



2019 TCQS

Report on NIS Quality Management System to AFRIMETS TCQS

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Outline:

1. Information on the national metrology system (National Quality Infrastructure)
 2. Quality policy.
 3. Organogram of the NMI.
 4. Current accreditations/international recognition.
 5. List of calibration capabilities covered by the QMS
 6. Continuous improvement
 7. Audits / external review
 8. Current status of transition plan to ISO 17025:2017
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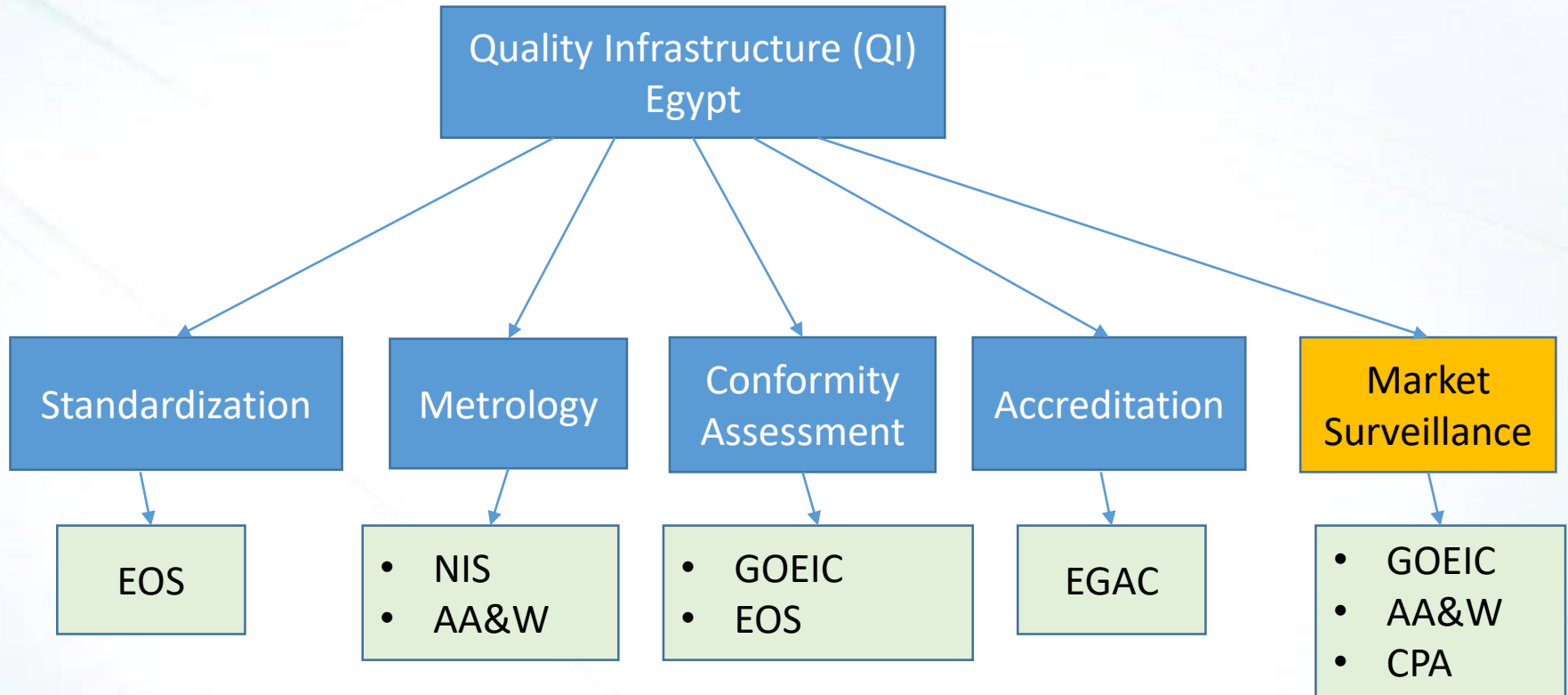


