National Quality Infrastructure: The Key to Philippine Industries' Competitiveness

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The “must”, “should” and “could” Quality

Better than….

Additional Requirements:
Quality Assurance for Competitiveness

→ **Competition by price**

yes/no

Minimum Requirements defined in:
Technical Regulation

Protection → **e.g: labeling**

Security/Health → **e.g: food safety**

State Control

(random check!)

Industry, Exporters, Government, etc

Quality

Better than….

Additional Requirements:
Quality Assurance for Competitiveness

Competition by quality & performance

yes/no

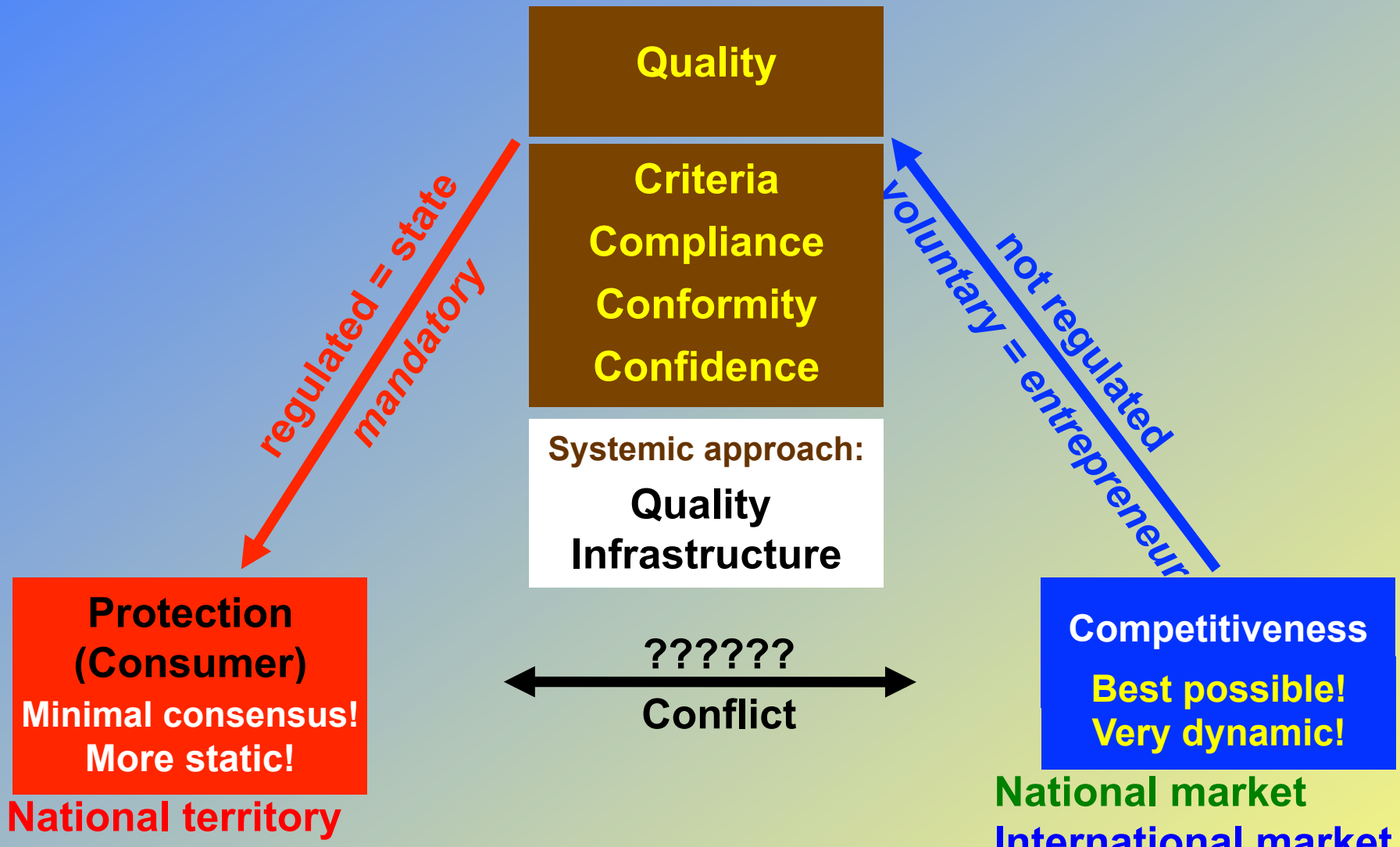
Minimum Requirements defined in:
Technical Regulation

Protection → ***e.g: labelling***

Security/Health → ***e.g: food safety***

Industry, Exporters, Government, etc

Quality Triangle

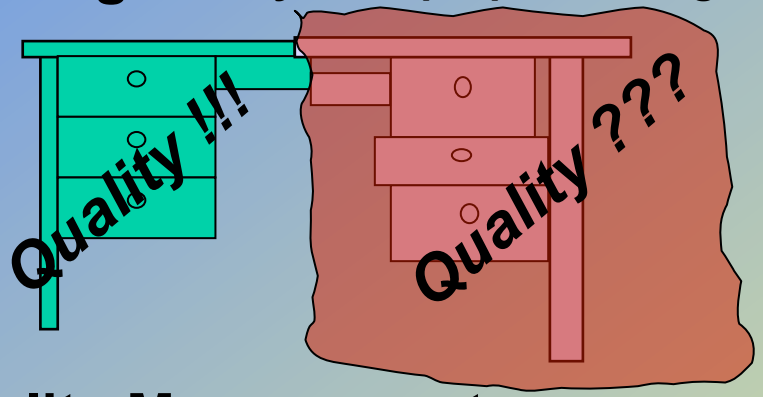


Technical Quality Infrastructure

Standardization = Definition of properties, dimensions, tolerances, etc.

