

## **Future Revision of the SI**

# **Brand Book V2**

**April 2018** 

## **Director's Introduction (updated)**

I am delighted to bring you this second version of this Brand Book, which will help the whole metrology community mark the occasion of the redefinition of the International System of Units (SI). At the time of writing, we are anticipating that this will happen when the General Conference on Weights and Measures (CGPM) meets in November 2018 with a special open session on Friday 16 November to ratify this decision.

The work needed to reach this point has taken many years, and has been a truly international effort. The universality of access that it will afford has been a goal for the "metric system" that dates back more than 200 years.

This important event will provide us all with a unique opportunity to promote the work of metrology. I urge all National Metrology Institutes to make the most of this chance to work collectively and consistently together to raise the profile of the SI and metrology internationally.

This updated Brand Book provides you with the logo and key messages to support this endeavour as well as some ideas on the audiences and activities you may wish to consider.

Once again I extend my thanks the Task Group for the Promotion of the SI and their PR expert Working Group for their work. I am looking for to this year and to seeing the work of metrology and the revision of the SI celebrated through the world.

Martin J.T. Milton, Director of the BIPM, Pavillon de Breteuil, Sèvres, France.

## **Introduction to the Brand Book (new)**

The CIPM have set up a Task Group for the Promotion of the SI to assist NMIs with their communications efforts. This Brand Book has been written by the Task Group in anticipation of the agreement to the revision of the SI units at the General Conference on Weights and Measures in 2018.

In this Brand Book you will find information about the campaign period, the three key messages for the campaign, the key audiences and the SI illustration.

This Brand Book has been written to act as a guide and assist with your own efforts, but its contents are by no means exhaustive. It is intended to serve as an important resource for NMIs that do not have a dedicated Communications, PR or Marketing team.

This book and additional resources can be downloaded from our website. The Task Group are encouraging NMIs to help with the efforts to promote the SI by thinking creatively about their own communications, identifying what would work best within their own countries and, where possible, by sharing their resources via the BIPM website: <a href="https://www.bipm.org/en/si-download-area/">www.bipm.org/en/si-download-area/</a>

Fiona Auty (NPL), Valérie Morazzani (LNE), Gail Porter (NIST) and Jens Simon (PTB). Task Group for the Promotion of the SI - PR Expert Working Group

Please contact the Task Group to share resources via: <a href="mailto:revised.si@bipm.org">revised.si@bipm.org</a>

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## **Aspirations for 2018**

#### To provide a unique opportunity to talk about the SI

The SI is used extremely widely, but its full impact is rarely recognised or appreciated. There will be audiences that will be interested and those that should be interested. We wish to exploit this and further raise awareness about the important role of measurement and metrology.

#### To facilitate universality of access to the agreed basis for worldwide measurements

This has been an ambition for the "metric system" that goes back more than 200 years. From 2018 it will be possible to realize all the definitions universally for the first time.

#### To underpin future requirements for increases in accuracy

As science and technology advances, the demands for the accuracy of measurements will continue to increase. The 2018 definitions will enable these to be met for many years to come.

Our aspiration is to encourage NMIs to use this opportunity to create an awareness campaign around the SI in their country.

## Approach and principles of the awareness campaign

A CIPM Task Group for Promotion of the SI has been set up. The Task Group works to:

- Provide a focus for this opportunity
- Create resources to support this endeavour
- Encourage NMIs to undertake their own awareness campaigns
- Facilitate the sharing of resources

## The Task Group encourages NMIs to:

- Use this event to talk about the SI in general terms
- Use the provided resources or create your own
- Share information freely via the Task Group
- Ensure all materials are fit for purpose, and have appropriate copyright and approval
- Take responsibility for translation and light editing or bringing local context
- Take responsibility for implementation in your own country (noting that some with close links may wish to join forces)
- Use the key messages and timelines outlined in this Brand Book
- Look for opportunities for joint communications programmes beyond this campaign

More information about this Task Group can be found at <a href="https://www.bipm.org/en/committees/cc/wg/cipm-tgsi.html">www.bipm.org/en/committees/cc/wg/cipm-tgsi.html</a>

## What is the revision to the SI (updated)

At its meeting on 20 October 2017, the CIPM agreed that the conditions for the redefinition of the SI had been met, and agreed to propose the resolution to the 26th General Conference on Weights and Measures (CGPM), which will take place in Versailles in November 2018. This was an important next step towards the redefinition efforts and acknowledged the outstanding contributions made by many metrologists across the world.

