

WORKING GROUP INTEGRATION OF STATISTICAL AND GEOSPATIAL INFORMATION – GT-IIEG Activity report 2018

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La Información Geográfica de Colombia



Working plan

1



Integration of statistical and geospatial information

2



To promote the use of data and geospatial information in decision-making and design public policies

3



Standards to facilitate and ensure statistical and geospatial information integration quality

December 2021

May 2018





Results

July 2018	December 2018	December 2018	March 2019	December 2019	December 2020
Geographic layers containing defined attributes of each of the Member States	MEGA 1.0 with 2018 dwelling and people information	Updated web link of the Working Group	Report of MEGA Version 1.0	MEGA 1.0 with 2019 dwelling and people disaggregated by sex	MEGA 1.0 with 2020 information on dwelling and people disaggregated by sex
December 2020	December 2021	December 2019	December 2020	March 2021	December 2021
MEGA 1.0 glossary of terms updated	MEGA 1.0 with 2021 information on dwelling and people disaggregated by sex	Preliminary proposal for MEGA 2.0.	Pilot test designed and implemented	Report of results and evaluation	MEGA version 2.0.



Objetivo

2

Results

July 2018

Methodology to recognize geospatial empowerment in the public policy cycle

December 2018

Proposal document of evaluation of environment capacities for public policy development under the geospatial empowerment in concept

June 2019

Formulation document of a pilot plan to develop capacities for geospatial empowerment in risk and disaster management public policy in Colombia

December 2020 - 2021

Annual report and results of the pilot plan implementation in Colombia and at least one country of the focal points

December 2019 – 2020 - 2021

Results of pilot plan feedback with the risks and disasters management working group

Objetivo

3

Results

May
2018 

Document of diagnosis of statistical standards susceptible to be adopted and to be integrated with geographic standards

July
2018 

Identification and implementation of statistical standards to take into account in later phases of MEGA and to be integrated with geographic standards

April
2018 

Survey designed and sent to the participating countries of MEGA

September
2019 

Survey Applied to MEGA participating countries

December
2018 

Profile and template of statistical and geographic metadata to be applied in the information to be registered in MEGA

Objective

3

Results

May 2019	December 2019	March 2020	May - March 2020 - 2021	June 2020	December 2020 - 2021	December 2020 - 2021
Document of guidelines for the development of metadata in the MEGA and update of standardization documents for statistical and geospatial information in English and Spanish versions	Academic material (slides, scripts, audios and videos) in Spanish and English versions	Metadata online course prepared and produced	Metadata online course in the production environment	Evaluation and joint definition of additional standards structure to be considered in the integration of statistical and geospatial information.	Guide(s) supporting the adoption of at least one additional standard, developed in Spanish and English versions	Updating “Metadata” section of the Statistical and geospatial information standardization documents

WG Spatial Data Infrastructure



SDI Maturity level tool



WG Disastres

Spatially enabled policy
(risk and disasters)



2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

- ✓ Methodology to recognize spatial enablement in a public policy
- Public policy formulation
- Public policy monitoring and control



Colombian case: Law 1523 / 2012: National disaster risk management policy - National Disaster Risk Management System (SNGRD).

2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

- Legal framework
- Common data integration concept
- Positioning infrastructure
- SDI - Spatial Data Infrastructure
- Landownership information
- Data and information concepts



2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

▪ Legal framework:

- ✓ Relationship between people and land (rights, restrictions and responsibilities). Formalization of property.
- ✓ Legislation (use, responsibility, quality and responsibility).
- ✓ Information exchange rules.
- ✓ IDE laws and regulations as an enabling platform.



<https://smartdataforum.de/en/smart-data/smart-data-governance/legal/>

2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

■ Common data integration concept:

- ✓ Information complete.
- ✓ Total coverage of the territory.
- ✓ Legal/institutional independence.
- ✓ Data available to other parties and institutions not being owners of the individual data sets.
- ✓ Integration-friendly data structure (1).
- ✓ Standardized data modelling concept (2) – standards.
- ✓ Fundamental data.
- ✓ Common geodetic reference framework (A/RES/69/266) (3)



Common geodetic
reference framework

<https://mydata2017.org/programme/ourdata/>

2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

■ Positioning infrastructure:

- ✓ Global Navigation Satellite Systems for geodesy, surveying and for geo-spatial data capture (the most truly global infrastructure available today).
- ✓ Continuously Operating Reference Stations (CORS) to improve accuracy and/or reliability for users.
- ✓ CORS (1): IGS-class CORS for the Nation .
- ✓ CORS (2): IGS Quality but Higher Density.
- ✓ CORS (3): Real-Time Net- work.



2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

■ SDI - Spatial Data Infrastructure:

- ✓ Social and technical components.
- ✓ Interoperability
- ✓ Capacity at different levels and institutions.
- ✓ Need to solve problems of incompatibility of information: simple language of data integration so that society in general is part of the SDI.
- ✓ SDI with state, private and civil society actors: which must actively participate in its design, implementation and maintenance.



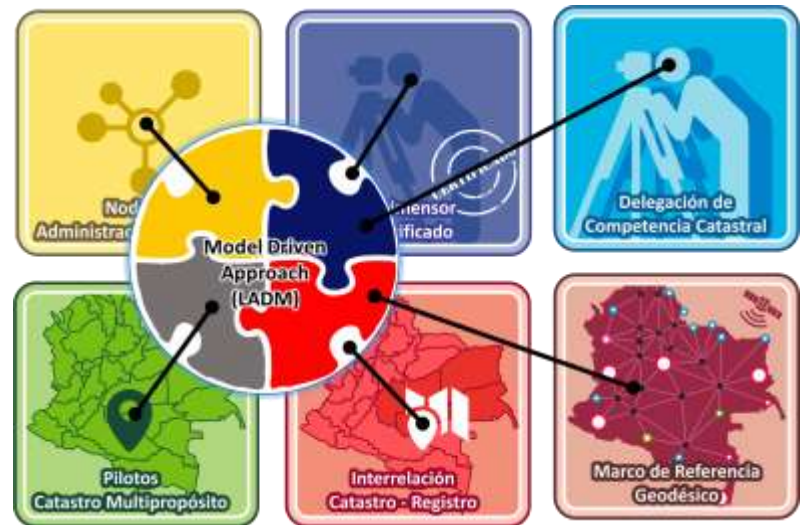
<http://www.geoenterprice.com/infraestructura-de-datos-espaciales-ide>

2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

Landownership information:

- ✓ Establish the authority and the information systems that attend the formalization of the property.
- ✓ Have data of national coverage. The cadastre is the center of the spatial enablement.
- ✓ Define data collection, processing and dissemination standards.



