DIGITAL TRANSFORMATION

Regional Awareness Event



"Metrología para la Transformación Digital"



CON EL APOYO DE Industria y Comercio

UPERINTENDENCIA

intituto Nacion de Metrología

AGROSAV/A

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Digital Transformation in Legal Metrology at Colombia: Current Situation and Future Challenges.

Pedro Pérez Vargas

Leader of the Legal Metrology Group of the Superintendence of Industry and Commerce in Colombia







01. FIRST STAGE

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DIGITAL

TRANSFORMATION Regional Awareness Event

CERTIFICATE OF METROLOGICAL VERIFICATION

The information collected from the metrological verifications was carried out on paper and was not digitalized.

Sim SBID

Further, the number of inspectors were not enough to perform verifications to all of Colombia.

Faced with the measurement instruments that entered the country, any instrument could be traded in the market, regardless of its quality and a calibration certificate was required periodically in accordance with the provisions of the manufacturer.

The calibration of the measuring instruments was carried out by the INM .



2

3



CONCLUSIONS

The information from the metrological control verifications were not public.

The number of metrological verification records was uncertain, as there was no computer tool that would allow the information collected from them to be stored.

Approximately 13 people carried out the metrological checks throughout Colombia, therefore it was not possible to carry out checks on all measuring instruments and prepackaged products.





02. SECOND STAGE



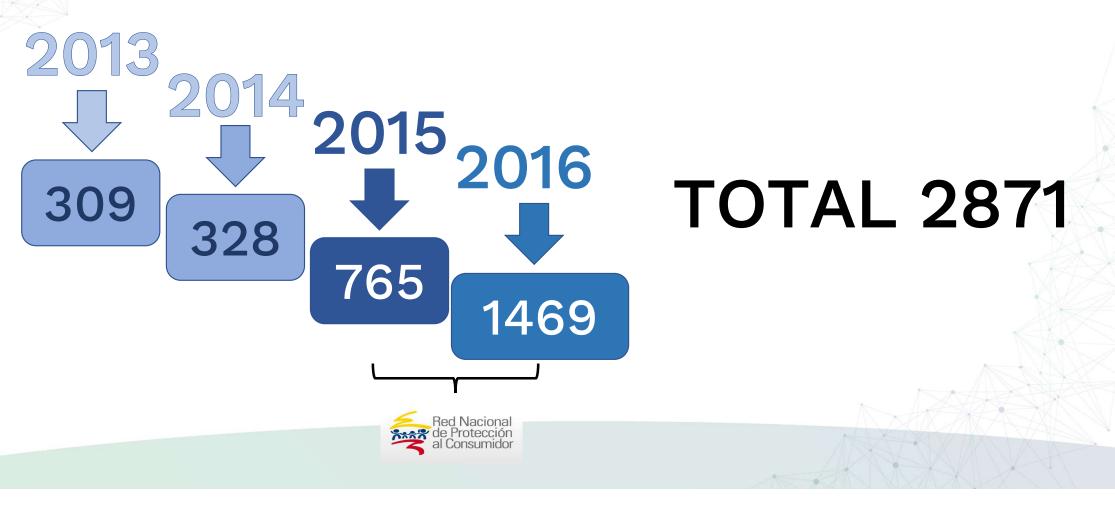


The Superintendency of Industry and Commerce created a system of procedures that allowed digitizing part of the information from the metrological verifications that were carried out.

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NUMBER OF INSPECTIONS 2013 - 2016





2

3



CONCLUSIONS

The information system is public and allows consumers to see, according to the filing number, the result of the verifications carried out.

The need to Increase the coverage of metrological verifications and the control of new instruments throughout Colombia continues.

It is necessary to think about the creation of metrological technical regulations for measuring instruments and also establish requirements for producers, manufacturers, importers and owners of the same.

The need to Increase the coverage of metrological verifications and the control of new instruments throughout Colombia continues.