It is expected that at the 26th meeting of the CGPM the decision to revise the definitions of the SI base units will be approved. The kilogram, the ampere, the kelvin and the mole will be redefined in terms of physical constants. The new definitions will be based on fixed numerical values of the Planck constant (h), the elementary charge (e), the Boltzmann constant (h) and the Avogadro constant (h), as well as on other three physical constants whose numerical values are already fixed in the present SI" or a similar formulation.

The definitions of all seven base units of the SI will be uniformly expressed using the explicit-constant formulation, and specific *mises en pratique* will explain the realization of the definitions in a practical way.

This will result in a simpler and more fundamental definition of the entire SI, and will dispenses with the last of the definitions based on a material artefact – the international prototype of the kilogram.

It is proposed that from the redefinition the SI will be the system of units in which:

- the unperturbed ground state hyperfine transition frequency of the caesium-133 atom Δνcs is 9 192 631 770 hertz
- the speed of light in vacuum c is exactly 299 792 458 metres per second
- the Planck constant h is exactly 6.626 070 15  $\times$  10<sup>-34</sup> joule seconds
- the elementary charge e is exactly 1.602 176 634 ×10<sup>-19</sup> coulombs
- the Boltzmann constant k is exactly 1.380 649 x  $10^{-23}$  joules per kelvin
- the Avogadro constant  $N_A$  is exactly 6.022 140 76 x  $10^{23}$  reciprocal moles
- the luminous efficacy of monochromatic radiation of frequency 540  $\times 10^{12}$  hertz  $K_{cd}$ , is exactly 683 lumens per watt

More information at www.bipm.org/en/measurement-units/rev-si/

## Information for users about the proposed revision of the SI (new)

The International System of Units<sup>1</sup>, the SI, which is based on the **second**, the **metre**, the **kilogram**, the **ampere**, the **kelvin**, the **mole** and the **candela** (the base units), is being revised to update the definitions of four of these units. In November 2018 revised definitions of the **kilogram**, **ampere**, **kelvin** and **mole** are expected to be approved by the General Conference on Weights and Measures (CGPM), the international body responsible for the global comparability of measurements. The revised definitions are expected to come into force on 20 May 2019.

The revised definitions will be based on seven physical constants (for example the speed of light, the Planck constant and the Avogadro constant) and are therefore inherently stable. The quantities have been chosen so that the revised definitions will not need to be modified to accommodate future improvements in the technologies used to realize them. The revision of the SI in this way was foreseen in Resolutions of the CGPM adopted in 2011 and 2014<sup>2,3</sup>. Additional requirements contained in these Resolutions will ensure a smooth transition to the four revised definitions. Most users will not notice the change. A new edition of the SI Brochure<sup>1</sup> will provide essential information for users and will be available after the revised definitions are adopted formally. Guidance on the practical realization of the units will be available<sup>4-8</sup>.

Some information about how these changes might affect the different areas of measurement is given below:

- The kilogram will be defined in terms of the Planck constant, guaranteeing long-term stability of the SI mass scale. The kilogram can then be realized by any suitable method, (for example the Kibble (watt) balance or the Avogadro (X-ray crystal density) method). Users will be able to obtain traceability to the SI from the same sources used at present (the BIPM, national metrology institutes and accredited laboratories). International comparisons will ensure their consistency. The value of the Planck constant will be chosen to ensure that there will be no change in the SI kilogram at the time of redefinition. The uncertainties offered by NMIs to their calibration customers will also be broadly unaffected.
- The ampere and other electrical units, as practically realized at the highest metrological level, will become fully consistent with the definitions of these units. The transition from the 1990 convention to the revised SI will result in small changes to all disseminated electrical units. For the vast majority of measurement users, no action need be taken as the volt will change by about 0.1 parts per million and the ohm will change by even less. Practitioners working at the highest level of accuracy may need to adjust the values of their standards and review their measurement uncertainty budgets.

