



OIML Pilot Training Center
国际法制计量组织培训中心（示范）



National Metrology Center of Iran NMCI

9-11 August 2016

Guangzhou, China

Capital

Tehran

35°40'N 44°26'E

Official languages

Persian

Government

Islamic Republic

Supreme Leader

seyed Ali Khamenei

President

Dr.Hassan Rouhani



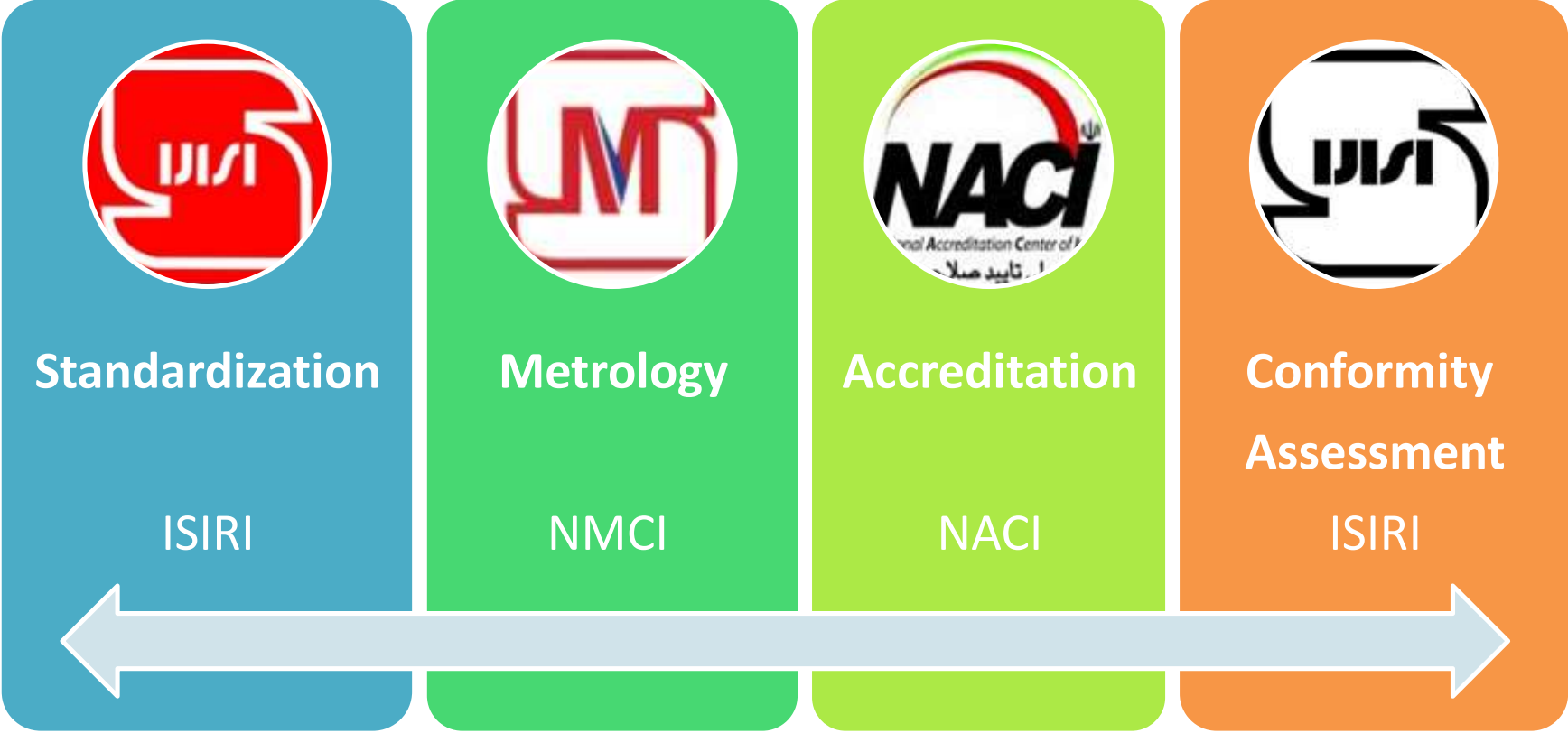
Area: 1,648,195km²

Population: 77,450,000

No. Provinces: 31

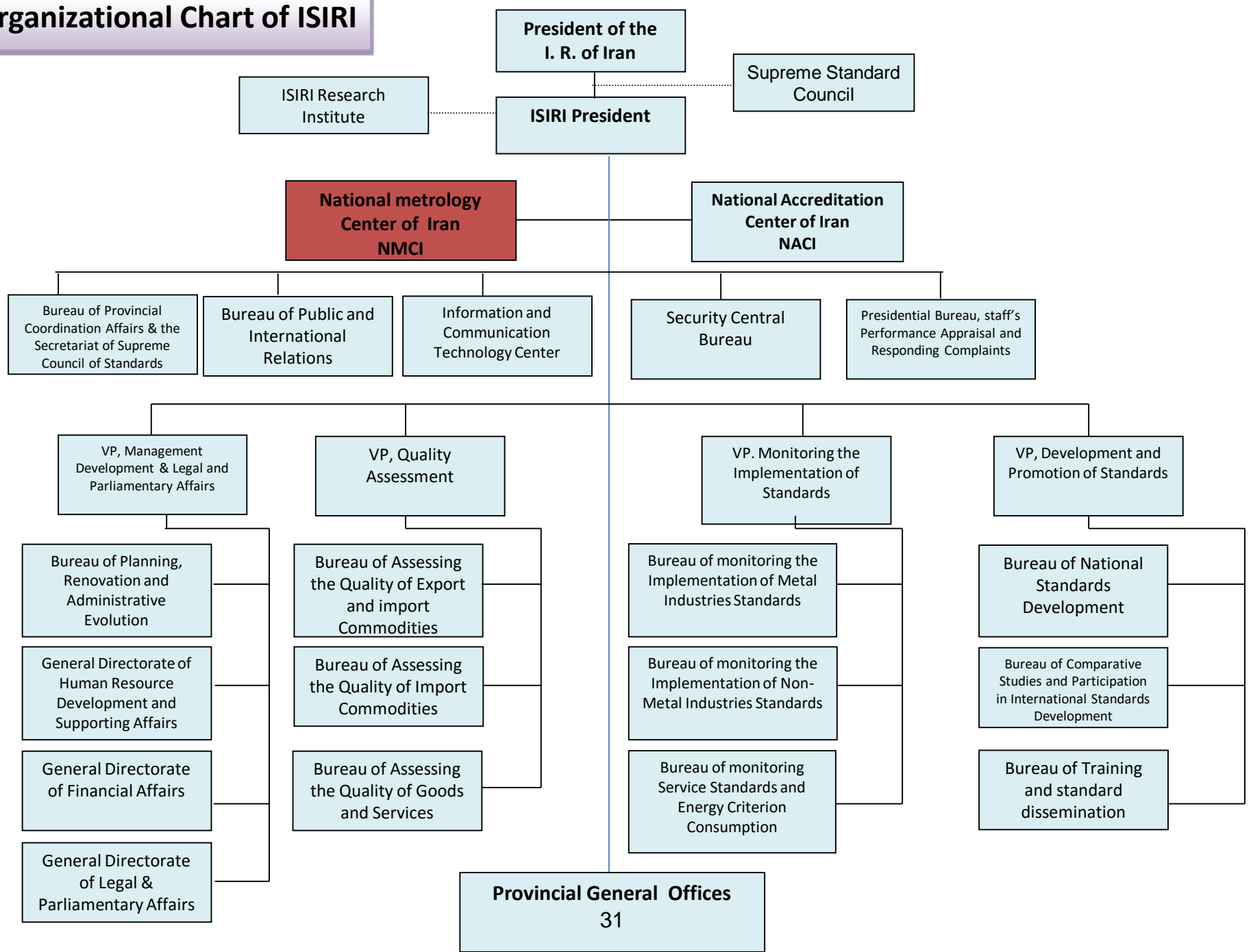
Institute of Standards and industrial Research of Iran