Metrology = Guarantee of exact and reliable measurements

Testing = Analysis of properties, ingredients, characteristics, etc.



Quality Management = Reliable application of quality standards

↳ **C**ertification = Conformity with requirements defined in standards

↳ **A**ccreditation = Recognition of **technical competence**

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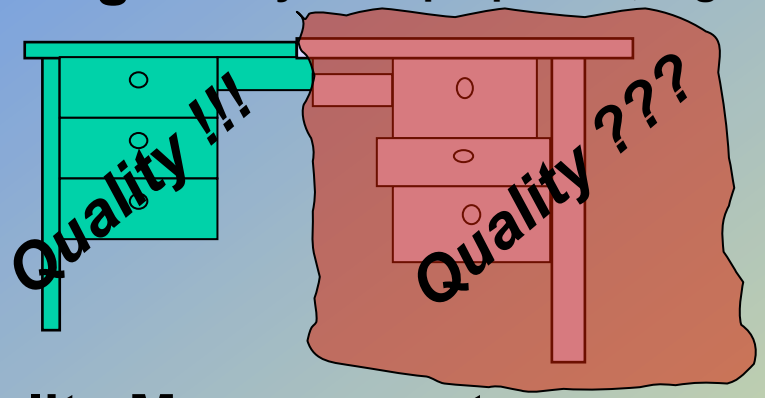

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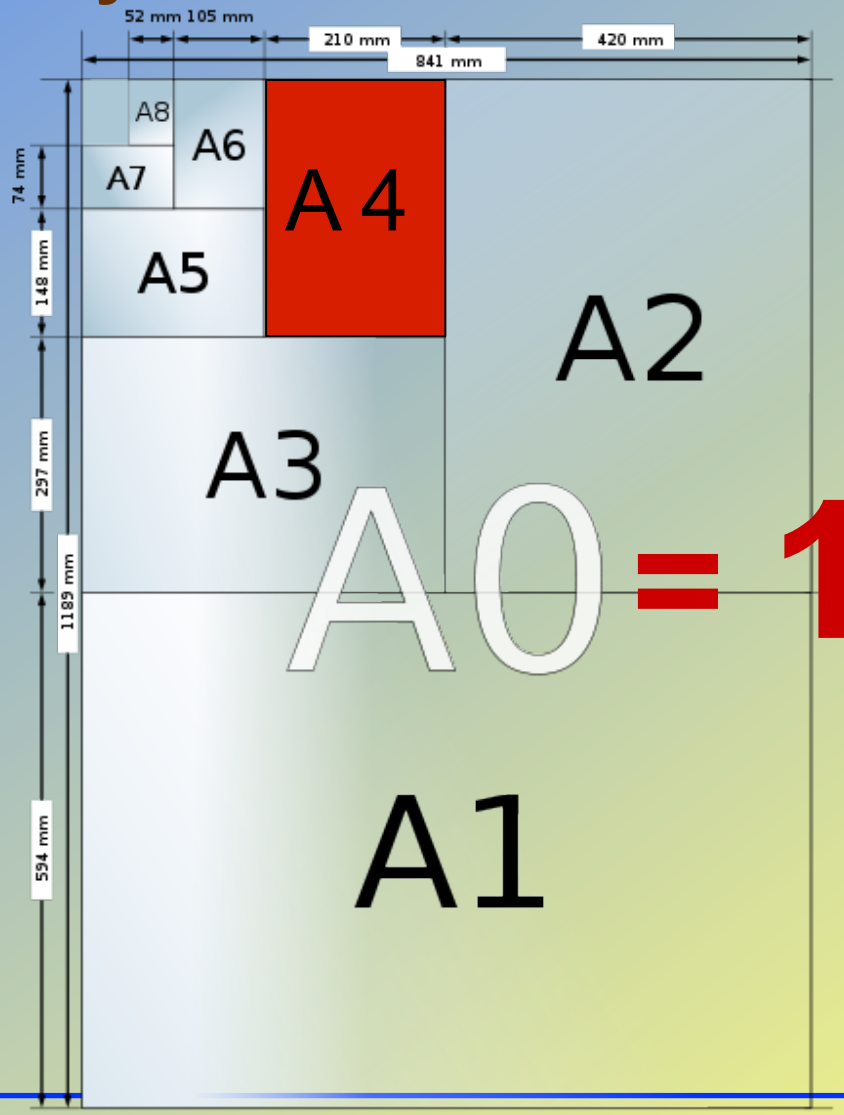
What is the history of standard ISO 216??

August 1922:
German standard DIN 476 specifies paper sizes



$= 1 m^2$

What is the history of standard ISO 216??

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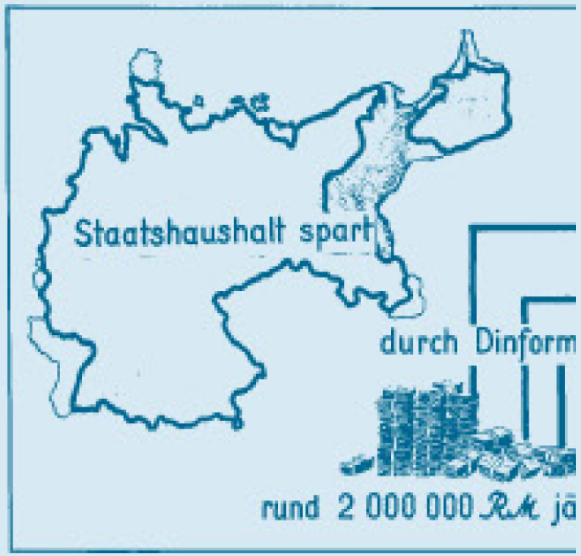


