



**GGOS**  
Global Geodetic  
Observing System

# Towards a new GGOS affiliate: GGOS IberAtlantic

*Esther Azcue Infanzón*

- Duarte Costa • José Manuel Ferrandiz Leal • Cláudio FV. Gomes • José Antonio López Fernández • Ana Medeiro • Luísa VMS. Moniz • Helena Ribeiro • Paulo Manuel Patrício • Rita MM. Rodrigues • Pilar Romero Pérez • Paula Sanches • Manuel Ángel Sánchez Piedra • Marcelino Valdés Pérez de Vargas • Isabel Vigo Aguiar

# Previously seen...

Nov. 2022. GGOS DAYS 2022, Munich -> First declaration of intent

- Similar geographic distribution. Common borders. Shared watersheds
- Similar risks
- Similar scientific needs & interests
- Past collaborations (IBERIA95, IBERGEO, Fixed link Spain-Morocco)
- Current collaborations (RAEGE, Hispano-Portuguese Assembly)



Proposal: GGOS IberAtlantic Affiliate Group  
Spain + Portugal + ??

## COMMUNICATION...

Between countries.  
Between organizations.  
To society.

## PROMOTION...

Studies on global geodesy: understanding of  
global change phenomena processes.  
Existing geodetic products and applications.  
The importance of Geodesy.

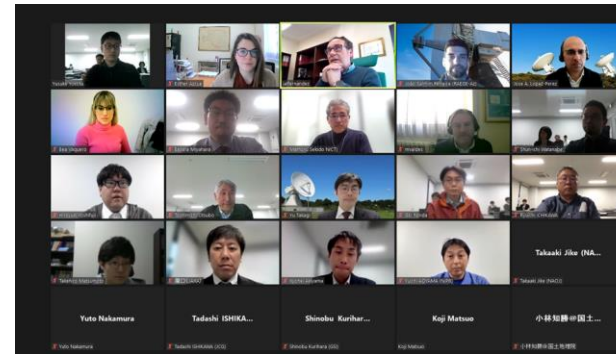
## ACCESS TO...

New projects.  
Opportunities for young researchers.  
Awareness of the importance of maintaining  
and improving the basic geodetic  
infrastructures.



# Previously seen...

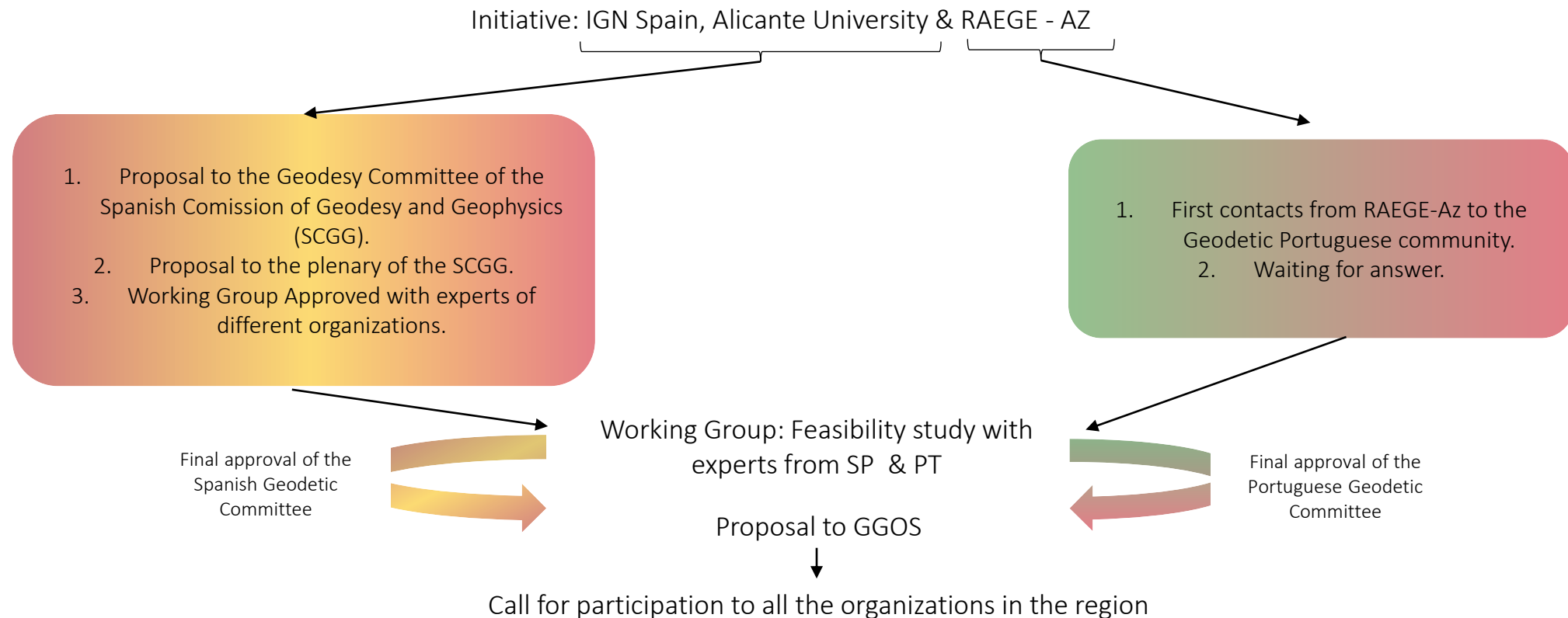
Mar. 2023. GGOS Japan Meeting 2023. First activities.



