



Quality Management System of NIM

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National Institute of Metrology, China

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Overview of NIM

Part 2

Quality Management System



Status

Affiliated with the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ)

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NMI of China

02

Core of metrological technical work in China

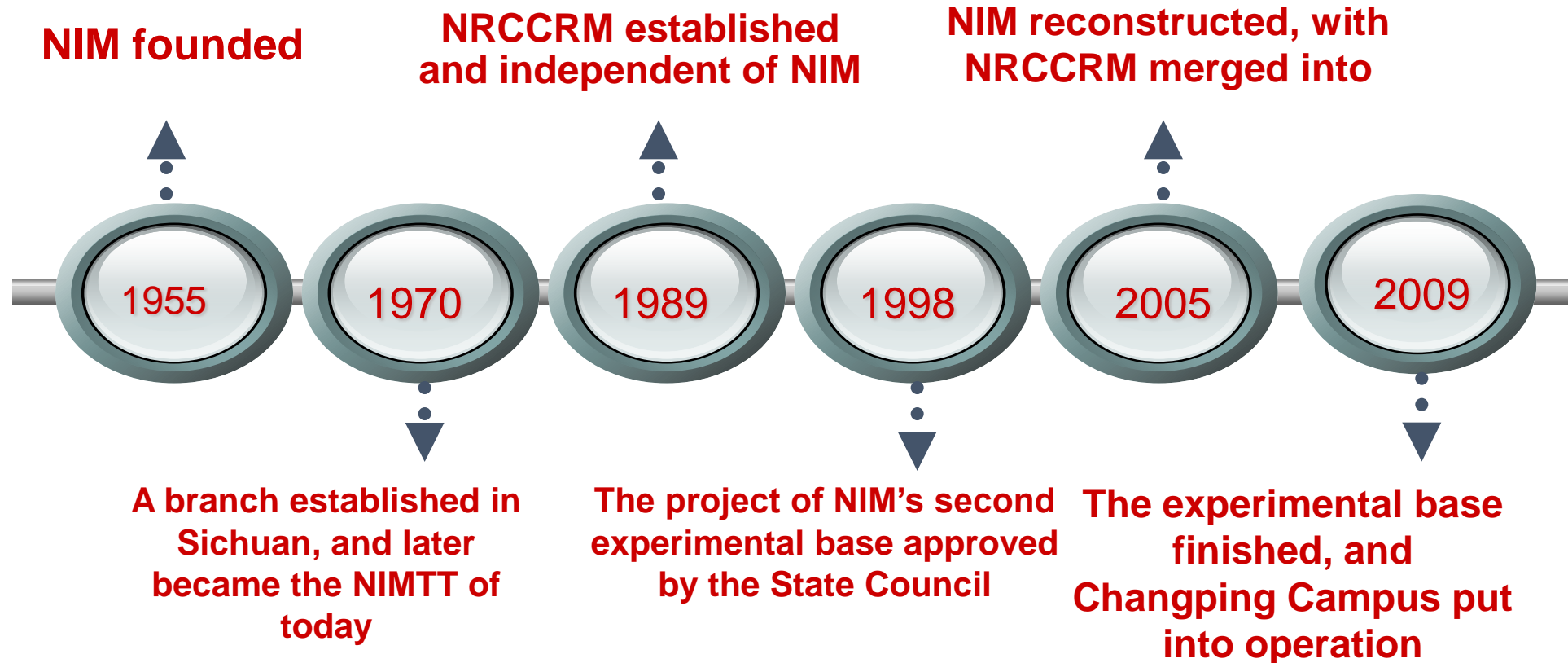
03

Technical center for legal Metrology of PRC

04



History



NIMTT - National Institute of Measurement and Testing Technology
NRCCRM - National Research Center for Certified Reference Materials

Mission

*Bearing the spirit of innovation,
realizing more accurate and traceable
measurements to support
economic and social development
and shape the future of life.*