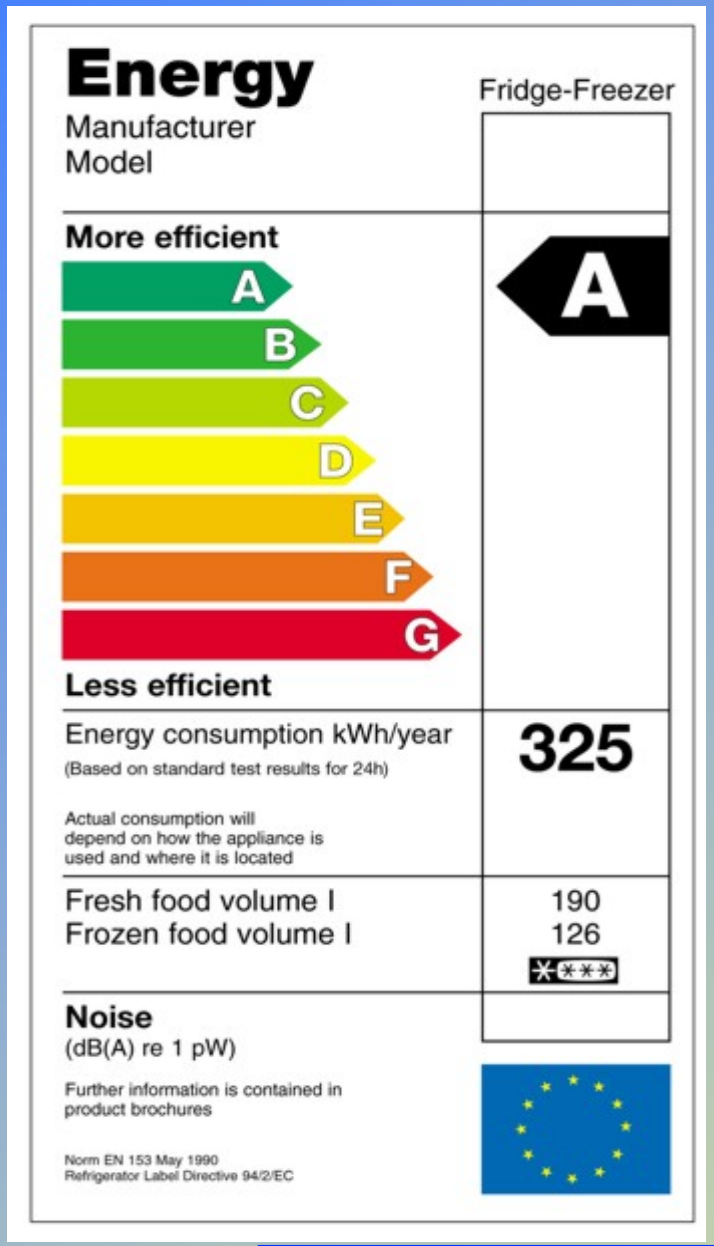
National budget saves 2 Mio Marks !

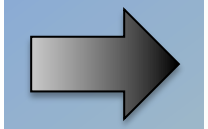
Industry sells!

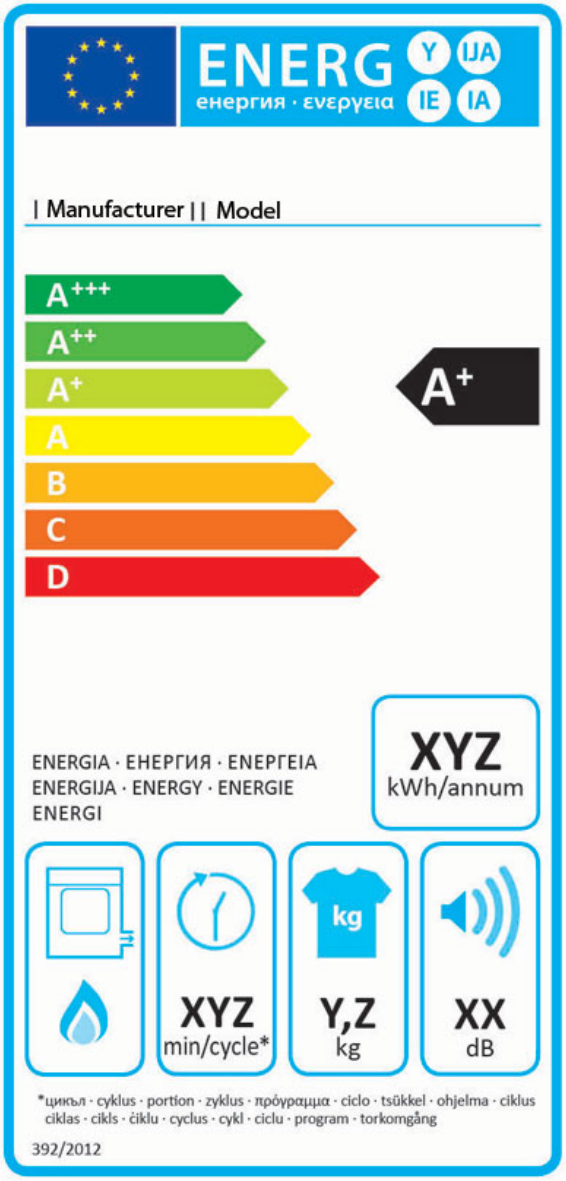
Paper size A0 = 1 m²

Traceability to metric system! – Metrology needed!

March 2002: Internationally harmonized standard DIN EN ISO 216!







1. Energy Efficiency Rating
A+++ is the most efficient, and D is the least efficient, based on the product's energy consumption.

2. Annual Energy Consumption
The annual energy consumption (in kWh per year) for each product is calculated using specific EU-defined criteria. Here, for tumble dryers, the figure is calculated based on the standard cotton program at full and half load.

3. Product-specific information
You'll also find images showing extra data related to the product, such as capacity, water consumption and noise levels.

