

CNAS Experience on Accreditation of PT Providers & RM Producers



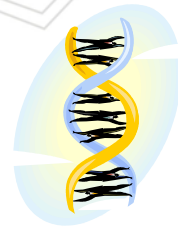
HE Ping

Rio de Janeiro, Brazil

Outline

- ◆ Background
- ◆ CNAS status in quo
- ◆ Market Study & Technical Viability
- ◆ Positive & Negative Points
- ◆ Promotion of RMP & PTP Programs

I. BACKGROUND



Fields of Lab Accreditation

Lab Accreditation

Testing/Calibration Labs

Inspection Body

Medical Testing Labs

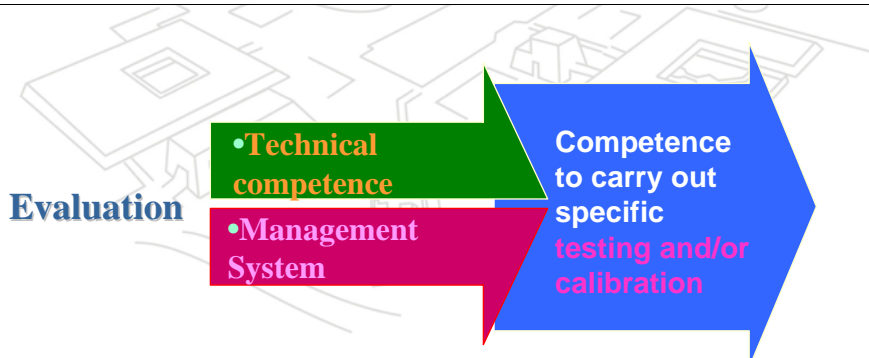
PT Providers

RM Producers

Lab Bio-safety

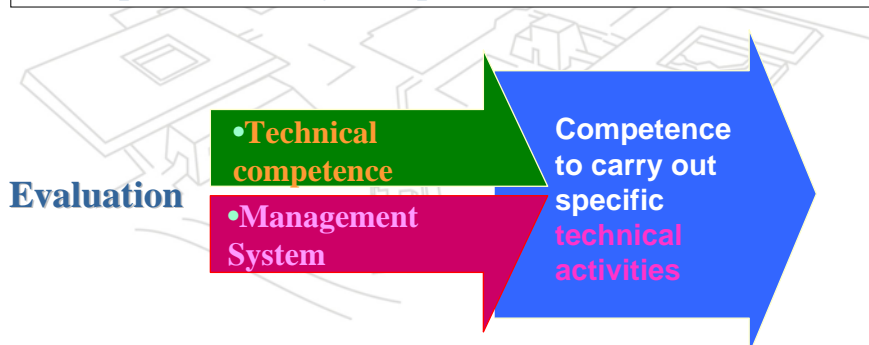
Laboratory Accreditation

is an evaluation process by which an authoritative body gives formal recognition that **a laboratory** is competent to carry out specific **testing and/or calibration**.



Lab & Lab-related Accreditation

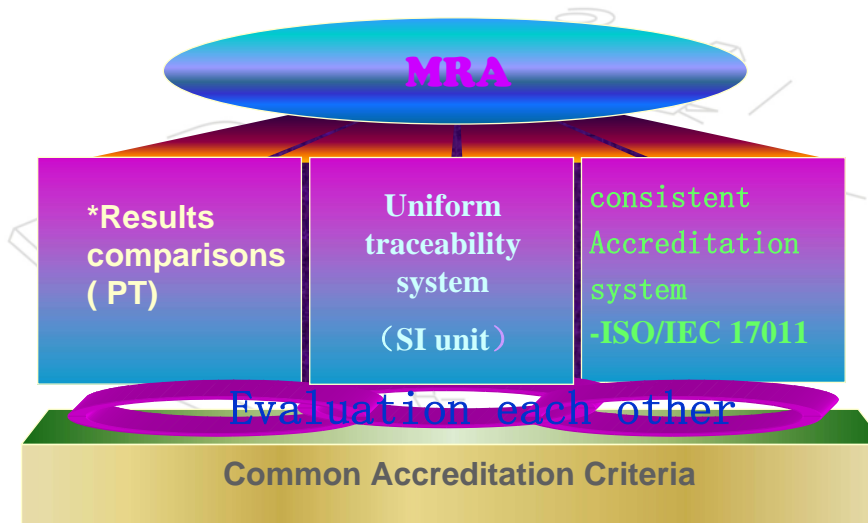
is an evaluation process by which an authoritative body gives formal recognition that **an organization** is competent to carry out specific **technical activities**.