测量准确

自主创新

支撑发展

引领未来



中国计量科学研究院
National Institute of Metrology, China

Tasks

- ④ Research, establish, maintain and improve national standards;
- ④ Research and develop national certified reference materials (CRMs);
- ④ Research, realize, maintain and disseminate the legal time in China;
- ④ Participate in international comparisons to ensure traceability and international equivalence of national standards;
- ④ Disseminate values to its clients through verification and calibration services, ensure all unit values are traceable and reliable within the nation;
- ④ Carry out fundamental and frontier research in metrological science, study measurement theory and technique; develop value disseminating and tracing methods, etc;

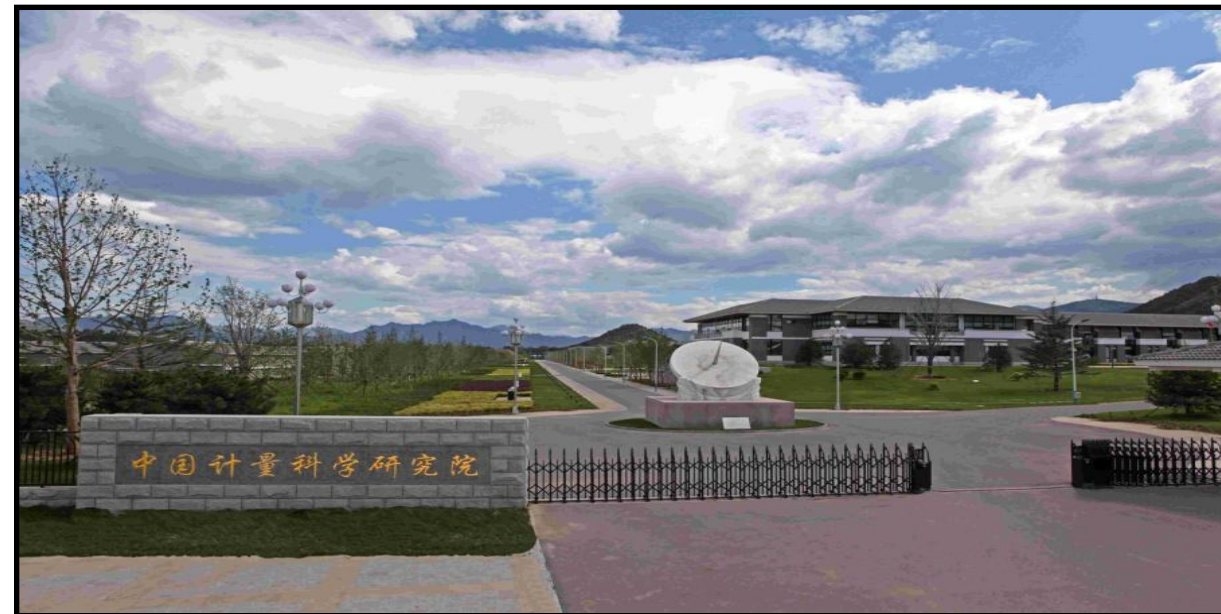
Campuses

**Hepingli Campus:
80,000m²**

Metrology Service Center for customers

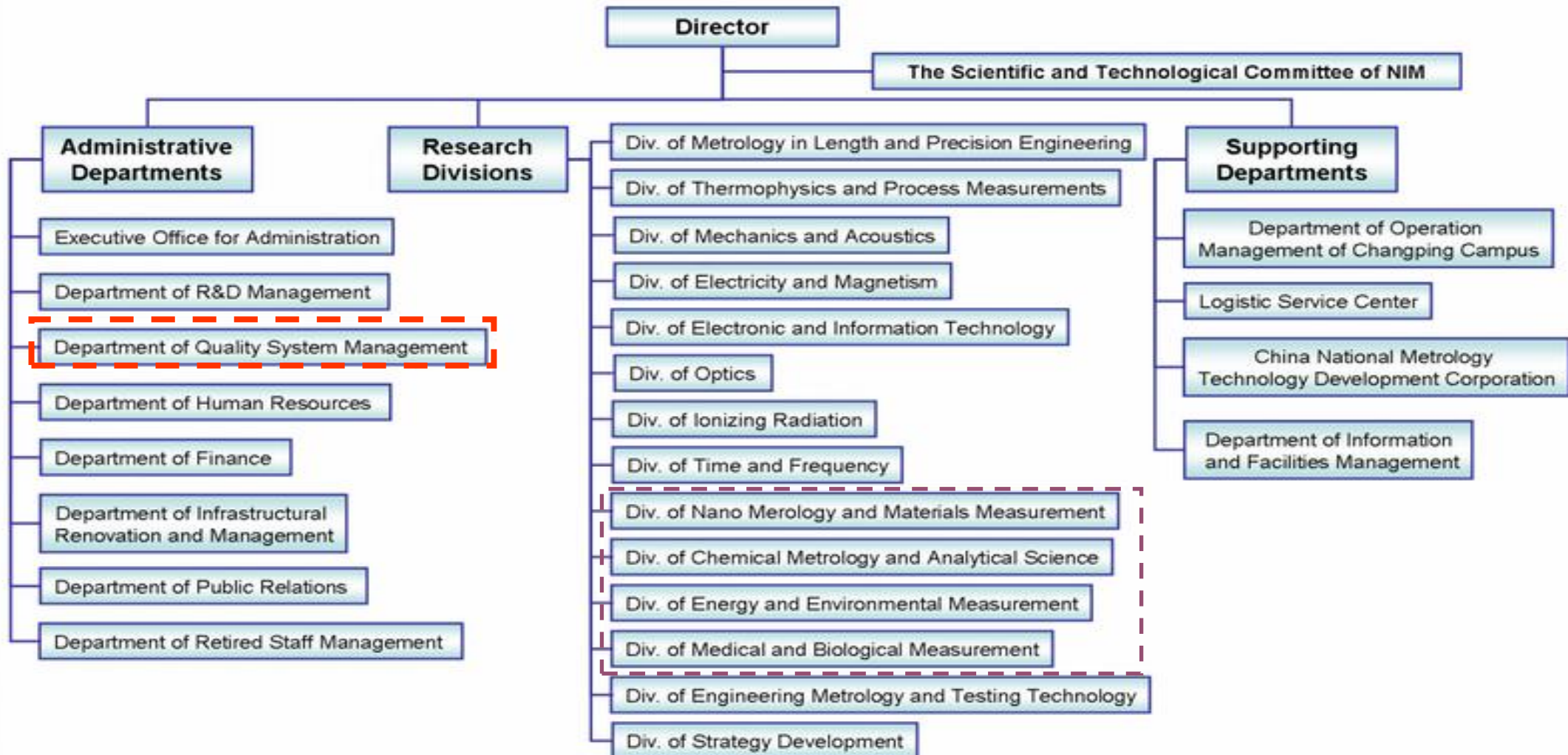


**Changping Campus:
561,000m²**
R&D Center



中国计量科学研究院
National Institute of Metrology, China

Organization

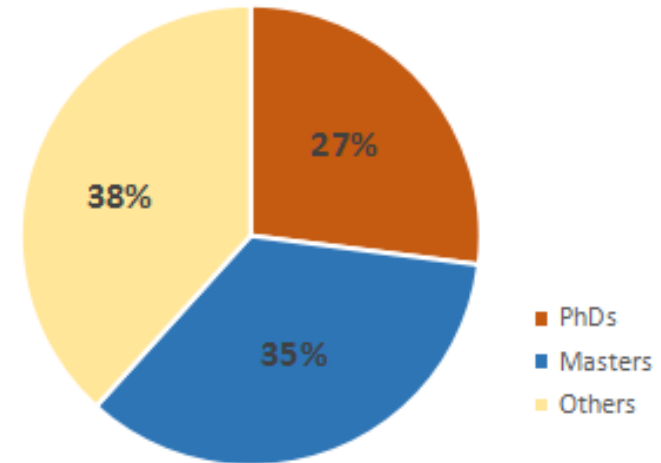


Staff

Recruitment of new staff:

Year	Total	PhDs (post)	Masters
2015	50	25	17
2016	33	9	17
2017	18	9	3

Total full-time employees: 737,
of which **673** are scientists and technical staff, including:
78 Senior Researchers (2 Academician)
349 Associate Researchers & Senior Engineers
(by professional level)
199 PhDs, **256** Masters

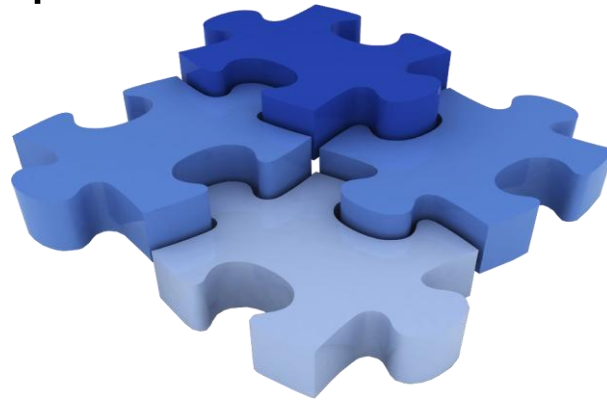


Technical competence

Standards, CMCs and Comparisons

NIM maintains **454** national standards ,
and provides about **1,400** CRMs

NIM provides **567**
verification service



1,423 CMC entries
in the BIPM KCDB

NIM has participated in **371** international &
regional K/S comparisons (**K:317 S:54**)

