TC-Q QMS reviewing

Enver Sadıkoğlu
TÜBİTAK UME (Turkey)
EURAMET TC-Q Chair

Contents

- CIPM MRA requirements on QMS
- Procedure for QMS review within EURAMET TC-Q
- Initial evaluation of QMS
- Re-evaluation of QMS
- Annual reporting

CIPM MRA Requirements on QMS

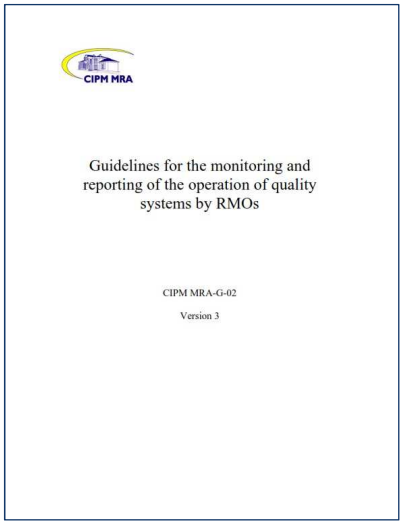
Guidelines for the monitoring and reporting of the operation of quality systems by RMOs CIPM MRA-G-02

The QMS operated by the NMI should be:

- accredited to ISO/IEC 17025 for calibration laboratories or equivalent and the RMO must check itself that the quality system complies with the standard.
- self declared to ISO/IEC 17025 or a different quality system.

The QMS should cover **all declared CMCs**.

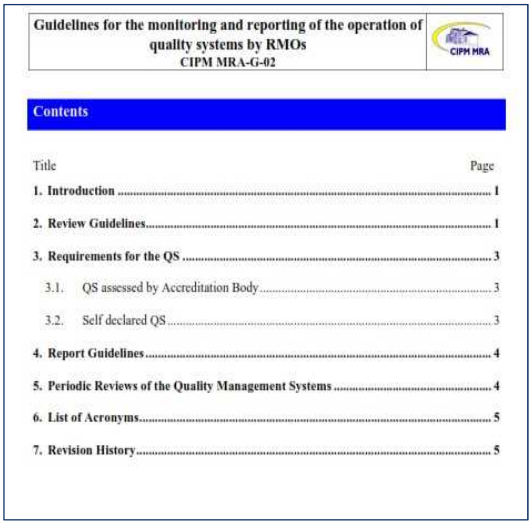
CIPM MRA Requirements on QMS


CIPM MRA

Guidelines for the monitoring and reporting of the operation of quality systems by RMOs

CIPM MRA-G-02

Version 3


Guidelines for the monitoring and reporting of the operation of quality systems by RMOs
CIPM MRA-G-02

Contents

Guidelines for the monitoring and reporting of the operation of quality systems by RMOs CIPM MRA-G-02 (ver.3, October 2010)

EURAMET TC-Q

The Technical Committee for Quality (TC-Q) is the EURAMET operational instrument to share and develop knowledge on ISO/IEC 17025 and on its implementation in the National Metrology Institutes (NMIs).

2000 First meeting of QS-Forum under INTMET (INITIATION project)

2005 EUROMET GA decided to establish TC-Q as a continuation of QS-Forum activities

....

2015 TC-Q database became operational on the EURAMET web-site

2016 11th TC-Q meeting will be held in Sarajevo on 12-13th of April.

EURAMET TC-Q

- Structure of TC-Q is based on a chairperson, secretary, Steering Committee (SC) and a plenary meeting
- SC membership is on a voluntary basis
- Members are approved by the TC-Q chair and the plenary meeting
- TC-Q operates by consensus whenever possible
- During voting the majority is requested , with a quorum of TC-Q chair and one third of TC-Q contact persons

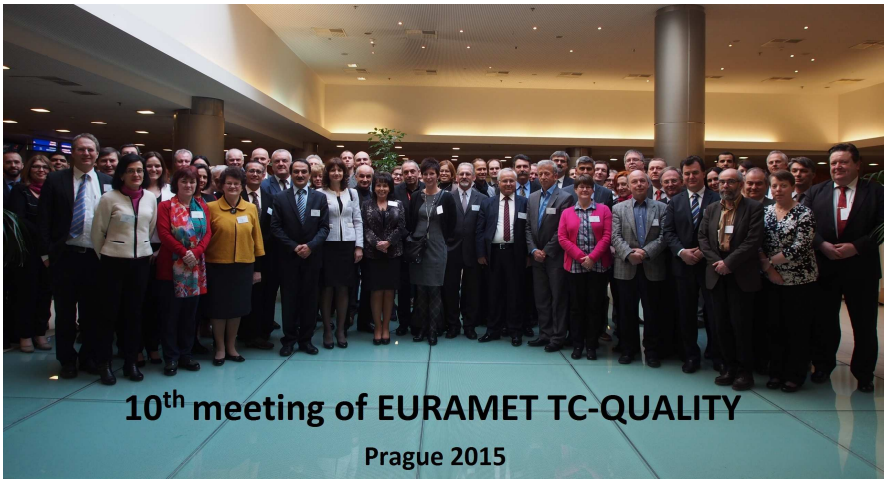
For more details see Terms of References of the TC-Q