- The kelvin will be redefined with no immediate effect on temperature measurement practice or on the traceability of temperature measurements, and for most users, it will pass unnoticed. The redefinition lays the foundation for future improvements. A definition free of material and technological constraints enables the development of new and more accurate techniques for making temperature measurements traceable to the SI, especially at extremes of temperature. After the redefinition, the guidance on the practical realization of the kelvin will support its world-wide dissemination by describing primary methods for measurement of thermodynamic temperature and equally through the defined scales ITS-90 and PLTS-2000.
- **The mole** will be redefined with respect to a specified number of entities (typically atoms or molecules) and will no longer depend on the unit of mass, the kilogram. Traceability to the mole can still be established via all previously employed approaches including, but not limited to, the use of mass measurements along with tables of atomic weights and the molar mass constant  $M_u$ . Atomic weights will be unaffected by this change in definition and  $M_u$  will still be 1 g/mol, although now with a measurement uncertainty. This uncertainty will be so small that the revised definition of the mole will not require any change to common practice.

The revised definitions of the kilogram, ampere, kelvin and mole will have no impact on the second, the metre and the candela.

- **The second** will continue to be defined in terms of the hyperfine transition frequency of the caesium 133 atom. The traceability chain to the second will not be affected. Time and frequency metrology will not be impacted.
- **The metre** in the revised SI will continue to be defined in terms of the speed of light, one of the fundamental constants of physics. Dimensional metrology practice will not need to be modified in any way and will benefit from the improved long-term stability of the system.
- **The candela** will continue to be defined in terms of  $K_{cd}$ , a technical constant for photometry and will therefore continue to be linked to the watt. Traceability to the candela will still be established with the same measurement uncertainty via radiometric methods using absolutely-calibrated detectors.

The SI has been revised several times since its formal adoption by the CGPM in 1960. However, redefining fundamentally four base units at one time is unprecedented, requiring simultaneous world-wide collaborations in diverse fields of metrology. As in the past, care has been taken to ensure that there will be no perceptible impact on daily life and that measurements made with previous definitions of the units remain valid within their measurement uncertainties. Few users outside national metrology laboratories will notice the changes. Reaching the experimental accuracies and fulfilling the conditions requested in the CGPM resolutions has been a remarkable accomplishment, which will ensure that the SI continues to meet the needs of even the most demanding users.

This note was prepared by the Consultative Committees of the CIPM in 2017 for the purpose of creating awareness of the revision of the International System of Units expected for 2018 – it is suitable for more technical audiences and should not be altered.

- 1. www.bipm.org/en/publications/si-brochure/
- 2. www.bipm.org/en/CGPM/db/24/1/
- 3. www.bipm.org/en/CGPM/db/25/1/
- 4. www.bipm.org/en/publications/mises-en-pratique/
- 5. www.bipm.org/cc/CCM/Allowed/15/02A\_MeP\_kg\_141022\_v-9.0\_clean.pdf
- 6. www.bipm.org/cc/CCEM/Allowed/26/CCEM-09-05.pdf1.
- 7. www.bipm.org/cc/CCT/.../MeP-K-14\_DRAFT\_Dec\_2015.pdf
- 8. www.bipm.org/cc/CCQM/Allowed/22/CCQM16-04\_Mole\_m\_en\_p\_draft.pdf

## Technical information on the prosed revision of the SI (new)

The following diagrams and definitions might aid you in explaining the relationships in the revised SI between the fundamental constants and the base units.

