



ASIA-PACIFIC  
LEGAL METROLOGY FORUM

**23<sup>rd</sup> APLMF Meeting**  
**Tokyo, Japan**

# Economy Report

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*[Republic of Korea]*

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## SECTION 1 – Organisation and structure for metrology

### Organisation Structures

Specialty	Scientific metrology	Legal metrology
<b>Organization</b>	<a href="#">Korea Research Institute of Standards and Science(KRISS)</a>	<a href="#">Korean Agency of Technology and Standards(KATS)</a>
<b>Business unit</b>		Commercial Trade Standards
<b>Manager</b>		Mi-Ae, Choi
<b>Location</b>	Daejeon-si	Eumseong-gun, Chungcheongbuk-do

Relevant organizations

- [Korea Testing Certification\(KTC\)](#)– Type approval & verification of measuring instruments
- [Korea Association of Standards & Testing Organizations\(KASTO\)](#)
- [Ministry of Food and Drug Safety\(MFDS\)](#) – Medical Devices
- [Ministry of Environment\(MoE\)](#) – Electric Vehicle chargers

### Legislative Frameworks

Measures Act 2015

Enforcement decree of the Measures Act 2015 (presidential decree)

Enforcement rule of the Measures Act 2015 (ordinance of the ministry of trade, industry and energy)

20 regulations

- 10 technical regulations related to testing 12 MIs`
- 10 by-laws for implementation of legal metrology

### International arrangements and engagement

**The 39<sup>th</sup> Korea-Japan cooperation committee for Legal Metrology between Korea and Japan**  
(`16.9.27 ~ 9.28/Jeju, Korea)

**MoU signed in the field of legal metrology between the Republic of Korea and China**  
- 1<sup>st</sup> Korea-China cooperation committee meeting (`16.3.18/Beijing, China)

**Participation in OIML Seminar on Metrology Management System** (`16.8.9~8.11/Guangzhou, China)

**Participation in International Forum on Metrology Promoting Industry** (`16.5.13~5.16/Xi'an, China)

## SECTION 2 – Key activities of 2015/16

### Working with industry

#### **New type approval & verification requirements for EV charger (embedded type only)**

In an effort to reduce emission of carbon di-oxide(CO<sub>2</sub>), Korea has implemented policies to facilitate eco-friendly vehicles, including electric vehicles. In order to support the policy, the Korean Agency for Technology & Standards (KATS) has established a working group with Korea Testing Certification (KTC) to develop new technical requirements of type approval & verification for electric vehicle portable charger and held meetings 6 times with stakeholders. In July 2016, KATS finally amended the technical requirements of electricity meter, including regulations of EV charger for the electricity vehicle.

### Protecting consumers

#### **'Consumer Watchdog' for an effective control in legal metrology**

Pursuant to Article 54 of Measures Act, consumer watchdogs (“consumer monitor”) have been appointed to monitor below actions since 2015.

1. Monitor non-legal units used in the market
2. Check whether re-verification & regular inspection of MI have been conducted
3. Support regular inspections of NAWI
4. Check whether corrective actions have been taken over defective MIs

As of 2016, 150 Consumer Watchdogs are recruited, and KASTO has conducted itinerant training to give them understanding of their roles. Their main activities are monitoring the use of non-legal units in the market, and checking whether re-verifications & regular inspections have been conducted over the MIs. Since Korea has used non-legal units to measure the area of land for over 100 years, the long tradition has now created problems mostly in real estates. The Consumer Watchdogs go around the real estate to check whether they are using the correct legal units(m<sup>2</sup>). As for the re-verification & regular inspection check-up, Consumer Watchdogs are focused on NAWIs used in the markets, and they are working hard in the field not only to check but also to encourage consumers to use legal units.



( Re-verification & regular inspection check )

## SECTION 3 – Future focus

### New initiatives planned (next 1-2 years)

#### Monitoring system of non-automatic weighing instruments in use

Non automatic weighing instruments are inspected in every 2 years in Korea. In order to increase the reliability of the result as well as to eliminate the burden to conduct the inspection, Korean government has supported the research to develop IT based monitoring system. The research focuses on IT based solution, which collects information, including inspection data, by using mobile phones and bar codes. Once implemented, it will be easy to track down the history of the weights, including information when it was inspected, whether the scale is accurate, and so on. It will also save time and efforts for paper works. Pilot program is planned to collect inspection report of the scales used in delivery service.

Information of NAWI will be collected by Consumer monitors and local officers. NAWIs for trade will be equipped with tools, such as bar code, QR code, NFC, and etc., to collect information prior to be placed in the market. This will be phased in near future.



Conceptual diagram of Monitoring System

### Emerging issues – challenges and opportunities

Korean government has allocated 36 billion dollars to foster new & renewable energy industry, including electricity or hydrogen vehicles until 2020. As such, smart metering for electricity and gas will be facilitated by 2022.

In line with this policy, KATS will support R&D to prepare for EV charger, hydrogen dispensers for vehicles and the smart metering system.