

## Technical Bulletin - Changes to SI Units - What this means for Accredited Laboratories

19 November 2018

On 16<sup>th</sup> November 2018, a meeting was held at the BIPM (International Bureau of Weights and Measures) in Sevres, France where fundamental changes were agreed to the International System of Units (SI). These changes will come into force on 20 May 2019, exactly 144 years since the date of the first Metre Convention.

The changes involve fundamental redefinition of four of the seven base units:

- kilogram;
- kelvin;
- mole;
- ampere.

These now join the three remaining base units, the candela, second and metre in a system that defines all the units in terms of fundamental natural constants such as the Plank constant and Boltzmann constant which now have precisely defined values.

For those aiming to realise the units at the highest level, such as National Metrology Institutes, then slight adjustments to mass and electrical standards may be needed. However, in reality this redefinition at the very top level will have no direct impact on UKAS accredited calibration laboratories, testing laboratories or their customers; no actions shall be required by them, and they will continue to operate as normal.

For further information please refer to the BIPM which has created a variety of helpful material to explain the reasoning behind the changes and the new definitions [www.bipm.org/the-si](http://www.bipm.org/the-si) including information for users of the SI <https://www.bipm.org/utis/common/pdf/SI-statement.pdf>.