



Swedish Agency  
for Marine and  
Water Management

SGU Geological  
Survey  
of Sweden

SLU SWEDISH UNIVERSITY OF  
AGRICULTURAL SCIENCES



UNIVERSITY OF GOTHENBURG

# Summary and evaluation of WIO Symphony end user survey



Daniel Mattsson

22 October 2024



Photo Daniel Mattsson SGU



**UN**   
environment  
programme



Swedish Agency  
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Water Management

**-"It's a good tool, I like it!"**

*(One voice from a survey participant)*

*This presentation is regarded as the delivery and documentation of the End user Survey, performed by SGU in collaboration with SWaM and SLU, for the future development of WIO Symphony. SGU april 2024*





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UN  
environment  
programme



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## Aim of Survey

- » Give guidance & mandate for continued development of WIO Symphony tool

*Google docs survey, all answers:  
[WIO Symphony End User Survey \(English\) - Google Formulär](#)*



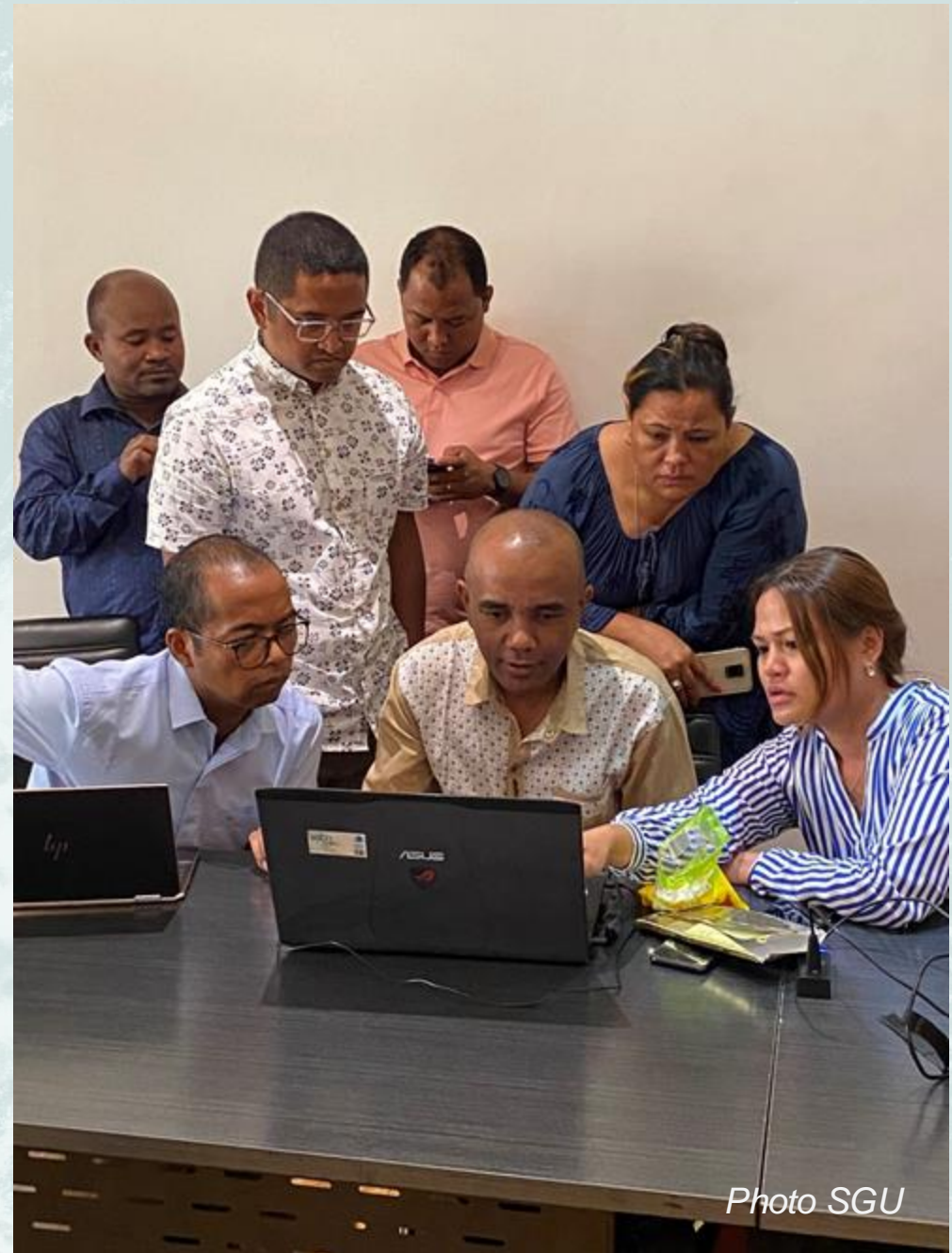
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# Summary

