

Press release



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WORLD METROLOGY DAY 2011

Chemical measurements for our life, our future



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World Metrology Day has become an established annual event during which more than eighty States celebrate the impact of measurement on our daily lives, no part of which is untouched by this essential, and largely hidden, aspect of modern society. Previous themes have included topics such as measurements for innovation, and measurements in sport, the environment, medicine, and trade.

UNESCO and IUPAC have decided to designate 2011 as The International Year of Chemistry (IYC 2011), a worldwide celebration of the achievements of chemistry and its contributions to the well-being of humankind. Under the unifying theme "Chemistry - our life, our future," IYC 2011 will offer a range of interactive, entertaining, and educational activities for all ages. The year 2011 also coincides with the centenary of the Nobel Prize in Chemistry awarded to Madame Marie Curie - an opportunity to celebrate the contributions of women to science.

Chemistry is a creative science that is essential for sustainability and improvements to our way of life. All known matter is composed of pure chemical elements or of compounds made from those elements. Humankind's understanding of the material nature of our world is grounded in our knowledge of chemistry. Molecular transformations are central to the production of foodstuffs, medicines, fuels, and metals - i.e. virtually all manufactured and extracted products.

The World Metrology Day 2011 message Chemical measurements for our life, our future builds upon the IYC 2011 theme. Chemistry and chemicals pose particularly interesting challenges to the measurement community: thousands of compounds must be measured, and the range of concentrations at which some compounds must be reliably detected, quantified, and in some cases regulated can nowadays extend down to parts per billion (or even trillion). Yet the ability to make appropriately accurate and reliable chemical measurements is crucial to our economy, our environment and our personal well being; in short we must not underestimate the importance of Chemical measurements for our life, our future.

National measurement systems must rely on agreed standards, units, and techniques to make consistent, reproducible and accurate measurements. Each system

of national measurement standards and laboratories is then linked into a world-wide network coordinated by the International Bureau of Weights and Measures (BIPM). This network gives society access to accurate measurements in order to meet today's challenges in healthcare, within the environment and in all the new technologies and processes. In industry and commerce, it helps ensure product quality and interoperability, eliminates waste, raises productivity, and facilitates trade based on agreed measurements and tests. It also enables scientists to use a common language to underpin their collaboration across the world and ensure that their exploits can be taken up and accurately reproduced by companies wherever they operate.

National and regional metrological regulations must be based on agreed technical requirements in order to help avoid or eliminate technical barriers to trade, ensure fair trade practice, care for the environment and maintain a satisfactory healthcare system. The International Organization of Legal Metrology (OIML) has developed a worldwide technical structure by means of which it provides its Members with technical Recommendations and Documents as well as Guides, Vocabularies and other publications. When developing their metrological legislation and regulations, OIML Members can ensure they meet these objectives by including the requirements contained in the relevant OIML publications.

This year, in their messages to the world of metrology, Governments, companies, academics, and indeed to the man or woman in the street, the Directors of the International Bureau of Weights and Measures and of the International Bureau of Legal Metrology both highlight the importance of accurate, reliable and internationally accepted chemical measurements in the modern world as it deals with today's grand challenges.

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