

The Impact of Measurements on Quality of Life

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Abstract

Traceable, accurate and consistent measurement is a prerequisite for improving productivity and quality, for underpinning consumer confidence and trade, and for encouraging and supporting innovation. The benefits to the economy of these activities are manifest. But good measurement also has a major social impact, making a vital contribution to what is often termed Quality of Life (QoL). The concept of QoL can be difficult to define and has both subjective and objective dimensions. However, it is clear that there are some factors that are important in any consideration of QoL. These include provision for healthcare, safety and security to provide freedom from fear, death and injury, and a sustainable environment conducive to long-term health and well-being.

The measurement support and infrastructure provided by National Measurement Institutes has both an economic and a quality of life impact. However, in individual metrology areas the two types of benefit are often unequal, with some (e.g. dimensional metrology support for engineering) having primarily an economic impact and others (e.g. radiation dose measurements for radiotherapy) having primarily a QoL impact.

This paper will seek to illustrate the real and positive impact that measurement can have on QoL, particularly in the areas of health, safety, security and the environment, through concrete examples of work in progress at the UK National Physical Laboratory.