

Accreditation levels, not nationality, make the difference between calibration laboratories

One frequently asked question to Pentronic's accredited calibration laboratory is whether traceability to one of the world's leading national metrology centres is worth more than traceability to any other. The answer is no.

"Our calibration certificates have the same weight as those from any other accredited laboratory in the world," confirms lab manager Lars Grönlund.

In former times, calibration was exploited as a trade barrier. National laws and standards only recognised calibrations and tests that were traceable to their own national metrology centres. This practice occurred despite the existence of long-term international collaboration and development via the International Bureau of Weights and Measures (BIPM).

To ensure free trade, 47 countries have agreed to recognise each other's calibrations. The agreement was reached in 1999 and the original signatories included Sweden, the UK, Germany, the US and China. The agreement is called the CIPM Mutual Recognition Arrangement. More information is available at www.bipm.org/en/cipm-mra.

The arrangement means that a calibration done by Pentronic, with traceability to the Swedish national metrology centre SP, has the same validity as an American calibration traceable to the American National Institute of Standards and Technology (NIST), a German calibration traceable to the German national metrology institute PTB, or a British calibration traceable to the UK's national measurement institute NPL (National Physical Laboratory). What's important is the traceability – not the

nationality.

The differences that do exist between laboratories thus depend – not on nationality – but rather on each individual laboratory's accreditation limits. Each such laboratory has specified measurement uncertainties for various measurement objects and temperature ranges. The limits that govern Pentronic's laboratory are published at www.pentronic.se. The same is done by most accredited calibration laboratories in the world.

"Compare our accreditation limits with those of other labs – that's where you'll find the difference," Lars says.