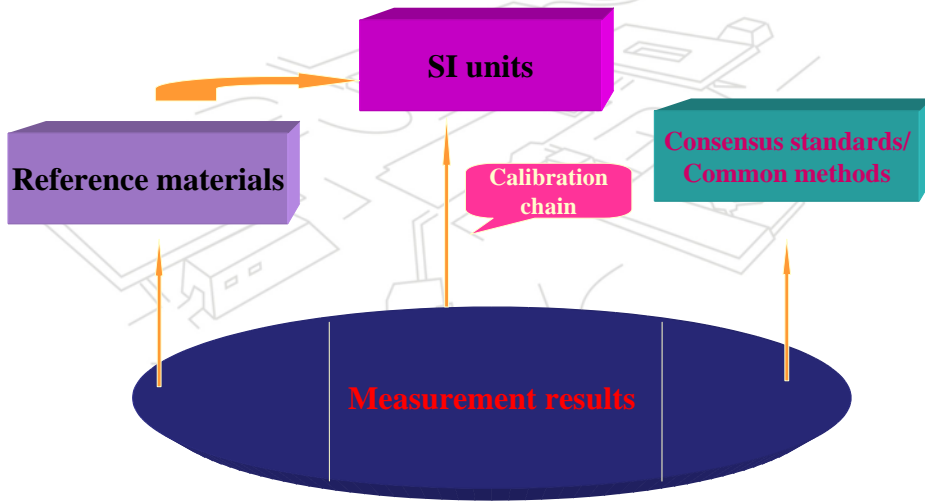
One Test works in the whole World!
One Test works in the whole World!