- » We've got **enough answers** to make conclusions for future development, many answers from the right category of people and level.
- » Overall, participants seems **satisfied** with the tool, scope & functionality, but need more time to come with measurable responses.
- » The need for **more training and instruction** is clearly identified, also practice on real, and local, cases are requested.
- » **High-resolution data** and **local scale analyses** are one of the most mentioned and clearly visible outcomes of the survey.
- » The tool have been used for common understanding, engagement and discussions with **stakeholders**.
- » **Functionality for upload of their own** local data must be smooth and prioritized functionality to keep developing. Also upload of stakeholder sector data is requested.
- » Network connections and slow performance is mentioned so an **offline version** of the tool would be useful.



# Survey responses

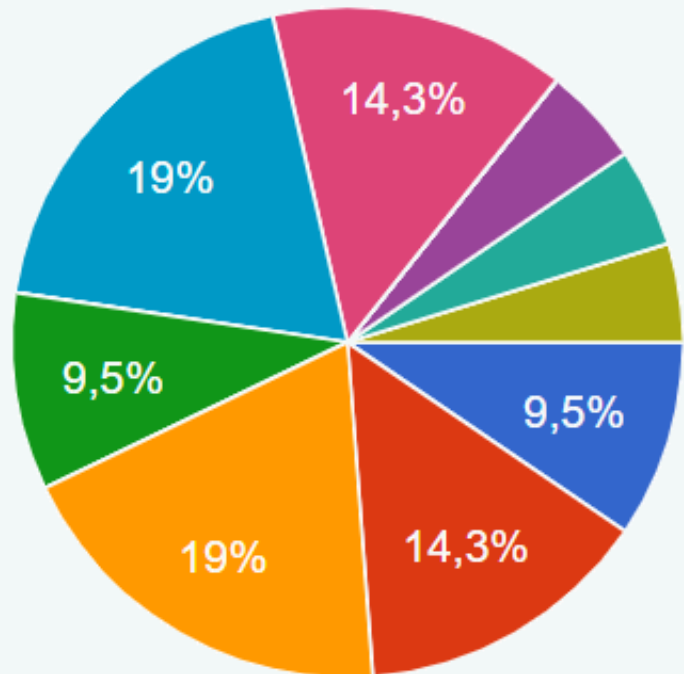


*Photo SGU*

# Background of survey participants



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- Somalia
- Kenya
- Tanzania
- Mozambique
- South Africa
- Madagascar
- Comoros
- Mauritius
- France
- Seychelles
- Finland
- Australia
- Sweden

13 countries

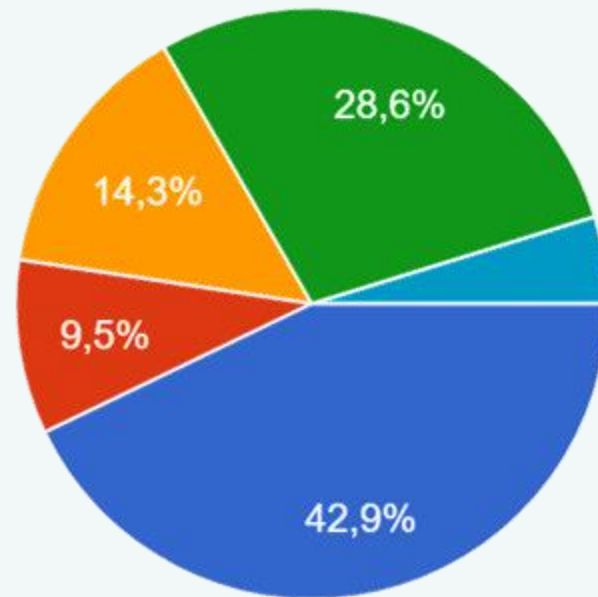
# Background of survey participants



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Type of organisation:

21 svar



- Government Agency
- Non-Governmental Organisation (NGO)
- Research Institution
- Educational Institution
- Private Sector
- Research and Conservation organisation

43% Government Agency

30% Educational Institutions

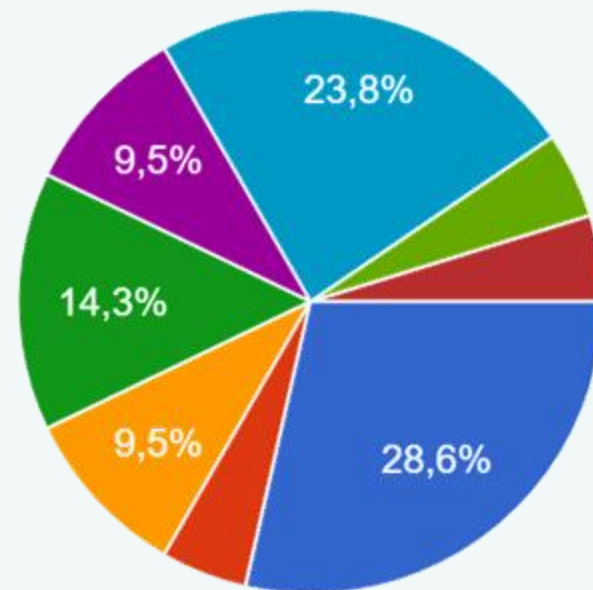
# Background of survey participants



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Your role in the organisation:

21 svar



- Planner/Analyst
- Environmental Impact Assessment (EIA) specialist
- Policy Maker
- Researcher
- Educator
- Student
- Consultant
- IT and Data specialist
- Research support (Marine Data and M...)

