Working Group on Standards and Technical Specifications(GTnet)

> Achievements 2014-2016 And Workplan 2017

Third Session UN-GGIM: Americas, 5 to 6 October 2016 Hotel Sheraton María Isabel, Mexico City Classic Lounge

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UN-GGIM:Americas

REGIONAL COMMITTEE OF UNITED NATIONS ON GLOBAL GEOSPATIAL INFORMATION MANAGEMENT FOR THE AMERICAS

United Nations Committee of Experts on Global Geospatial Information Management

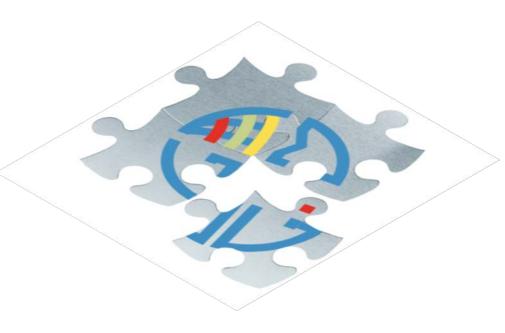
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V. Conclusions





I. GTnet Objective



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Develop activities aimed to establish a set of standards and technical specifications that are applicable in the region of the Americas, within a common normative framework.



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II. Coordination and participants



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Coordination and participants



I. GTnet Coordinator

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National Institute of Statistics and Geography (INEGI) Aguascalientes City, Mexico.



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II. Participants(14)

Name	Organism	Country
Alvah Guishard	NOD	Antigua y Barbuda
Ricardo Mansilla	IGN	Argentina
Elizabeth Riley	CDEMA	Barbados
Pablo Morales	SNIT - IDE	Chile
Elena Posada	IGAC	Colombia
Sandra Rodríguez	DANE	Colombia
Alina del Río Marceau	GEOCUBA	Cuba
Vanessa Tobar y Eduardo Jiménez	IGM	Ecuador
Boby Emmanuel Piard	CNIGS	Haití
Fernando Osorio Salazar	INETER	Nicaragua
Elizabeth Sámuels	ANATI	Panamá
Max Lázaro T.	CTT – IGG	Perú
Dwight Francis	MSD	St. Kitts & Nevis
César Rodríguez s	Ejercito Nacional	Uruguay

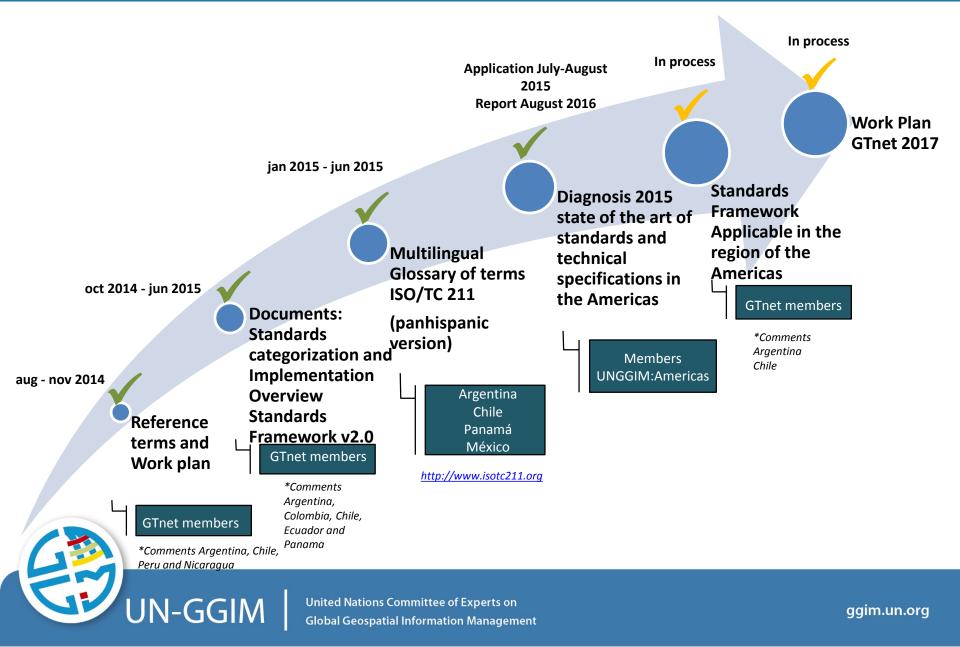


III. GTnet achievements 2014-2016



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Geospatial Information Categorization Standards for the Americas region