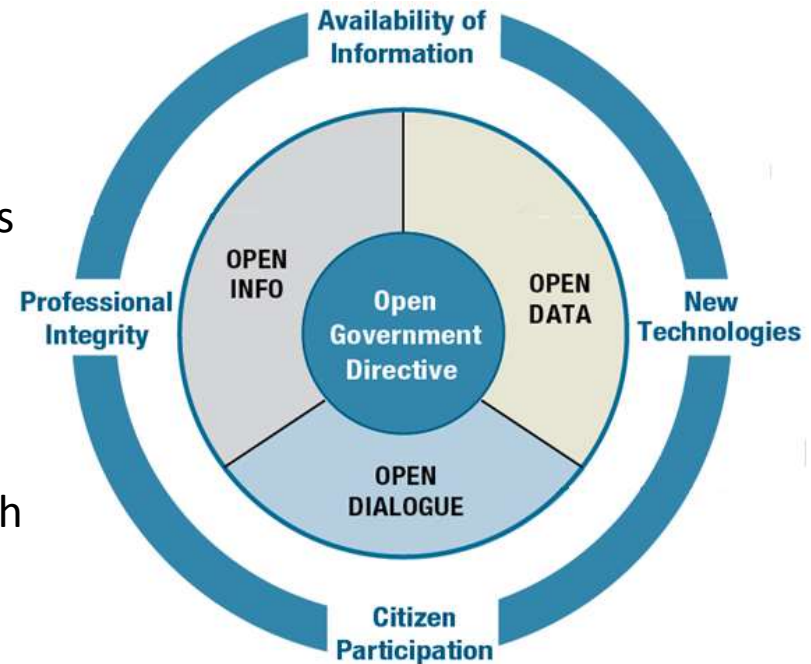
Source: Project for the Modernization of Land Administration in Colombia, 2017

2. To promote the use of data and geospatial information in decision-making and design public policies

Spatial enablement in a public policy

■ Data and information:

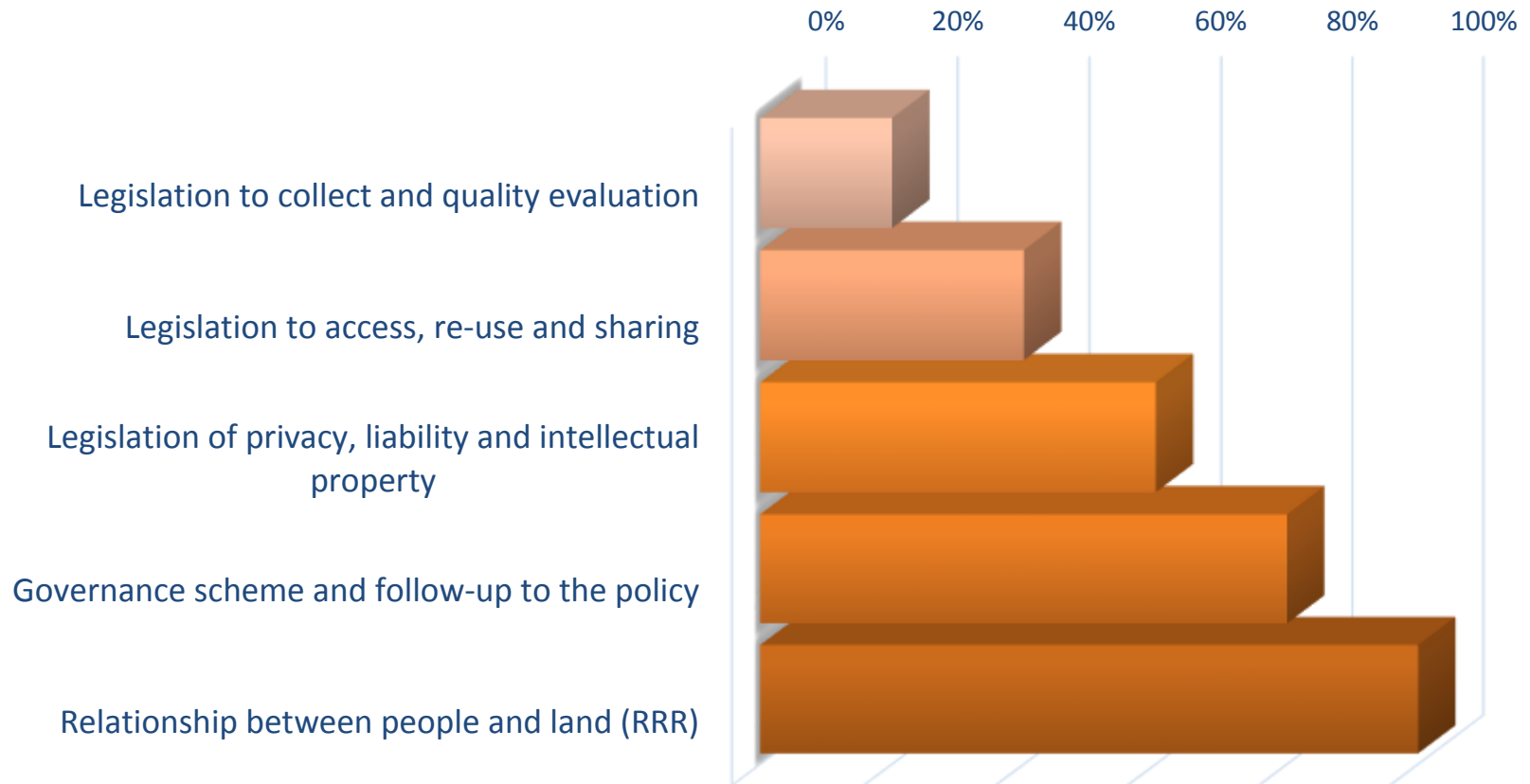
- ✓ Open data: government data in a useful format for citizens, private sector and NGOs for innovation and added value.
- ✓ Open information: proactive disclosure of information about government activities.
- ✓ Open dialogue: citizen participation through Web 3.0 technologies.