Customer Service



Reception Hall

Contents

Part 1

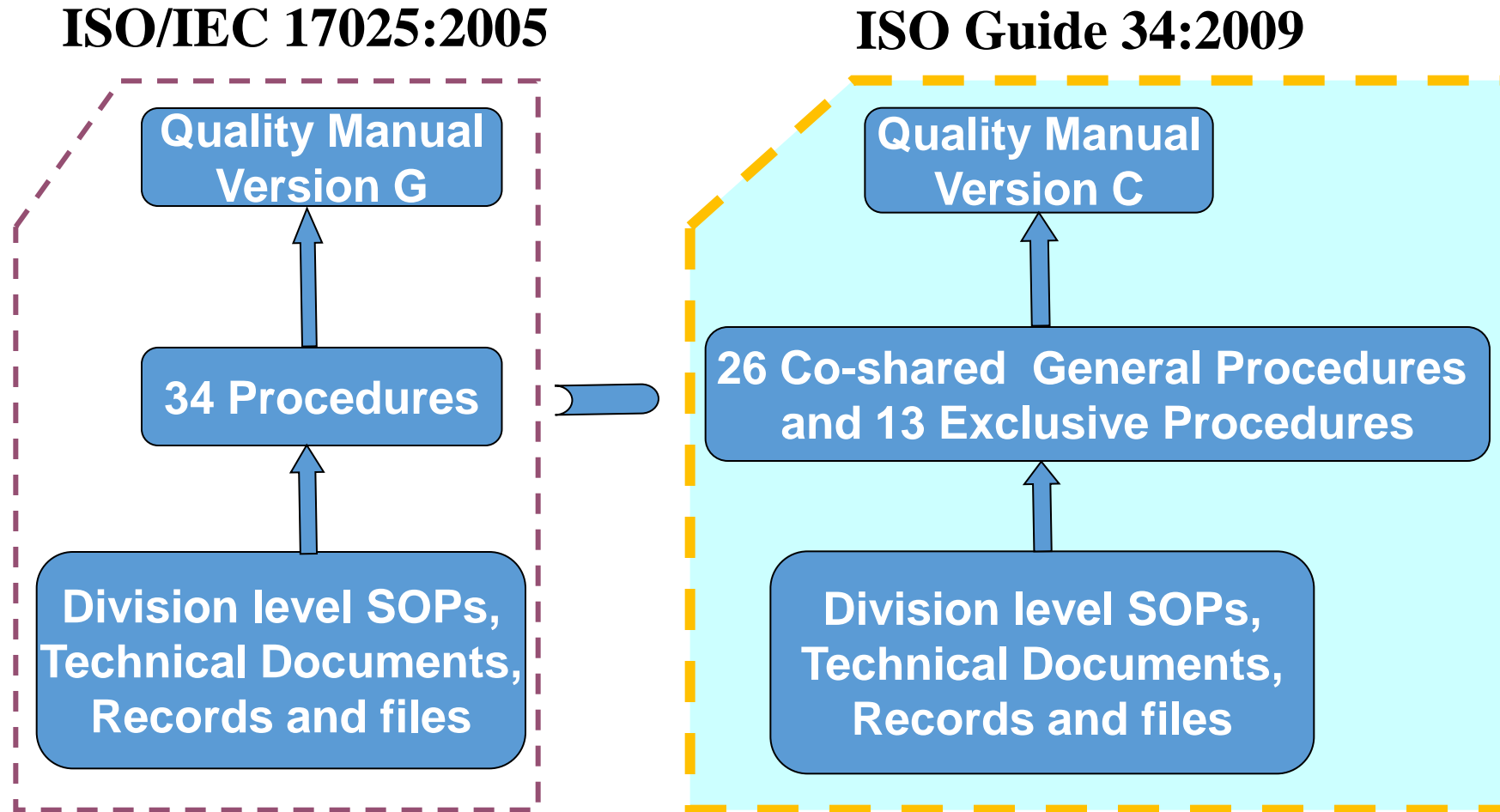
Overview of NIM

Part 2

Quality Management System



QS Documentation system



Quality Policy

Maintain
impartiality

Safeguard
credibility

Assure
accuracy

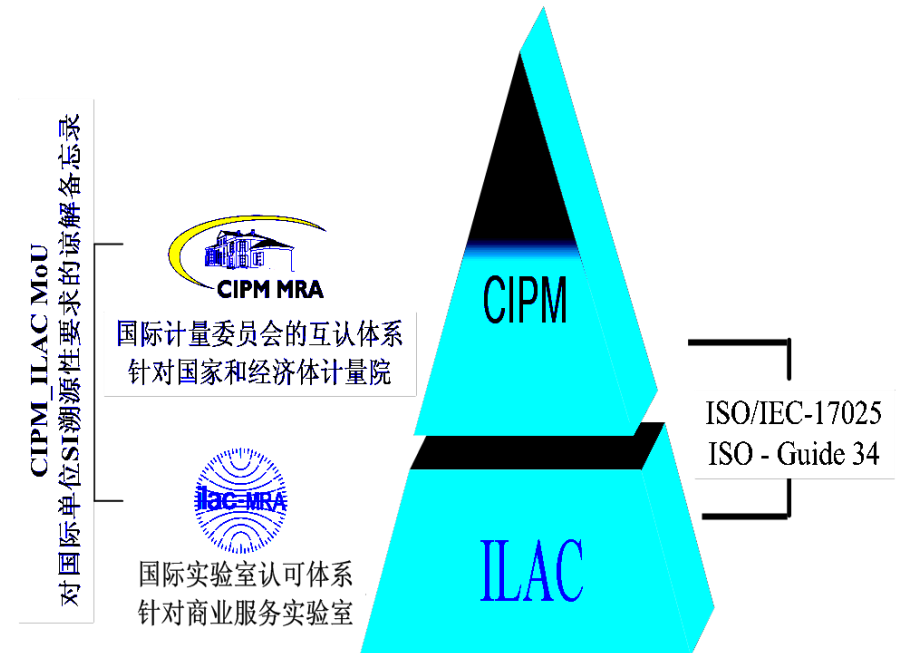
Improve
efficiency

Objective:

- To maintain international measurement equivalence and consistency;
- To achieve accuracy and reliability for the transfer of measuring values;
- To ensure quality consistency of the reference materials provided;
- To continually improve the national measurement capabilities.