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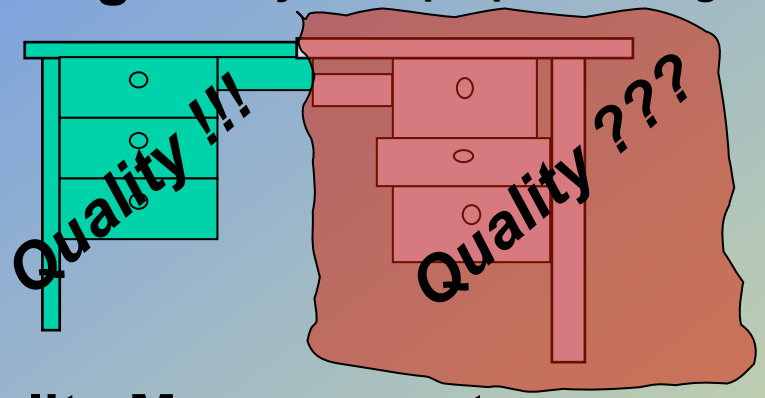

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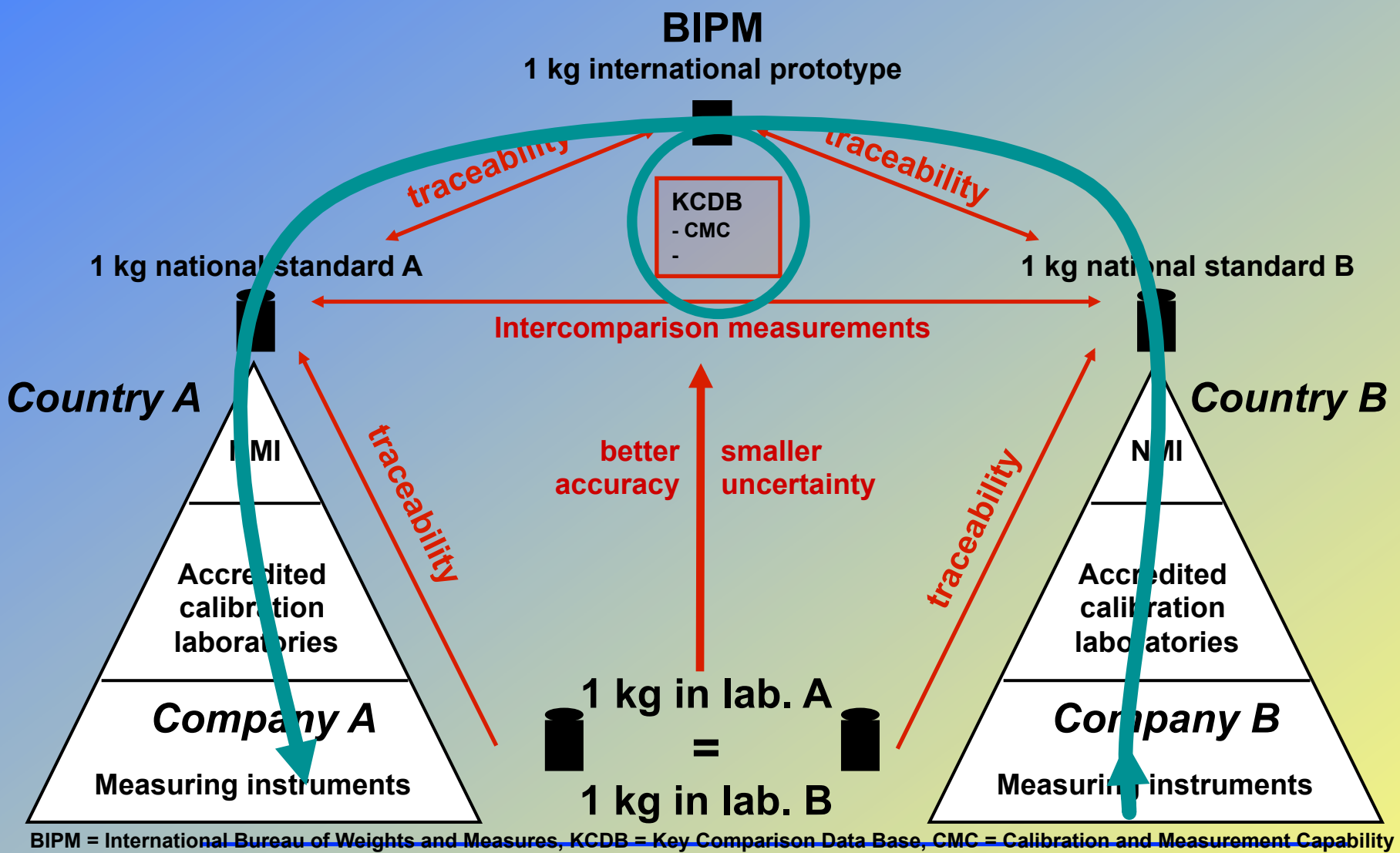
How to assure, that 1 kg in company A in any country weighs exactly the same as 1 kg in company B in Germany ?