Categories:

- Infrastructure
- Data models
- GI Management
- Services
- Coding
- Thematic areas



Geospatial Information Categorization Standards for

Americas Region

Existing standards should be considered breadly, particularly those in use by participating countries in this type of strategy -SDI- and technology leaders, information structure and semantics, as well as services publication and dissemination [Eccobar et al. 2007). It is recommendable to follow the guidelines of international organizations seeking the highest level of approval regarding components and recommendations for interoperability, specifically in relation to regulations, protocols and open standards (Ministry of Public Service 2010). An important aspect to Koeler (2004) is the examine the SDI experience in other countries and regions, in order to help identify best practices and available technologies as a means to increase the availability, access and use of geospatial information. Additionally, it must be agreed to encourage the use of regulations, facilitate the implementations and widespread the use in a community, so that the set of rales applicable to objects and phenomena associated directly or indirectly with geospatial location constitute a reality in the reguin and provide a framework for the development of multiple applications and sectors that require a antructured geographic data.

The use of standards is not an easy task and involves changes in the organizations culture, however the economic and social cost is definitely higher when avoiding its use and maintaining an isolated production, including services difficulties to fulfill its purpose (IPGH-Committee ISO/TC 211 2010). This is why the categorization of regulations is built on the ISO/TC 211, which seeks to establish surfactured information standards concerning objects or phenomena associated directly or indirectly with a location in relation to the Earth.

These standards may specify, for the case of geographic information, methods, tools and services for data management (including definition and description) and obtain, process, analyze, access, presentation and transformation of such data into digital/electronic between different users, systems and locations.

This system relates the appropriate regulations of information technology and data where possible, and provides a framework for developing applications in individual industries using geographic data and contemplating the general objectives of ISO/TC 211 to increase the understanding and use of geographic information, yake as increasing the availability, access, integration and distribution of geographic information, which promotes efficient, effective and economic use of digital geographic information systems and are related to hardware and software systems; Additionally, it contributes to an unified approach for solving global environmental and humanitarian problems.

How International Standards and Technical Specifications (published and generated by ISO/TC 211) are organized and classified is detailed next. The regulations are grouped into

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December 15th 2014



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Overview of the Implementation of the Standards Framework in the Americas, 2015

Content:

- Background
- International organizations related to GI Normalization / Standardization
- Conceptual basis for defining the Standards Framework
- Considerations
- Conclusions





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Proposed Standards Framework Applicable in the region of the Americas, 2016

Content:

- International organizations related to the GI normalization
- Diagnosis of the State of the art of standards in the Americas
- Standards framework applicable in the region
 - A. Considerations :
 - Standards Guide OGC, ISO, IHO
 - Priority topics standards users and producers
 - Bank of Standards
 - Multilingual Glossary ISO / TC 211
 - B. ISO standards suggested
 - Conclusions

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Multilingual Glossary Terms ISO / TC 211

- Review of the panhispanic version
- Version available in Excel format: <u>http://www.isotc211.org/</u>
- 14 Languages: Arabic, Chinese, Danish, Dutch, English, Finnish, French, German, Japanese, Korean, Polish, Russian, Spanish, Swedish.







http://www.r3igeo.org

Taller de armonización de terminología y normas



ISO/TC 211 Geographic information/Geomatics

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Diagnostic based in the questionnaire 2015 (Standards)



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• Objective

To know the current status in the development and use of standards and technical specifications of geospatial information at regional level.

• **Topics**

General considerations, Production standards, Use standards at institutional, national and international levels.