EURAMET TC-Q - Overview

- 36 contact persons

  Cyprus and Luxembourg are missing
- Regular annual meetings since 2004
- Permanent secretary: Silvie Hoffmanova (CMI, Czech Republic)
- Steering Committee: 10 persons

Last TC-Q meeting



Venue: Prague, Czech Republic

Date: 17-19 March 2015

64 participants from 35 countries

EURAMET TC-Q Processes

- Initial evaluation of QMS
- Re-evaluation of QMS
- QMS Monitoring through Annual Reporting
- On-site peer visits
- Sharing of experience / workshops

EURAMET TC-Q : Documentation

- Quality Management System review procedure
- Guideline for initial QMS presentation
- Guideline for QMS re evaluation presentation
- Guideline for QMS Annual Report
- Guide for on site visits by peers

All these documents are publicly available on the EURAMET web-site

EURAMET TC-Q QMS Review

Review Criteria

- ISO/IEC 17025 to cover calibration and measurement activities under the CIPM MRA
- Certified Reference Materials (CRMs) by ISO Guide 34
- a QMS meeting the requirements of ISO/IEC 17025 assessed by an accreditation body fulfilling the requirements of ISO/IEC 17011 and should be a signatory to the ILAC MRA
- a QMS following ISO/IEC 17025 without third-party accreditation – considered as a self declaration

EURAMET TC-Q Requirements

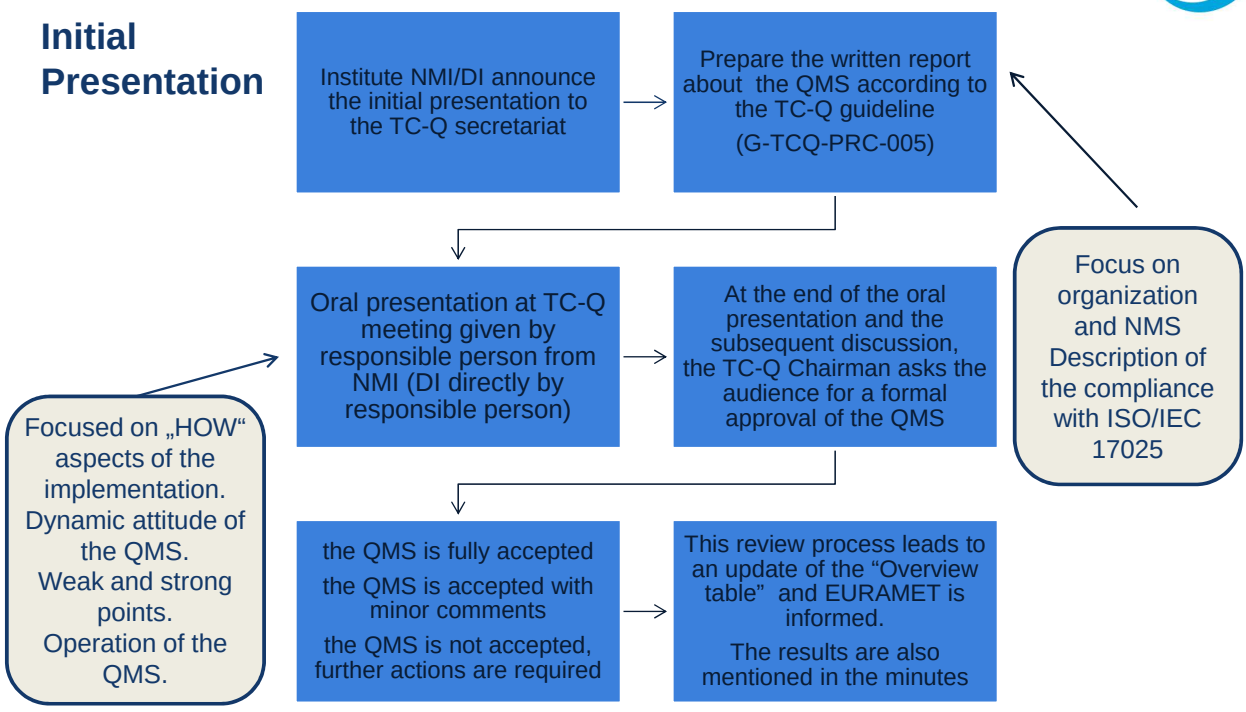
- EURAMET maintains its quite flexible approach to on-site external auditing in EURAMET institutes
- The existing options are:
  - accreditation (by an ILAC MRA signatory)
  - on-site visit by peers (inclusive an internal audit with external auditors)
  - an audit made by the corresponding NMI (applicable only to A-DIs)