ISIRI

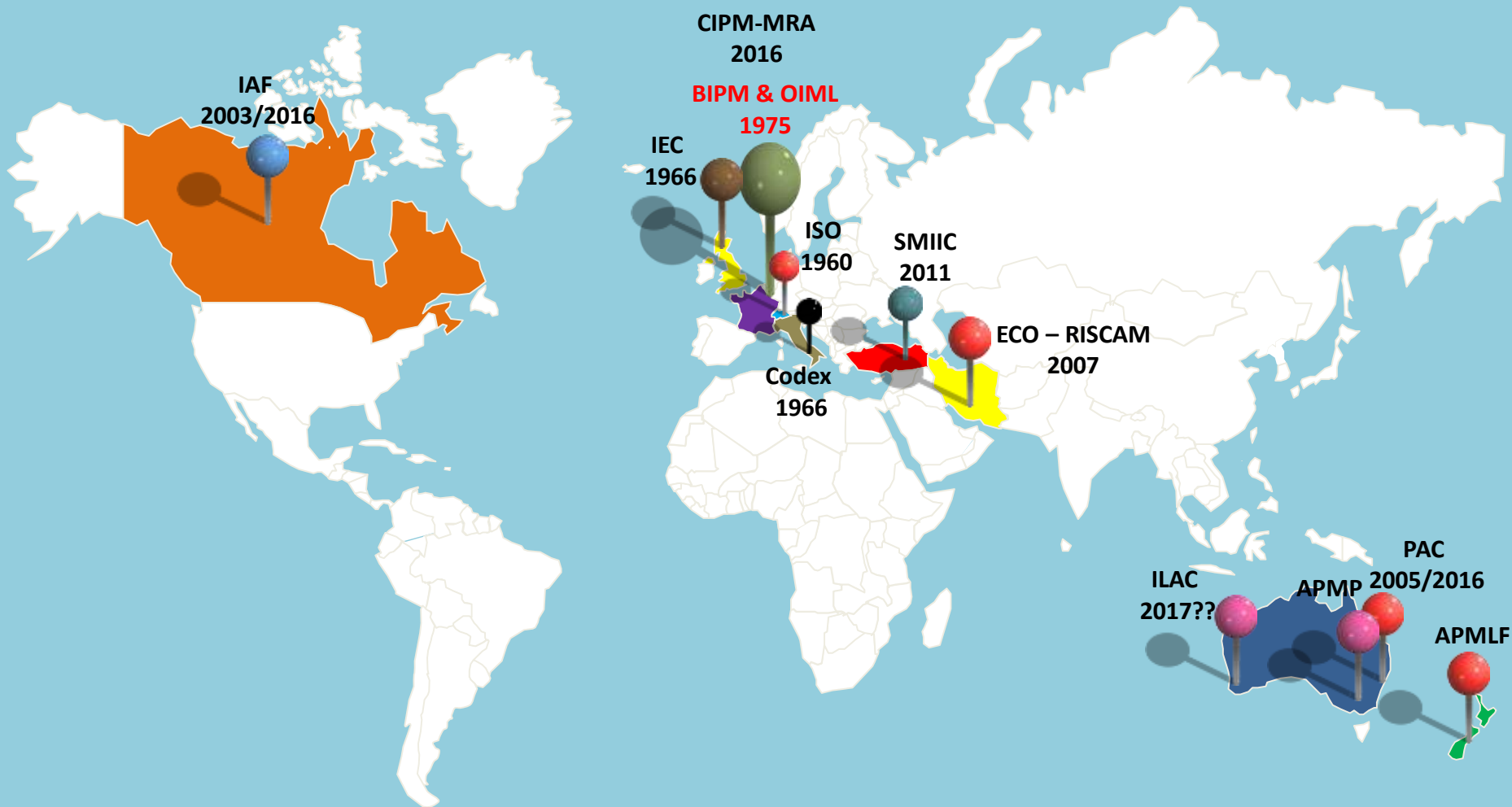


National Quality Infrastructure of I.R. Iran

Organizational Chart of ISIRI



ISIRI membership of International and Regional Standardization Bodies & related Associations



National Metrology Center of Iran NMCI



NMCI History

- **1925-** The first Weights and Measures Law was approved by the parliament
- **1932-** Bureau of Weights and Measures was established in the Ministry of Agriculture, Trade and General Benefit
- **1953-** Institute of Standards was funded as a Laboratory Office to control exports quality
- **1960-** Approval of the establishment of Institute of Standards & Industrial Research of Iran (ISIRI)
- **1975-** Metrology Center established as the subdivision of ISIRI
- **1975-** Signing Meter Convention & joining **BIPM**
- **1975-** Membership in **OIML**
- **1992-** ISIRI Law was revised by the Parliament
- **2011-** ISIRI national position was upgraded to the direct supervision of I.R. President
- **2016-** Signing the **CIPM-MRA**