Major part Planners, Students & Researchers

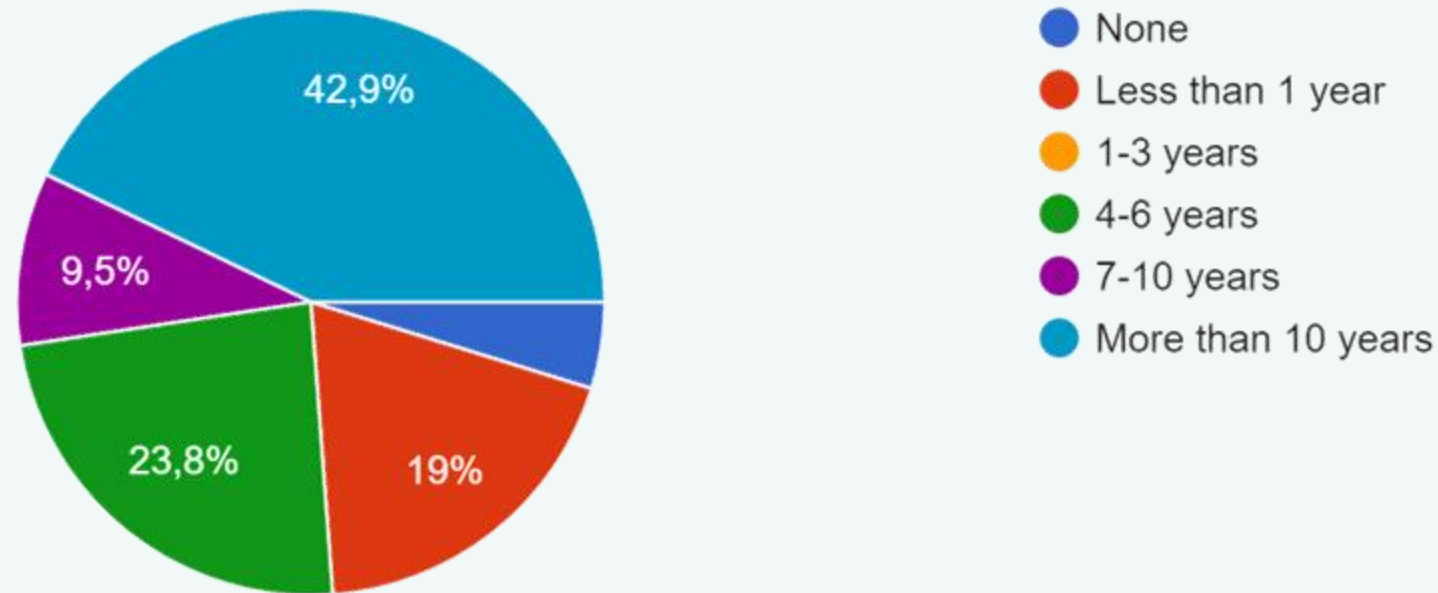


# Background of survey participants



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Years of experience working with other aspects of marine management:  
21 svar



43% have more than 10 years of experience of marine management,

65% between 4 and 10 years

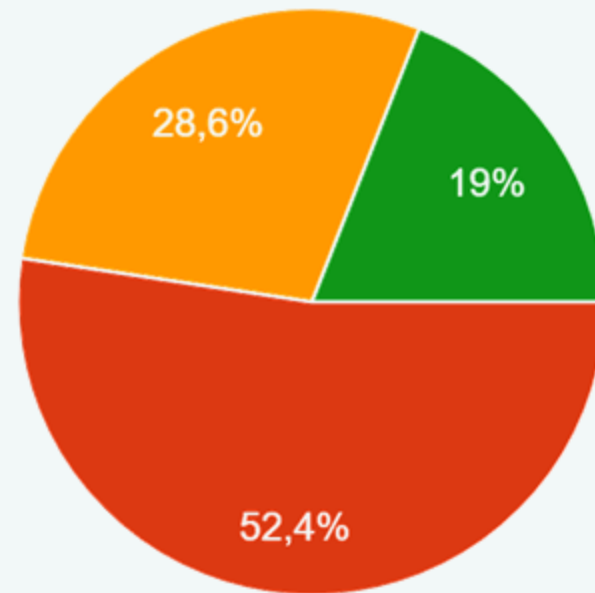
# Background of survey participants



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Your level of GIS or spatial data competency:

21 svar



- None
- Beginner (basic understanding and limited experience)
- Intermediate (comfortable with common GIS tasks and software)
- Advanced (extensive experience and expertise in GIS, able to perform complex spatial analyses)
- Expert (professional level proficiency, deep understanding of GIS principles,...

Experience level is 50/50, but 48% have advanced or intermediate GIS competence

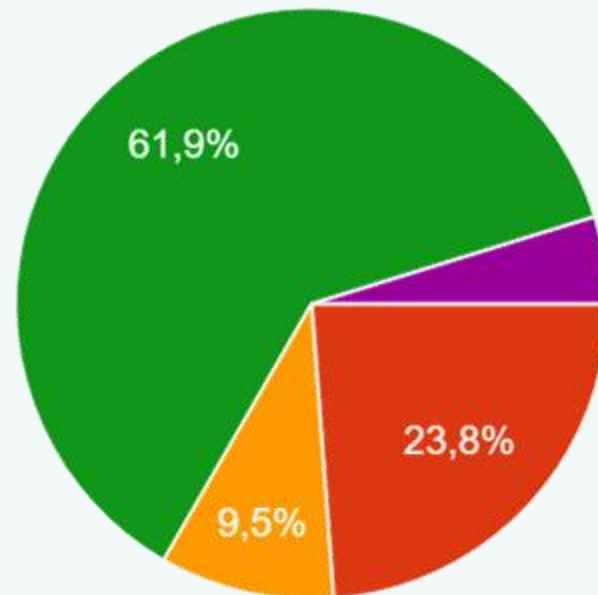
# Background of survey participants



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How often do you use WIO Symphony?