• Application

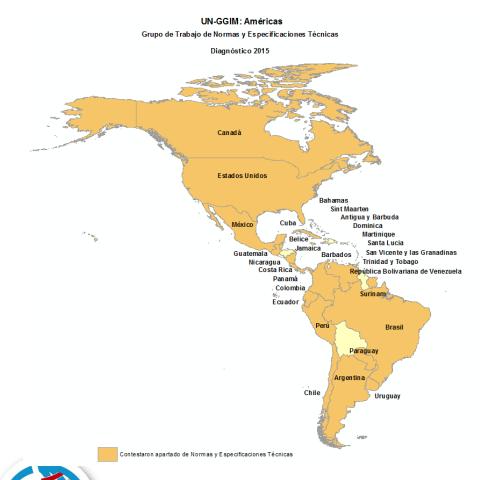
July - August 2015

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Countries responding to the questionnaire





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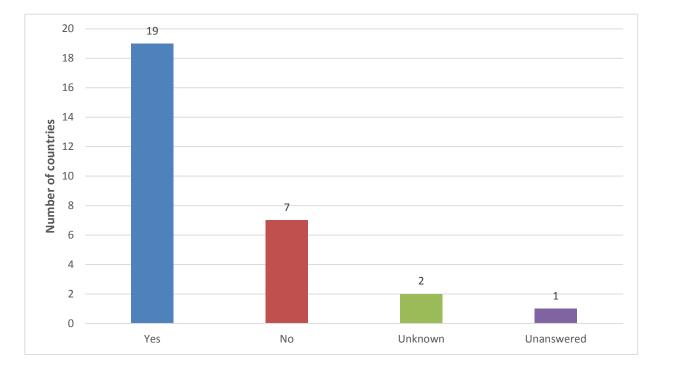
29 countries

Antigua and Barbuda	Jamaica
Argentina	Martinique
Bahamas	Mexico
Barbados	Nicaragua
Belize	Panama
Brazil	Paraguay
Canada	Peru
Colombia	Venezuela
Costa Rica	St. Vincent and the Grenadines
Cuba	Sint Maarten
Chile	Santa Lucía
Dominica	Suriname
Ecuador	Trinidad and Tobago
United States of America	Uruguay
Guatemala	

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Existence of officially recognized national organization for standardization



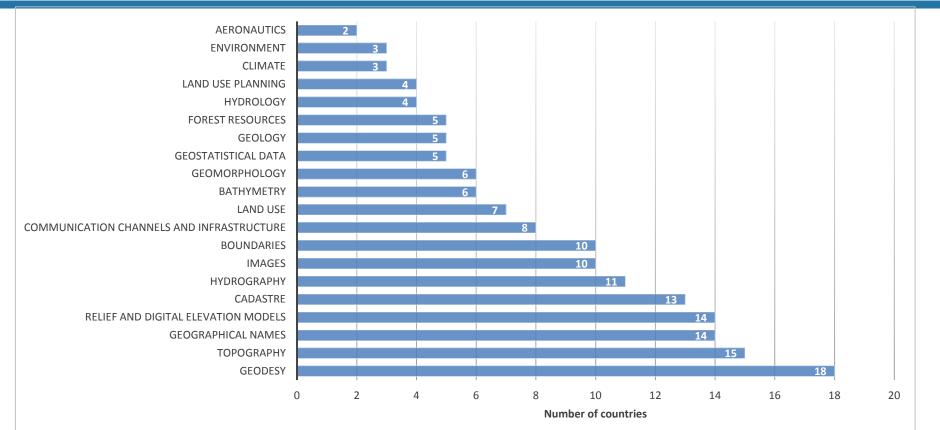


19 countries (65.5%) have some **officially recognized national organization** for standardization work. On the other side **7 of the countries** surveyed **(24.13%)** answered that they **do not have** any **officially recognized national organization**.