Structure



Mission and Vision

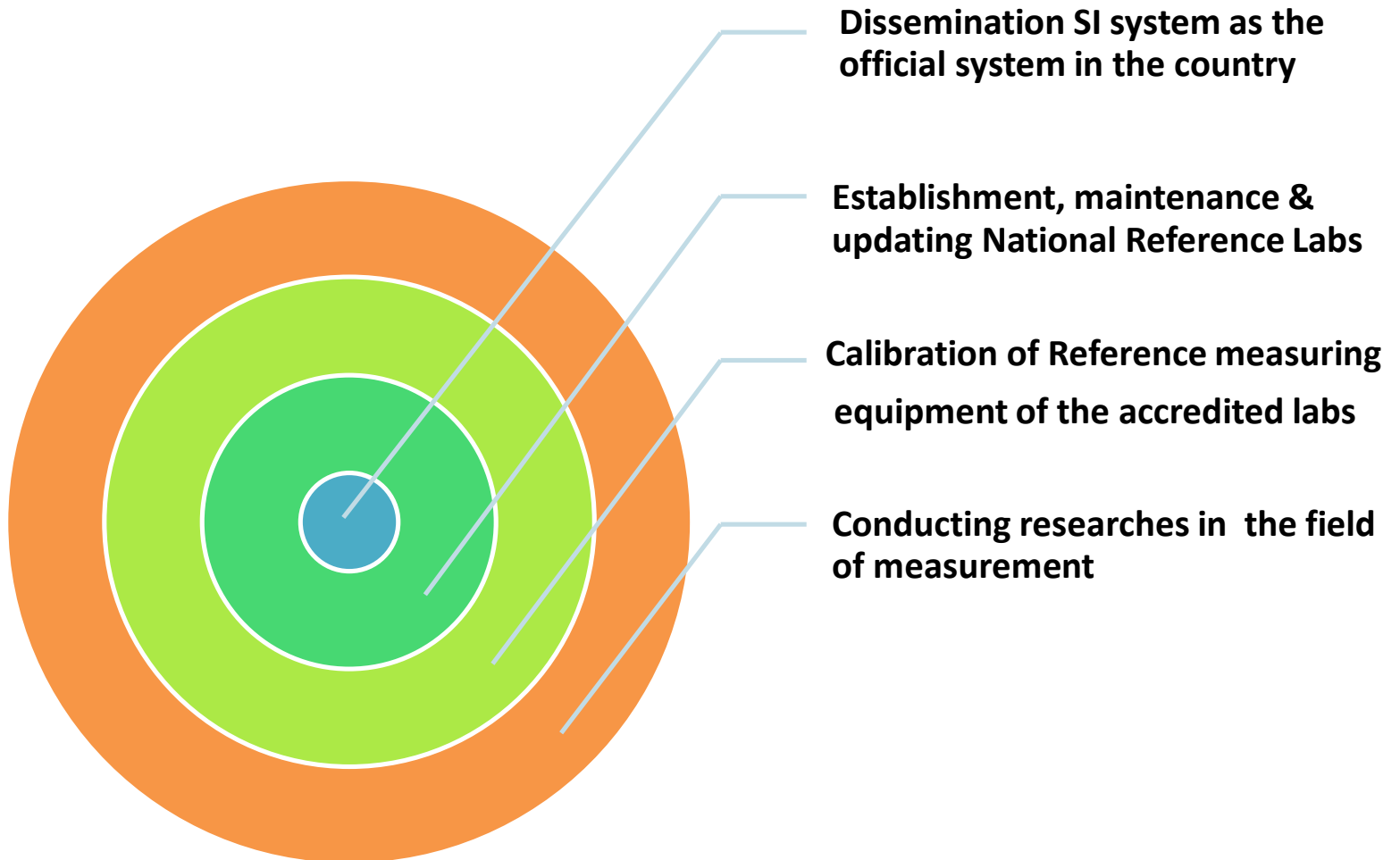
Mission

- **Ensure realization, maintenance and storage of national measuring standards.**
- **Ensure the establishment of traceability of measurement in through national measurement standard.**
- **Development and expansion of Legal Metrology**