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- Daily
- Weekly
- Monthly
- Occasionallly
- Never

62% use the tool occasionally

24% use the tool on weekly basis



# Responses Functionality



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## » Top 3 tool improvements asked for:

1. Ability to smooth integrate local data
2. Increased data resolution
3. More support & training

## » Most used functionality:

1. Compare different scenarios (60% of usage of the tool!)
2. Viewing Pressure & ecosystem layers and Plan-impact assessment share the second place
3. Scenario reports are important, for instance the reports are used to communicate and give advice to decision makers & internal organization. But some issues to interpret **sankey diagrams** are reported
4. That the sensitivity matrix can be adjusted to local conditions and knowledge is appreciated.

## Most important Ecosystem data considered to be

1. Coastal and inshore habitats
2. marine fauna –coral reefs and fish (coastal focus)

## Most important activity data considered to be

1. Fishing activities
2. Environmental changes such as ocean acidification
3. Pollution, waste/litter data
4. Dredging/dumping

# What purpose is the tool used :

1. The biggest use have been **comparing scenarios** 60%.
2. To perform **Cumulative Env. Assessment** studies, but...
3. The tool have also been used to educate, and as a tool for spatial discussions and to get a common understanding of sea activities and stakeholders, ocean governance and blue economy development



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# Example of suggested additional features or functionality improvements



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- » Uncertainty maps
- » Functionality to add additional local pressures
- » Higher resolution and possibilities to upload their own data.
- » Zoning tool for Zoning of various activities



# Examples of survey opinions



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Many are impressed of the tools capability, for instance scenario analysis. – "it's a good tool"



They say it's intuitive and easy to use. **Answer to their expectations**



Tools like Marxan, Seasketch and Google Earth are complementary but not overlapping



IOC-UNESCO is mentioned as a suggestion for future collaborations or partnership



This survey was appreciated - "more surveys like this!"



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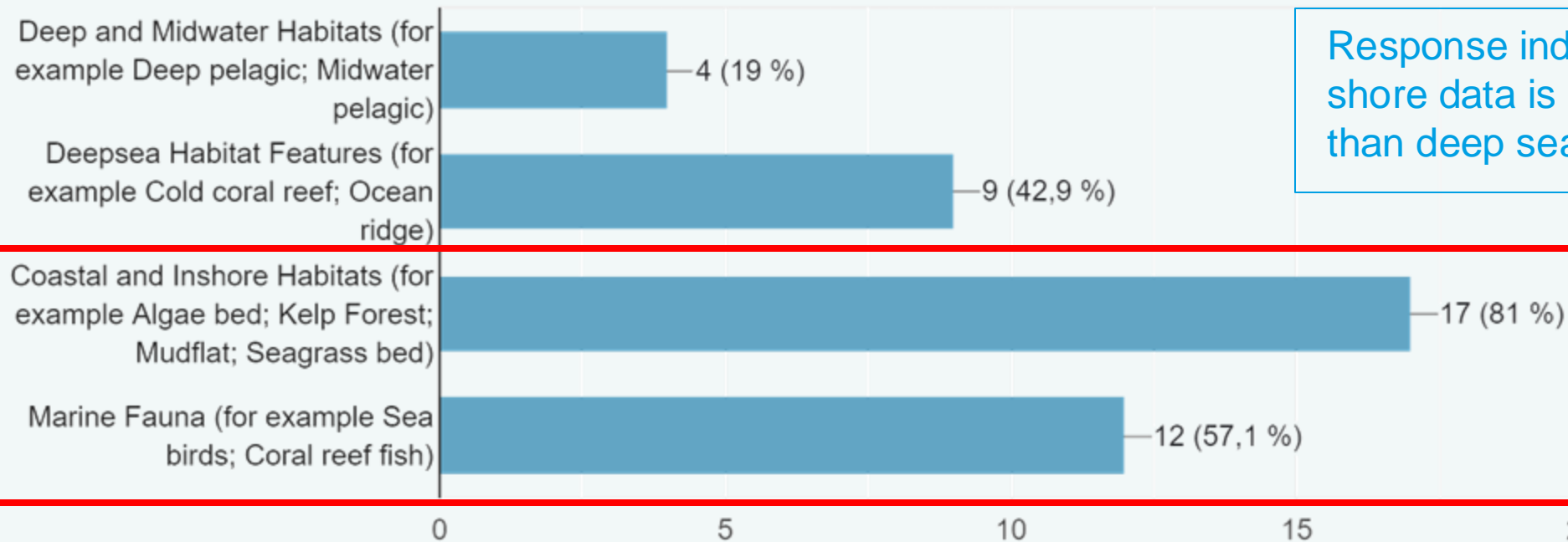
# Survey result regarding spatial scale, data-resolution and local data