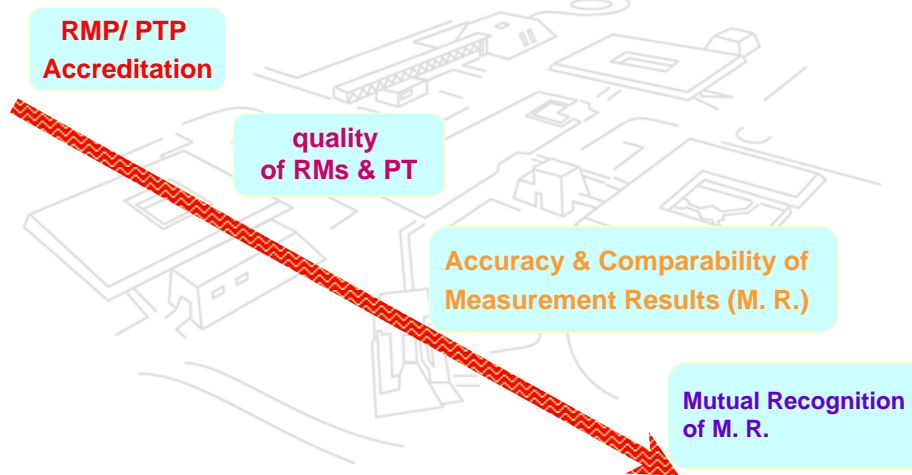
Building Bricks of ILAC MRA



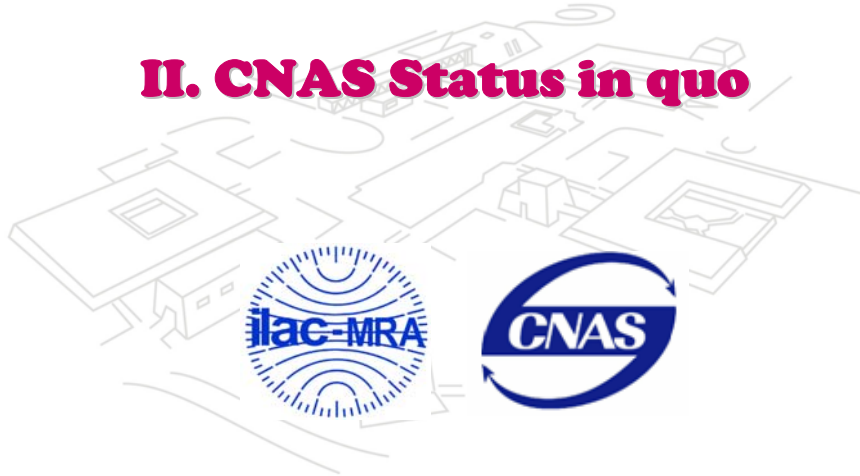
Traceability Requirement for Accreditation