# Previously seen...

Mar. 2023. GGOS Japan Meeting 2023. First activities.

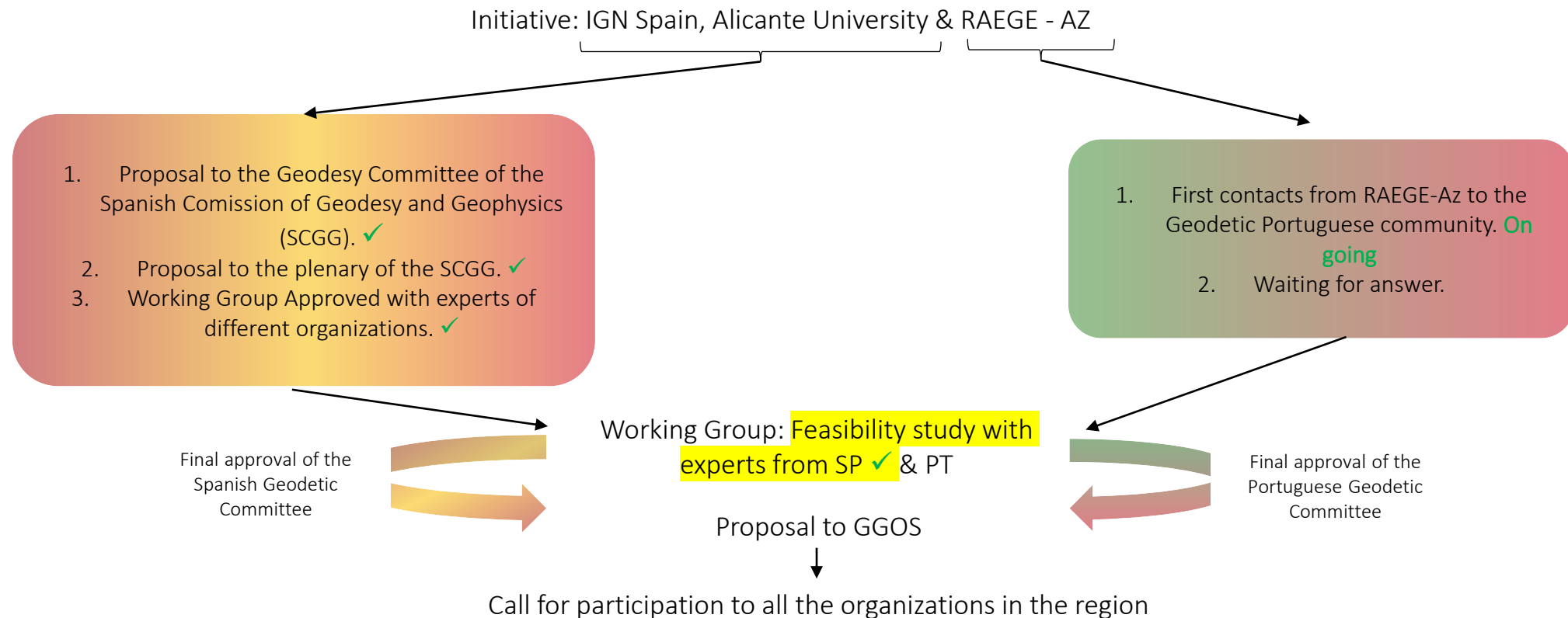
Apr. 2023. GGOS Coordinating Board Meeting 2023. First steps. Different process in each country