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Please select the ecosystem data layers you consider most important for your application of WIO Symphony. You may choose multiple options.

21 svar



Response indicate that near shore data is of higher interest than deep sea habitat data



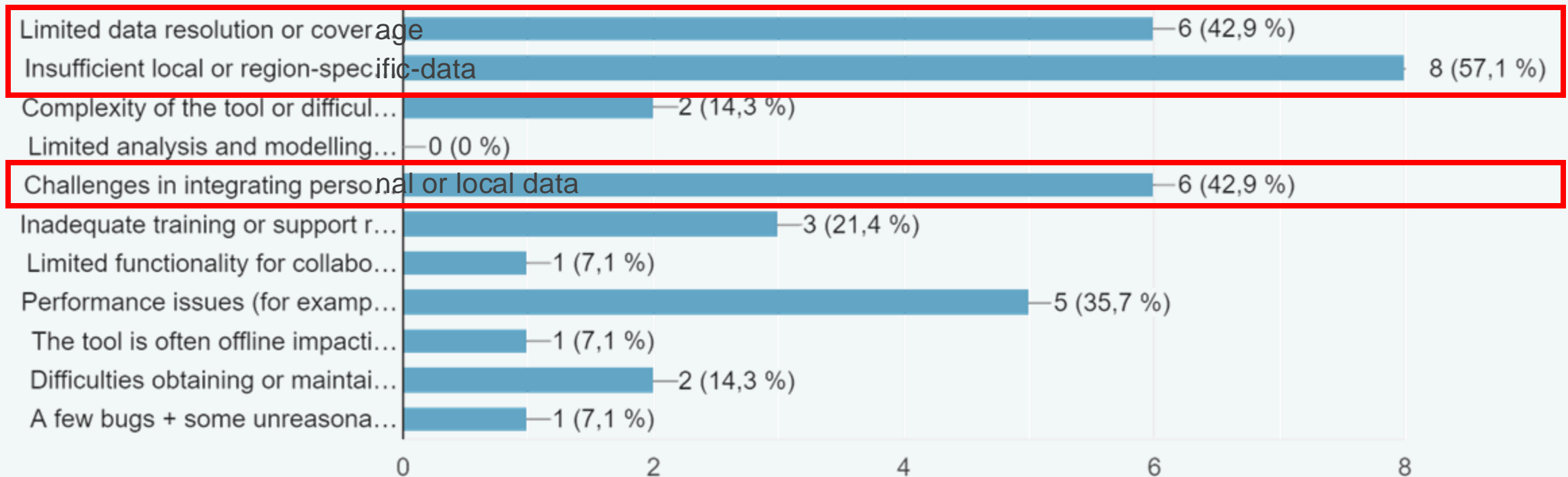
Top 3 responses is about low resolution & local data



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limitations you have experienced while using WIO Symphony.

14 svar



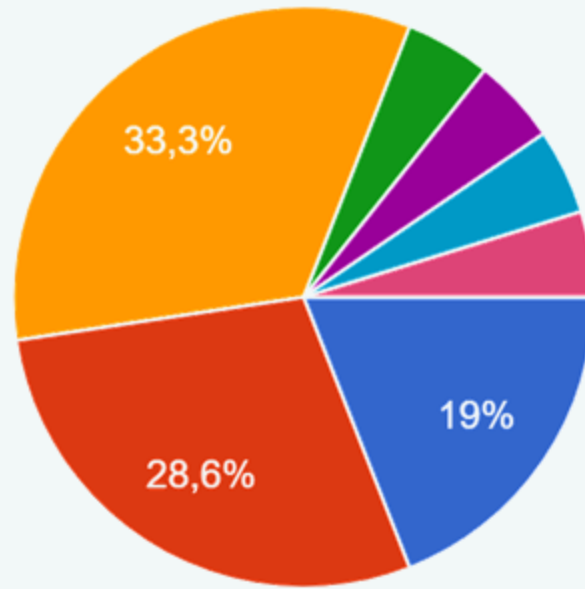
Almost 50% of the usage today consists of very local or local scale analyses. Very low interest for regional analyses.



