Comment on “Assessing publicly financed metrology expenditure against economic parameters”

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Dear Sirs,

In July 2009, your journal published a paper “Assessing publicly financed metrology expenditure against economic parameters” by N. Poposki, N. Majcen and P. Taylor (2009) *Accred Qual Assur* 14:359–368. The authors base their assessment of the efficiency of metrology funding on the ratio of the number of Calibration and Measurement Capabilities (CMCs) issued by an EU member country under the arrangement CIPM MRA (International Committee of Weights and Measures Mutual Recognition Arrangement) with the country’s Gross Domestic Product [GDP, given in financial units (EUR)]. The number of published CMCs is used as a proxy for the public spending for the provision of the publicly financed national measurement standards. Based on such figures the authors argue that “Finland, Slovenia, Slovakia or the Czech Republic would tend to have relatively more expensive systems of publicly funded metrology infrastructure”.

First, it is not clear why exact figures of this element of public spending are not used for such calculations as these are readily available. The cited reference [20] must be assumed to refer to the Publishable Final Activity Report of the Implementing Metrology European Research Area (iMERA) project, where some rough figures are mentioned on page 24. The exact figures however, have been identified in the framework of the iMERA project where one of the authors participated directly.

The more important is the fact that such methodology is fundamentally wrong: as a matter of common sense, in countries with lower GDP/capita the overall cost and salary levels tend to be proportionally lower so that the number of CMCs cannot serve as a proxy for the size of this funding.

With regard to the last three above-mentioned countries this is in fact true: e.g. a calculation based on the actual figures of funding shows that the metrology-related spending in ratio with the GDP is e.g. in the Czech Republic 21 ppm while it amounts to 45 ppm in an undisclosed old EU member country. Even more instructive are the absolute numbers of public spending per CMC (without taking into account the quality and different costliness of those CMCs): Czech Republic 7 000 EUR per CMC, the undisclosed country 80 000 EUR per CMC. This is roughly the ratio of 1:11. Arguably the most balanced figure might be the ratio of the cost of one CMC divided by GDP/capita: in this case we end up with the ratio of 1:5 which is less disadvantageous for the undisclosed country—however, still just the opposite conclusion of the one wrongly made in the paper.

We can only speculate why such an approach has been made here but to publish such papers can potentially be very harmful for the operation of NMIs in these countries regarding to national funding. To our opinion, the paper is in its factual line of arguments seriously flawed which somehow escaped even the reviewers.

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