

XIX IMEKO World Congress
Fundamental and Applied Metrology
September 6-11, 2009, Lisbon, Portugal

A questionnaire on the VIM 3: some synthetic results

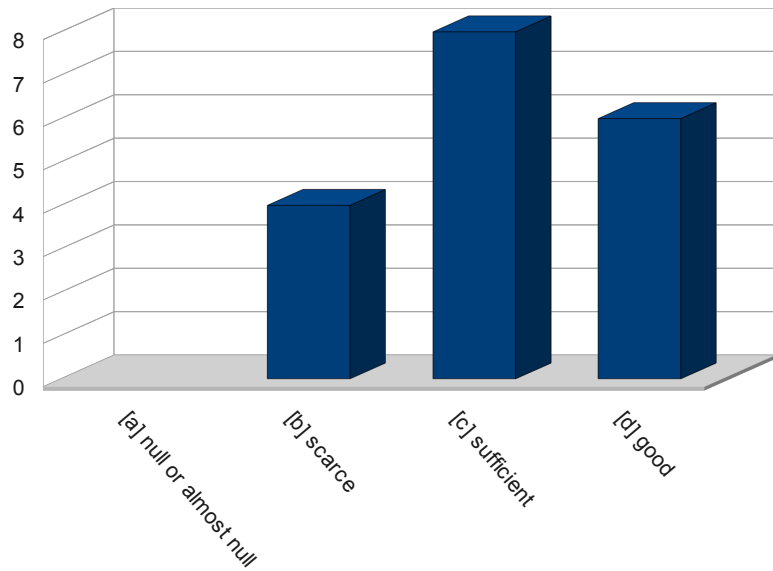
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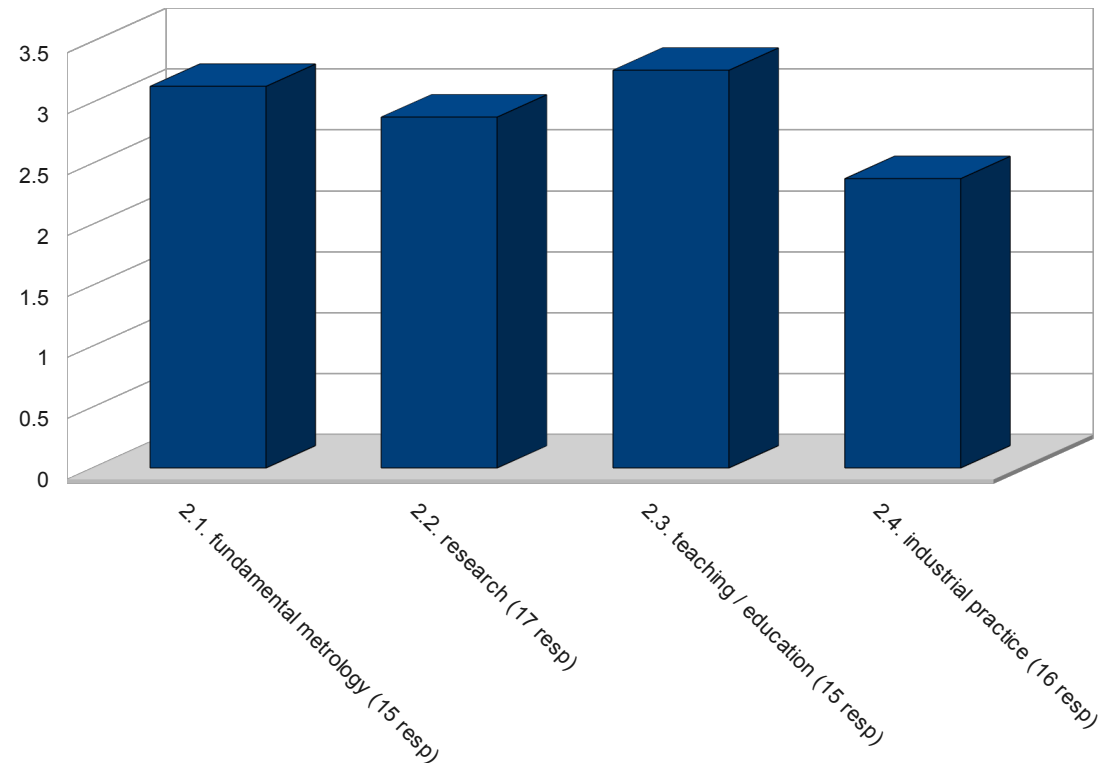
Respondent profile