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When using WIO Symphony, at what spatial scale are you generally working?

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- Very local scale (for example individual reef or small island)
- Local scale (for example specific bay or estuary)
- National scale (for example entire coastline of a country)
- Sub-regional scale (for example Moza...)
- Regional scale (for example East Afric...)
- Ocean basin scale (entire Indian Ocea...)
- I just explored the tool

## Important slide for decision of future development.

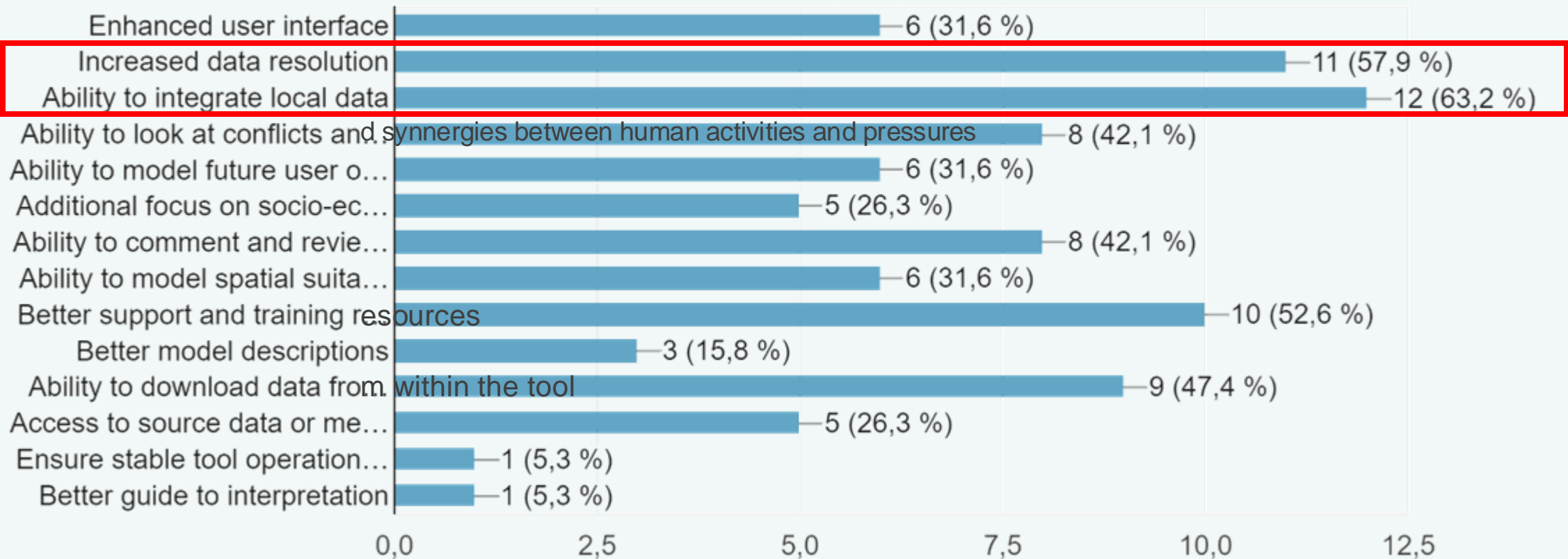
Top 2: Increased data resolution & ability to integrate local data



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### What improvements would you like to see in WIO Symphony?