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NIS Legal status

- NIS has been established in 1963 by presidential decree No 46 , to be affiliated to ministry of Scientific research.
 - Latest amendment has been made to NIS Presidential decree No.64 2009 to increase its mandates to include production of CRMs and dissemination of time.
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National QI



Quality Policy

The policy pursued by the top management is to

- NIS Offers calibration and testing services in full compliance with the requirements of ISO/IEC 17025:2017
 - Produce Reference materials which conform to the requirements of ISO 17034:2016 and all other relevant standards.
 - To achieve NIS goals .NIS has established a quality system based on ISO/IEC 17025:2017 and ISO 17034:2016 and all other relevant standards that cover all calibration testing activities and RM production.
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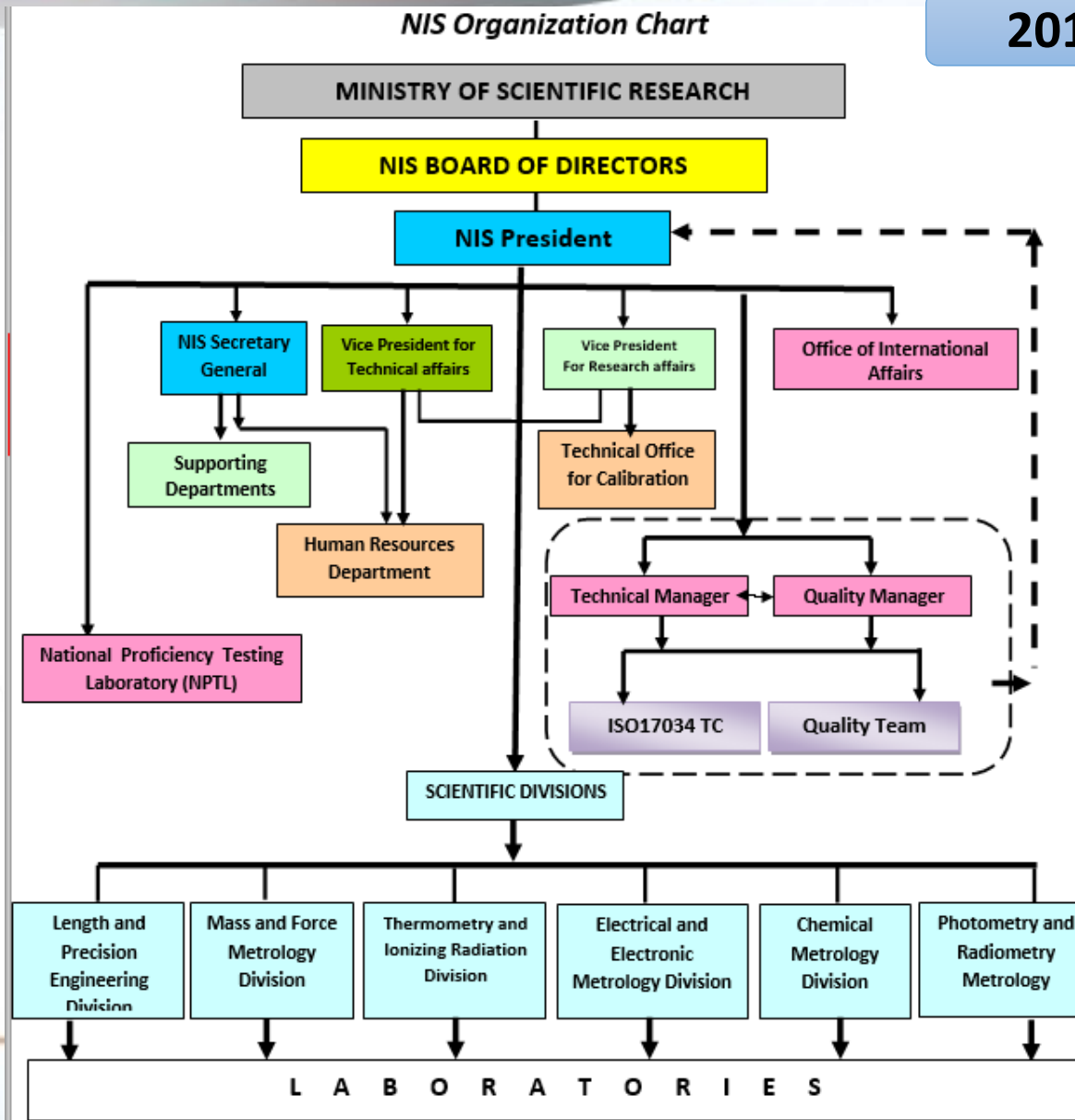


