Why precise and accurate measurements matter

Professor Anne Glover CBE
Chief Scientific Adviser
to the President of the European Commission
With whom do you want to have dinner?

a) Celebrity  
b) Politician  
c) Metrologist
Metrology is all around us
All our economy relies on precise and accurate measurements
Metrology also plays a big role in policy-making
If it is so important, why is meteorology still more popular than metrology?

The weather changes every day, standards do not (= newsworthiness)
What can you do to convey the message that precise and accurate measurements matter?

1) Speak up
2) Stand up
3) Gang up
1) Speak up
Communicating metrology starts in preschool
Everybody understands!

Speak a language
Don't be afraid of communicating numbers – actually, people like numbers
But numbers are a means to an end – they will make an impact only if...

...you tell a good story!
Normally, such a message would only interest a narrow expert community

We have observed a new boson with a mass of $125.3 \pm 0.6 \text{ GeV}$ at 4.9 $\sigma$ significance

CERN, 04/07/2012

Fabiola Gianotti
Why did this particular measurement create such a huge media hype?
It was all about emotions!
Precise and accurate measurements can be very emotional.
2) Stand up
Measurements can tell very powerful stories
Some of these stories may be inconvenient
Accurate measurements are not always reported in an accurate manner – don’t allow science to be misused
Talk more about scientific consensus: it's boring for a scientist, but it's a tool that can change the World!

Source: greener-industry.org.uk
3) Gang up
Make a joint effort to shout loud about metrology

You are a small community, but you have a huge impact on Europe!
Tell people how life would be without precise and accurate measurements
Thank you for your attention!

E-mail: ec-csa@ec.europa.eu
Twitter: EU_ScienceChief