Base unit	Definition	Conversion	Diagram
Second (s)	The second is the SI unit of time. It is defined by taking the fixed numerical value of the caesium frequency $\Delta v_{\rm Cs}$ , the unperturbed ground-state hyperfine transition frequency of the caesium 133 atom, to be 9 192 631 770 when expressed in the unit Hz, which is equal to s <sup>-1</sup> .	1 s = 9 192 631 770 / Δ <i>v</i> <sub>Cs</sub>	e second h
Meter (m)	The metre is the SI unit of length. It is defined by taking the fixed numerical value of the speed of light in vacuum $c$ to be 299 792 458 when expressed in the unit m s <sup>-1</sup> , where the second is defined in terms of the caesium frequency $\Delta v_{\rm Cs}$ .	1 m = $(c / 299792458)$ s = $30.663318 c / \Delta v_{Cs}$	e N <sub>A</sub> meter h
Kilogram (kg)	The kilogram is the SI unit of mass. It is defined by taking the fixed numerical value of the Planck constant $h$ to be 6.626 070 15 × 10 <sup>-34</sup> when expressed in the unit J s, which is equal to kg m <sup>2</sup> s <sup>-1</sup> , where the metre and the second are defined in terms of $c$ and $\Delta v_{\rm Cs}$ .	1 kg = $(h / 6.626\ 070\ 15 \times 10^{-34})\ m^{-2}\ s$ = 1.475 521 × 10 <sup>40</sup> $h\ \Delta v_{Cs}/c^2$	e kilogram h
Ampere (A)	The ampere is the SI unit of electric current. It is defined by taking the fixed numerical value of the elementary charge e to be 1.602 176 634 $\times$ 10 <sup>-19</sup> when expressed in the unit C, which is equal to A s, where the second is defined in terms of $\Delta v_{\rm Cs}$ .	1 A = $e$ / (1.602 176 634 × 10 <sup>-19</sup> ) s <sup>-1</sup> = 6.789 686 × 10 <sup>8</sup> $\Delta v_{Cs}$ $e$	$\begin{array}{c} \Delta v_{\rm CS} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$

Kelvin (K)	The kelvin is the SI unit of thermodynamic temperature. It is defined by taking the fixed numerical value of the Boltzmann constant $k$ to be 1.380 649 × 10 <sup>-23</sup> when expressed in the unit J K <sup>-1</sup> , which is equal to kg m <sup>2</sup> s <sup>-2</sup> K <sup>-1</sup> , where the kilogram, metre and second are defined in terms of $h$ , $c$ and $\Delta v_{\rm Cs}$ .	1 K = $(1.380 649 \times 10^{-23}/k)$ kg m <sup>2</sup> s <sup>-2</sup> = $2.266 665 \Delta v_{Cs} h/k$	e kelvin h
Mole (mol)	The mole, symbol mol, is the SI unit of amount of substance. One mole contains exactly $6.022\ 140\ 76 \times 10^{23}$ elementary entities. This number is the fixed numerical value of the Avogadro constant, $N_A$ , when expressed in the unit mol <sup>-1</sup> and is called the Avogadro number.	1 mol = 6.022 140 76 × 10 <sup>23</sup> /N <sub>A</sub>	e NA NA mole
	The amount of substance, symbol $n$ , of a system is a measure of the number of specified elementary entities. An elementary entity may be an atom, a molecule, an ion, an electron, any other particle or specified group of particles.		k K <sub>od</sub>
Candela (cd)	The candela is the SI unit of luminous intensity in a given direction. It is defined by taking the fixed numerical value of the luminous efficacy of monochromatic radiation of frequency $540 \times 10^{12}$ Hz, $K_{cd}$ , to be 683 when expressed in the unit Im W <sup>-1</sup> , which is equal to cd sr W <sup>-1</sup> , or cd sr kg <sup>-1</sup> m <sup>-2</sup> s <sup>3</sup> , where the kilogram, metre and second are defined in terms of $h$ , $c$ and $\Delta v_{Cs}$ .	1 cd = ( $K_{cd}/683$ ) kg m <sup>2</sup> s <sup>-3</sup> sr <sup>-1</sup> = 2.614 830 × 10 <sup>10</sup> ( $\Delta v_{Cs}$ ) <sup>2</sup> $h K_{cd}$	e candela h

The diagrams can be downloaded at <a href="www.bipm.org/en/si-download-area/">www.bipm.org/en/si-download-area/</a>

## **Key messages**

#### "The SI is a world-wide endeavour and approach"

The SI provides a universal language for measurement.