<https://open.canada.ca/en/content/canadas-action-plan-open-government-2014-16>

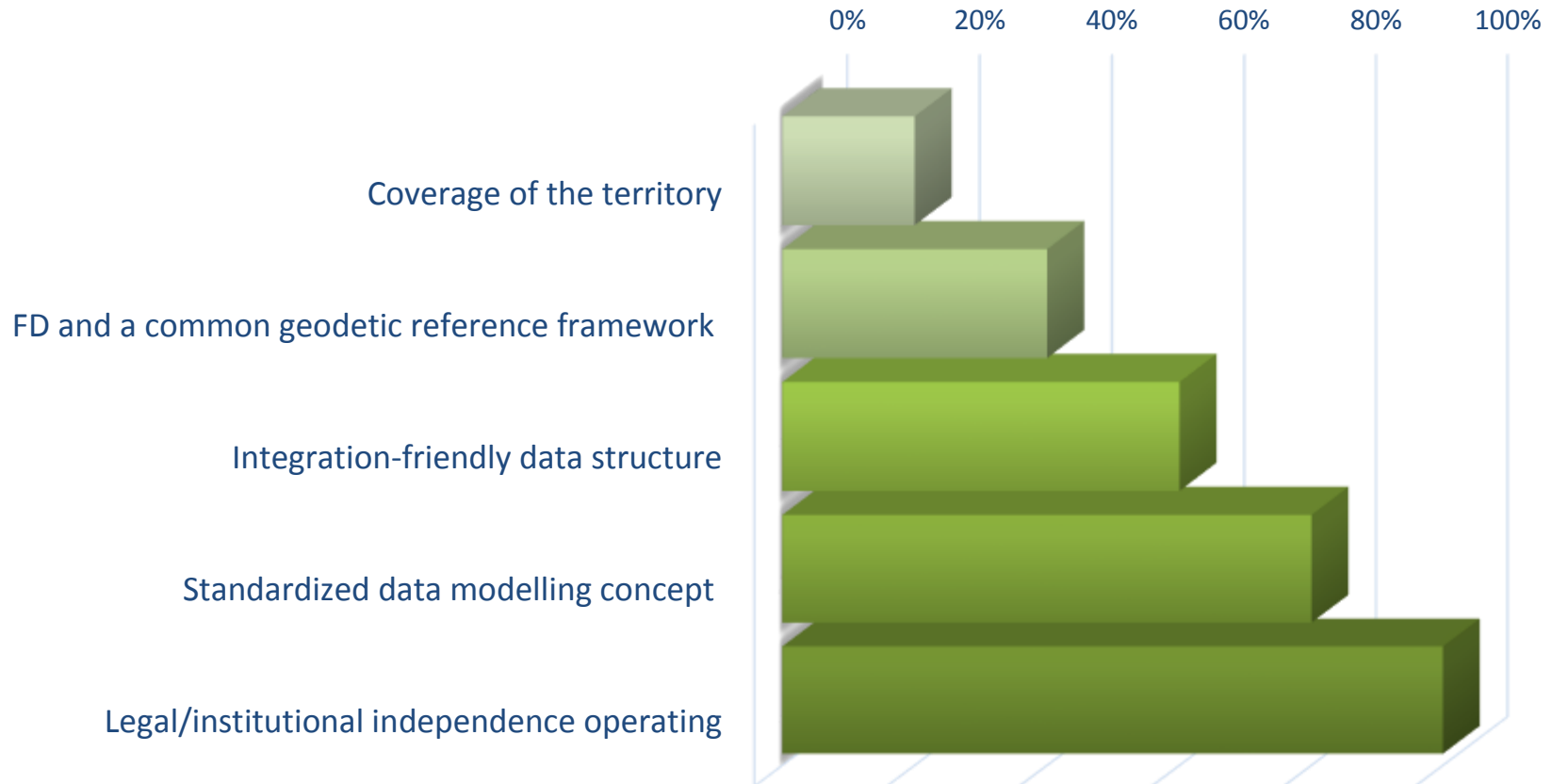
2. To promote the use of data and geospatial information in decision-making and design public policies

Environment capacities for public policy development – Legal framework



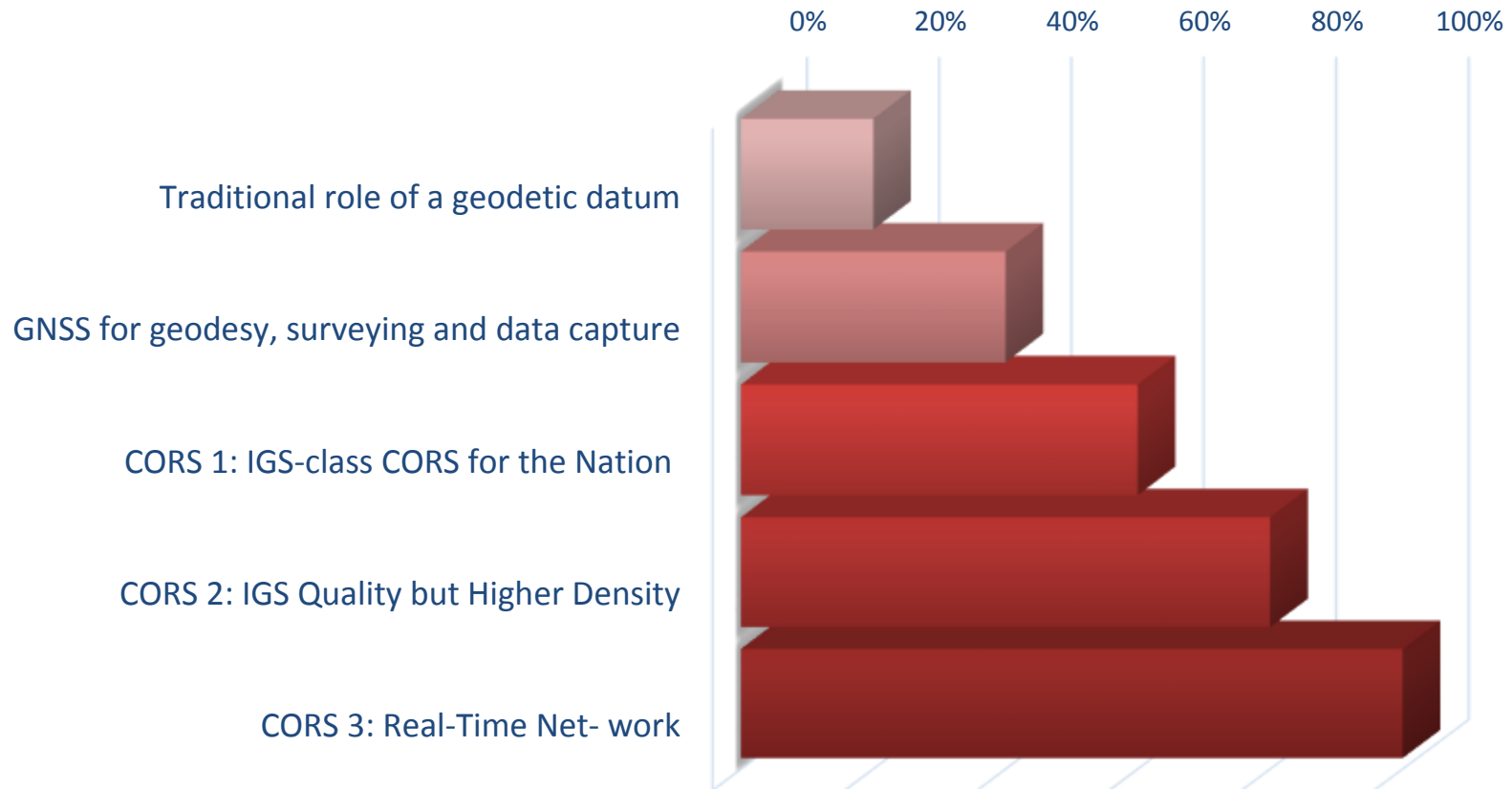
2. To promote the use of data and geospatial information in decision-making and design public policies