EURAMET TC-Q Requirements

Self-declared Institutes

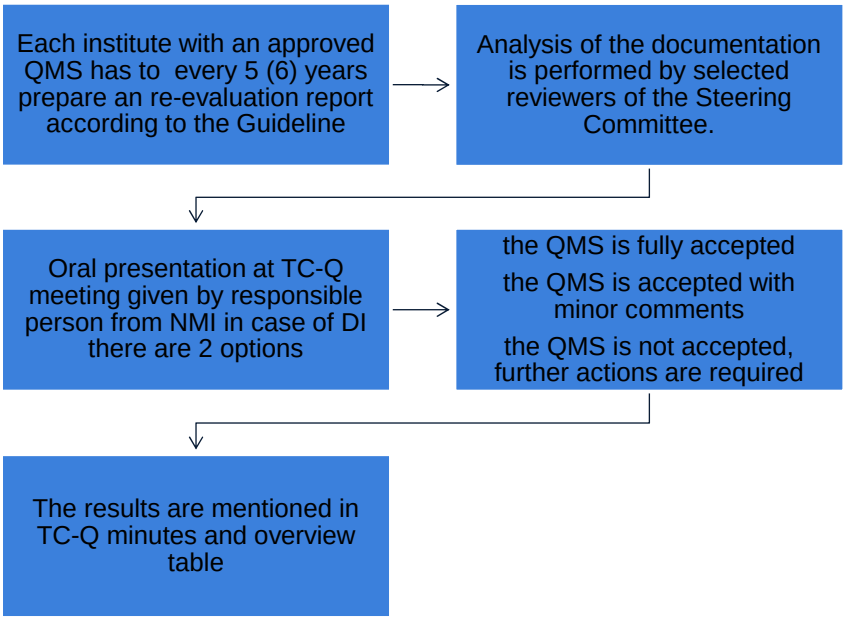
- the QMS should undergo an on-site peer review visit covering both the management and technical requirements of ISO/IEC 17025 and/or ISO Guide 34;
- institutes are to arrange for on-site peer review visits by themselves in compliance with the provisions of EURAMET “Guide for on-site visits by peers in the frame work of CIPM MRA” usually using external reviewers;
- the Final Record of an on-site visit by peers the corresponding record reported in the Annual Report;
- institutes submitting their CMCs for **the first time shall undergo an on-site peer review** prior to their initial QMS presentation.