# Previously seen...

Mar. 2023. GGOS Japan Meeting 2023. First activities.

Apr. 2023. GGOS Coordinating Board Meeting 2023. Evolution of the proposal in Spain. First contacts in Portugal.



# Spanish status of the proposal: Feasibility Study

On instructions of the Spanish Commission of Geodesy and Geophysics, a group of experts have evaluated the feasibility of this proposal. This group have focused on trying to answer some questions:

Are we coordinated enough?

Do we know what others are doing?

Do we know where to call to fulfill our needs?

Are we doubling resources?

Do we know which priorities?

Are we represented enough?

How many of our researchers are on boards?

Do we think our geodetic needs are discussed internationally?

Do the people know what is Geodesy?

Geodesy for what?

Can we impact people motivating a need for geodesy?

Do we have a replacement?

Are we doing enough to convince young people?

May Universities justify a Geodetic profile?



# Spanish status of the proposal: Feasibility Study

1. Introduction
2. Geodesy: general aspects
3. International context and background
4. Geodetic capabilities in Spain
  - Infraestructure & technological developments
  - Analysis & Scientific research
  - Products, applications, services & outreach
5. Critical analysis of the status of the Geodesy in Spain. **Discussion have arised and we have concluded and pointed the main strenghts, opportunities, threats and weakness of Spanish Geodesy.**



# Spanish status of the proposal: Feasibility Study

## CRITICAL POINTS

- a) The **maintenance and improvement of geodetic infrastructures** should be carried out in a smart manner, combining efforts and establishing policies that ensure their optimal utilization. Spanish technological development constitutes a unique strength that presents a great opportunity for the international dissemination of our advancements.
- b) Although existing, **our international presence is low**, as well as the **development of geodetic research projects**. It would be advisable to increase this number and thoroughly analyze the university situation to strengthen international research leadership.
- c) There is a **lack of knowledge about geodesy among the general population** and certain critical sectors in particular.
- d) **Geodetic vocations are declining**. It is necessary to reverse this trend and promote knowledge through courses, forums, dissemination, conferences, and participation in attractive projects.
- e) Geodetic knowledge is the key to **achieve objectives**, securing **funding**, and particularly creating the geodetic need and justifying the investment.