Environment capacities for public policy development – Common data integration



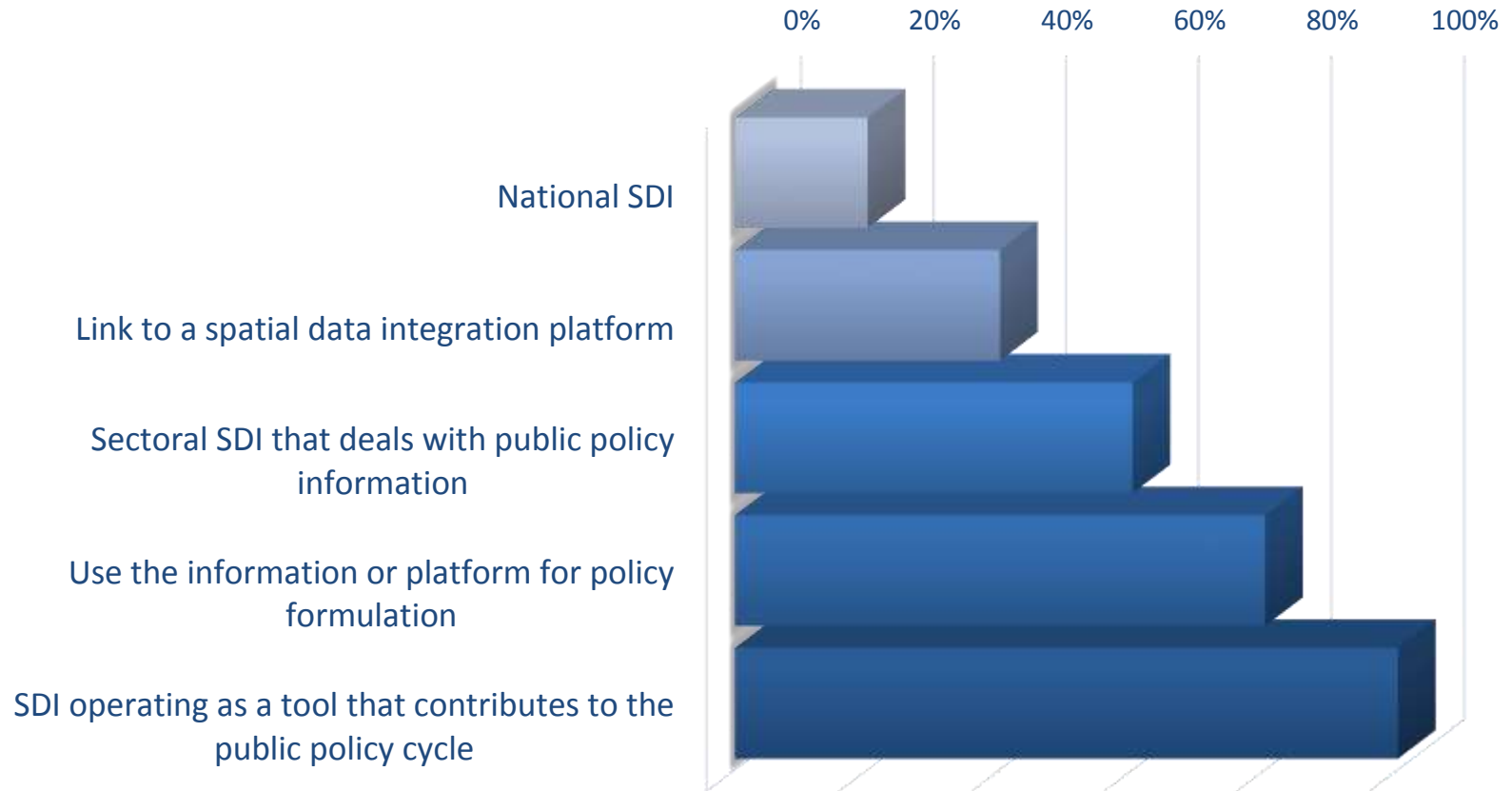
2. To promote the use of data and geospatial information in decision-making and design public policies

Environment capacities for public policy development - Positioning Infrastructure



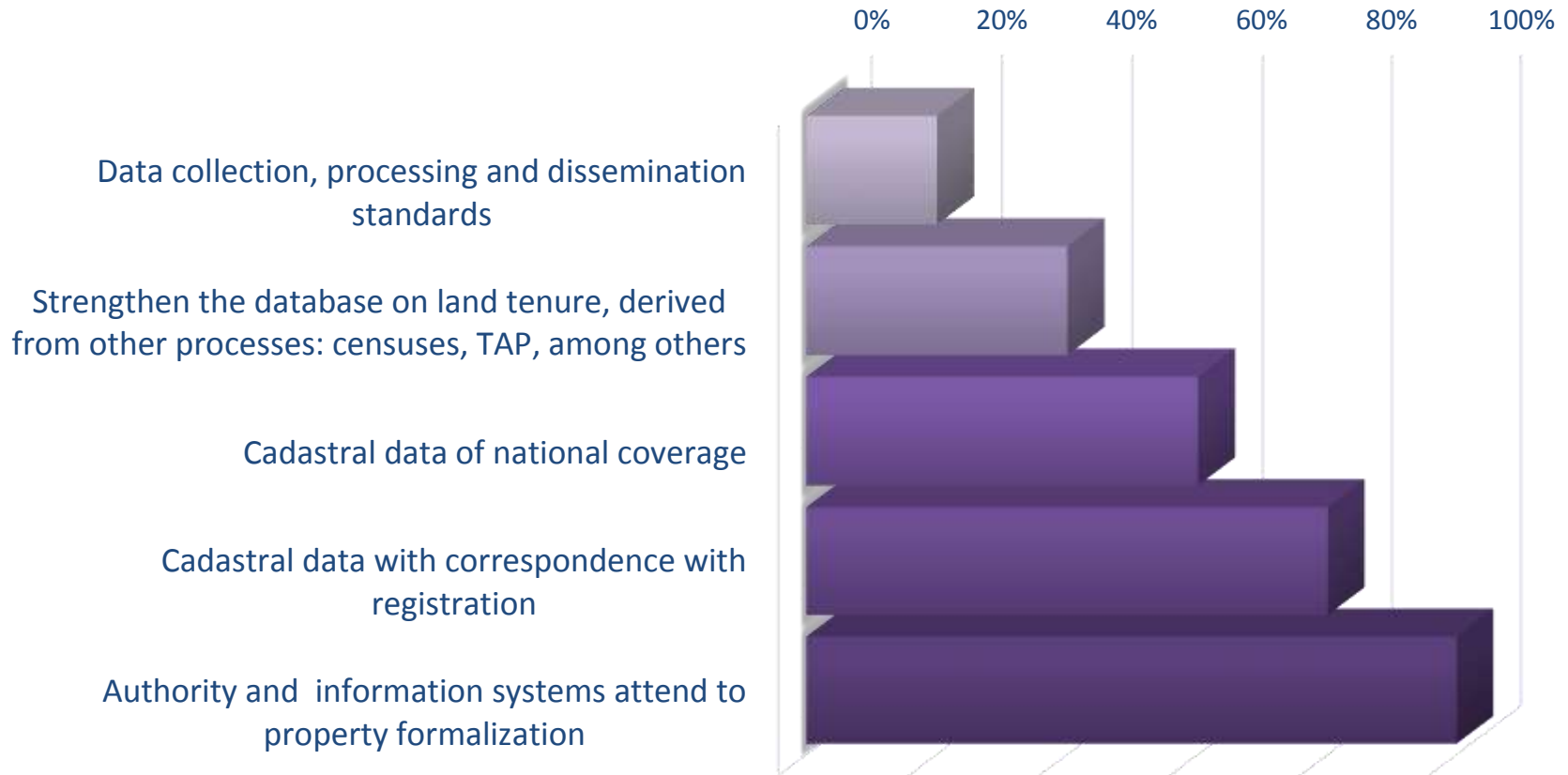
2. To promote the use of data and geospatial information in decision-making and design public policies