19 svar



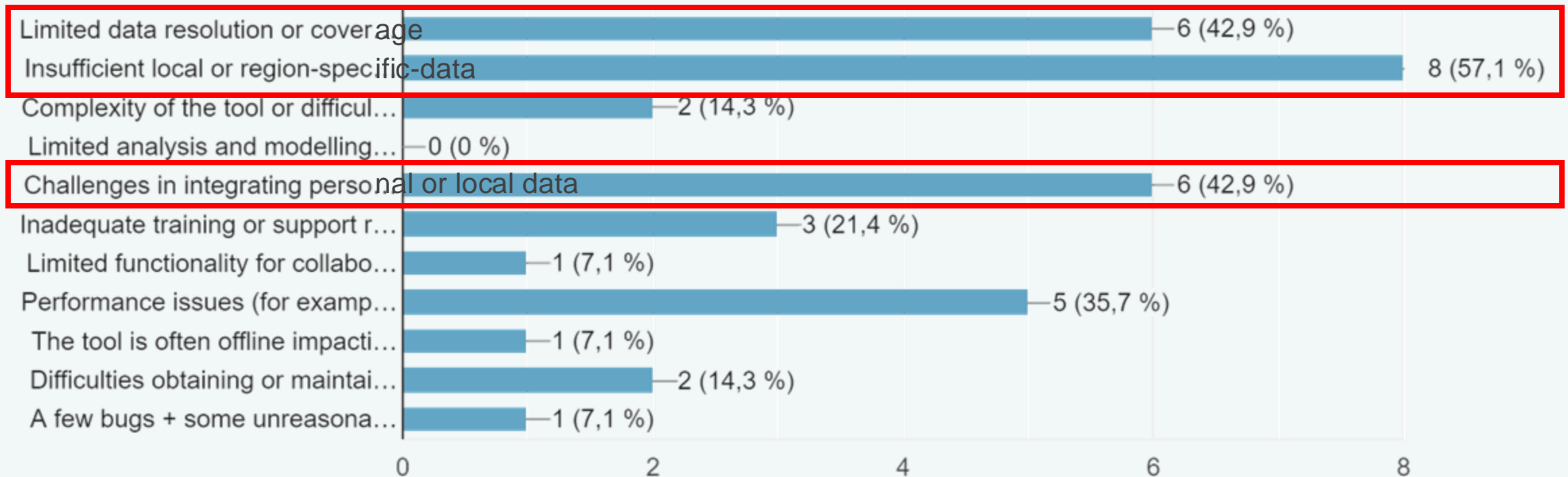
Top 3 responses is about low resolution & local data



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### limitations you have experienced while using WIO Symphony.

14 svar





# Summary & conclusion of end user survey 2024



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- » We've got **enough answers** to make conclusions for future development, many answers from the right category of people and level.
- » Overall participants seems **satisfied** with the tool, scope & functionality, but need more time to come with measurable responses.
- » **The need for more training and instruction is clearly identified, also practice on real, and local, cases are requested.**
- » **The need for high-resolution data and local scale analyses** are one of the most mentioned and clearly visible outcome of the survey.
- » The tool have been used for common understanding, engagement and discussions with internally and externally
- » **Functionality for upload of their own local data, and stakeholder data must be smooth and prioritized functionality to keep developing.**
- » **Network connections and slow performance is mentioned, offline version of the tool could be useful**

# Suggestions on future development



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Develop and test more detailed Symphony as a pilot study based on high-resolution data in the coastal & territorial water (*Mauritius pilot study*)

More training, refreshing & instructions. Practice on real case studies are suggested. Also we should consider if peer training is possible, for example on how the tool was used for stakeholder engagement?

Make it easier to integrate local data

Develop possibilities to have an offline version of the tool

Data strengthening by identifying weak models/data to prioritize which models that should be updated first?

More...?



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- » There is a **good spirit among the participants**, not much or no disappointments. They see opportunities. Important to keep the good spirit alive with more surveys for continued engagement and transparency.
- » We need to take care of the response from this survey by following up and **communicate** what we will prioritize due to the answers.
- » 100 % answered they are interested in **future** workshops, training and testing of the tool.

More...?



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## But most important....

» They like the tool and they use it, let's keep developing!

# Thank you!



# Let's make a Symphony!



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