# Spanish status of the proposal: Feasibility Study

## THE CONCLUSION WAS THIS AFFILIATE COULD HELP TO:

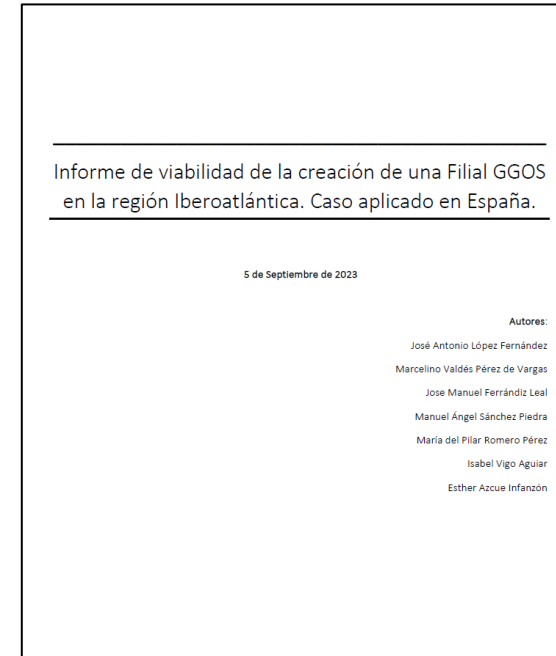
- a) Creation and participation in new projects and new areas.
- b) **Forum** for discussions: A platform for new participants and activities, fostering dialogue and improving the quality of geodetic observations. It also allows for **a unified voice** in large projects, such as those related to space. It would also facilitate the exploitation of regionally produced data by institutions within the region.
- c) Establish **a connection with international GGOS activities**.
- d) **Geodetic outreach**: Promote geodesy and its applications to society and foster new GGOS vocations. GGOS Iberoatlantic will act as a platform for disseminating geodetic activities in the region, justifying investments. It will bring geodetic results closer to the general public and create an environment of geodetic necessity and culture. Furthermore, it will incentivize new vocations among students.



# Spanish status of the proposal: Feasibility Study

## Feasibility study document:

1. Introduction
2. Geodesy: general aspects
3. International context and background
4. Geodetic capabilities in Spain
  - Infraestructure & technological developments
  - Analysis & Scientific research
  - Products, applications, services & outreach
5. Critical analysis of the status of the Geodesy in Spain.



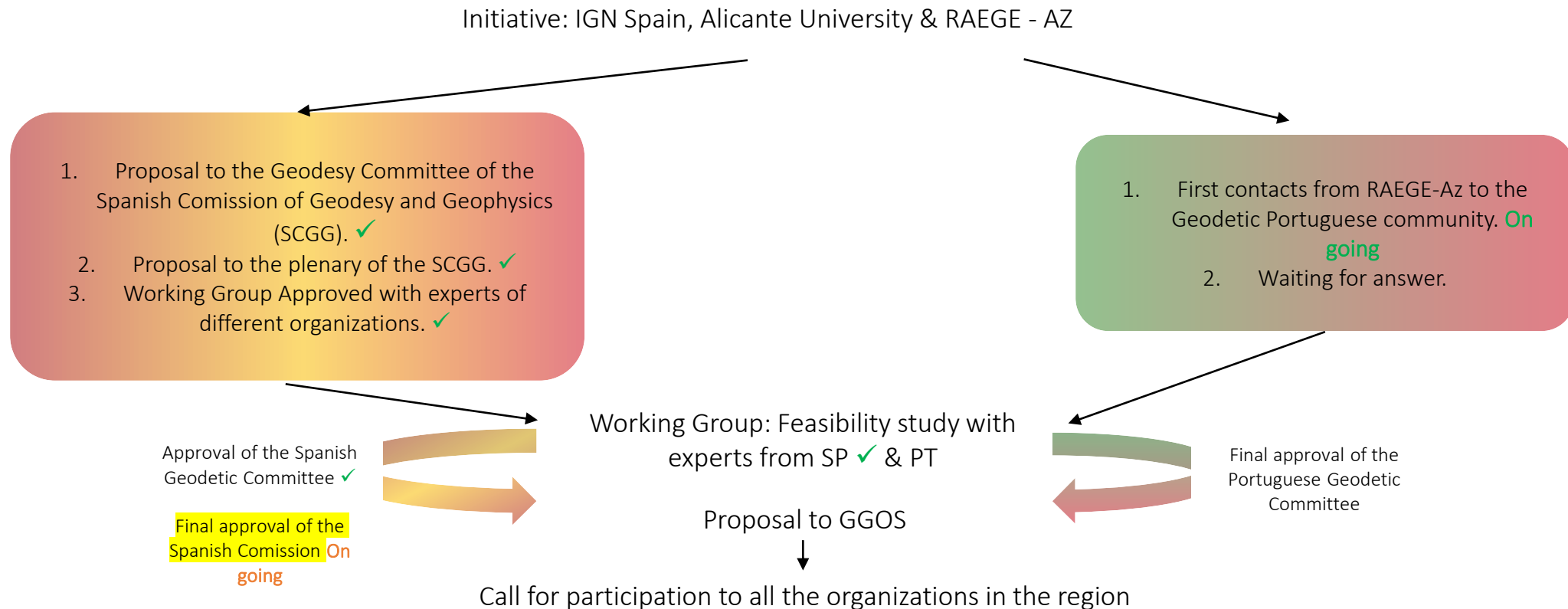
**July, 2023.** It was sent to the Geodesy Committee of the Spanish Commission of Geodesy and Geophysics.