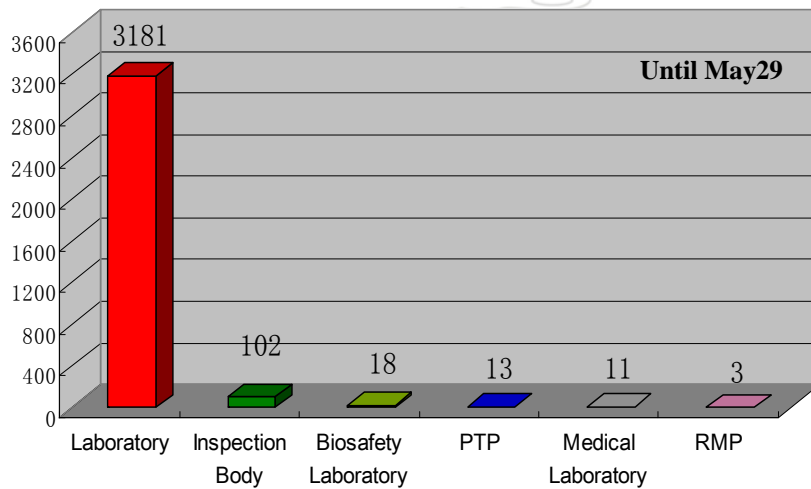
the Role of RMP&PTP Accreditation



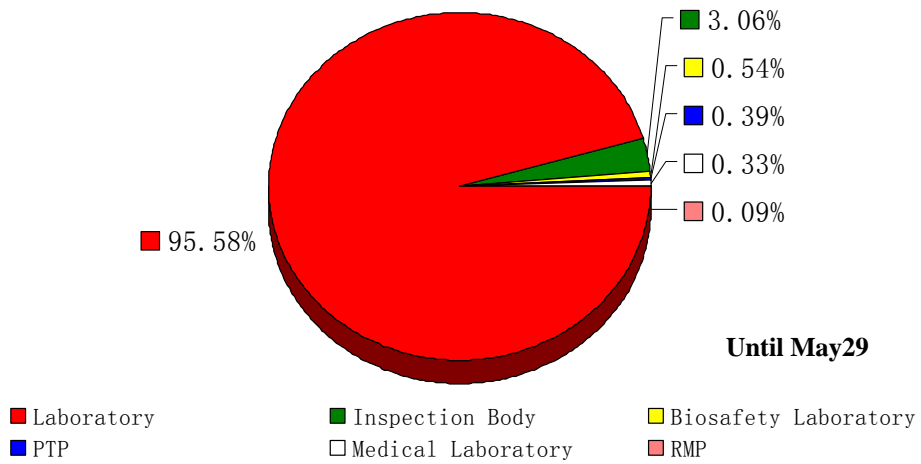
II. CNAS Status in quo



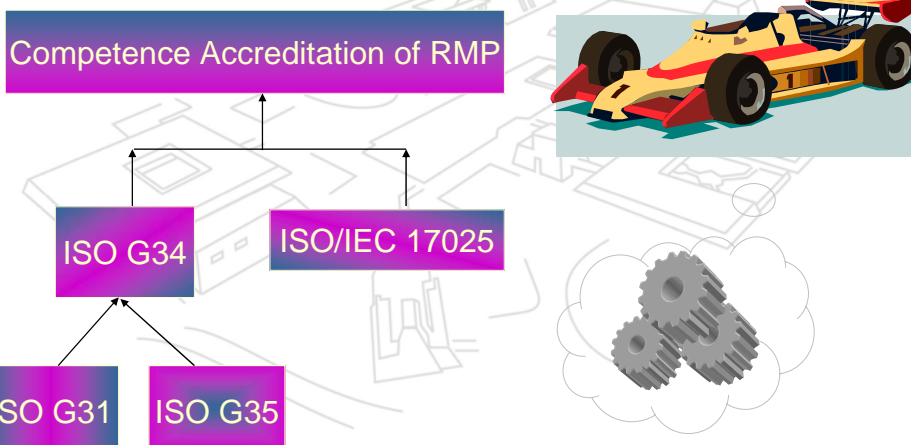
Statistical Chart



Percentage Chart



Accreditation Criteria of RMP



Accredited Areas of RMP

- Iron & Steel
- Environmental Protection
- Other Metal materials
- Ores & Mines
- Gases

Accreditation Criteria of PTP

Competence Accreditation of PTP

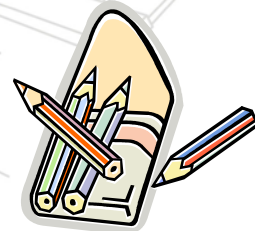
ILAC G13

ISO/IEC Guide43

Accredited Areas of PTP

- ✧ Food
- ✧ Metal materials
 - Chemical, Physical, and Engineering Testing
- ✧ Health care
- ✧ Forensic Science
- ✧ Environmental protection
- ✧ Ceramics
- ✧ Textile
- ✧ Coal
- ✧ Plant & Animal Quarantine
- ✧ Mines & Ores
- ✧ Petroleum

III. Market Study & Technical Viability



Smaller Market

Chinese Market:

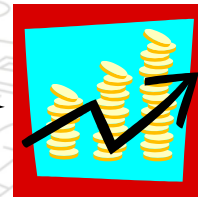
- ❑ Testing/calibration
Labs $\geq 80,000$
- ❑ RMP approx. 200
- ❑ PTP approx. 20

CNAS goal till 2010:

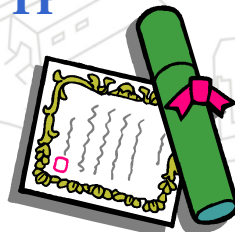
- ☑ ISO/IEC 17025
 ≥ 5000
- ☑ RMP ≥ 6
- ☑ PTP ≥ 20

Less Direct Motives

Testing



RMP/PTP



The Role of RMs Determines the Market

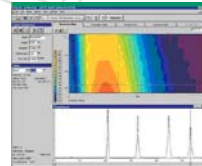
RMs



Apparatus



Method



Result

Approval Systems in China



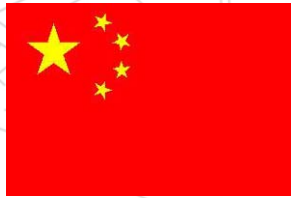
International Organization
of Legal Metrology



International
Organization for
Standardization

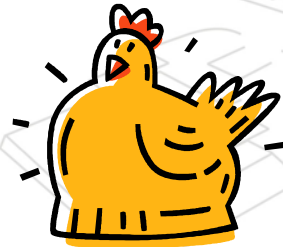
Government Approval

- Only approved by the government, it is legal that RMs are produced and distributed in the mainland of China.