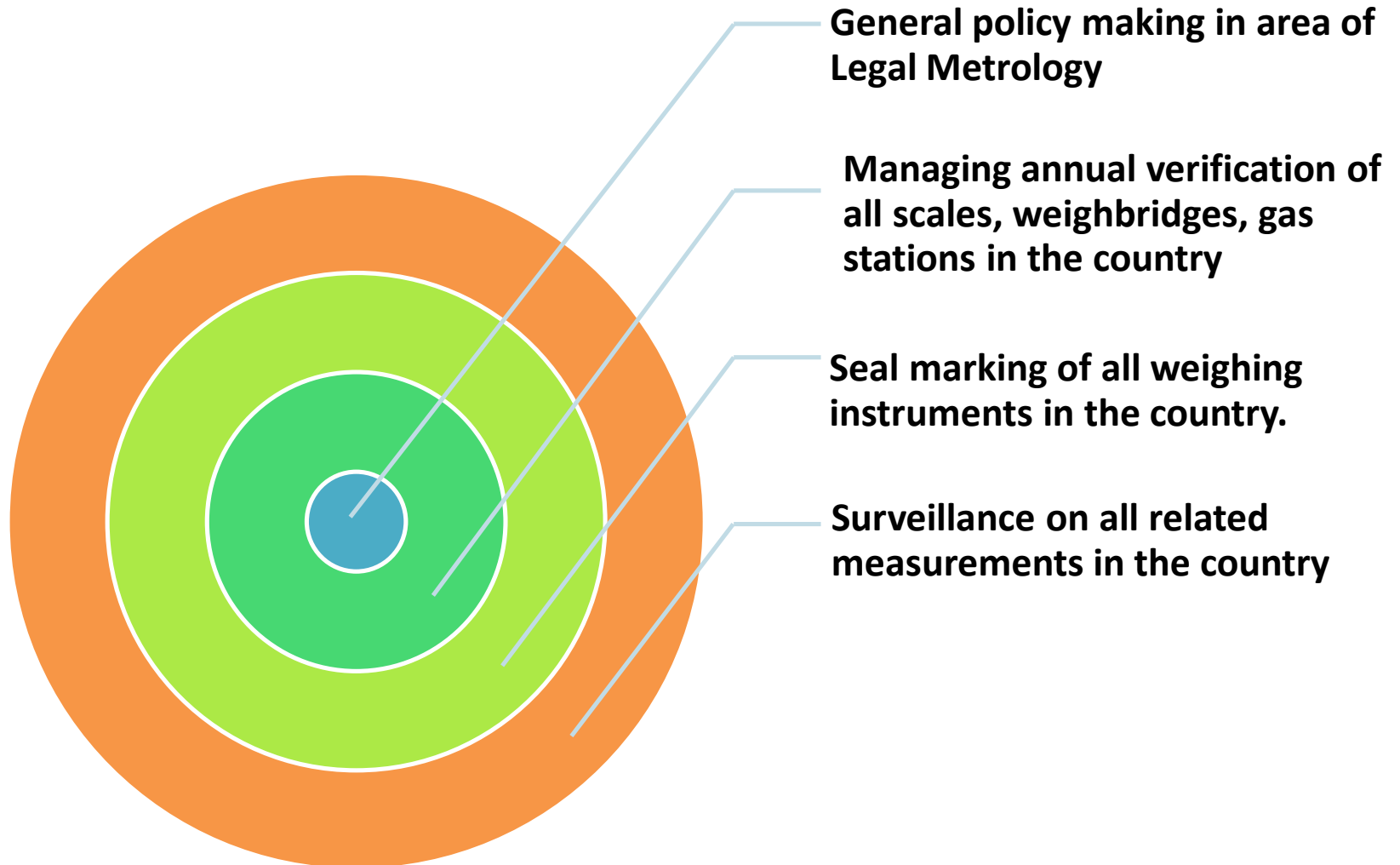
Vision

- **Continuously improve the national measuring standard to support the country's trade, people's quality of life and enable the protection of environment.**

Duties of NMCI as NMI



Duties of NMCI as NLMI



Achievements

Number of Staff:

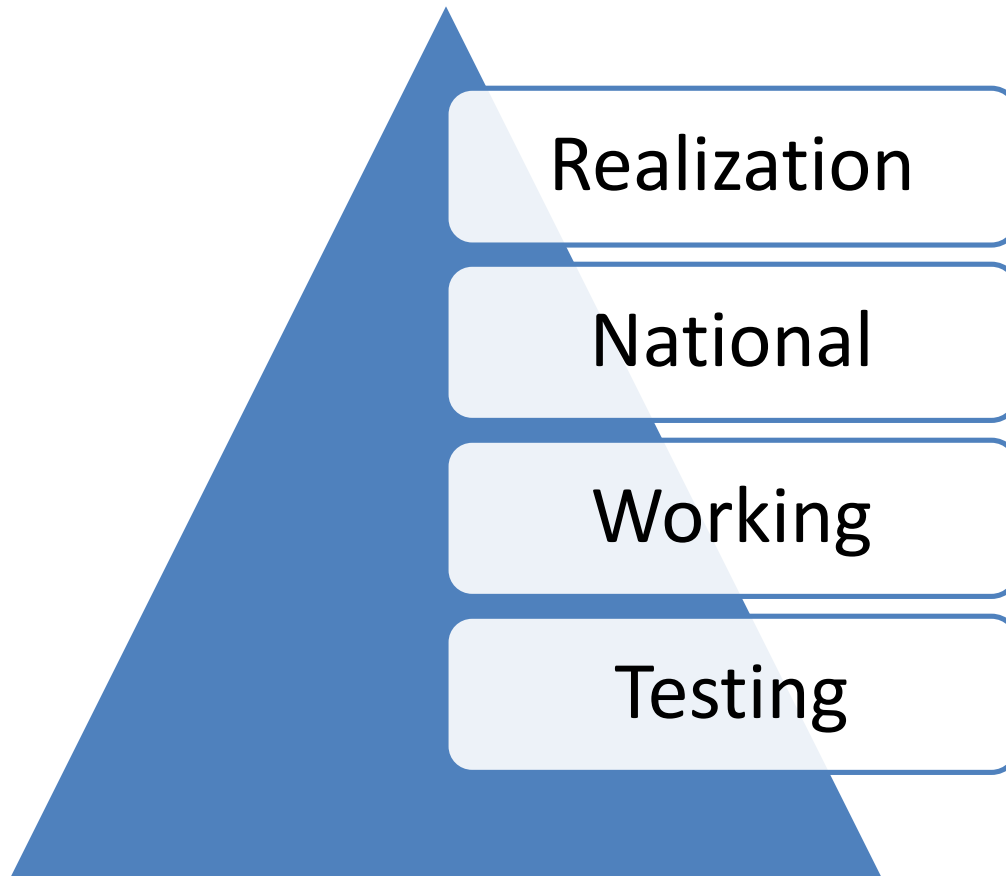
- President 1
- Deputies 2
- Experts 11
- Staffs 4

