>			
	BIPM Director's Annual Report (2010-2011) on the Activity and Management of the BIPM <a href="https://www.bipm.org/utils/en/pdf/DIR/DIR2011-EN.pdf">https://www.bipm.org/utils/en/pdf/DIR/DIR2011-EN.pdf</a>				
	CIPM: Report of the 88th meeting (1999) https://doi.org/10.1001/j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.	CIPM: Report of the 88th meeting (1999) https://www.bipm.org/utils/en/pdf/CIPM/CIPM1999-EN.pdf			