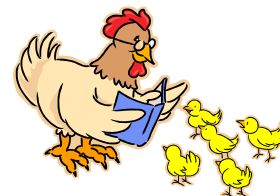


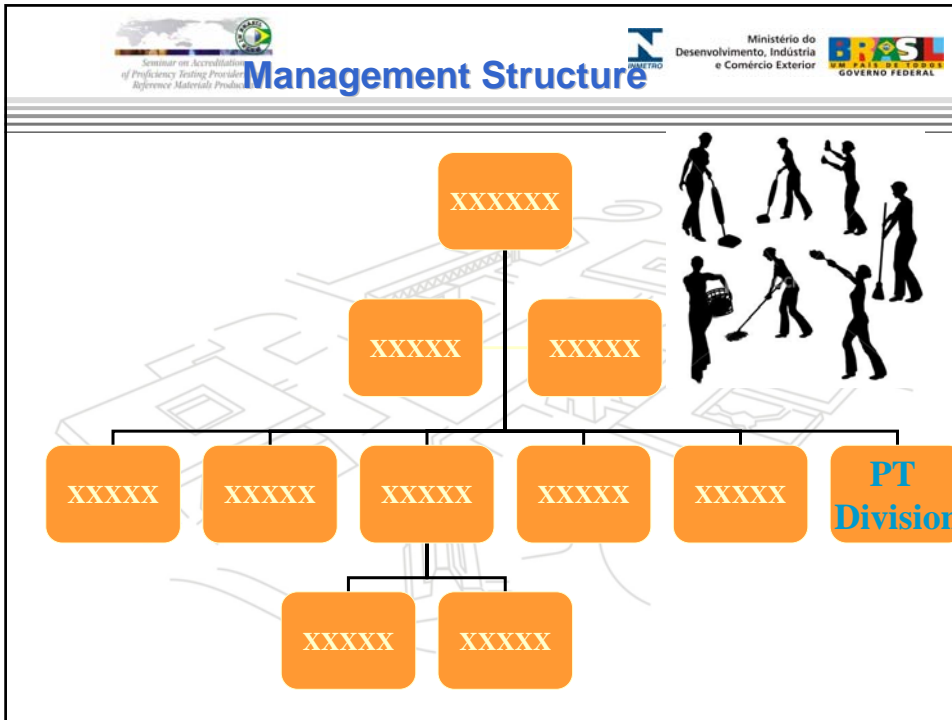
Proficiency Testing Providers

Accreditation



PT & PTP





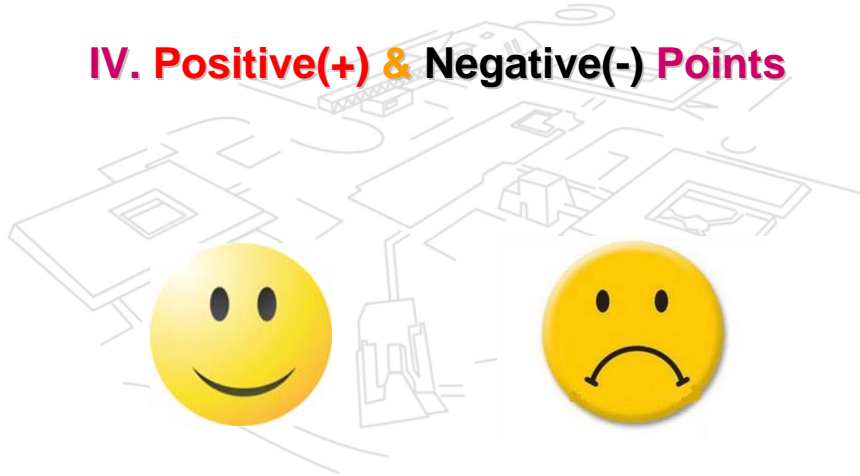
Role of PT Activities

PT Activities

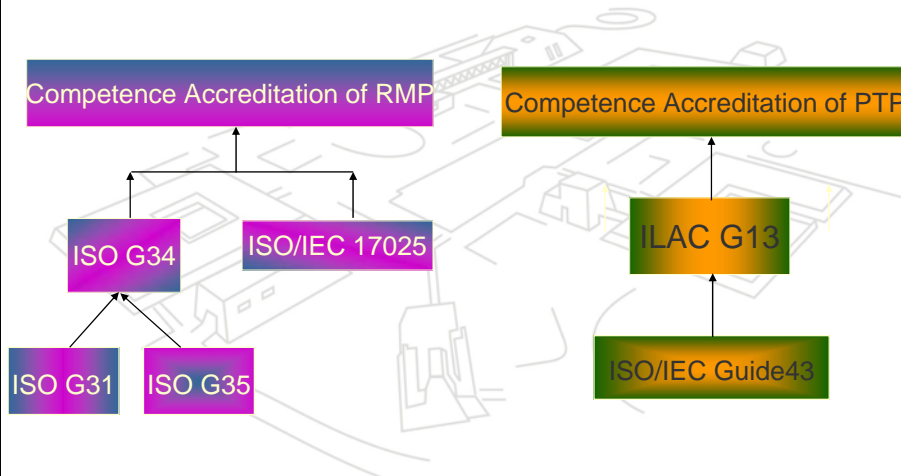
EXTERNAL QUALITY ASSURANCE



IV. Positive(+) & Negative(-) Points



International mode (+)



Regional Recognition (+)



Dec. 6, 2007, Kulur Lamper

Large Market for RMs & PT (+)