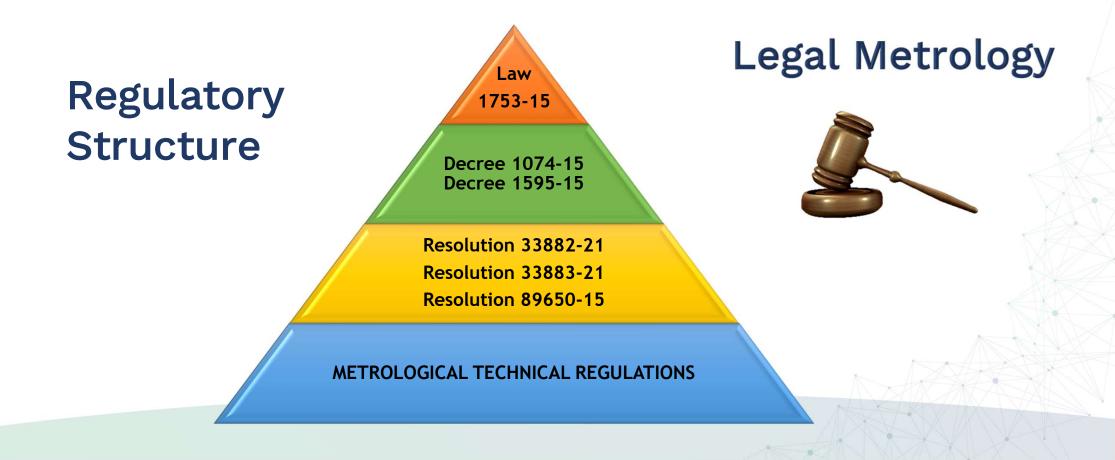


03. THIRD STAGE

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NEW APPROACH TO CONTROL METROLOGICAL





