

HYDROGRAPHIC CONFERENCE

HYDRO 2023

7-9 November 2023
GENOVA-ITALY





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HYDRO
2023

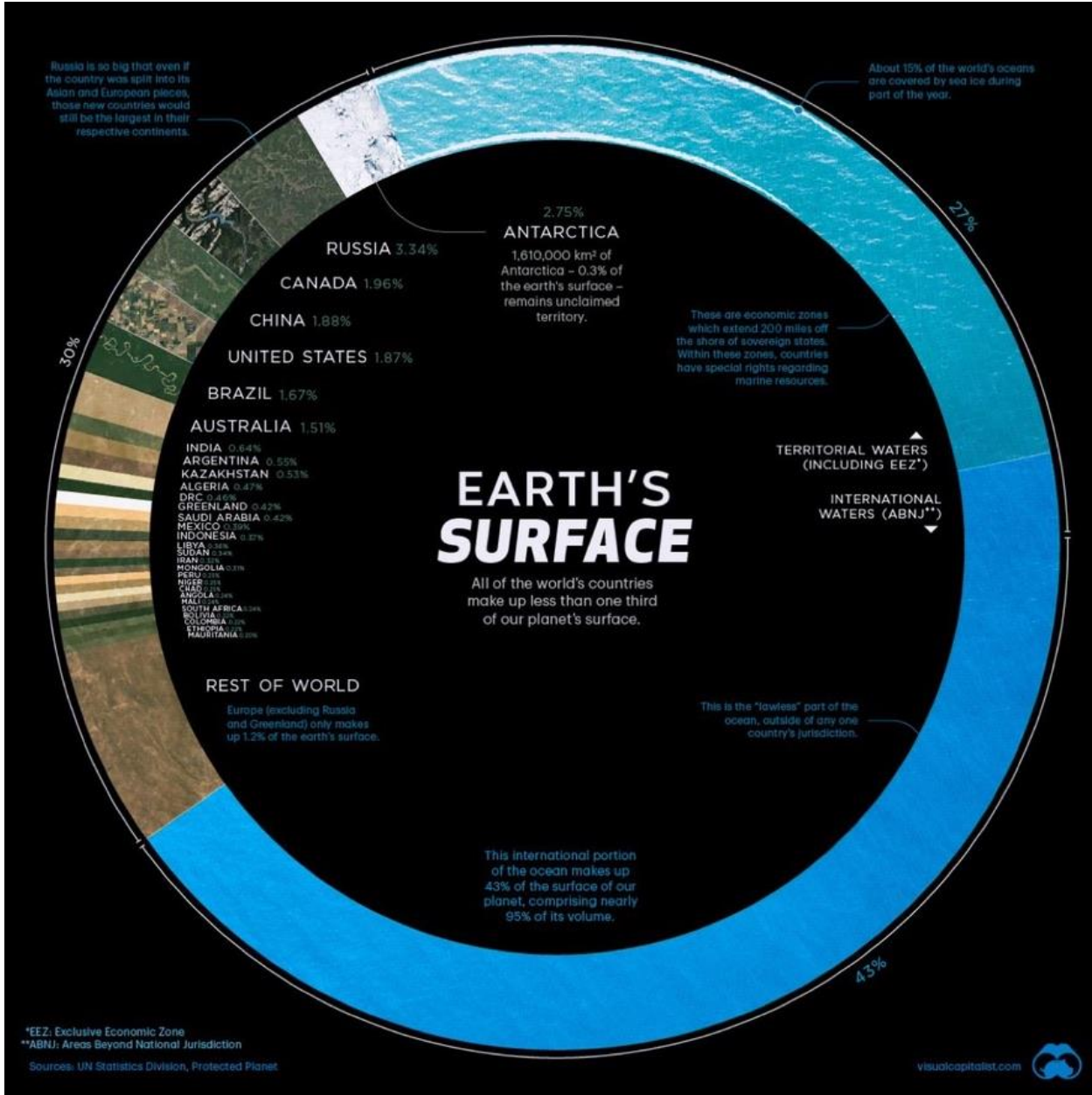


Citizen Hydrospatial Sciences!

International Federation of Hydrographic Societies (IFHS)
Italian Hydrographic Society (IHS)
HYDRO 2023 November 7th, 2023
Day One AM Keynote Address

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HYDROSPATIAL

Definitions

Hydrospatial (*adjective*)

Relating to hydrospatial sciences or denoting data, information and knowledge that is associated with a particular location and time of the earth's waters and their contiguous zones.

hydrospatial sciences

(plural-only noun (plurale tantum))

All sciences dealing with the study of the earth's waters and their contiguous zones.





HYDROSPATIAL DATA, INFORMATION & KNOWLEDGE includes...

- Hydrography
- Oceanography
- Oceans & Cables
- Water Resources Management
- Fisheries & Marine Habitat
- Marine Protected Areas
- Marine Spatial Areas
- Coastal Zones & Erosion
- Flooding Areas
- Marine Mineral Resources
- Ocean Mapping
- Marine Biology
- Marine Geology
- Marine Geophysics
- Marine Environment
- Marine Ecosystems
- Marine Geography
- Marine Shipping
- Marine Ports
- Marine Pilotage
- Marine Weather & Meteorology

...and much more...