- Questionnaire sent to the about 80 TC7 members and friends
- 20 respondents from 11 countries

Degree of knowledge of the VIM3

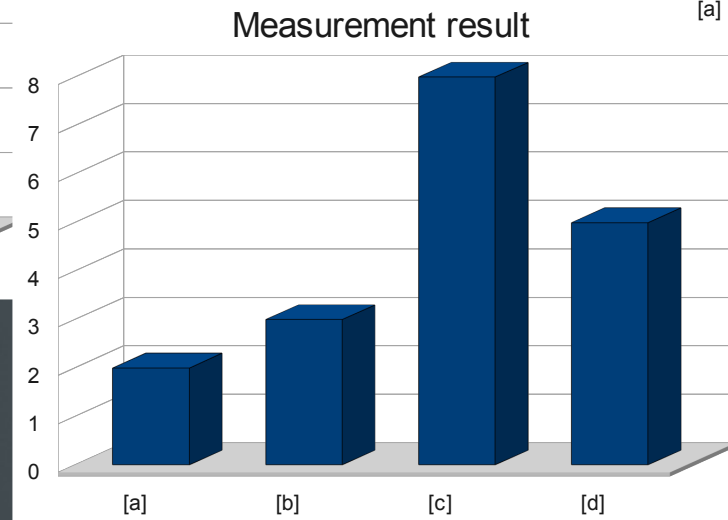
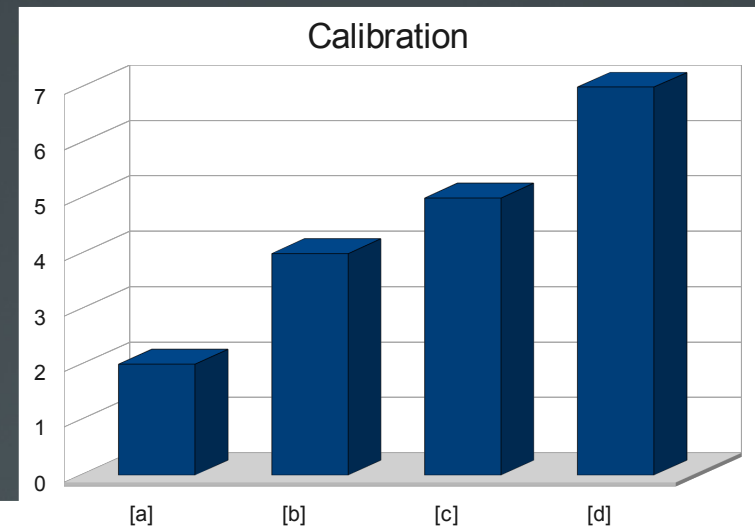
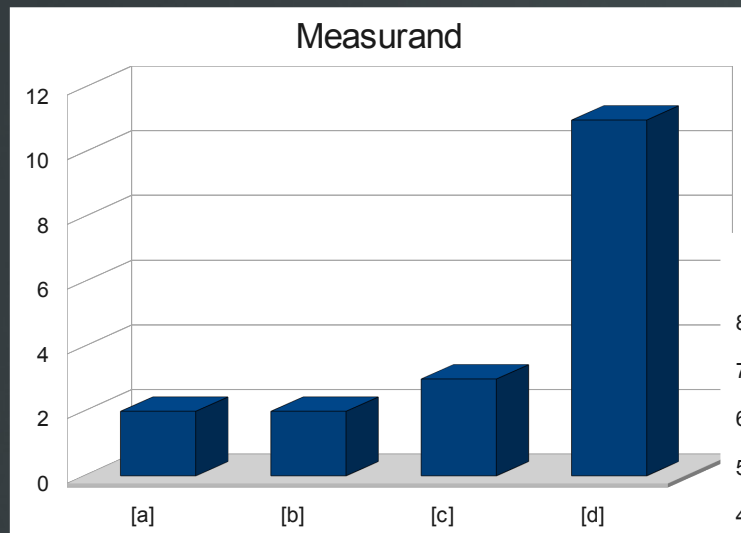


