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**With Great Measurements Come Great Results**

CARL WILLIAMS, NIST

Measurements are the foundation for science and modern life. Technologies we take for granted every day depend on them—cell phones, CAT scans, pharmaceuticals, even sports equipment. Metrology, or measurement science, determines what industry can make reliably and what they cannot. At the National Institute of Standards and Technology (NIST) we specialize in making world class measurements that an incredibly wide range of industries use to continually improve their products – computer chips with nanoscale components, atomic clocks that you can hold in your hand, lasers for both super-strong welds and delicate eye surgeries. Think of all the key technologies developed over the last 100 years and better measurements, standards, or analysis techniques played a role in making them possible. NIST works collaboratively with industry researchers on the advanced metrology for tomorrow’s technologies. A new kilogram based on electromagnetic force, cars that weigh half as much but are just as strong, quantum computers, personalized medicine, single atom devices – it’s all happening in our labs now. This talk will focus on how metrology creates the future.