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Themes regulated by the producers of standards



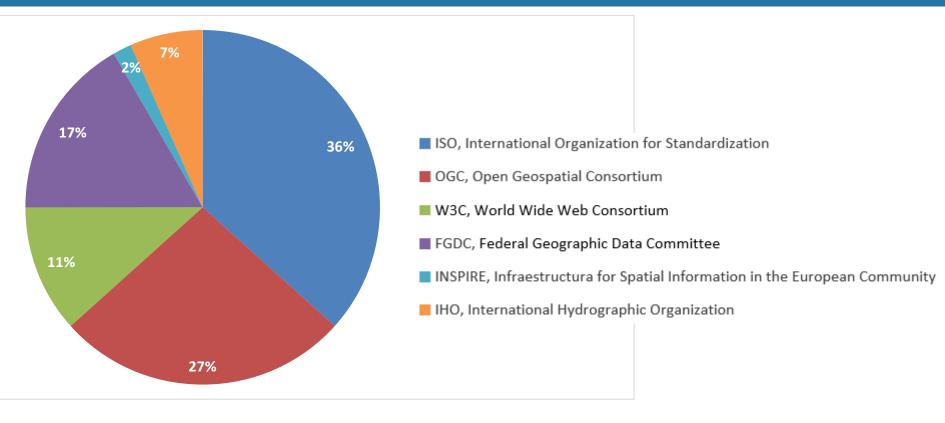
The five themes leading by producers of standards in the region are: Geodesy (62.06%), Topography (51.72%), Geographical Names (48.27%), Relief and Digital Elevation Models (48.27%) and Cadastre (44.82%).

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International organizations which used any standard





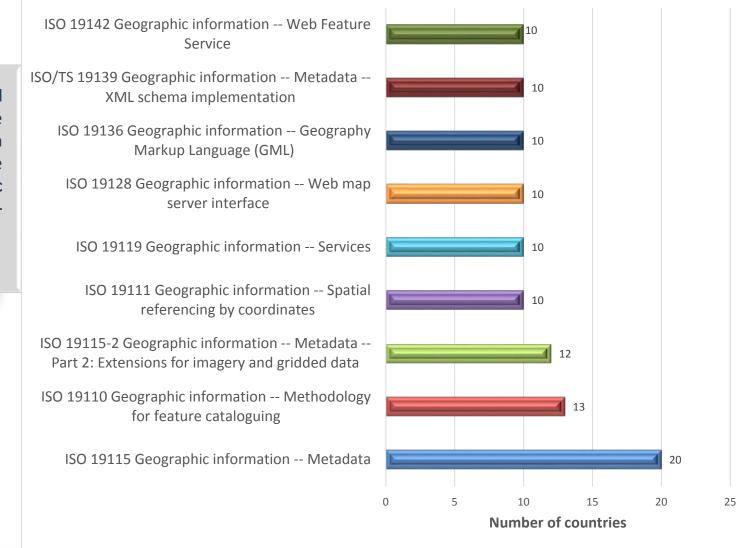
36% of countries use standards of the International Standards Organization (ISO).27% adopts the Open Geospatial Consortium Data (OGC) and only one country said that use INSPIRE standards.

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ISO standards most commonly used



The most widely used ISO standard, in the countries of the region (20 countries) is the ISO 19115 Geographic Information -Metadata.



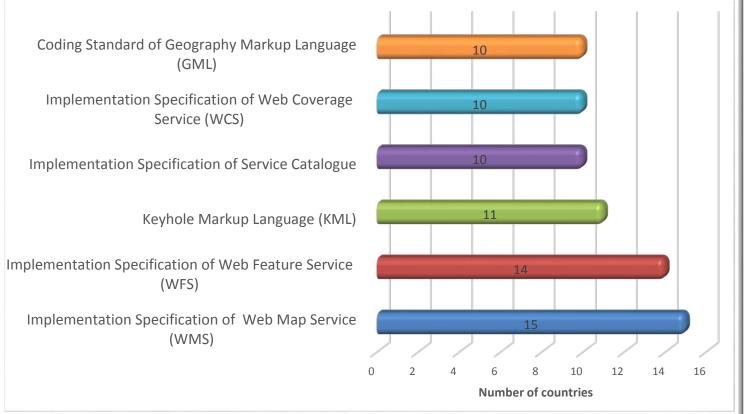


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OGC standards most commonly used



The OGC standard most commonly used in the region (15 countries) is the specification for the Implementation of Web Map Service (WMS).