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In simple words
Hydrospatial

...is “about all the Blue of our Blue Planet... & its contiguous zones (Coastal, Flooding areas, Water Column, Bottom, Sub Bottom, Surface & Atmosphere)” ...

... It's the Blue Geospatial contributing to the Sustainable Blue Economy...*

Join the
Hydrospatial
Movement
Community
on **LinkedIn** group at:



Citizen Science!

Similar to: *Community Science; Crowd-Sourced Science; Civic Science; Participatory Monitoring; Volunteer Monitoring; Non-expert science by interested groups...*



Citizen Hydrospatial Sciences!



... it's contributing data, information and knowledge openly, to better measure and understand the Blue of our Blue Planet and its contiguous zones!



Is Crowd Sourced Bathymetry the same as Citizen Hydrospatial Sciences?

“Crowd Sourced bathymetry (CSB) is the collection and sharing of depth measurements from vessels, using standard navigation instruments, while engaged in routine operations”.

** From IHO Publication B-12*



Only about the third of the IHO Member States support

Crowd Sourced Bathymetry (CSB)



The told and known Policy / Regulations / Culture Issues related to supporting CSB

What is the untold and unknown?



Internat
Hydrog
Organiz

C-1: Capture issues regarding national policy/regulations /culture affecting the endorsement of CSB

1. National Policies and Regulations
2. CSB Data is Unnecessary
3. CSB Data Collection Confused with Systematic Survey
-  4. Data Quality and Accuracy Concerns
-  5. Legal and Liability Issues
6. Standardization and Compatibility
7. Integration with Existing Data Sources
8. Public Awareness and Engagement
9. Resource Constraints
10. Addressing these challenges would require collaborative efforts from governments, stakeholders, and the public.

Source IHO-CSBWG14 (August 2023):

https://iho.int/uploads/user/Inter-Regional%20Coordination/CSBWG/CSBWG14/CSBWG14_2.2_2023_Policy%20and%20Regulations.pdf



In Hydrography:
***"To CSB or not to CSB,
that is the question..."***

*...whatever the data Quality & precision is!
"... A SHOAL IS A SHOAL ..."*

Legal versus Moral RISKS!



X, Y, Z, T, A, +, ...
HYDROSPATIAL
DATA
INFRASTRUCTURE
(HDI=MSDI)

Governance
Technology
Data

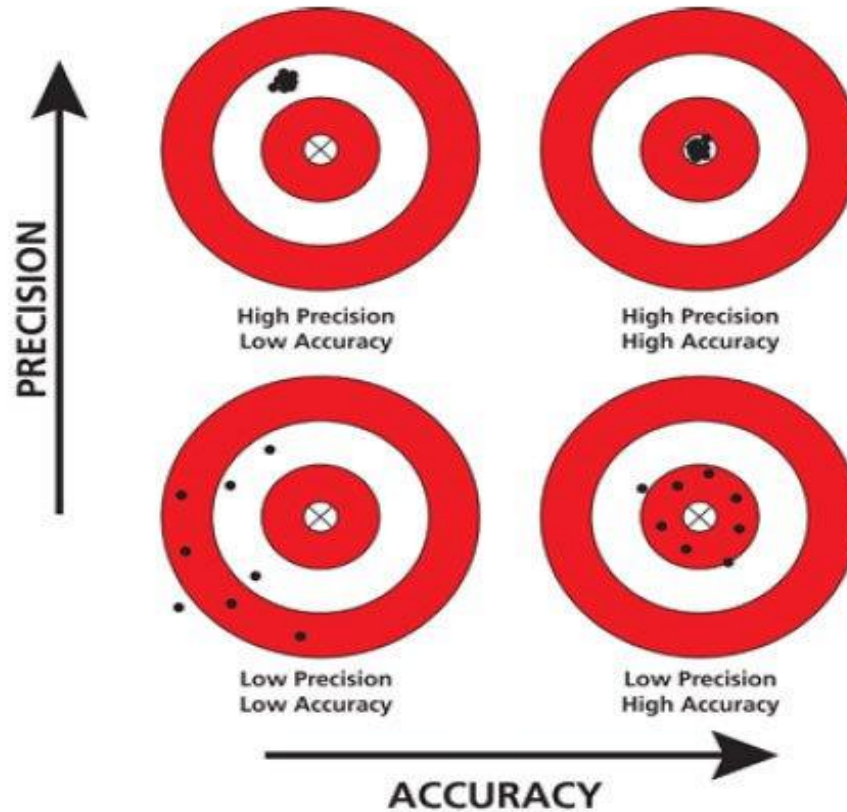
STANDARDS

Findable
Accessible
Interoperable
Reusable



CITIZEN HYDROSPATIAL SCIENCES

Ambiguity (*Quality/Uncertainty*) is Paramount!



In conclusion...



Citizen Hydrospatial Sciences & Crowd Sourced Bathymetry...

...are an IMPORTANT and valuable contribution for a better knowledge and understanding of the Hydrospatial Domain!



Thank you! / Merci! / Grazie!



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