The proposed changes to the SI are the result of a worldwide agreement at the General Conference (CGPM) in 2018. Metrology is a field where the states and economies of the world work together.

#### "The SI will use the rules of nature to create the rules of measurement"

Using the constants in nature to define international measurement units allows the scientific and industrial community to accurately scale their measurements from the smallest to the largest quantities in several areas.

It will tie key measurements at the atomic (and quantum) scales to those at the macroscopic level in areas such as mass and temperature, where previously it has been done using less accurate indirect methods. This is the appeal of the changes.

#### "The changes to the SI will provide a springboard for future innovation"

The changes will mark an important and historic step forward. Just as redefining the second and the metre helped enable GPS navigation, the redefined SI is expected, over time, to enable new technologies we have yet to imagine, whilst maintaining continuity for practical users.

At <u>www.bipm.org/en/si-download-area/</u> you will find suggested speaking notes for these key messages to support you.

Speaking with one voice and using the same messages will increase the impact of our worldwide messages.

We encourage all NMIs to use these three key messages when you are introducing the redefinition of the SI.

## **Timeline (updated)**

We would like NMIs, where possible, to use World Metrology Day in 2018 and 2019 to mark the beginning and the end of the year-long celebration. Achieving a critical mass of news will create greater impact.

#### 20 May 2018: World Metrology Day

This should be the main launch date of your awareness campaign and you may wish to hold an event or put out a press release to mark this.

In line with previous World Metrology Days, BIPM and OIML will provide a poster and press release for this date, and this year they will be focused upon the SI redefinition via www.worldmetrologyday.org.

We will also provide media notes, proposed social media ideas and other information to support you in-country media campaigns that can accompany this. The *SI Campaign Launch Press Pack* is available to download at <a href="https://www.bipm.org/en/si-download-area/">www.bipm.org/en/si-download-area/</a>.

#### 13-16 November 2018: 26th meeting of the CGPM – General Conference on Weights and Measures

It is expected that this meeting will agree on the proposed changes to the SI.

As part of this Conference, the BIPM will be organising a number of activities, including a press conference, to mark the occasion and are looking to broadcast the event live. We expect the highest press interest will be around the official decision at this meeting. We will keep all NMIs informed of the plans as they develop and how you can be involved.

#### 20 May 2019: World Metrology Day

The proposed date for the redefined SI to come into practice is 20 May 2019. This date will mark the end of the celebrations outlining the redefinition of the SI. We will keep you informed of ideas and plans for this as they develop and how you can be involved.

## Talking about the Redefinition (new)

The campaign period will begin before an agreement has been reached at the 26th meeting of the CGPM and will continue until the implementation date on the 20 May 2019. To avoid confusion NMIs are advised to be careful about their choice of wording when discussing the redefinition of the SI. The Task Group will use the following wording in its communications:

#### Before the 26th meeting of the CGPM

- The expected revision of the International System of Units (SI)
- The proposed changes to the SI

"The proposed changes to the SI would use the constants in nature to define international measurement units, it is expected that the changes will be agreed at the General Conference (CGPM) in 2018."

#### After the 26th meeting of the CGPM

- The revision of the International System of Units (SI) or the revised SI
- The agreed changes to the SI will be implemented on 20 May 2019

"The agreed changes to the SI units mark an important and historic step forward, and will provide a springboard for future innovation. NMIs around the world are now working towards the implementation of these changes in May 2019."

#### After World Metrology Day 2019

From this point the SI will be defined and simply referred to at the SI. NMIs should refer to the revision of the SI in a historical context.

- The 2018 revision to the International System of Units (SI)
- The 2018 changes to the SI have now been implemented

"The revision of the SI was internationally agreed at the 26th meeting of the CGPM in 2018. Four of the SI base units were redefined as part of the changes and have now been implemented by NMIs across the world."

Note: While the definitions of the four units are being revised, the implementation of the changes will be seamless to almost all users so to avoid confusing the public we will never refer to this project or the change as the New SI.