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Comparative Questionnaires 2011, 2013 and 2015 (Standards)



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It is observed in the three years that **the vast majority** of countries **are** both **producers** and **users of standards**.

	2011				2013		2015			
Country	Producer	User	Both	Producer	User	Both	Producer	User	Both	
Argentina			х			х			х	
Belize			Х			Х		Х		
Brazil			х			Х			х	
Canada			х			х			х	
Chile		х			х			х		
Colombia			х			х			х	
Costa Rica	х					х			х	
Ecuador			х			х			х	
United States of América			х			х			х	
Guatemala			х			х			х	
Jamaica			х		х	х			х	
Mexico			х			х			х	
Nicaragua			х		х				х	
Panama			х			х			х	
Paraguay		х			х			х		
Peru	х			х					х	
Uruguay			х			х			х	
Venezuela	х					х			х	

Note: Only countries that participated in the 3 questionnaires included.

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In the three years it shows that in most countries **there is** a **national ogranization** officially recognized for **standardization**.

Año	2011				2013				2015
Country	Yes	No	Unanswered	Yes	No	Unanswered	Yes	No	Unanswered
Argentina	Х			Х			Х		
Belize	Х			Х				Х	
Brazil	Х			Х			Х		
Canada	Х			Х			х		
Chile		Х		Х			Х		
Colombia	Х			Х			Х		
Costa Rica	х			х			Х		
Ecuador	Х			Х			Х		
United States of America		Х			Х		Х		
Guatemala	Х			Х			Х		
Jamaica			Х	Х			Х		
Mexico	Х			Х			Х		
Nicaragua	Х			Х			Х		
Panama	Х			Х					Х
Paraguay		Х			Х			Х	
Peru			Х			Х	Х		
Uruguay	Х			Х			Х		
Venezuela	Х			Х			Х		

Note: Only countries that participated in the 3 questionnaires are included.

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In the three years of reference it can be seen that **international organization** of which standards are most used are the **International Standards Organization (ISO)** and the Open **Geospatial Consortium (OGC)**.

			2011					2013					2015		
Country	ISO	OGC	W3C	FGDC	IHO	ISO	OGC	W3C	FGDC	IHO	ISO	OGC	W3C	FGDC	IHO
Argentina	Х	Х				Х	Х	Х			Х	Х			
Belize				Х		Х			Х		Х			Х	
Brazil	Х	Х	Х			Х	Х	Х		Х	Х	Х			
Canada	Х	Х	х	х		Х	Х	х	х	Х	Х	х		х	
Chile	Х	Х	Х			Х	Х	Х		Х	Х	Х			
Colombia	Х	Х	Х			Х	Х	Х			Х	Х	х		
Costa Rica				Х		Х	Х		Х	Х	Х	Х			
Ecuador	Х	Х	Х			Х	Х	Х		Х	Х	Х	Х		
United States of															
America	Х					Х	Х				Х	Х	Х	Х	
Guatemala	Х	Х		Х		Х	Х	Х			Х	Х		Х	
Jamaica	Х					Х	Х	Х	Х		Х			Х	Х
Mexico	Х	Х		Х		Х	Х		Х	Х	Х	Х		Х	Х
Nicaragua	Х	Х		Х		Х	Х	Х	Х	Х	Х	Х		Х	
Panama	Х	Х		Х		Х	Х			Х	Х			Х	
Paraguay	Х					Х			Х						
Peru	Х	Х				Х	Х	Х	Х		Х	Х		Х	
Uruguay	Х	Х	Х	Х		Х	Х		Х		Х	Х	Х	Х	
Venezuela	Х	Х	Х			Х	Х	Х	Х		Х	Х	Х		

Note: Only countries that participated in the 3 questionnaires included.