$\geq 80,000$



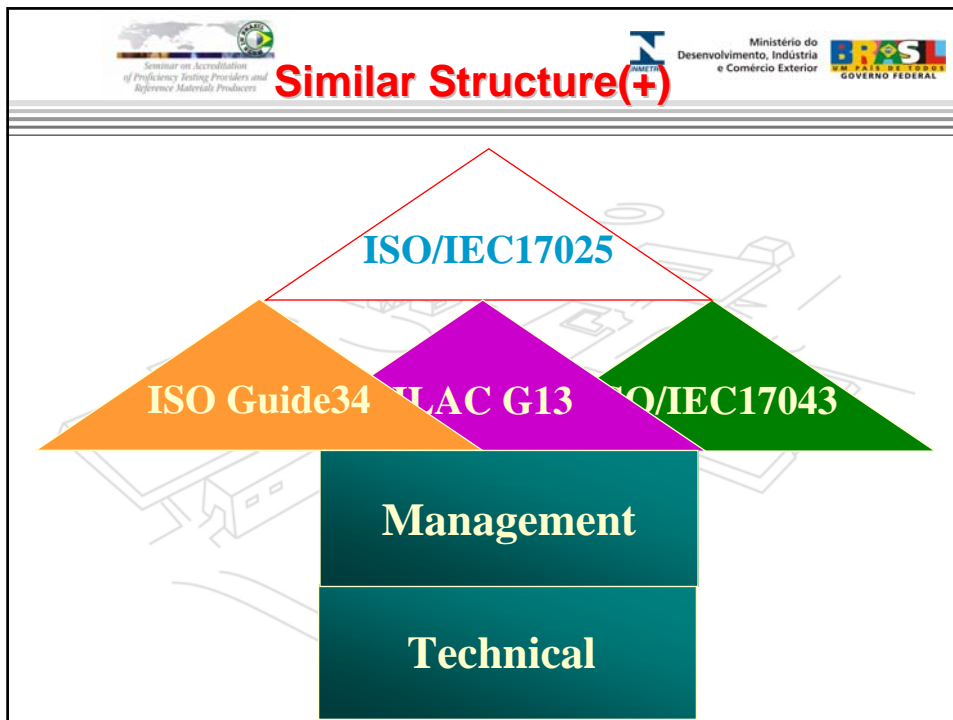
RMs: US\$1000

PT: US\$1000

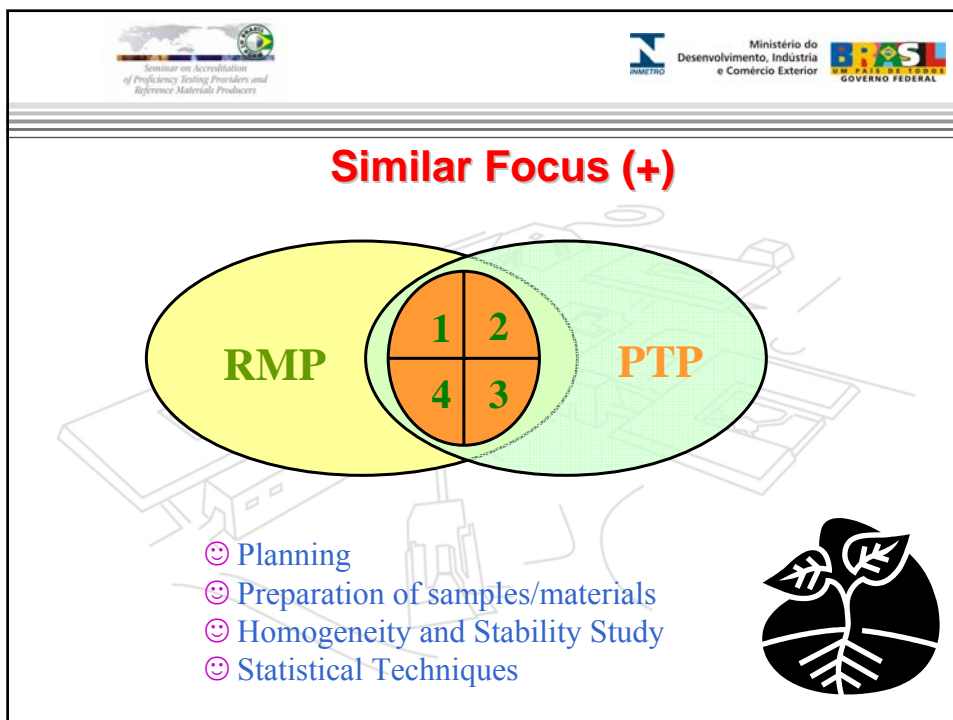
US\$80,000,000



Similar Structure(+)



Similar Focus (+)



- ☺ Planning
- ☺ Preparation of samples/materials
- ☺ Homogeneity and Stability Study
- ☺ Statistical Techniques



Activity Stage (+)

On-site Assessment



RM Technical Committee



PT Technical Committee



*Three pillars of sustainable development :
metrology, standardization and conformity assessment*