Accreditation of QMS

- Compliance with ISO/IEC 17025 and ISO GUIDE 34
- Adopted joint assessment by CNAS & APMP
 - QS reviewer or leader from CNAS
 - Technical reviewers from APMP or other international metrological institutes



On-site international Peer Review

Signing the CIPM MRA

- In Oct. 1999, authorized by AQSIQ, NIM signed the CIPM MRA in Paris.

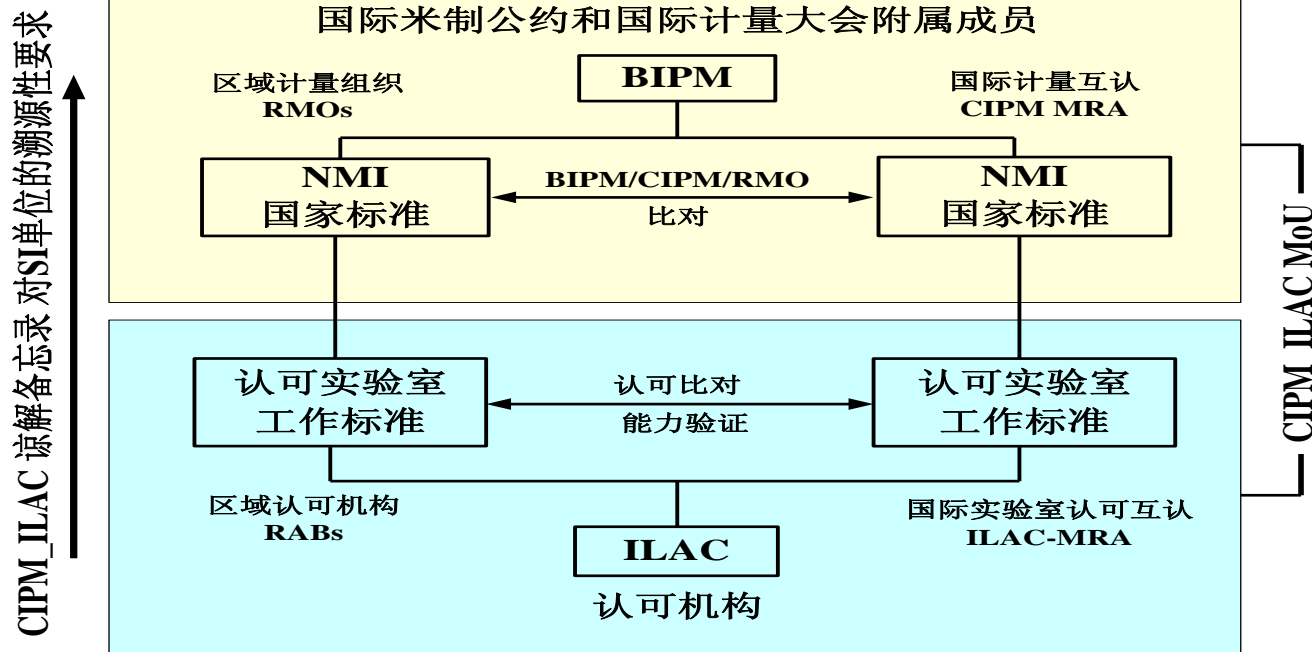


CIPM: the International Committee for Weights and Measures

CIPM MRA: a Mutual Recognition Arrangement for national measurement standards and for calibration and measurement certificates issued by NMIs.