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It is observed in the three years that the **most developed issues** concerning standards are **Geodesy**, **Topography** and **Geographical Names**

2011	Countries	2013	Countries	2015	Countries
Geodesy	15	Geodesy	14	Geodesy	18
Geographical Names	14	Geographical Names	13	Topography	15
Relief and MDE	12	Topography	10	Geographical Names	14
Boundaries	12	Boundaries	10	Relief and MDE	14
Topography	10	Relief and MDE	10	Cadastre	13
Cadastre	9	Hydrography	9	Hydrography	11
Hydrography	8	Cadastre	9	Images	10
Bathymetry	8	Images	8	Boundaries	10
Land use	8	Land use	7	Communication channels and infrastructure	8
Images	6	Hydrology	6	Land use	7
land use planning	6	Geology	5	Bathymetry	6
Aeronautics	5	land use planning	5	Geomorphology	6
Hydrology	5	Geomorphology	4	Geostatistical data	5
Geology	5	Bathymetry	4	Geology	5
Communication channels and infrastructure	4	Environment	3	Forest resources	5
Geostatistical data	4	Communication channels and infrastructure	3	Hydrology	4
Environment	3	Climate	2	land use planning	4
Climate	3	Geostatistical data	2	Climate	3
Geomorphology	3	Aeronautics	2	Environment	3
Forest resources	2	Forest resources	1	Aeronautics	2





IV. Workplan GTnet 2017



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Workplan GTnet 2017



	Trim 1	Trim 2	Trim 3	Trim 4
Standards Framework Document				
applicable in the region of the Americas				
updated with recommendations from				
Member States				
Two documents translated into Spanish:				
"A Guide to the Role of Standards in				
Geospatial Information Management"				
and technical compendium "Companion				
document on Standards				
Recommendations by Tier"				
Digital record				
Updated Bank of Standards				
Report				
	applicable in the region of the Americas updated with recommendations from Member States Two documents translated into Spanish: "A Guide to the Role of Standards in Geospatial Information Management" and technical compendium "Companion document on Standards Recommendations by Tier" Digital record Updated Bank of Standards	applicable in the region of the Americas updated with recommendations from Member StatesTwo documents translated into Spanish: "A Guide to the Role of Standards in Geospatial Information Management" and technical compendium "Companion document on Standards Recommendations by Tier"Digital recordUpdated Bank of Standards	applicable in the region of the Americas updated with recommendations from Member StatesImage: Comparising the second secon	applicable in the region of the Americas updated with recommendations from Member StatesImage: Comparison of the Americas updated with recommendations from



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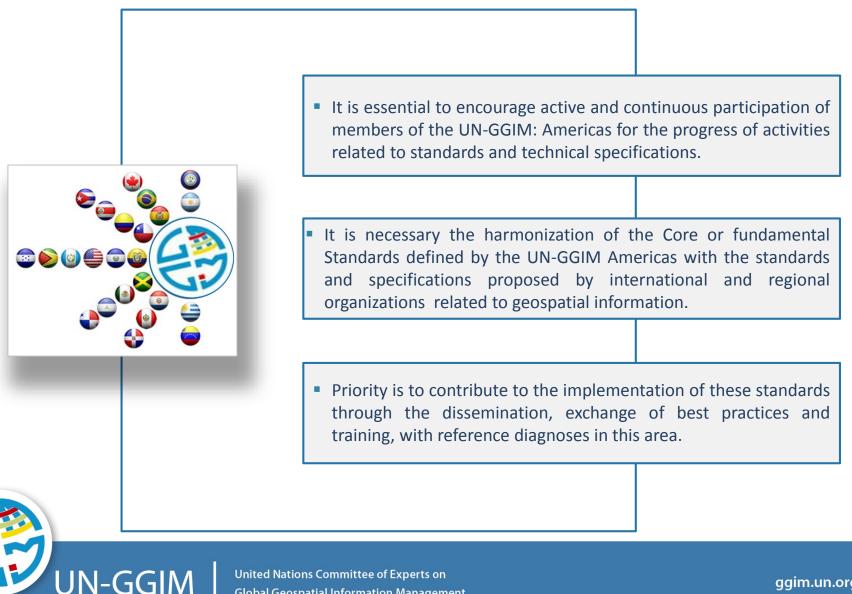


V. Conclusions



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By your attention... Thank you so much!

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