## **Audiences (updated)**

The range of audiences that have an interest in the SI is broad. We suggest that you consider the following groups in your awareness campaigns, beyond your own scientific and technical communities.

#### Policy makers and opinion leaders

Key contacts from government, academia, industry and beyond, who are influential opinion formers in your country in the science community. You are likely to know who these people are and can inform them directly.

#### Teachers and lecturers

All educators in the science community will need to understand the change at some level to ensure they can share this with their students – probably from 14+ years. Teachers often use resources from Professional Bodies– which may already include the NMI. If you do not have close links in place, talk to your Professional Science Bodies.

#### General and science-interested public

There will be a broad audience of scientifically knowledgeable public who would be interested in the SI. Many will look to popular media for information, so ensure you inform the appropriate press. Specialist agencies can help with this if you do not have this support within your NMI or government organisation.

The general public will attend exhibitions and museums, we suggest that NMIs try to have a presence at such events during the campaign period.

#### Users of the SI

All NMIs will have a community of known users – either directly as they work with yourselves or indirectly via testing laboratories or standards. You are likely to have lists of customers or partners and can work with the providers of traceability services in the country to talk to this community.

We have listed the types of messages that might be important for each audience group – this is not exhaustive but should provide a starting point for your communications.

#### Policy makers and opinion leaders

- How does this contribute to the health and the wealth of the nation?
- How will it enable new technology and innovation?
- What is its role in trading and globalisation?

#### Teachers and lecturers

- Introducing the measurement system
- Basic understanding of the physics behind the measurement system
- Changes in the SI and the rules of nature
- Unified theory of measurement
- · Completing the metrological jigsaw

#### General and science interested public

- How does the SI affect me?
- The worldwide nature of this work
- Springboard for future innovation what might this look like?
- The use of quantum physics
- The retirement of the physical kilogram

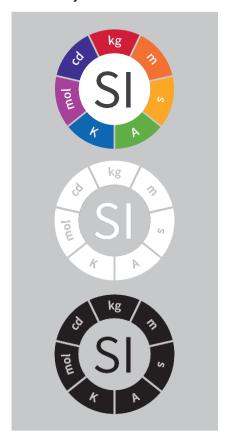
#### Users of the SI

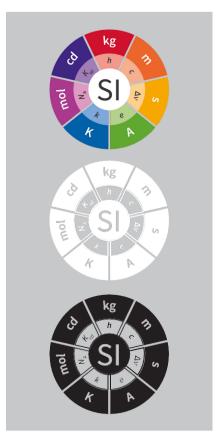
- Stability in the current system remains it is not broken
- The new system provides improved stability and precision
- The changes could enable new technologies and lead to many interesting developments

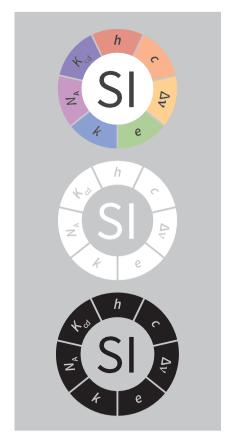
We encourage NMIs to think about the important audiences and messages in their own countries and to share resources created for these various audiences with each other via <a href="mailto:revised.si@bipm.org">revised.si@bipm.org</a>

## SI illustration (updated)

The use of a common graphic will transcend any language barriers and enable all our campaigns to be recognised as part of this worldwide story. This is not a logo or an explanation of the SI. The illustration is available in three formats and these colourways.









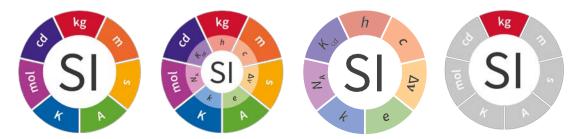
A version highlighting each unit is available in the full range of formats.

The full range of formats can be downloaded at <a href="www.bipm.org/en/si-download-area/">www.bipm.org/en/si-download-area/</a>

We encourage all NMIs to use this illustration as part of your own materials alongside your own branding.

## SI illustration guidelines

Our illustration should never be distorted or altered in any way. Always make sure you are using the correct version.