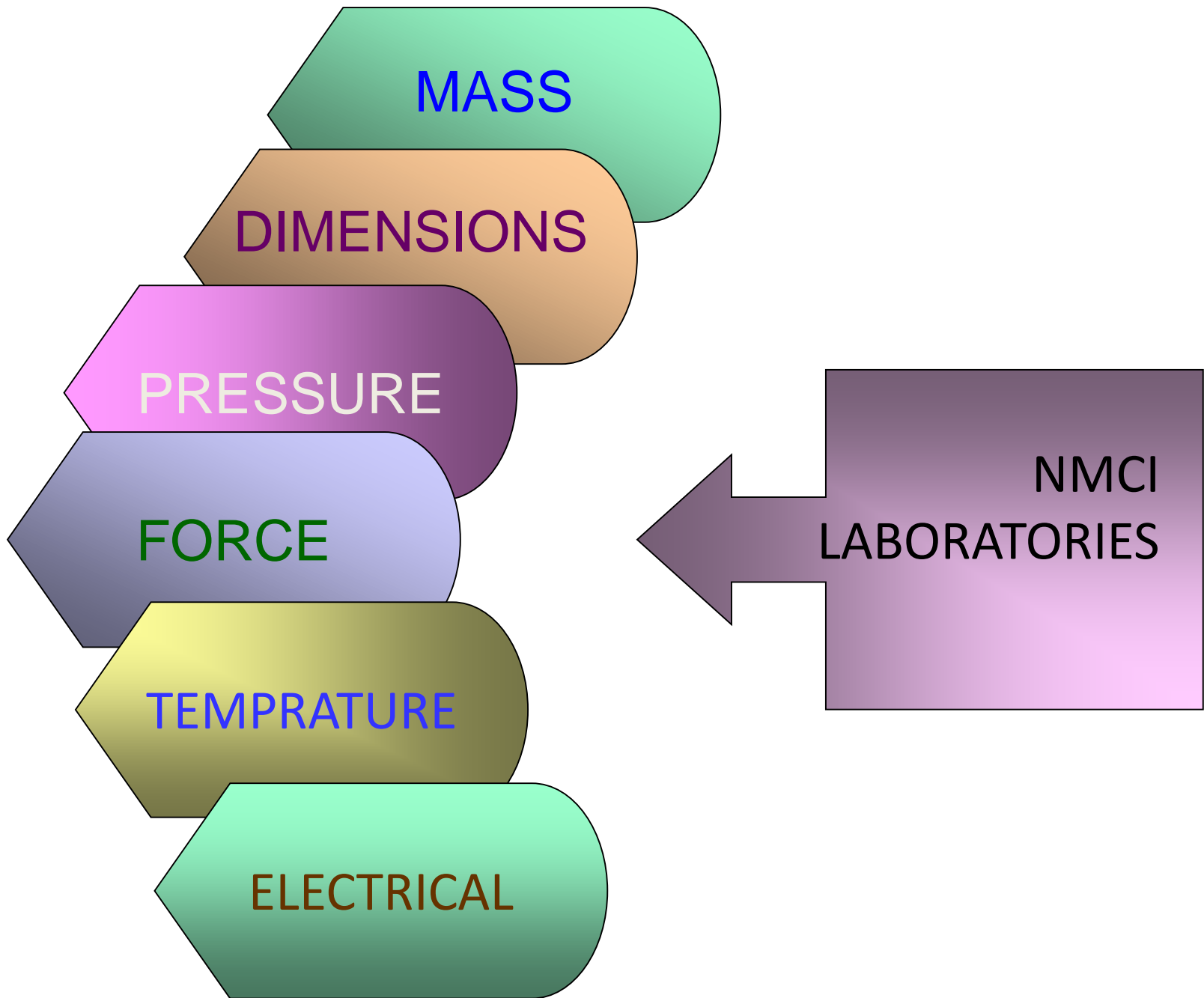
- ISIRI province General offices 31
- ISIRI province Expert 38

- Accredited Legal Metrology Companies 82
- Legal Metrology inspector 100

- Accredited Calibration Laboratories 232
 - By NACI 77
 - By ISIRI provinces' General offices 155

NMCI Reference Laboratories





MASS LAB.



DIMENTION LAB.



TEMPERATURE LAB.



PRESSURE LAB.



FORCE LAB.



NMCI Road Map for Traceability



Signature of
CIPM_MRA
2016/01/26



Membership in
APMP



Equip
National
Labs.