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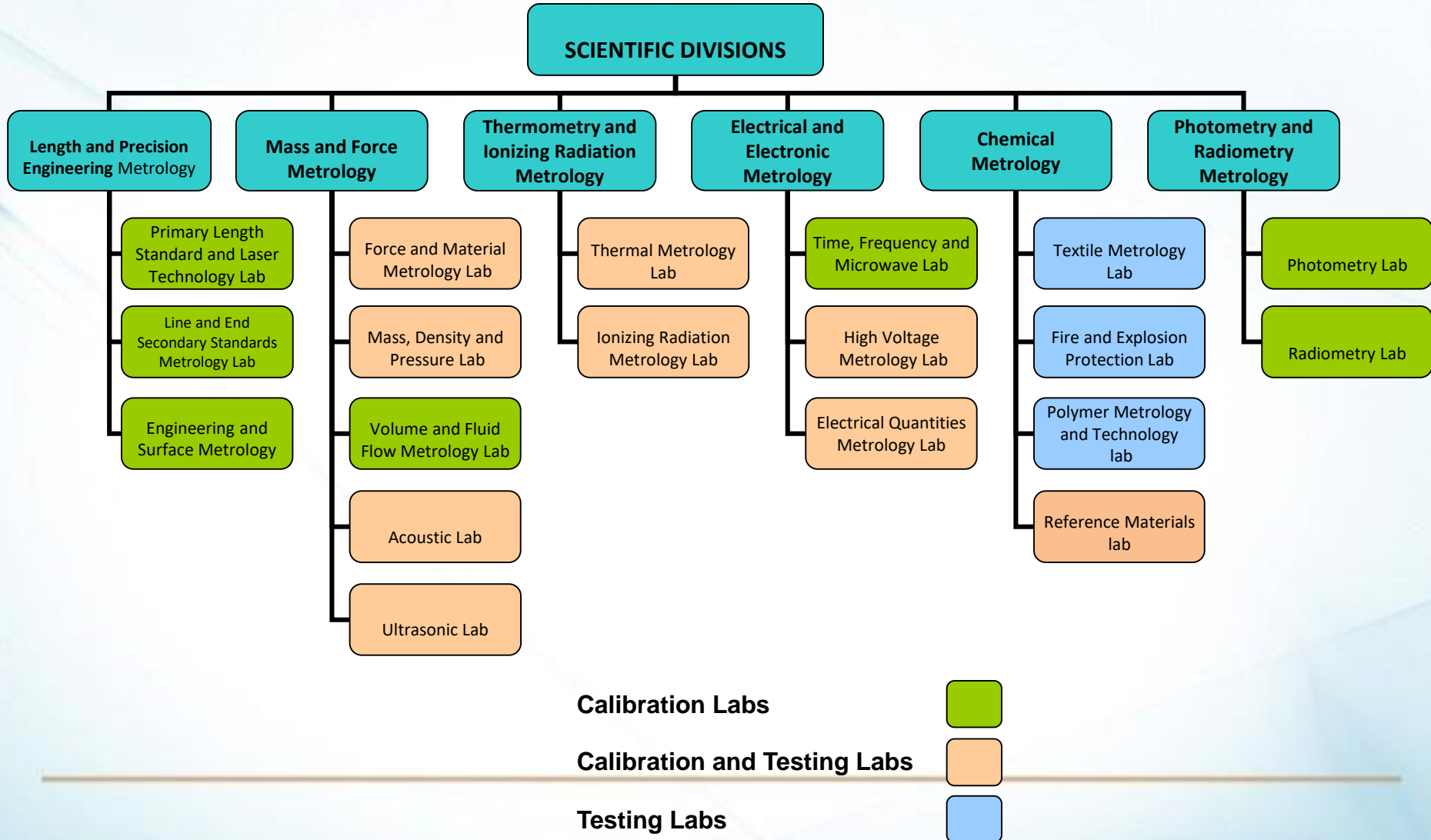
NIS QMS Hierarchy (ISO 17025:2017)



NIS Organization Chart



Scientific Divisions of NIS



Current accreditations/international recognition

- International Recognition through EURAMET / AFRIMETS

Pathway B (self declaration for calibration labs).

