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World Metrology Day - 20 May 2024

我们今天的测量，是为了可持续发展的明天

We measure today for a sustainable tomorrow

计量，即测量的科学及其应用，一直处于科技进步的前沿。它的影响可见于社会的方方面面，存在于生活的点点滴滴。

Metrology, the science of measurement and its application, has always been at the forefront of technological and scientific advancements. Its impact can be seen in all aspects of society and it is omnipresent in our lives.

今年，世界计量日的主题是“可持续发展”。准确的测量是环境研究和政策制定的基础，因为它使我们有能力了解和应对复杂的环境挑战，如气候变化、污染和资源枯竭。可持续发展的主题鼓励我们探索计量如何改善我们的日常生活。例如，准确可靠的测量有助于更好地监测环境参数，更好地评估人类活动影响，更好地制定促进生态平衡战略。计量还使我们能够做出明智的决策，无论是通过量化碳排放，测量废弃物，还是监测自然栖息地。

This year, the theme for World Metrology Day is **sustainability**. Accurate measurements are the basis of environmental research and policymaking because they enable us to understand and tackle complex environmental challenges such as climate change, pollution, and resource depletion. The theme of sustainability encourages us to explore how metrology contributes to improving our lives every day. For example, accurate and reliable measurements enable better monitoring of environmental parameters, better assessment of the impact of human activities, and the development of strategies that promote ecological balance. Metrology empowers us to make informed decisions, whether by quantifying carbon emissions, measuring waste, or monitoring natural habitats.

计量在碳核算中发挥着至关重要的作用。碳核算涵盖广泛的活动，包括污染物的精确测量、计算、监测、报告和核

查。碳核算方案和其他保护环境的监管措施需要可靠的数据，其基于对环境中潜在的十亿分之一水平的污染物的准确测量。

Metrology plays a critical role in carbon accounting, which can cover a wide range of activities including the accurate measurement, calculation, monitoring, reporting, and auditing of pollutants. Carbon accounting schemes and other regulatory measures for safeguarding the environment require reliable data, based on the accurate measurements of pollutants potentially present in the environment at part per billion levels.

计量的重要性还体现在它支持联合国可持续发展目标（SDGs）和联合国为实现可持续的全球发展所做的各种努力，包括：

Metrology is also of key importance because it supports the Sustainable Development Goals (SDGs) and the efforts of the United Nations in achieving sustainable global development:

- 以法制计量为基础的公平、透明的贸易，能够改善所有人的经济状况，有助于减少贫困；
- fair and transparent trade based on legal metrology serves to improve economic conditions for us all and assists in reducing poverty;
- 可靠和可比的测试结果，对于增进我们的健康和福祉至关重要；

- reliable and comparable test results are important in order to improve our health and well-being;
- 有效地应对气候变化行动，必须以能够量化排放量、监测基本气候变量、监控减排策略有效性的测量技术为基础；
- effective climate action must be based on measurement technologies that quantify emissions and essential climate variables as well as monitor the effectiveness of mitigation strategies;
- 测量对于开发和监测清洁能源技术至关重要，这些技术保证了我们能够获得负担得起的清洁能源；
- measurements are essential in order to develop and monitor the technologies that ensure we have access to affordable and clean energy; and
- 工业创新和基础设施，依赖于对各种参数的准确测量。
- industrial innovation and infrastructure depend on accurate measurements for a wide range of parameters.

2024 年的世界计量日主题强调了计量在所有这些情况下发挥的关键作用，并提醒我们有保护地球的共同责任。

The theme for World Metrology Day in 2024 underscores the pivotal role that metrology plays in all these cases and

reminds us of our collective responsibility to safeguard our planet.

今年也标志着世界计量日推广工作的新篇章，因为 2023 年 11 月召开的联合国教科文组织（UNESCO）第 42 届大会通过决议，正式认可每年 5 月 20 日的世界计量日庆祝活动。这将为宣传计量提供新的契机，它也与联合国教科文组织“通过科学和教育建设更美好世界”的使命相吻合。

This year also marks a new chapter in the promotion of World Metrology Day following the Resolution adopted by the 42nd Session of the UNESCO General Conference in November 2023 to grant official recognition by UNESCO to its celebration on 20th May each year. This will provide new opportunities to promote metrology, and aligns with UNESCO's mission to construct a better world through science and education.