Registration
of
CMC's

Legal Metrology Division

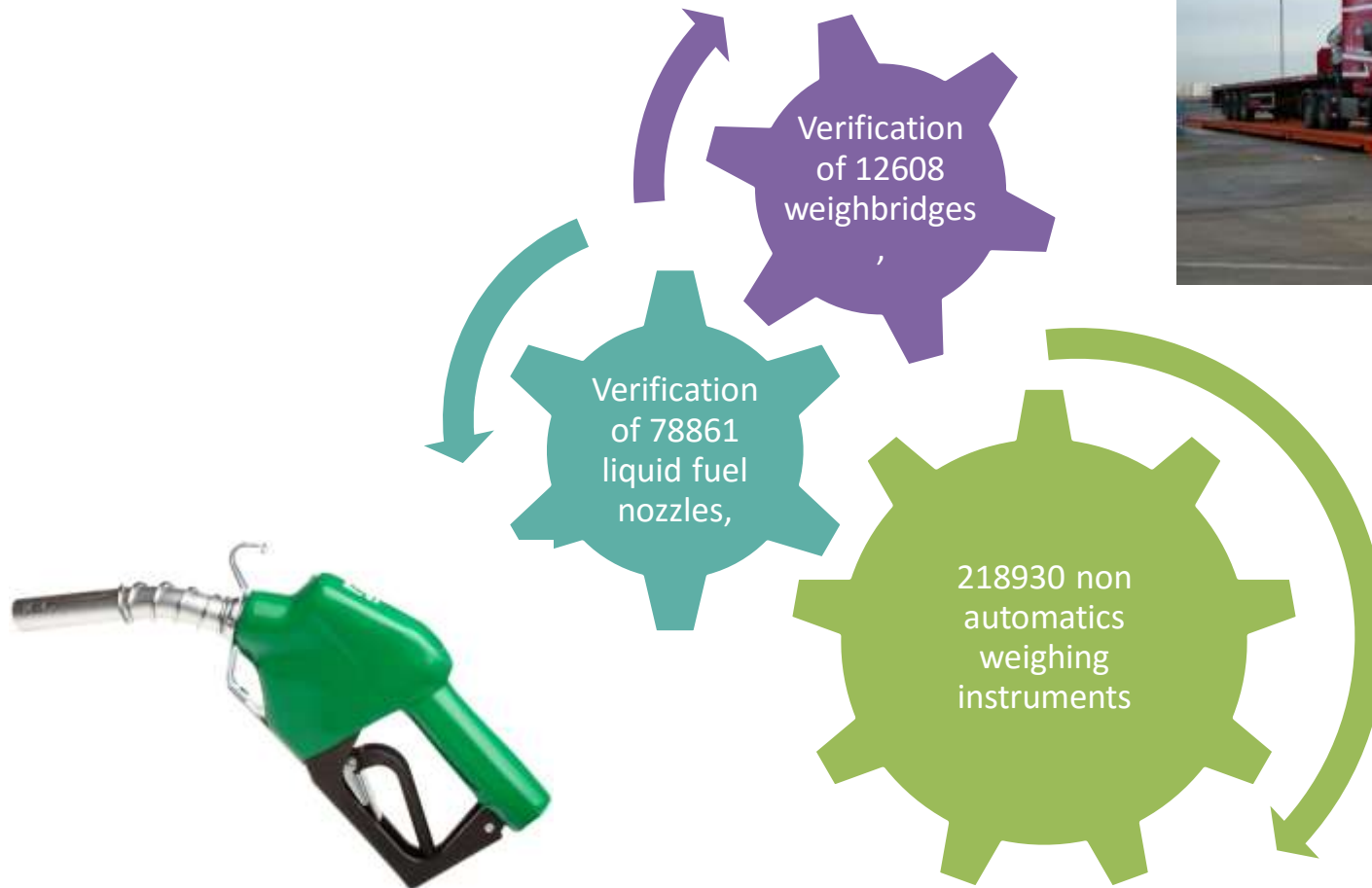
Division of legal metrology covers legal metrology, conformity assessment. Main tasks of this division are:

- Coordination of legal metrology
- Cooperation in national and international bodies
- Cooperation in Development of National Legal Metrology standard
- Coordination and monitoring of the Iran Conformity Assessment Bodies in Legal Metrology

Activities in Legal Metrology

- ✓ Verification of
 - ✓ Liquid fuel nozzles
 - ✓ Non automatics weighing instruments and scales
 - ✓ weighbridges
 - ✓ Weights
 - ✓ Meter Bars,...
- ✓ Controlling and Monitoring the verification processes by Web-Base Software
- ✓ Hallmarking of precious metals
- ✓ Seal marking of weighing instruments
- ✓ Trainings relating metrology
- ✓ Testing samples of measuring instruments manufactured in Iran
- ✓ Controlling samples of imported instruments
- ✓ Publishing monthly metrology magazines