BIPM = International Bureau of Weights and Measures, KCDB = Key Comparison Data Base, CMC = Calibration and Measurement Capability

Technical Quality Infrastructure

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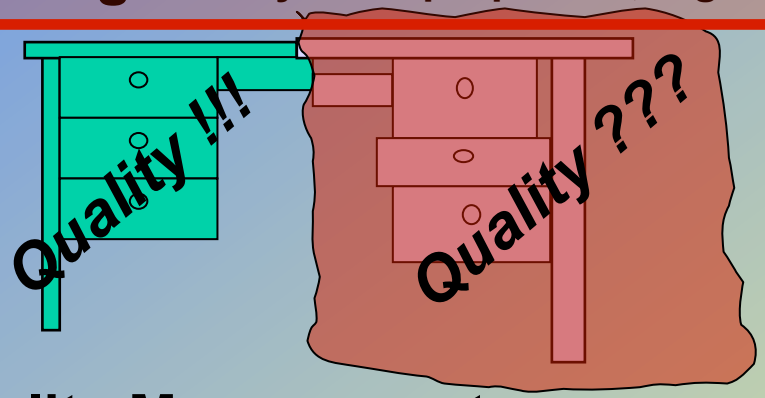

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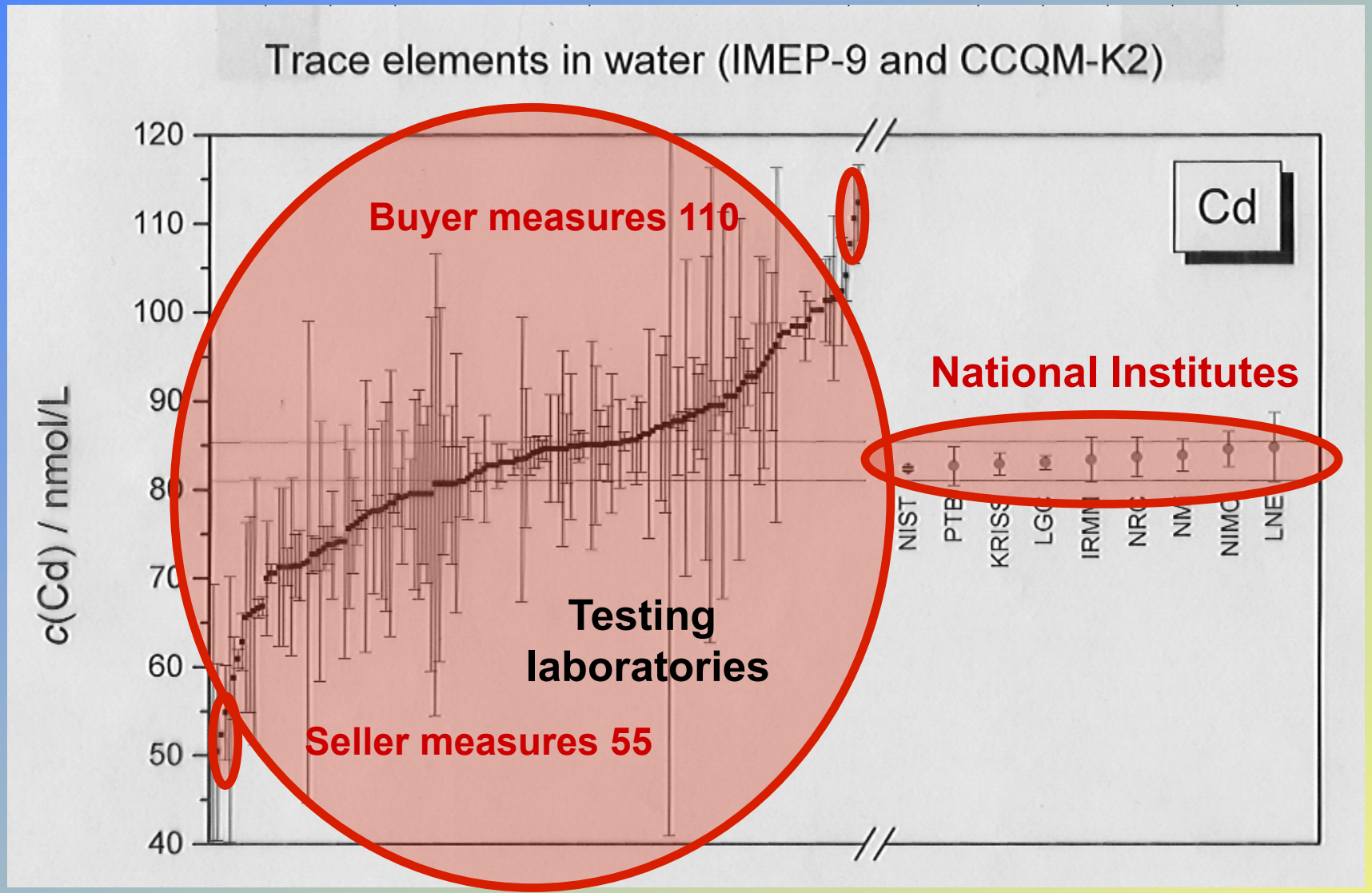
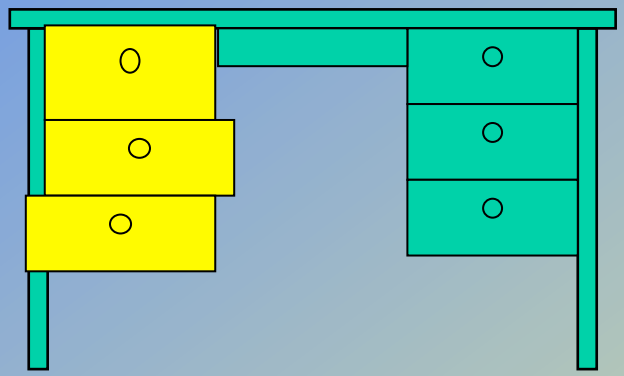

Trace elements in water (IMEP-9 and CCQM-K2)
c(Cd) / nmol/L
120
110
100
90
80
70
60
50
40
Cd
Buyer measures 110
National Institutes
Testing laboratories
Seller measures 55
NIST
PTB
KRISS
LGC
IRMM
NRC
NMIJ
NIMC
LNE

Requirements for successful globalization !

.....or something like this without standards and quality?