Environment capacities for public policy development - SDI



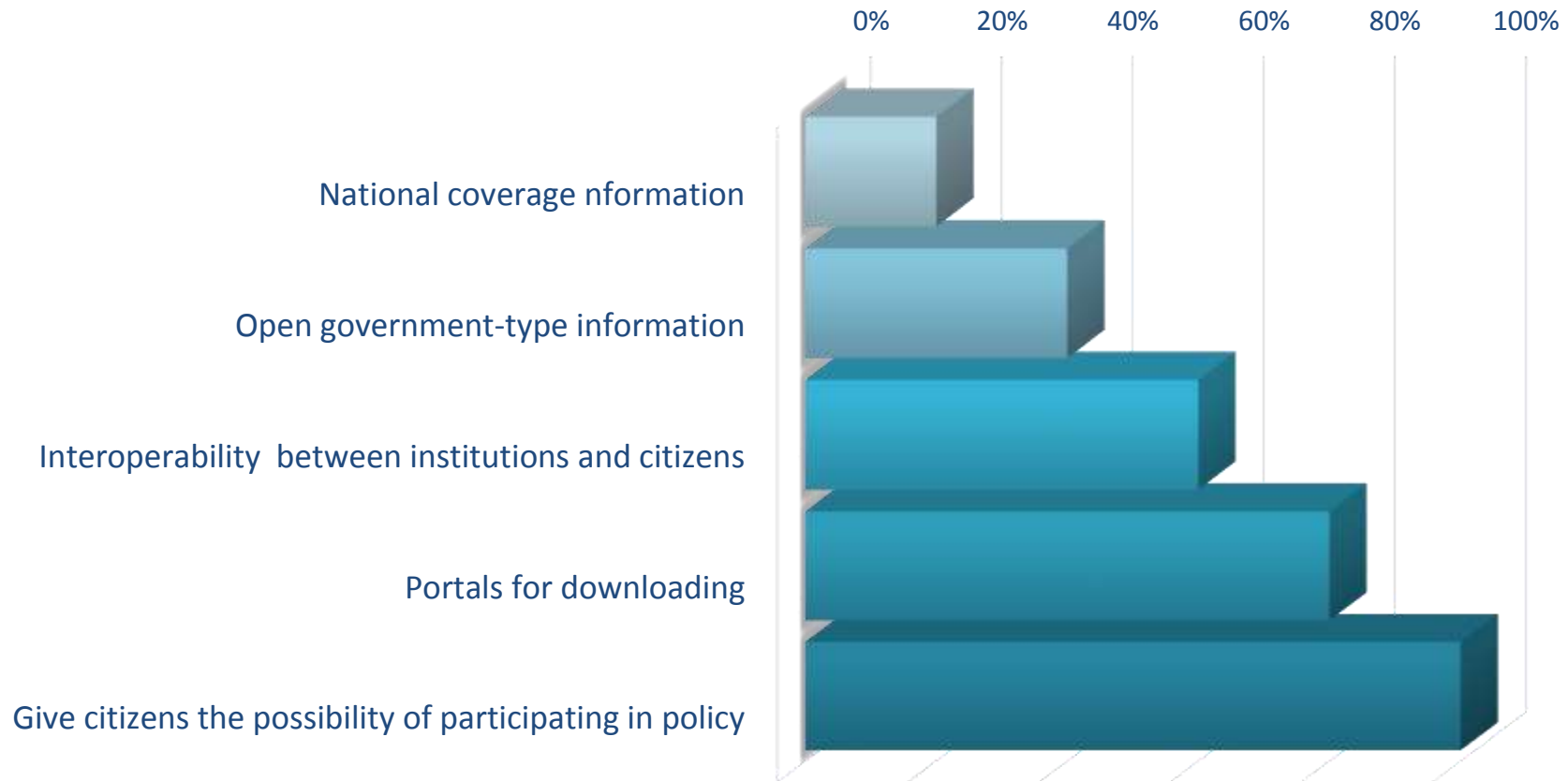
2. To promote the use of data and geospatial information in decision-making and design public policies

Environment capacities for public policy development - Landownership information



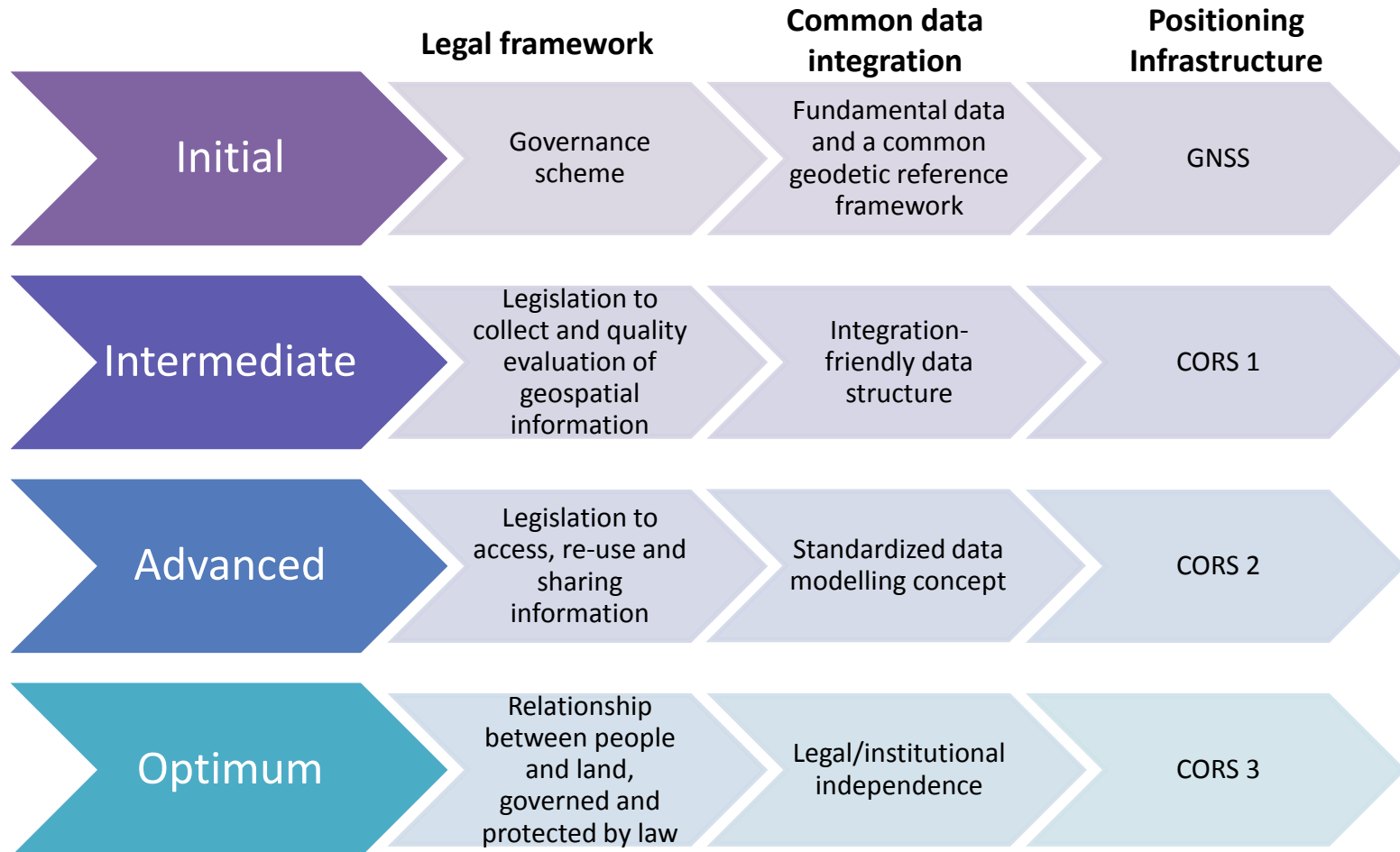
2. To promote the use of data and geospatial information in decision-making and design public policies