Main activities during 2015



NMCI
FUTURE
PLANS

Challenge	Policy	Action plan	Results
Metrological Traceability	Signature of CIPM-MRA	<ul style="list-style-type: none"> • Developing labs. • Membership in regional metrology organization 	Recognition of testing & calibration certificates
Consistency of adequate NMCI existing labs facilities with sufficient industries & labs service	Upgrade the quality of existing labs	<ul style="list-style-type: none"> • Physical improvement of labs environment • Purchasing of new equipment for existing labs • Implementation of new labs • Education of technical staff 	Up to date labs
Responding to publics demands related to legal metrology	Increase the scope of legal metrology	<ul style="list-style-type: none"> • Papering national standards and work instructions • Establishment of necessary labs • Supporting of private sectors in order to participate in executive affairs 	Supporting public rights and expanding confidence

Programs

- To increase and enhance cooperation at international level through membership and using services of BIPM and OIML
- To expand cooperation in regional organizations: APMP, APLMF
- To hold national training courses and dispatching experts to more developed countries,
- To update and improve existing laboratories and establishing new ones
- To sign MOU's with Iranian scientific centers such as universities or other research organizations
- To sign MOU's with other NMI's

Cooperation Needs

1. Development of scientific and technical cooperation for laboratory services
2. Exchange of information and best practices for metrology services applied at national & international level
3. Identification and promotion the removal of technical or administrative barriers to trade in the field of metrology
4. Cooperation in the field of training on improvement of staff's qualification
5. Consultation for renovation of existing laboratory equipment and establishment of new laboratories

Laboratories Developments Needs

1. To update and improve existing laboratories
2. Establishing new Labs, specially the following :
 - Type approval Labs for Non-Automated weighing systems
 - Home energy metering (water , gas , Electricity)
 - Road traffic measuring instruments (police speed radars)
 - Environmental pollution indicators
 - Medical appliances

Questions related to all kinds of bodies

What are there specific tasks?

Testing, verification & Inspection

How are they financed?

(Are they private enterprises?)

All of them are in private sector

Is there an obligation to demonstrate competence?

There are some national/International regulation and standards to demonstrate their Competence e.g ISIRI Rgulations & IRAN/ISO/IEC 17025,17065&17020

Is there any supervision resp. monitoring of such bodies?

Yes, by ISIRI, NMCI & NACI

Questions related to legal documents

Legal document related to legal units

National standard isiri-746

Prepackages regulation

National standard isiri- 16381 Baised on oiml R87

Raising awareness of metrology

Raising awareness of the importance of professionalism in a specific field of activities,

- Continuous education of personnel,
- Follow-up training,
- Training for assessors for implantation of ISO/IEC 17025,
- Training for assessor in conformity assessment, 17020, 17065, 17025.

Which way do you think is most efficient to do so?

- To promote staff excellence by continually improving staff development programs and training
- To familiarize all personnel concerned in calibration and testing with quality system documentation and implementation of policies and procedures
- To promote constructive cooperation with neighboring countries by conducting training courses and specialized seminars in the field of metrology,
- To signing agreements with those who are in the MRA & MAA program to support domestic market

What is your successful story?

- Important works are carried out in NMCI towards the conformity with the requirements for quality managements(QMS) in accordance with ISI/IEC 17025 as well as the development of QMS documentation and their recognition by the regional metrology organization(RMOs)
- Membership to international forums and partnership in the key comparison is one of strategies to upgrade the quality and accuracy of measurements
- Continuous communication with NMI's of other countries will have utmost importance, especially countries developed in metrology science, which can pave the way to implement join scientific and research projects and definitely will support to boost technical and scientific levels of the other NMI

What is your successful story?

- Publication Metrology Magazine
- World metrology day ceremony
- Promoting the metrology in media
- Collaboration with other organization

What do you expect to learn from others?

- Development of distributed metrology system according to the best models & practice in the Asia-Pacific, and specific NMCI internal structure, fulfilling strong demands of the internationally recognized quality of metrology services, within the overall quality infrastructure.
- Further recognition national measurement standards
- Continuous development & publishing of the national Metrological Regulations
- Enforcement of the faster completion of the accreditation of all NMCI labs

Speak of capacity building, what is the strongest needs of your organization?

- Remove technical barriers to trade of measuring instruments
- Facilities trade movement as well as improves the quality of Iranian industrial products, which contributes to boosting national economy, it also aims to maintain safety, health, environment and protecting citizen rights, in order to achieve better quality of life
- Maintaining membership and collaboration through active participation in meetings and technical committees of BIPM and OIML that will results in more efficient use of their experience and offered services
- Verification of instruments such as water meters &...

Training course and seminar topic mostly needed in near future

- Type evaluation of NAWIs & Water meters
- Requirements for software controlled measuring instruments
- Prepackages & IQ mark
- Type evaluation & verification of AWIs

Which seminar topic do you care for the most

- OIML- CS(MAA & BASIC)
- OIML peer evaluation
- Development of metrology regulatory framework in country

Thank you very much for
your attention