Average usage of the VIM [1: null; ... 4: intense]



The VIM 3 has significantly modified the definition of some terms with respect to the VIM 2: what is your opinion on this choice?

- [a] not enough information
- [b] new definition worse
- [c] new definition better but to be enhanced
- [d] new definition adequate

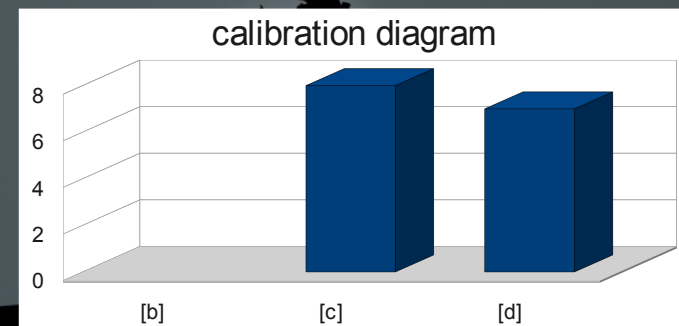
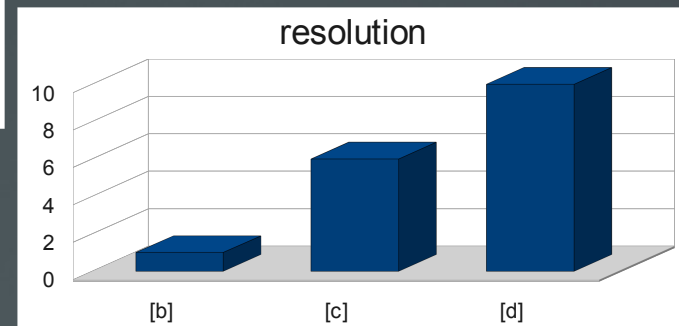
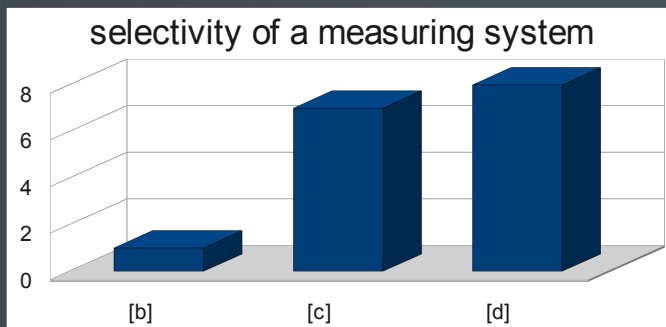
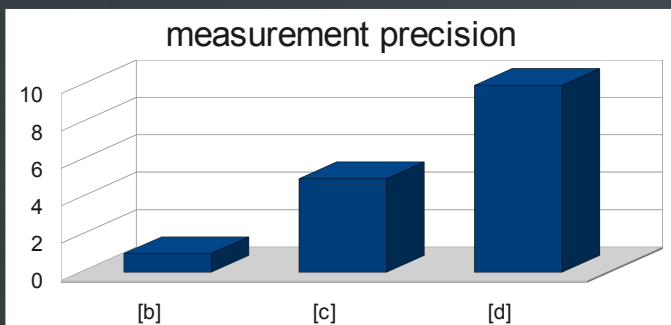
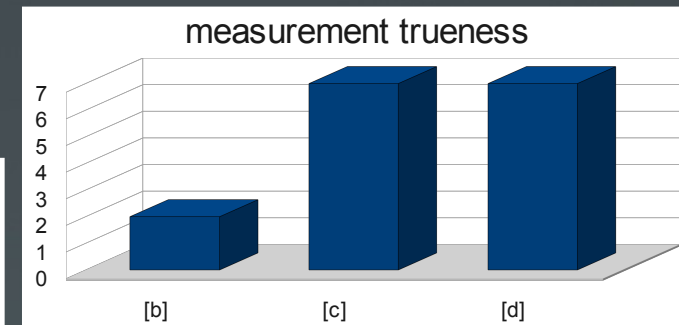
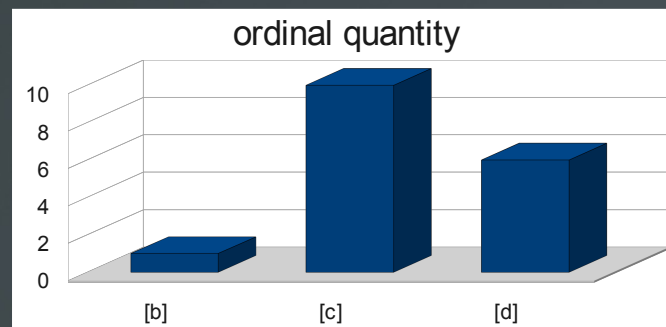
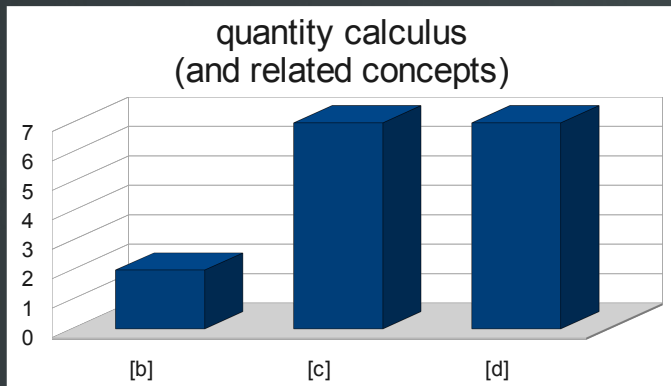