- NIS has maintained recognition for ten activities (**through 39 CMCs**),

General Physics (35 CMCs)

Ionizing Radiation (2)

Chemistry (2)

Current accreditations/international recognition

Accreditation through EGAC which is ILAC **signatory (for testing labs)**.

- **Temperature : 16 activities(ISO 17025:2017)**
- **Acoustic :one activity (ISO 17025:2017)**
- **Length : Four activities(ISO 17025:2017)**
- **Accreditation of proficiency testing lab at NIS (22 schemes) according to ISO 17043**

CMCs covered by the QMS

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<i>Fields and relevant AFRIMETS Technical committees</i>		<i>Field covered by the QMS? (Y/N)</i>	<i>CMCs published? (Y/N)</i>	<i>CMCs in the review process? (Y/N)</i>	<i>CMCs in the review process covered by QMS? (Y/N)</i>
TC-M	Mass and Related Quantities	Y	Y	N	N
TC-F	Flow	Y	N	N	N
TC-P	Pressure	Y	Y	N	N
TC-F,T,H	Force, Torque and Hardness	Y	Y	N	N
TC-L	Length	Y	Y	N	N
TC-AUV	Acoustics, Ultrasound and Vibration	Y	N	N	N
TC-T	Temperature	Y	N	N	N
TC-TF	Time and Frequency	Y	Y	N	N
TC-PR	Photometry and Radiometry	Y	N	N	N
TC-IR	Ionizing Radiation	Y	Y	N	N
TC-RS	Radioactivity Standards	Y	N	N	N
TC-EM (Voltage)	Direct Current, low Frequency	Y	Y	N	N
TC-MC	Metrology in Chemistry	Y	Y	N	N



Implemented improvements (1)

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- NIS maintains primary standards in Pressure, mass, force, length, temperature, acoustics, voltage, time, microwave, medium energy X ray and electrical power.
 - Updating of NIS QMS in accordance with ISO 17025:2017 Requirement.
 - Maintenance/ Calibration of some NIS secondary Standards at other NMIs for the provision of traceability of measurement results to the SI units for NIS customers.
 - There is an ongoing program for purchasing new equipment to enhance the measurement capabilities and provision of traceability of measurement results to the SI units for NIS customers.
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Implemented improvements (2)

- **Elevated number of PhD and MSc thesis** were obtained by NIS staff as well as increased number of international scientific publications (reputable journal and international conferences).
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Progress of the NIS International Publications

Scientific Publications

190

Improvement of NIS services to Customers

About 13000 Certificates for all NIS labs.

Audits / external review

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Non-Conformities were raised through internal audit of NIS labs.

61 None conformities as follows:

Total No. of NCs	Topic concerned	No. of Resolved NCs
10	Equipment	10
15	Methods	14
10	Traceability	8
4	Environmental conditions	4
2	Personnel	2
10	Internal Audit	8
6	Document control	6
4	Management review	4

Problems :