Environment capacities for public policy development – Data and information



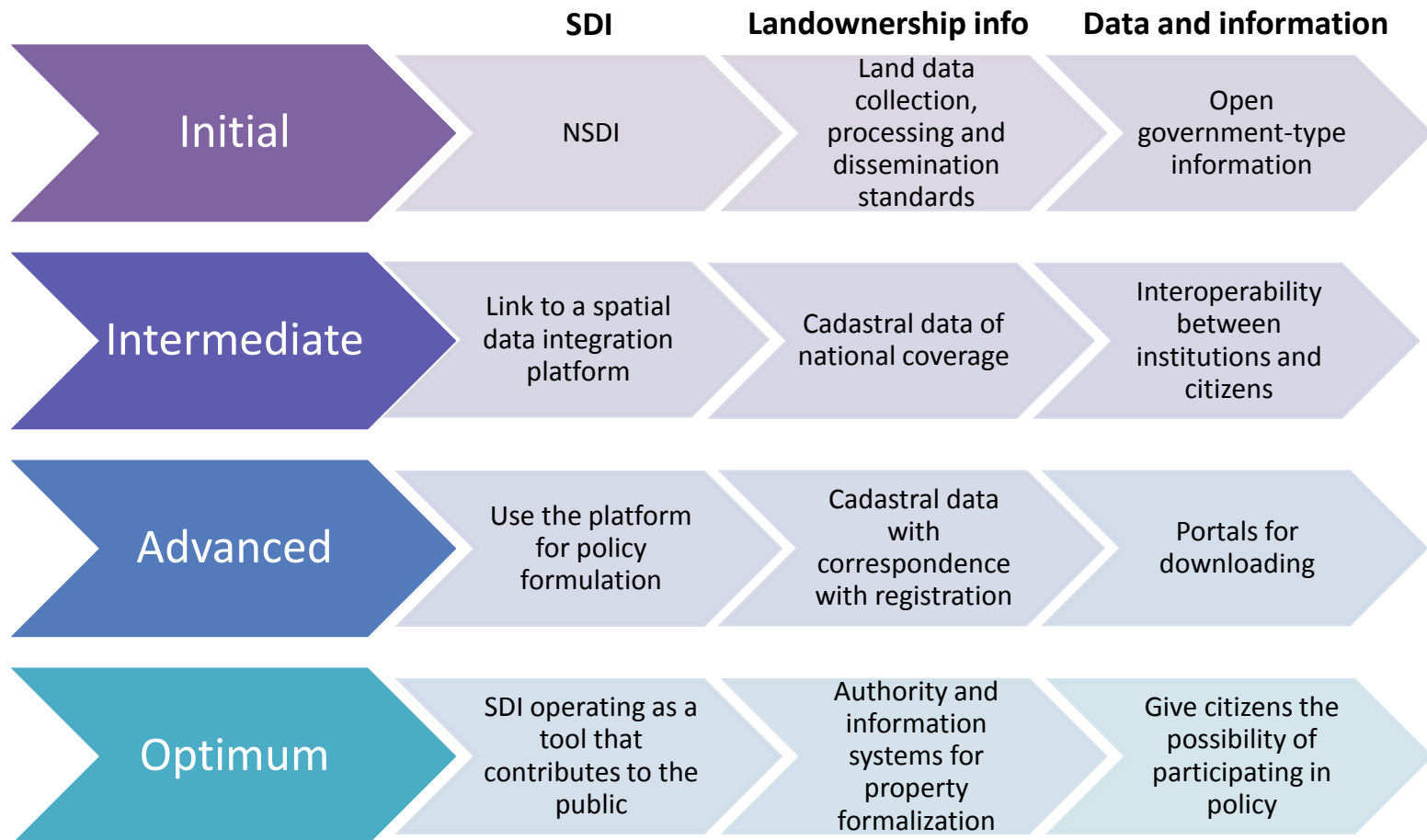
2. To promote the use of data and geospatial information in decision-making and design public policies

Proposal of evaluation of environment capacities for public policy



2. To promote the use of data and geospatial information in decision-making and design public policies

Proposal of evaluation of environment capacities for public policy



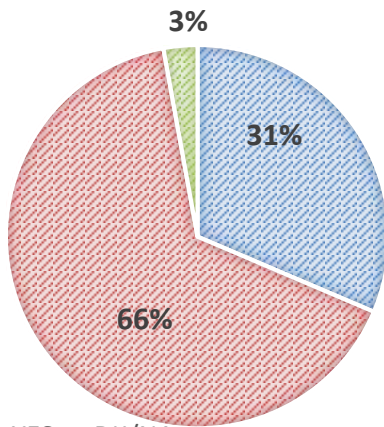
3. Standards to facilitate and ensure statistical and geospatial information integration quality

Metadata profile: geographic and statistical information

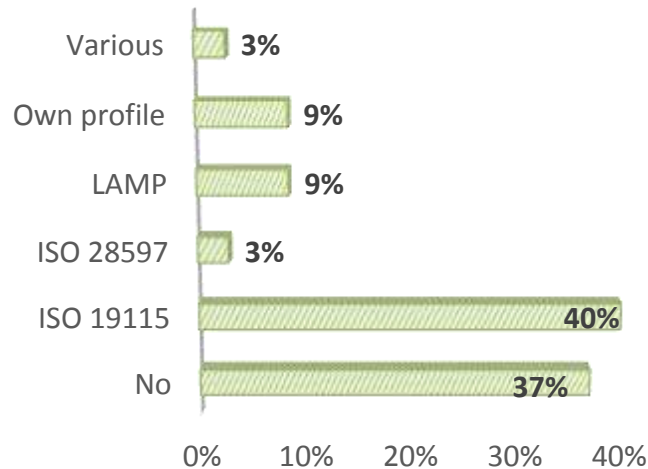
- ✓ Survey designed and applied to the participating countries of MEGA.