METROLOGICAL CONTROL AUTHORITIES





MUNICIPAL MAYOR

Designated to carry out metrological checks



AUTHORIZED METROLOGICAL VERIFICATION BODIES - OAVM



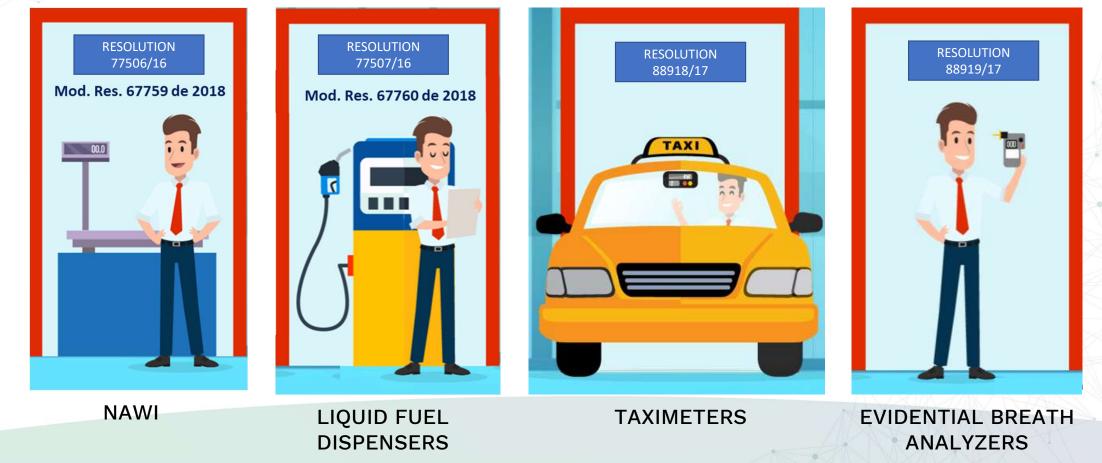
AUTHORIZED METROLOGICAL VERIFICATION BODIES





SIC TECHNICAL REGULATION



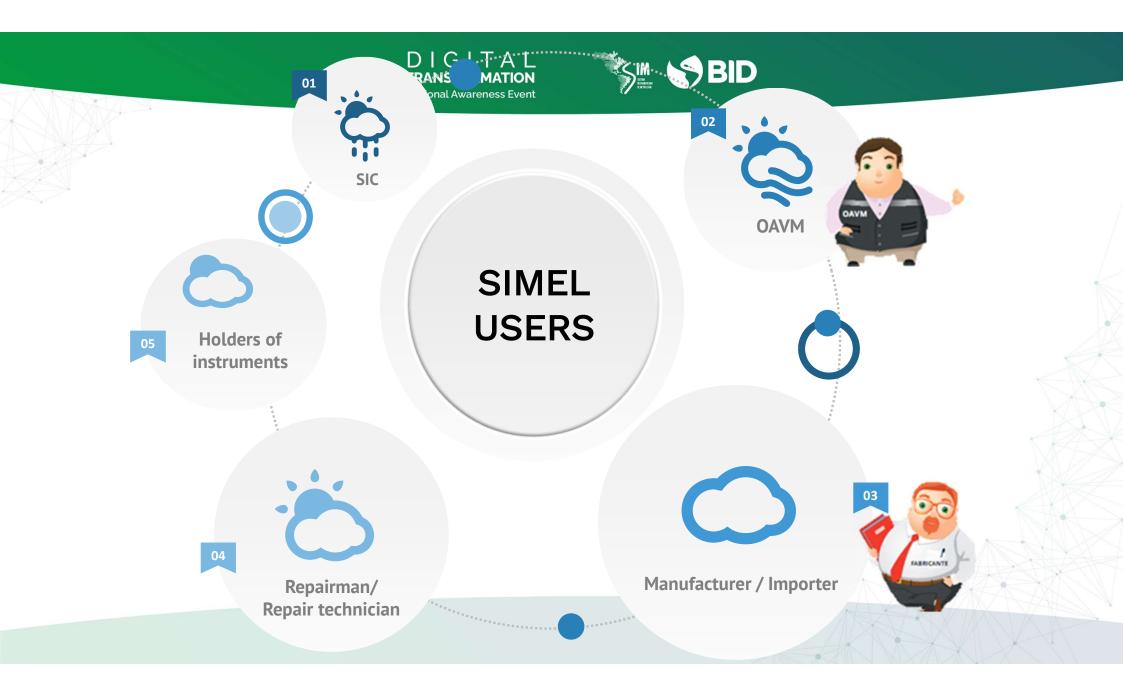




Created by the Superintendency of Industry and Commerce Integrates all the information on legal metrology of the country

Actions of those involved in metrological control:

- Producers or importers
- Measuring instrument holders
- Repairmen
- OAVM and the administration as guarantor of security





MEASURING INSTRUMENTS REGISTERED IN SIMEL (CENSO)

CENSUS				
INSTRUMENT	QUANTITY			
NAWI	35.652			
Truckscale	301			
Fuil dispensers	13.891			
Total	49.844			



Superintendencia de Industria y Comercio

Regularización No.

Fecha: AA/MM/DD

Razón Social del OAVM:__

Instrumento de pesaje de funcionamiento no automático regularizado

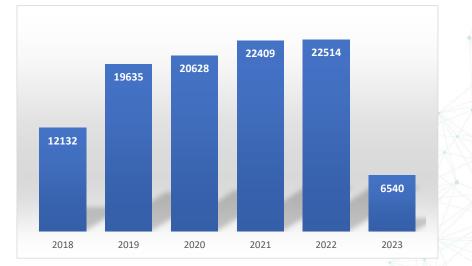


* Information updated until 03 may, 2023



VERIFICATION REGISTERED IN SIMEL

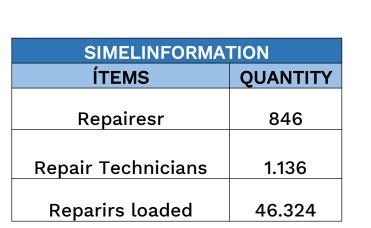
VERIFICATIONS 2018-2023 (MAY)				
INSTRUMENT	# VERIFICATION			
NAWI	53.494			
Truck scale	1.416			
Fuel dispensers	48.948			
TOTAL	103.858			



* Information updated until 05 may, 2021



REPAIRERS AND REPAIR TECHNICIANS



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* Information updated until 05 may, 2023



CONCLUSIONS

The measuring instruments are periodically checked and must comply with the maximum permissible errors.