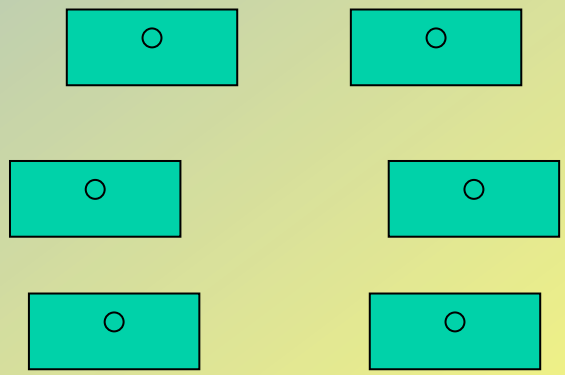


Company C assembles the desks with the drawers

Company B manufactures drawers and measures correctly

Company A manufactures desks and measures correctly

Standardization
Metrology
Testing
Quality



Requirements for successful globalization !

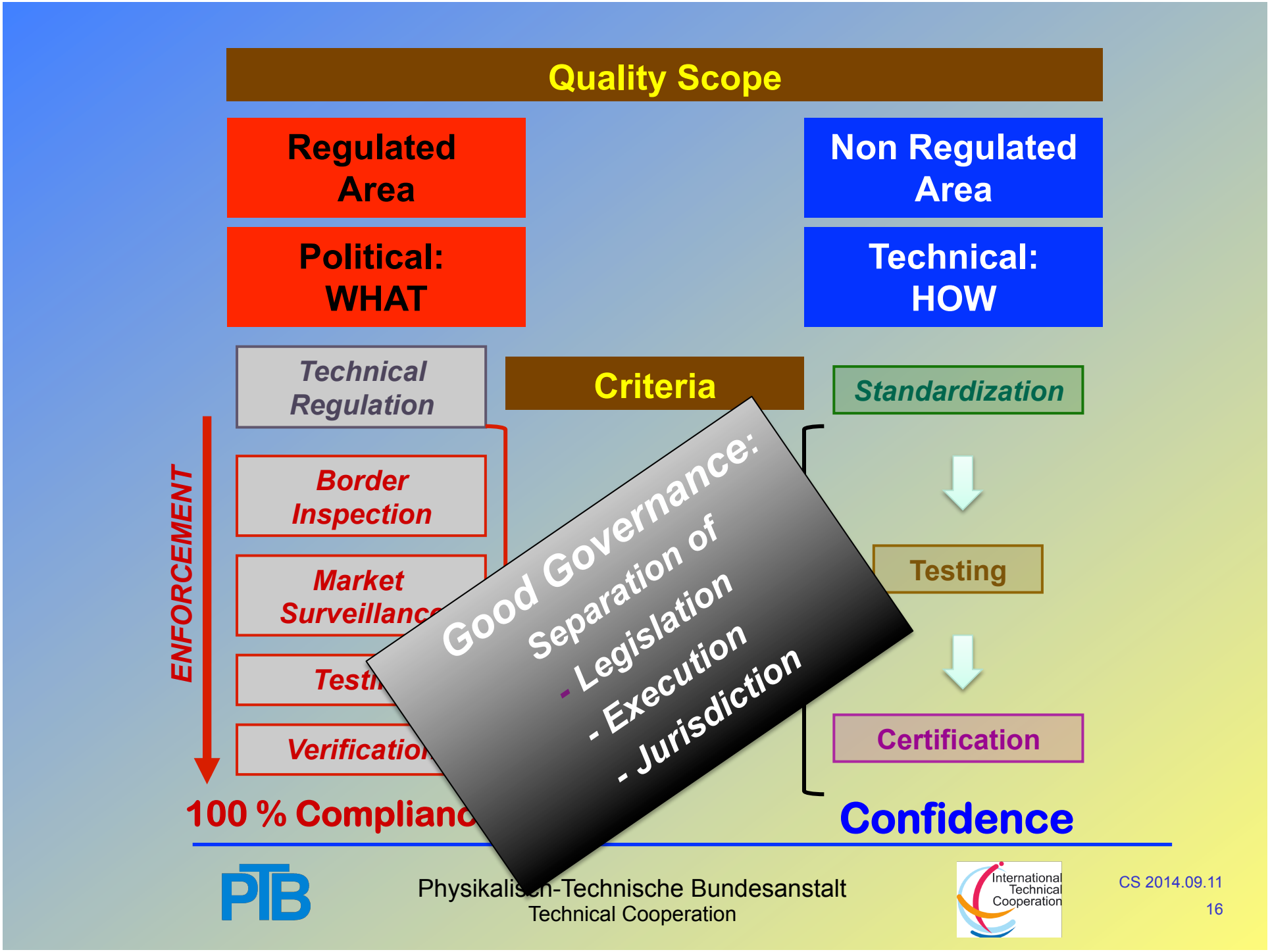
Company C processes and packages the milk

Company A manufactures bottles and labels, etc.