Smaller Market for Accreditation (-)

Chinese Market:

- ▣ Testing/calibration Labs $\geq 80,000$
- ▣ RMP approx. 200
- ▣ PTP approx. 20



Bad return on investment (-)

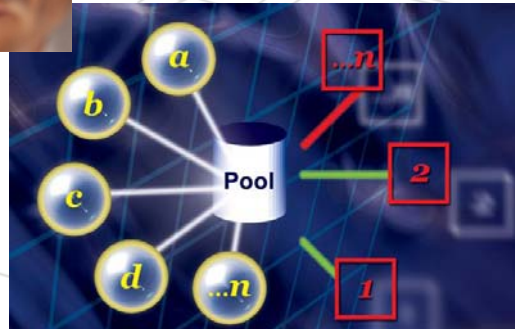


Small pool of experts (-)



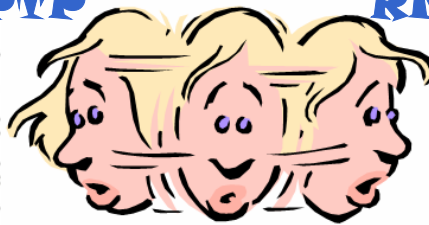
Peer Evaluation

Limited Pool



Too Strong Influence (-)

PTP Lab RMP

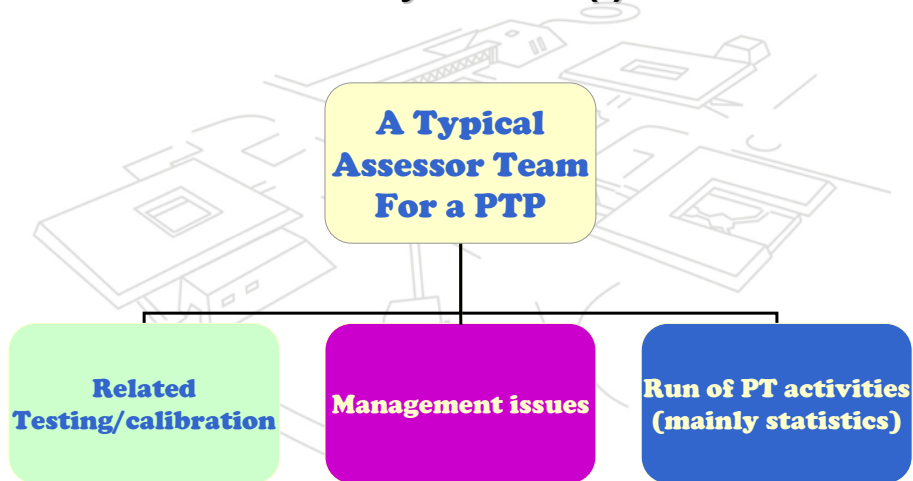


measurement



Production/Provision

Heavy Burden(-)