The SIC has an accredited calibration laboratory for mass and volume quantities.

There is the Legal Metrology Information System –SIMEL, which allows obtaining documentation, statistical data and status of the measurement instruments. New instruments must demonstrate conformity in accordance with the corresponding technical metrological regulations.

OIML BULLETIN



https://www.oiml.org/en/publications/bulletin/pdf/oiml_bulletin_april_2023.pdf



OIML BULLETIN

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Quarterly Journal

Organisation Internationale de Métrologie Légale



Legal metrology in the Regions: Special RLMO edition

evolution

RLMO FEATURE: SIM

Status of legal metrology in the SIM Region

PEDRO PÉREZ¹ JUAN CAMILO DURÁN² LINA GARAVITO³

Introduction

A number of authors on metrology-related subjects cited in the Bibliography agree that legal metrology is beneficial to those economies that implement it (Ardianto R., October 2022); (Rodrigues, July 2017), (Masson, April 2017). Although there are not many publications that collect information on the performance of countries in terms of legal metrology, it has nevertheless been possible to identify approaches to the performance of legal metrology in countries such as Brazil (Rodrigues B., January 2017), Indonesia



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(Archanto K, Uctober 2002), Jowenau (Vukors, April 2009), Jordan (Melhem, April 2009) and Germany (Kochusiek M, October 2004). However, even when there are regions that have a number of standardized regulations (such as the WELMEC some in Europe) it is not an easy task to find a bibliography that compares different economies in the same region and that establishes the gaps that separate these economies in terms of legal metrology. The work promoted by the OIML, especially during

The work premoted by the OIML, especially during the meetings of the Round Table of Regional Legal Metrology Organizations (RLMO RT), has opened the door to considerable interaction between the regions by providing regular reports from these geographical areas, allowing an even broader picture to be gained of "what could be had" if we simply continued talking within individual economies, which in turn promotes discussion on the problems and needs in each region (Ehrlich, 2022).

The Inter-American Metrology System (SIM) is made up of 33 economies with a wide spectrum of differences, not only with respect to their economic development but also with respect to their development in terms of metrological control. The intention of this paper is to compare four economies in the SIM Region, in six fundamental aspects related to their respective work teams in charge of control and surveillance in legal metrology:

 Time of operation since its creation and size of the work team;

- 2. Type of membership of the OIML;
- Number of measuring instruments regulated;
 Number of verifications carried out within a specific
- period of time; 5. Issuance of certificates and acceptance of OIML-CS documents; and

6. Punitive power of the metrology authority.

The countries for which this analysis and comparison have been carried out are Brazil, Colombia, Ecuador, and Costa Rica and the information collection method consisted mainly of interviews with the leaders of the working groups of these countries.

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04. QUARTER STAGE



PREPACKAGED PRODUCT INFORMATION SYSTEM

A <u>unified information</u> system on prepackaged products, where each country can upload the information on the metrological control it has carried out.

Centralize the rapid exchange of information between the control authorities of the countries, providing reliable, timely and truthful information on the verifications realized on prepackaged products.



System that <u>allows data</u> <u>analysis</u> such as: products that are most verified, country with the highest number of noncompliances, products with non-compliances.

System that allows control authorities to organize <u>metrological verification</u> <u>operation and strategies</u>.



NEW THECNICAL REGULATION

GAS METERS





WATER METERS





ENERGY METERS





¡Thanks!

CON EL APOYO DE

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