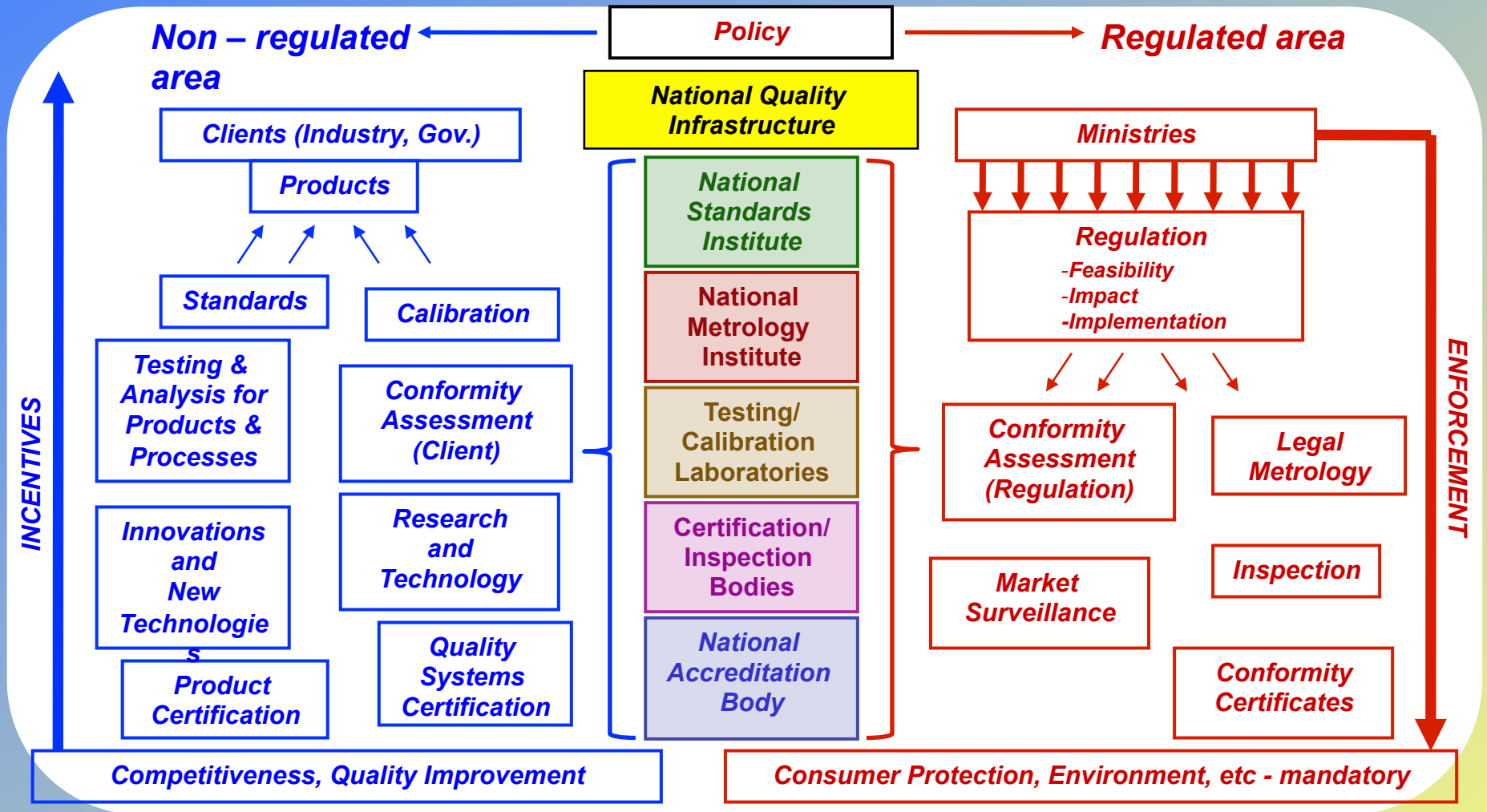
Standardization
Metrology
Testing
Quality

Safety???