EURAMET TC-Q QMS Review

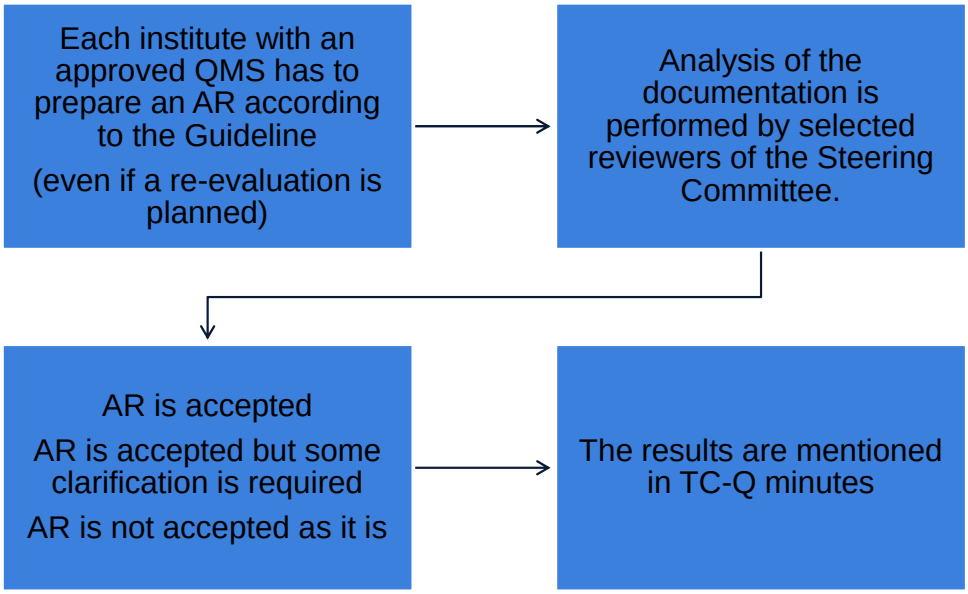


EURAMET TC-Q QMS Review

QMS Re-evaluation

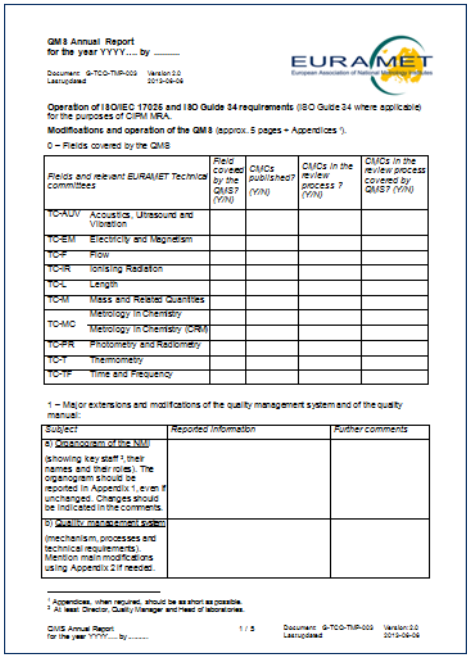


Annual Reporting



Annual Reporting

- QMS Annual Report shall be submitted to TC-Q Secretary 4 weeks before the annual meeting
- Special template is used
- Just 6 sections on 5 pages
- Filled AR could be up to 20 pages with all appendicies



QMS Annual Report
for the year YYYY.... by .....

Document: G-TCQ-TMP-009 Version 2.0
Last updated: 2013-09-06

Operation of ISO/IEC 17025 and ISO Guide 34 requirements (ISO Guide 34 where applicable) for the purposes of CIPM MRA

Modifications and operation of the QMS (approx. 5 pages + Appendices [1]).

0 – Fields covered by the QMS

Fields and relevant EURAMET Technical committees		*Field covered by the QMS? (Y/N)*	*CMCs published? (Y/N)*	*CMCs in the review process ? (Y/N)*	*CMCs in the review process covered by QMS? (Y/N)*
TC-AUV	Acoustics, Ultrasound and Vibration				
TC-EM	Electricity and Magnetism				
TC-F	Flow				
TC-IR	Ionising Radiation				
TC-L	Length				
TC-M	Mass and Related Quantities				
TC-MC	Metrology in Chemistry				
	Metrology in Chemistry (CRM)				
TC-PR	Photometry and Radiometry				
TC-T	Thermometry				
TC-TF	Time and Frequency				

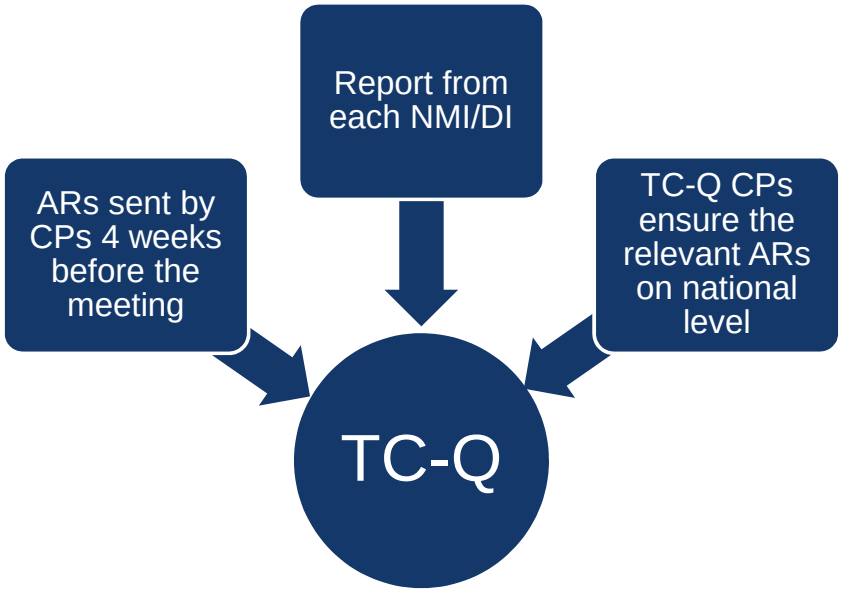
1 – Major extensions and modifications of the quality management system and of the quality manual:

Subject	*Reported Information*	*Further comments*
a) Organogram of the NMI (showing key staff [2], their names and their roles). The organogram should be reported in Appendix 1, even if unchanged. Changes should be indicated in the comments.		
b) Quality management system (mechanism, processes and technical requirements). Mention main modifications using Appendix 2 if needed.		

[1] Appendices, when required, should be as short as possible.
[2] At least: Director, Quality Manager and Head of laboratories.

QMS Annual Report for the year YYYY.... by ..... 1 / 5 Document: G-TCQ-TMP-009 Version 2.0 Last updated: 2013-09-06

Annual Reporting



ARs relates to modifications and operations of the QMS and implementation of ISO/IEC 17025 and ISO Guide 34

Annual Reporting: Comparisons

Section 3. Participation in ILCs/PTs in the reported period

Type of ILC/PT	Field/subfield	Pilot lab or provider of ILC/PT	Identification of ILC/PT	Parameters/ range of measurements	Status	Evaluation criterion	Result
EURAMET supplementary comparison	EM/Radio frequencies	METAS	EURAMET.EM.RF-S27	Free field antenna factor of a loop antenna in dB (S/m) Frequency: 10 Hz to 10 MHz	Results available	degrees of equivalence	CMCs supported
EURAMET supplementary comparison	EM/High voltage impedance	LCOE	EURAMET.EM-S34	Capacitance and loss factor (100 pF / 200 kV, 500 nF / 10 V, 5000 nF / 10 V)	Draft A	degrees of equivalence	CMCs supported
EURAMET supplementary comparison	EM/High voltage impedance	LCOE	EURAMET.EM-S36	Apparent charge and rise time of internal step voltage pulse	Registered for	degrees of equivalence	-
EURAMET supplementary comparison	T/Temperature	CEM	EURAMET.T-S3	Temperature: 1492 °C, 1324 °C, 1084.62 °C, 961.78 °C, 660.323 °C and 419.527 °C	In progress	degrees of equivalence	-
EURAMET key comparison	T/Temperature	INRIM, LNE-INM/CNAM, NPL, PTB, VSL	EURAMET.T-K9	Temperature: from the triple point of Ar (83.8058 K) to the freezing point of Zn (692.677 K)	In progress	degrees of equivalence	-

Annual Reporting: Peer Visits

Section 4. On-site visits by peers as specified by EURAMET TC-Q

Identification of external audit action	Dates	Name of auditor(s) with university titles	Affiliation(s)	Qualifications
Regular surveillance visit by TÜRKAK aimed at management system, calibrations in the field of dimensional, contact temperature, radiation temperature, humidity, gas flow, electrical quantities, including high voltage, testing in the field of acoustical and vibration and	10-11.06 2014	Atakan BAŞTÜRK, Mrs. Aynur Davut	Retired from TURKAK, formerly General Secretary of TÜRKAK (Turkey) Turkish Standardization Institute (TSE), Turkey	Lead assessor
		Gian Bartolo PICOTTO	Istituto Nazionale di Ricerca Metrologica (INRIM) Italy	Technical assessor in the field of dimensional calibrations
		Mohamed SADLI	LNE-CNAM, France	Technical assessor in the field of contact temperature, radiation temperature and humidity calibrations
		Valenta TOMAS	Czech Metrology Institute (CMI), Czech Republic	Technical assessor for gas flow calibration

Annual Reporting: 2015 Summary

- The review of 100 annual reports from 30 countries or organisations
- Full confidence given to 41 NMIs/DIs on spot
- Minor additional information requested from 57 NMIs/DIs
- Major complementary information requested from 2 NMIs/DIs

Conclusion: Situation is improving !

TC-Q is a platform for sharing of knowledge and experience

2013 Measurement of customer satisfaction

2014 IT tools for various QMS processes

2015 Guidelines on borderline CIPM MRA activities and use of ISO Guide 34

2016 To be decided

Expectations from DIs

- To attend the TC-Q meeting during presentation of their QMS
- Effectively communicate with national TC-Q contact person
  - Submission of reports on time
  - Providing information as required

Thank you for your attention!