

## **Possible Changes to the SI - A Review of the Current Situation**

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### **Abstract**

For several years, metrologists have speculated about a change to the definition of the kilogram - the last remaining physical artefact of the International System of Units (the SI). However, the scientific basis for a change to a definition based on a fixed value of a fundamental constant has proved elusive and is still not quite within our grasp. There are, however, a number of experiments which should help us reach this goal. More recently, the world metrology community has recognised that a change in the kilogram would have significance for other SI base units - in particular the Ampere and the mole. In addition, progress in other fields offers some potential for changes to the Kelvin and, possibly, the candela. This paper reviews where we now are and will challenge NCSLI as to how user communities can be alerted to the possible changes and their effects.