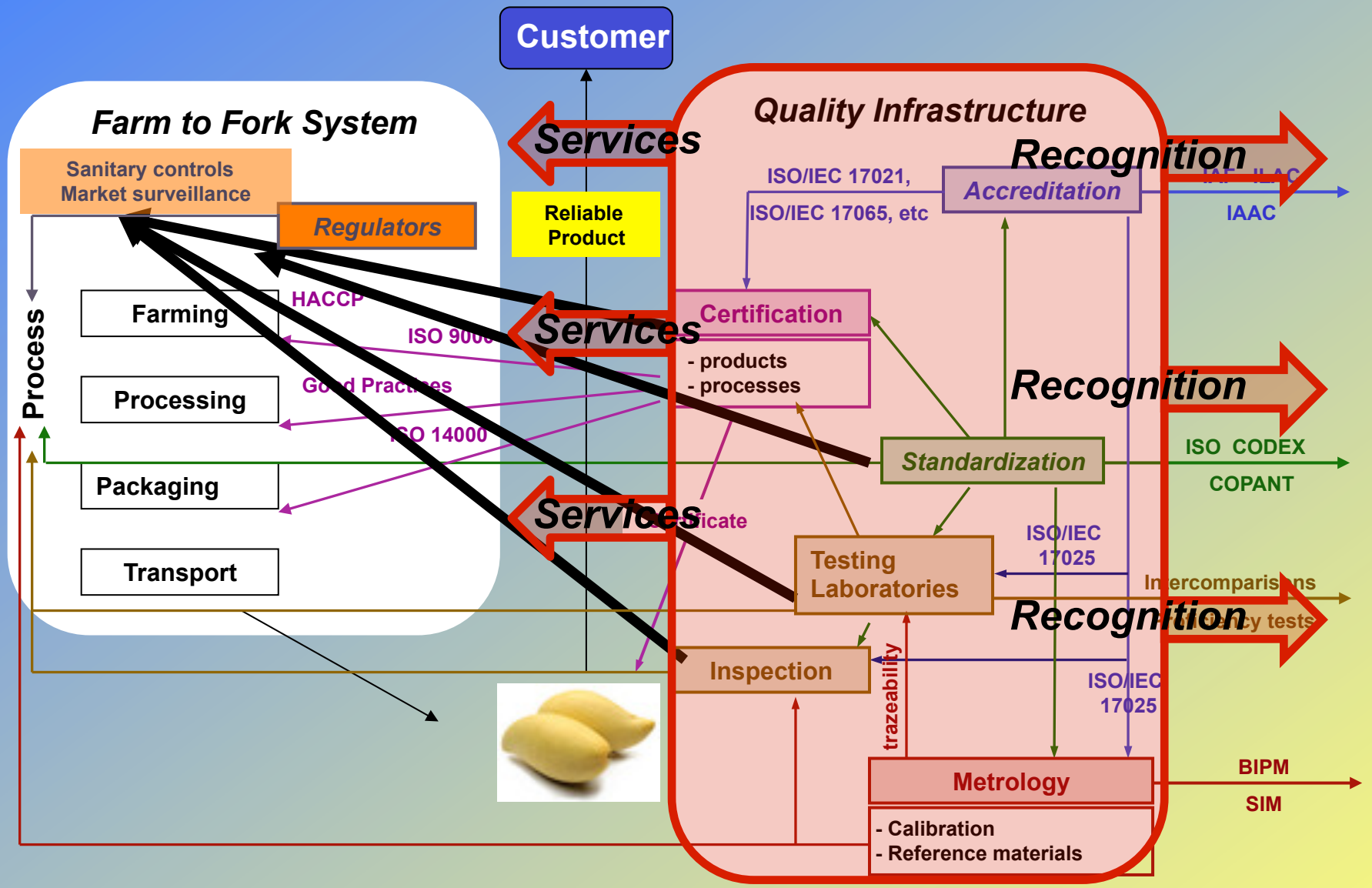
Company B produces fresh milk


Quality Scope
Regulated Area
Non Regulated Area
Political: WHAT
Technical: HOW
Technical Regulation
Criteria
Standardization
Border Inspection
Market Surveillance
Testi
Verificatio
Testing
Certification
ENFORCEMENT
100 % Complianc
Confidence
Good Governance:
Separation of
- Legislation
- Execution
- Jurisdiction

QI support to Quality Improvement & Consumer Protection

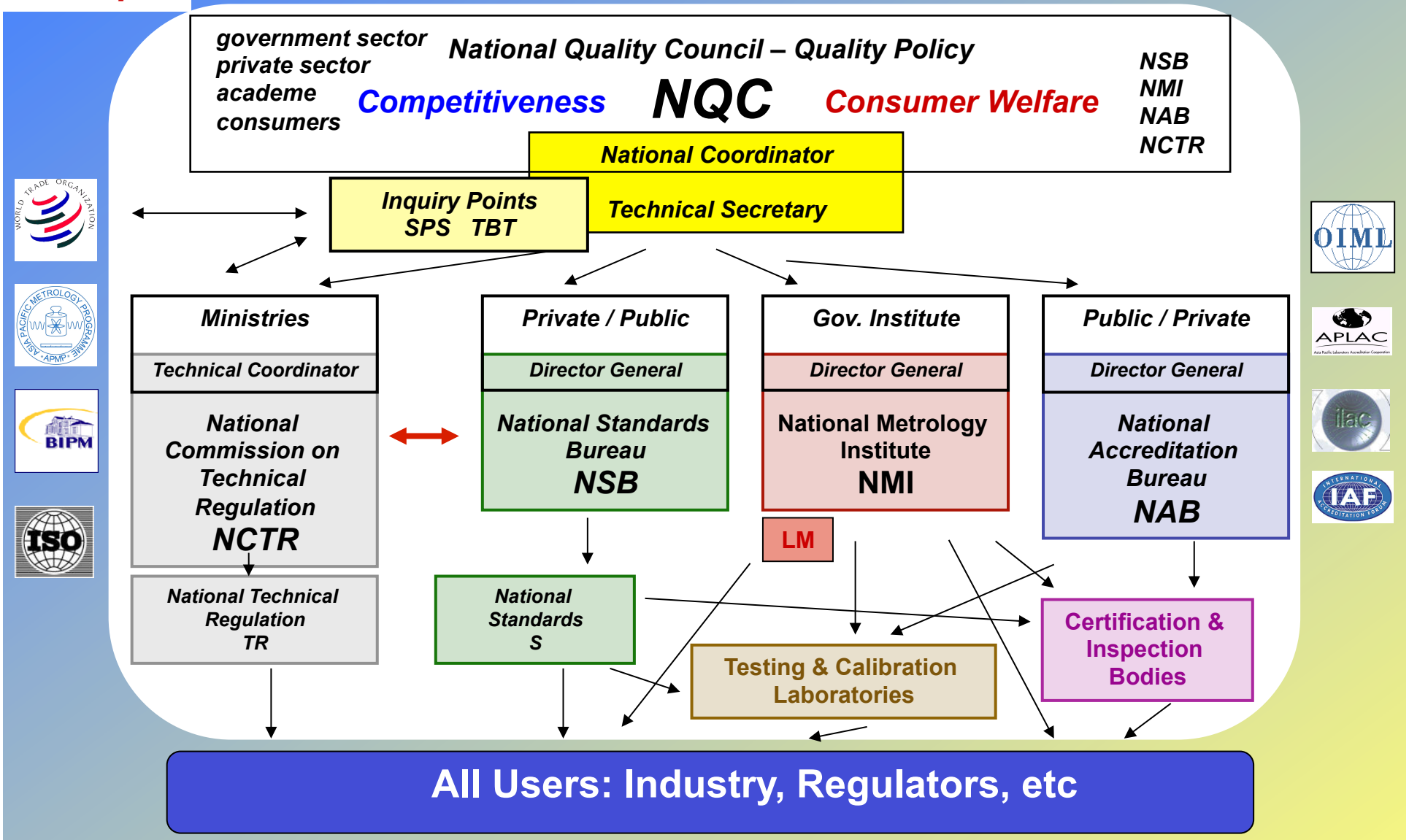


National Quality Infrastructure & Value Chain



Draft Example

National QUALITY INFRASTRUCTURE - NQI



Messages:

⇒ *Economic Development requires Added Value*

⇒ Competitiveness sustains Consumer Welfare

⇒ Productive sector must be highly dynamic

⇒ Customer oriented NQI must be dynamic too

⇒ NQI set-up must be independent, impartial, top management

⇒ Regulators consult NQI due to their high expertise

⇒ Law enforcement outsources to NQI services due to high competence and flexibility

⇒ Promotion of **Quality Culture**