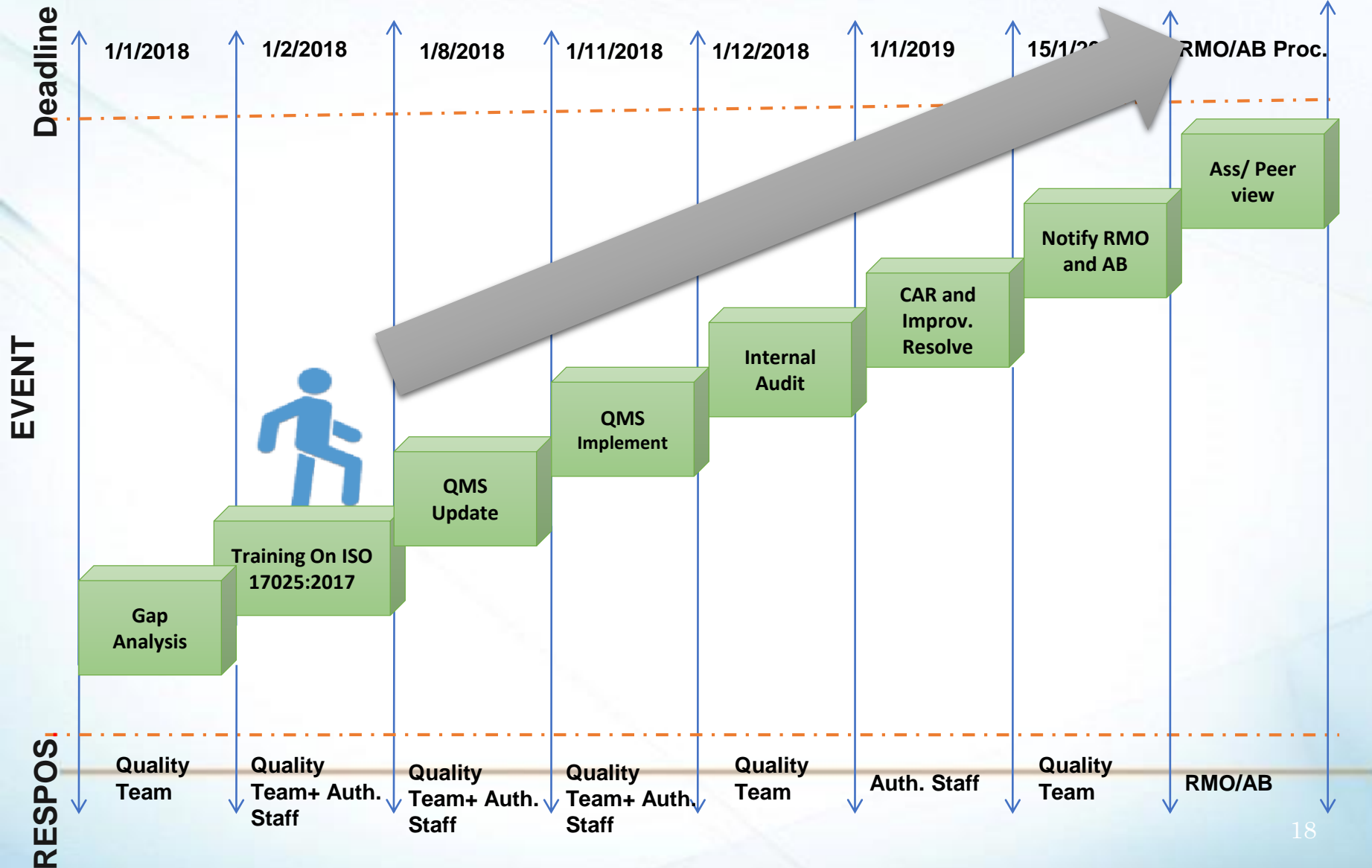
- There is still some difficulties for NIS to participate in inter **laboratory comparisons** for some activities, due to non-available programs in some areas, in addition, to **the long time** taken in finalizing some inter comparison programs.
 - Continuous communications and attending the meeting of RMOs and BIPM committees is pursued to overcome this problem.
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External audits / Reviews

➤ **Reassessment** by EGAC/ILAC (in accordance with ISO 17025:2017) for [5 textile, 4 Length), **3 force** (2 tension and 3 hardness), **2 polymer** (plastic and Rubber), **4 Fire and explosion protection**

- **Assessment Visits were conducted on March 2019 Based on ISO 17025:2017 for the accredited lab**
- **NIS has maintained a unified QMS in accordance to ISO 17025:2017 for all of it's activities**

Status of NIS transition plan





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Thank You