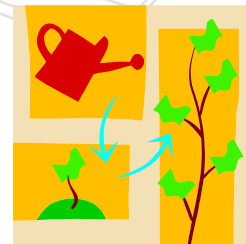
Heavy Burden(-)

Stages/ Tasks of RM production	Accreditation Requirements
Production planning	G34
# Material preparation	G34 + 17025
# Homogeneity/Stability study	G34 + 17025
# Characterization of Property Values	G34 + 17025
Assignment of and decision on property values	G34 + 17025
Authorization of property values and issue of certificate	G34
Handling and storage (including post certification testing)	G34 + 17025
Distribution	G34

- + **International Mode**
- + **Regional Recognition**
- + **Large User Market**
- + **Similar Structure**
- + **Similar Focus**
- + **Activity Stage**
- **SMALLER MARKET**
- **BAD RETURN**
- **SMALL POOL**
- **TOO STRONG IMPACT**
- **HEAVY BURDEN**



V. PROMOTION OF RMP & PTP ACCREDITATION





International
Organization for
Standardization



Holding Professional Activities

- ✦ RM, PT technical committee
- ✦ Training of Assessors
- ✦ Training of the internal auditors
- ✦ Seminar for the RMs & RMPs, PT & PTPs



Setting Rules for RMs

- In CNAS SOP for the on-site assessment of ISO/IEC 17025, it clearly says:
5.6.6 CNAS recognizes the following reference materials having the traceability:
 - a) RMs produced by accredited RMPs by CNAS;
 - ...
 - c) RMs produced by accredited RMPs by APLAC RMP MRA signatory;



Setting Rules for PT

- In ILAC P9-2005, it reads,
“The recommended minimum amount of appropriate PT activities (see Note 2) per laboratory is:
- one activity prior to gaining accreditation (see Note 3);
 - one activity relating to each major sub discipline of a laboratory’s scope of accreditation (see Note 4) within four years (see Note 5).”



Areas and disciplines	Sub-areas	frequency
Metal & alloy materials	Chemical: elements	1 time/1year
	Mechanical: hardness, bend, tensile, size	1 /2 yrs
	NDT: magnetic particle, penetrate, radiography, ultrasonic	1 /2 yrs
Oil & petrochemical	Chemical: gasoline, diesel oil, crude oil	1 /1 year
	Physical: flash point, viscosity, density, distillation	
Polymer multi-materials	Chemical: elements	1 /2 yrs
	Mechanical: tensile, rupture	
Food	Chemical: trophic elements, heavy metal, additives, colorants, residues	1 /1 year
	Biological: toxin, microbial, trans-gene	



Mutual Recognition Arrangement



Asia Pacific Laboratory Accreditation Cooperation



Promotion of Mutual Recognition

No.	Name	Website	Accredited by
1	IIS (Institute for Interlaboratory Studies)	www.iisnl.com	RvA
2	RTC (Resource Technology Corporation)	www.RT-Corp.com	A2LA, NVLAP
3	APG (Analytical Products Group, Inc.)	www.apgqa.com	A2LA, NVLAP, RvA,
4	LGC (the Laboratory of the Government Chemist)	www.lgc.co.uk	UKAS
5	FAPAS (Food Analysis Performance Assessment Scheme)	www.fapas.org.cn	UKAS
6	ASQUAL	www.asqual.com	CORFAC
7	IFM Quality Services Pty Ltd	www.ifmqs.com.au	NATA
8	NSI Solution, Inc.	www.nsi-es.com	A2LA, NVLAP
9	RCPA Quality Assurance Programs Pty Limited	www.rcpaqap.com.au	NATA

Closing Remarks