Our illustration should have space around it. An exclusion zone can be created by using the width of the letter 'S' of the illustration:



Exclusion zone around illustration

## Illustration artwork

JPEG, PNG and EPS file formats are available:

JPEG - compatible with printed items and the web. Available to download from the website.

**PNG** - for use on the web only (raster with transparent background). Available to download from the website.

EPS - best used for printed material (vector with transparent background). If you require an EPS version of the illustration please contact: revised.si@bipm.org











## SI illustration colour palette

The seven SI units lend themselves to a colour palette based upon the visible spectrum. This is the portion of the electromagnetic spectrum that is visible to the human eye.



These colours are detailed in the Brand Book and the SI Illustration guidelines, which can be downloaded at www.bipm.org/en/si-download-area/

This colour palette is a suggestion for NMIs to use – this might be especially useful in highlighting one unit or commissioning commemorative items.

## **Planning (updated)**

We hope that you are already thinking about how you can contribute to the promotion of the SI with activities within your own country or region. Some ideas are included below for you to think about:

#### Launching your Campaign

- Ensure you have downloaded the World Metrology Day poster and supporting PR material
- Consider a list of the media you might like to inform on the day and edit the press release to reflect your own activities and messages.
- Consider who else you might wish to share the World Metrology Day message and poster with your colleagues, users of your services, government officials, schools, etc.
- Ensure you have key spokespeople prepared should any press wish to contact you. Ensure that all your staff are briefed so that they can actively share the key messages with their own contacts your staff are great ambassadors for metrology.
- Update your website where interested people may look for information.
- If you are holding an event please remember to email the details to the World Metrology Day website for inclusion www.worldmetrologyday.org/

## Campaign period

- Identify any key national events, science fairs or conferences that you wish to speak at or ensure some presence of the SI.
- Actively look to offer lectures on the SI to interested groups such as professional institutions or universities.
- Ensure you keep your staff and any key stakeholders such as your government bodies informed of your activities throughout the year.

Other ideas that you may wish to consider are:

- Provide education materials to support teaching of the SI to schools or colleges.
- Ensure that users of any calibration services that rely upon the SI know about this.
- Consider creating a permanent feature to mark the occasion such as a piece of art, sculpture, book, etc.
- Hold press briefing days or open events at your laboratories.
- Offer a lecture series.
- Offer the story and spokesperson to science focused radio, TV or online outlets.
- Hold an exhibition at national and regional science museums.

#### Ending the campaign

- Consider an event to mark the moment that the new definition begins on 20<sup>th</sup> May 2019.
- As part of the World Metrology Day pack, a poster and press release will be provided that you can use.

These ideas are not an exhaustive list and NMIs are encouraged to think creatively about what would work within their own country. Where possible, the Task Group will be sharing resources with each other via <a href="revised.si@bipm.org">revised.si@bipm.org</a>

## **Task Group**

Chairperson: Prof. Joachim Ullrich [President of the CCU, Vice-President of the CIPM]

Secretary: Dr Estefanía de Mirandés [CCU Executive Secretary, BIPM]

Members: BIPM, CENAM, INMETRO, KRISS, LNE, NIM, NIST, NMIJ/AIST, NMISA, NPL, PTB, VNIIM, CCEM, CCM, CCT,

CCQM and CCU.

Observers: ILAC, ISO, OIML, IEC and CIE.

PR Expert Group: Mrs Fiona Auty, NPL [rapporteur]

Dr Valérie Morazzani, LNE Mrs Gail Porter, NIST Dr Jens Simon, PTB

The Task Group will identify and develop key tools to support all Member States to promote the new SI among a wide range of different audiences. The Group will share communication tools and messages through this webpage. The messages and tools will be available for Member States to use as they find appropriate.

The Group meets annually, with a PR Expert Group undertaking activities between meetings.

If you would like to contact the Task Group, you can do so by emailing <a href="mailto:revised.si@bipm.org">revised.si@bipm.org</a>

More information about this Task Group can be found at www.bipm.org/en/committees/cc/wg/cipm-tgsi.html