**September 5th, 2023.** **Approval.** It was sent to the Spanish Commission of Geodesy and Geophysics.

**On going:** waiting for the final approval.

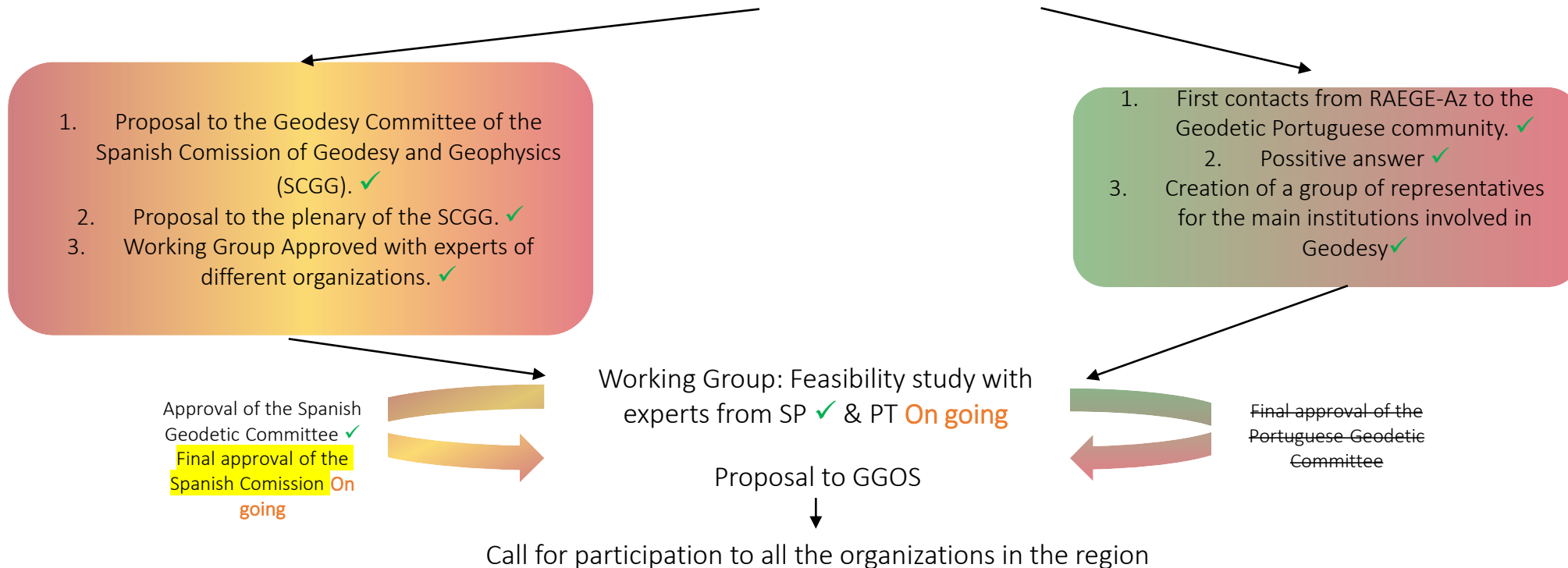


# Spanish status of the proposal



# Portuguese status of the proposal

Initiative: IGN Spain, Alicante University & RAEGE - AZ



# GGOS IberAtlantic: First joint meeting Spain & Portugal. Jun 2023

Açores Regional Government  
Associação RAEGE Açores  
Complutense University of Madrid  
Directorate General for Territorial Planning of Portugal

Hidrographic Institute of Portugal  
National Geographic Institute of Spain  
Autonomous Region of Madeira  
Royal Institute and Observatory of the Spanish Navy  
University of Alicante



# GGOS IberAtlantic: First joint meeting Spain & Portugal: **Conclusions of the meeting**

- Positive answer of both countries. Both countries think this initiative is useful and necessary.
- The current problems detected in the Spanish geodetic frame are also shared by the Portuguese Geodetic Institutions. In particular the lack of new people studying geodesy. This situation will be worse in the next years if no measures are applied and there is no initiatives that visualize and mobilize Geodesy in the countries. Impulse of the Geodesy in the region is needed.
- The conclusion is that this group could be useful for trying to get funds, projects and new people and for increasing the awareness of the important of geodesy in society and politicians. GGOS could open a window to visualization.
- It was also discussed that the group could be a great opportunity for working with south American and African countries.



# GGOS IberAtlantic: First joint meeting Spain & Portugal: Conclusions of the meeting

- Positive answer of both countries. Both countries think this initiative is useful and necessary.
- The current problems detected in the Spanish geodetic frame are also shared by the Portuguese Geodetic Institutions. In particular the lack of new people studying geodesy. This situation will be worse in the next years if no measures are applied and there is no initiatives that visualize and mobilize Geodesy in the countries. Impulse of the Geodesy in the region is needed.