Identification of geographic metadata profiles used in the region

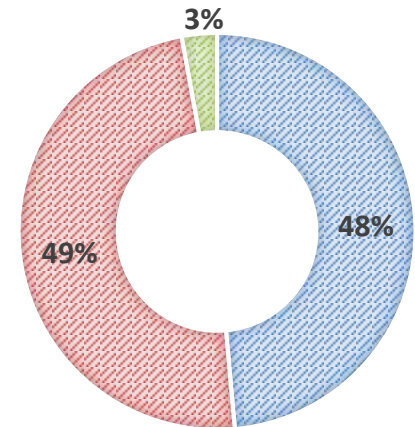
- Use of metadata standard:



- Metadata Profile:



- Own Metadata Profile:

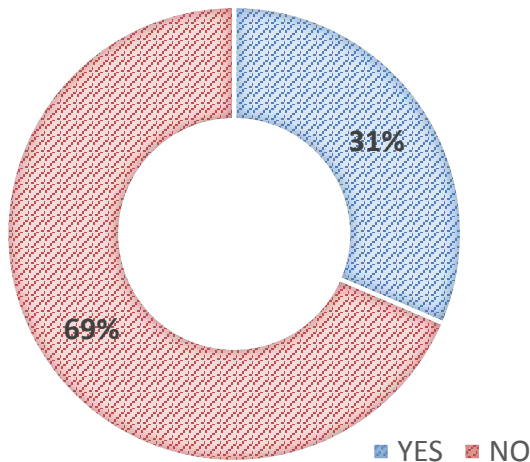


3. Standards to facilitate and ensure statistical and geospatial information integration quality

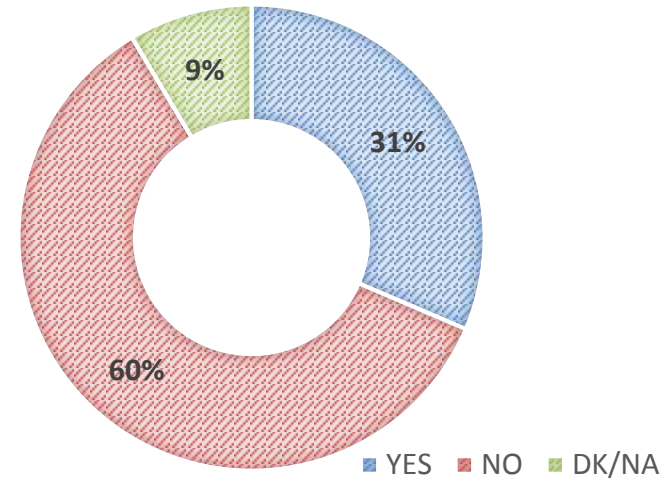
Metadata profile: geographic and statistical information

Use of the Latin American Metadata Profile (LAMP 2) in the region

- LAMP knowledge and Use:



- Training in the Use of LAMP:

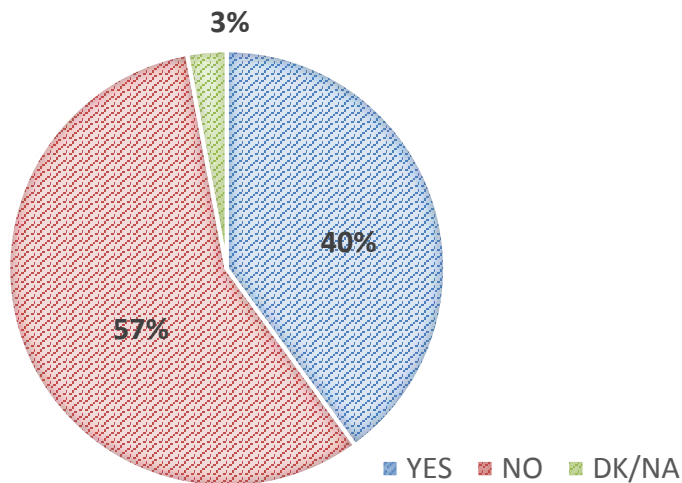


3. Standards to facilitate and ensure statistical and geospatial information integration quality

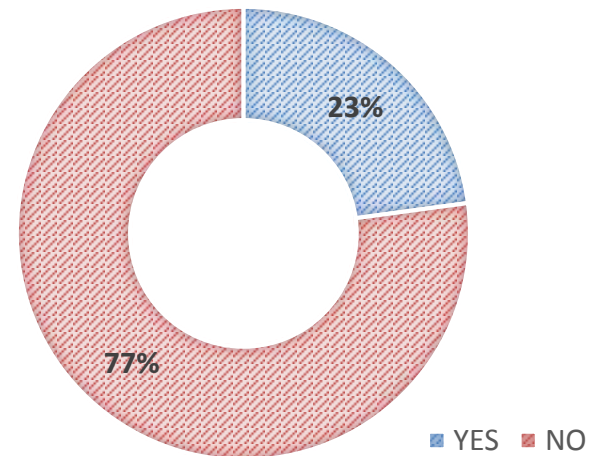
Metadata profile: geographic and statistical information

Identification of statistical metadata standards used in the region

- Use of statistical metadata standard:



- Statistical metadata profile:

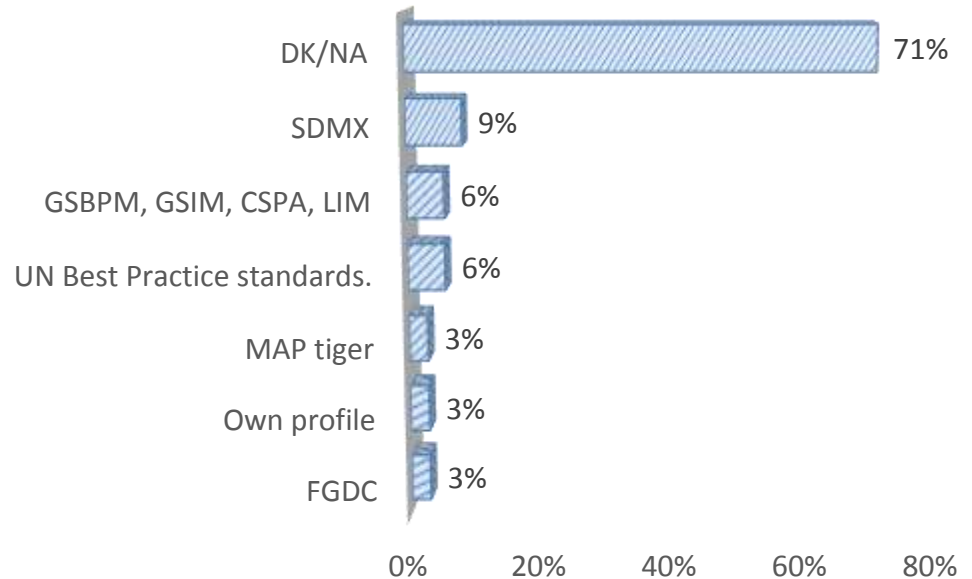


3. Standards to facilitate and ensure statistical and geospatial information integration quality

Metadata profile: geographic and statistical information

- ✓ Diagnosis of statistical standards susceptible to be adopted and to be integrated with geographic standards

SDMX: Statistical Data and Metadata eXchange
GSBPM: Generic Statistical Business Process Model
GSIM: Generic Statistical Information Model
CSPA: Common Statistical Production Architecture
LIM: Logical Information Models



3. Standards to facilitate and ensure statistical and geospatial information integration quality

- Profile and template of statistical and geographic metadata to be applied in the information to be registered in MEGA.

Metadata profile proposal

A common standard for data documentation based on the Latin American Metadata Profile (**LAMP v.2**) and ISO 19115-1: 2014 Geographic Information - Metadata - Part 1.