Status of Metrology Traceability



2005年，国际计量委员会（CIPM）和国际实验室认可合作组织（ILAC）发表“关于推动全球范围内的计量互认协议和ILAC协议范围内的测量溯源性和可接受性”的联合声明。



2011年，NIM与CNAS在实验室和检查机构认可领域中提供计量支撑签署的谅解备忘录



Accreditation Policy:

CNAS has published “ **Accreditation Scheme for NIM (CNAS-SL01)** ” that explicits the metrology as underpinning and traceability for conformity in China, and further standardizes the procedures of home calibration.



CNAS-SL01

前 言

中国计量科学研究院（简称 NIM）是国际计量委员会（CIPM）《国家计量基（标）准和国家计量院签发的校准与测量证书互认协议》（CIPM-MRA）的签署成员，是我国的计量科学研究中心和国家级法定计量技术机构，承担研究、建立、保存、维护国家计量基准和国家计量标准，复现单位量值，研制标准物质等的职责。

基于中国计量科学研究院在量值溯源体系中的地位和作用的特殊性，依据 ILAC-BIPM 对于国家计量院认可的联合声明，制定本认可方案，在认可周期、认可评审方式、评审员资格、评审报告和证书格式等方面做出专门的规定。

中国计量科学研究院认可方案
Accreditation Scheme for NIM

中国合格评定国家认可委员会

2012年11月28日发布

2012年11月28日实施



中国计量科学研究院
National Institute of Metrology, China

Amount of CMCs

➤ The distribution in each field as following (17/2/2015):

AUV	M	L	PR	T	TF	EM	RI	QM	Total
56	67	80	27	42	28	180	195	748	1423

➤ Comparing with other counties:

United States	Russia	Germany	China	United Kingdom	Japan	Korea
2093	1728	1579	1423	1156	1112	1112

Accreditation Certificate



**中国合格评定国家认可委员会
实验室认可证书**

(注册号: CNAS L0502)

兹证明:

中国计量科学研究院
北京市朝阳区北三环东路 18 号, 100013

符合 ISO/IEC 17025:2005 《检测和校准实验室能力的通用要求》
(CNAS-CL01 《检测和校准实验室能力认可准则》) 的要求, 具备承担
本证书附件所列检测和校准服务的能力, 予以认可。

获认可的能力范围见标有相同认可注册号的证书附件, 证书附件是
本证书组成部分。

签发日期: 2012-11-20
有效期至: 2017-11-19
初次认可: 1999-12-15
更新日期: 2012-11-20

中国合格评定国家认可委员会授权人

中国合格评定国家认可委员会 (CNAS) 经国家认证认可监督管理委员会 (CNCA) 授权, 负责实
施合格评定国家认可制度。CNAS 是国际实验室认可合作组织 (ILAC) 和亚太实验室认可合作组织
(APLAC) 的多边互认协议成员。

No.CNAS AL 1 0005915



**China National Accreditation Service for Conformity Assessment
LABORATORY ACCREDITATION CERTIFICATE**

(Registration No. CNAS L0502)

National Institute of Metrology, China
No.18, Beisanhuan Donglu, Chaoyang District, Beijing, China

*is accredited to ISO/IEC 17025:2005 General Requirements for the
Competence of Testing and Calibration Laboratories(CNAS-CL01
Accreditation Criteria for the Competence of Testing and Calibration
Laboratories) for the competence of testing and calibration.*

*The scope of accreditation is detailed in the attached appendices bearing the same
registration number as above. The appendices form an integral part of this
certificate.*

Date of Issue: 2012-11-20
Date of Expiry: 2017-11-19
Date of Initial Accreditation: 1999-12-15
Date of Update: 2012-11-20



Signed on behalf of China National Accreditation Service
for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation
Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment.
CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and
Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).

No.CNAS AL 2 0006464

Certificate



THANKS