- The conclusion is that this group could be useful for trying to get funds, projects and new people and for increasing the awareness of the important of geodesy in society and politicians. GGOS could open a window to visualization.
- It was also discussed that the group could be a great opportunity for working with south American and African countries.

Regulation of the group through a MoU

A document, similar to the spanish feasibility study, will be done by the group for defining the bases of the group and will serve as application for creating the group.

A joint contribution was presented in the IUGG, on 16<sup>th</sup> July 2023



# Conclusions & Future Steps

- The **GGOS IberAtlantic Affiliate** could help to **fill the gap** in some threat and weakness that have been detected. For example, the lack of young scientist.
- Spain and Portugal have already shown its interest and are working together.
- The GGOS affiliate would be an organization that doesn't limit the sovereignty of the geodetic institutions that are part of it. Any institution part of the group can choose to maintain its independence and access resources on its own. Memorandum of understanding?
- Waiting for the final approval of the Spanish Commission of Geodesy and Geophysics.
- Spain and Portugal have already shown their commitment to the said extents. But... Could **more countries** close to them be interested? Morocco, Brazil, Angola,...







**GGOS**  
Global Geodetic  
Observing System

# Thank you very much!

*Esther Azcue Infanzón*

- Duarte Costa • José Manuel Ferrandiz Leal • Cláudio FV. Gomes • José Antonio López Fernández • Ana Medeiro • Luísa VMS. Moniz • Helena Ribeiro • Paulo Manuel Patrício • Rita MM. Rodrigues • Pilar Romero Pérez • Paula Sanches • Manuel Ángel Sánchez Piedra • Marcelino Valdés Pérez de Vargas • Isabel Vigo Aguiar

GGOS DAYS 2023 – Alcalá de Henares, Spain