Finding: normative inconsistency between ISO19115-1 and ISO19115-3

ISO 19115-3 Plugin for Geonetwork, to allow the adoption of ICDE and MEGA metadata profile proposal in Geonetwork

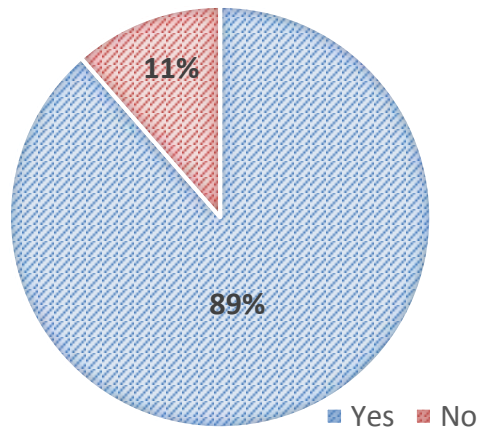
- Plugin libraries translated to spanish
- installation manual of plugin in Spanish
- Metadata profile document
- Metadata profile support formats
- Profile files *.xml



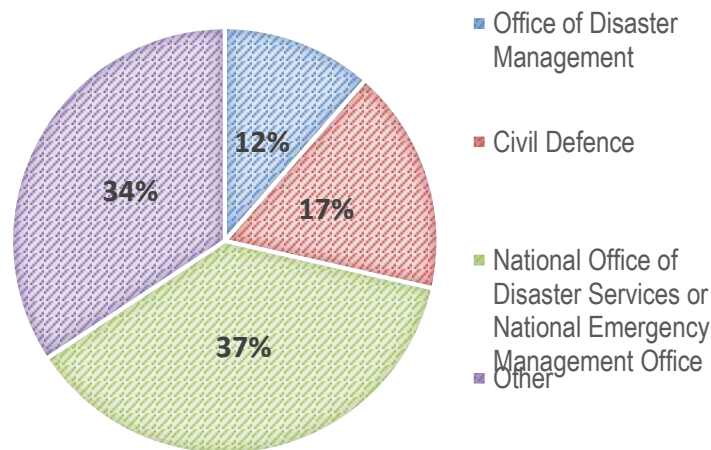
3. Standards to facilitate and ensure statistical and geospatial information integration quality

Disaster Risk Management

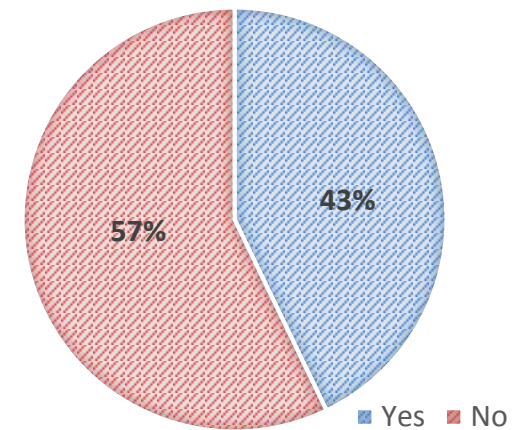
- Use of the law, decree or rule that regulates risk management:



- Entities for risk management



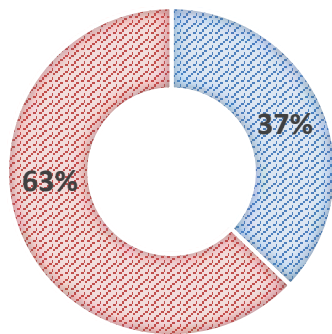
- Use of Geoportal, Viewer or other



3. Standards to facilitate and ensure statistical and geospatial information integration quality

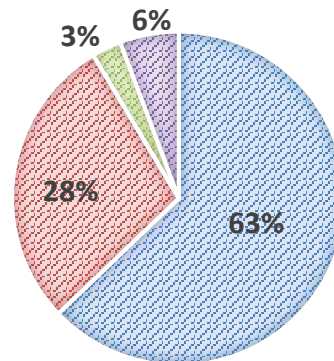
Spatial Data Infrastructure: Geographical Information

- Use a Spatial Data Infrastructure oficial



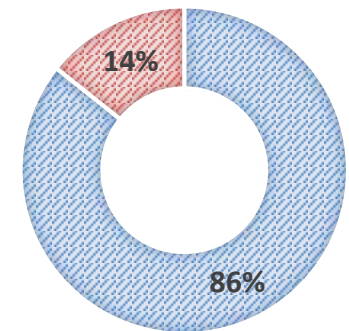
■ Yes ■ No

- Municipalities that have risk and disaster updated information



■ 0 - 25 %
 ■ 26 - 50 %
 ■ 51 - 75 %

- Use a mechanism for monitoring or tracking the production of information at the municipality level

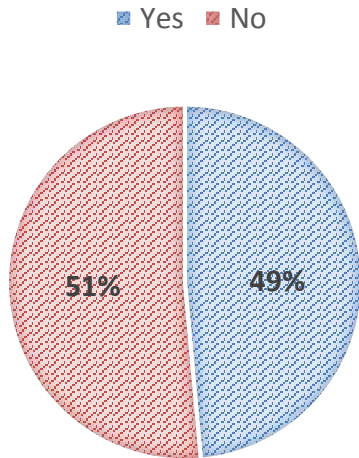


■ Yes ■ No

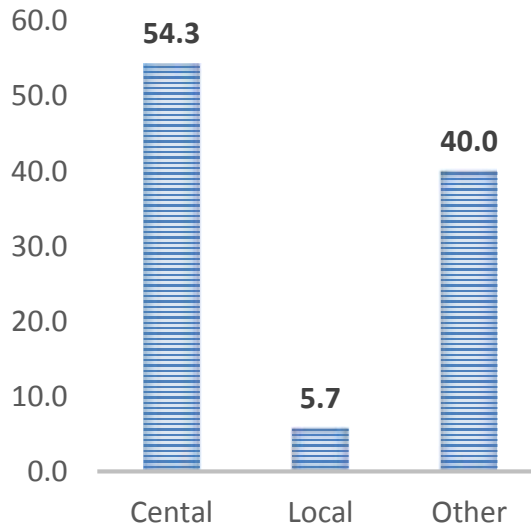
3. Standards to facilitate and ensure statistical and geospatial information integration quality

Information for Risk Management:

- Use a financing model:

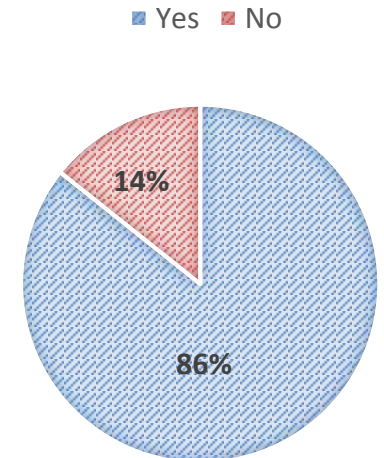


- Type of financing model:



Geodetic Network

- Has a geodetic network:



Why the **effort**?

Para qué el esfuerzo?

Change of **business** model

Cambio del modelo de negocio

More and more **information**, How not to let it get lost?

Cada vez más información, ¿cómo no dejar que se pierda?

Collaboration and **trust**

Colaboración y confianza

Investigation

Investigación

Knowledge

Conocimiento

Innovation

Innovación

Public value chain

Cadena de valor público

Servicios



Centro de Conocimiento



Geocontenidos Web



Catálogo de Metadatos



Portal Geográfico Nacional

<https://www.igac.gov.co/>

<http://pgn.igac.gov.co/>

<http://metadatos.igac.gov.co/geonetwork/srv/spa/catalog.search#/home>

<http://www.icde.org.co/>

Thank you

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