The VIM 3 has introduced some new terms / concepts with respect to the VIM 2: what is your opinion on this choice?

[b] the VIM should not deal with this concept

[c] the concept is important for the VIM, but the given definition should be corrected / enhanced

[d] the concept is important and substantially well defined in the VIM3



Some merits of the VIM 3

- gives a “common language”, so that people are thinking about the metrological terms and dare redefine them
- is a substantial improvement and clarifies the meanings of metrological terms
- in some parts represents now fundamental theoretical knowledge in metrology
- is of primary importance for good understanding within and between measurement communities worldwide
- was widely discussed, and is improving on the basis of discussion
- is a means to avoid confusion about specifications of sensors/instruments
- is now accessible online
- contains more application examples concerning different definitions
- remained flexible about the two approaches



Some open issues in the VIM 3

Issues related to contents

- Missing connection to introductory topics like mathematics, linear algebra, signal and system theory, stochastics and statistics, where many terms are already handled appropriately
- Possible additions / extensions with definitions related to
dynamic measurement; software / virtual instrumentation;
fundamental physical constants; measurement errors, e.g.,
'linearity error'
- Criticalities on current definitions of
quantity; quantity calculus; quantity equation; ordinal
quantity; measurand; measurement; measuring system;
sensor; calibration; measurement trueness



Some open issues in the VIM 3

Issues related to adoption

- The use of VIM3 should go further: there is a big need to implement a commonly agreed metrological language in ISO Guides and Standards, ILAC Multilateral Agreements within ILAC, Mutual Recognition Arrangements under CIPM, etc.
- Increase awareness of VIM (e.g. Wikipedia)

Issues related to changing the document as such

- Change of definitions introduces problems in the court (when one orders calibration what he should expect to get?)
- Change in definitions makes an impression that professionals do not agree



Some open issues in the VIM 3

Other issues

- Add graphical / visual explanations - process diagrams
- Much too complicated: "keep it simple!"
- Create an additional handy "Short Version"

