



The Global Ocean Observing System

GOOS Implementation Plan & Questions from the Components

GOOS Exec, Decade Programmes, Projects and secretariat

Questions for the Steering Committee

Report-out sessions

GOOS Panels

- BioEco & BGC: April 12
- OOPC: April 12

GOOS Projects

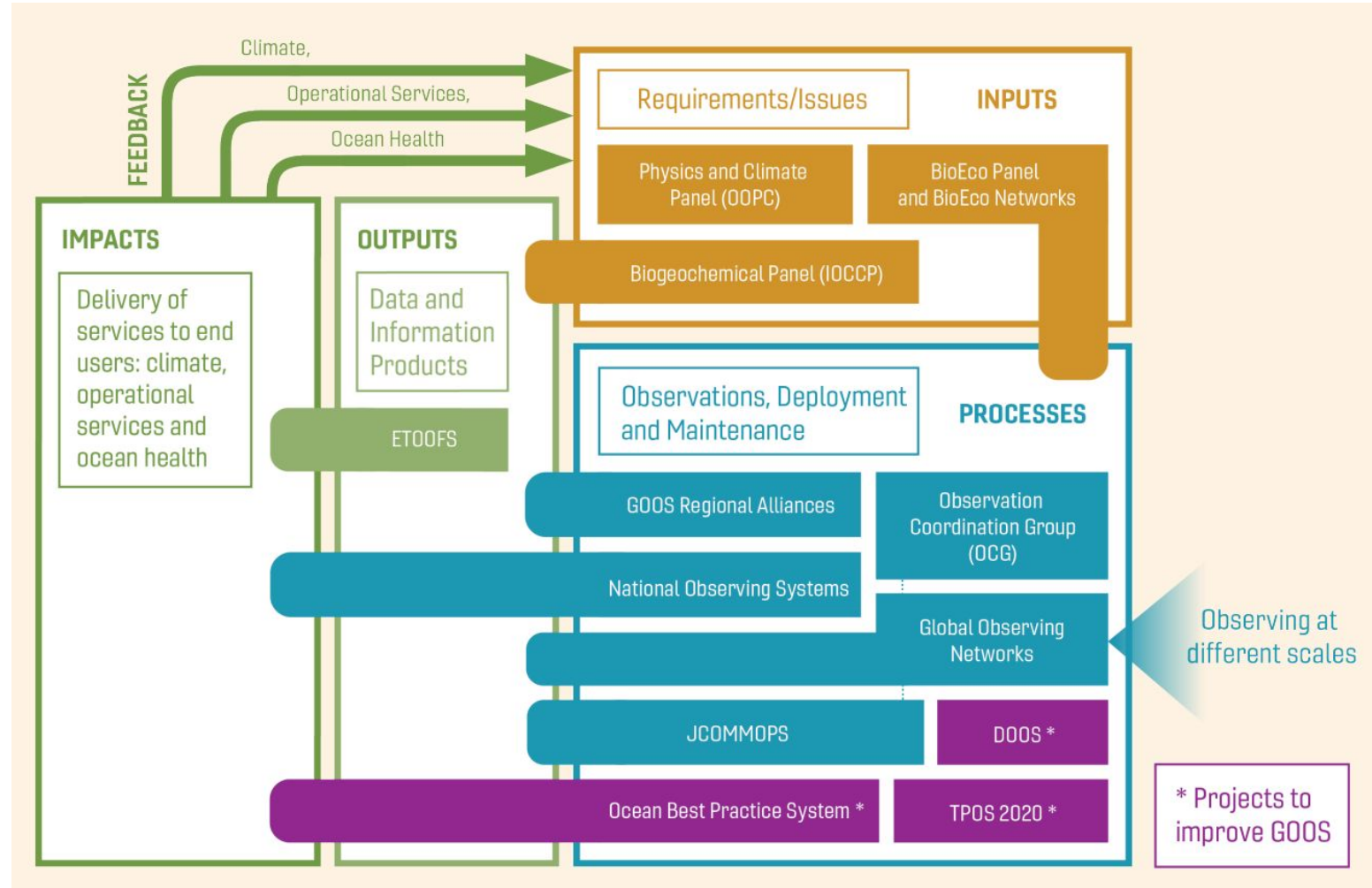
- TPOS, OBPS & AtlantOS: April 12

Decade Programmes:

- CoastPredict, Observing Together & Ocean Observing Co-Design: April 13

GOOS Implementers:

- GRA & OCG: April 20
- ETOOFS: April 19



BioEco Panel

Question topic	Description	Some ideas/suggestions...
Connections & coordination	Connections with external networks and organisations (partners) Coordinating activities across GOOS Visibility of asks	<ul style="list-style-type: none"> • Work through the Exec meetings? • Map the major regular asks across GOOS?
Support	Funding for support (IPO?) - need to move to stable long term funding, work to identify USP of panel, OBIS support, success with EU projects helping	<ul style="list-style-type: none"> • Co-chairs will be reaching out to SC members to provide perspectives on long-term funding opportunities
Citizen science	A focus on citizen science initiatives for GOOS/across GOOS, see things coming up in the UN Decade, OceanOPS Odyssey project - learn from other areas, some obs are already citizen science e.g. IDEA Intersessional SC and/or workshop on citizen science and its future role in GOOS	<ul style="list-style-type: none"> • Intersessional SC and/or workshop on citizen science and its future role in GOOS - BioEco can provide examples of where citizen science can provide obs and wider benefits

BGC Panel

Question topic	Description	Some ideas/suggestions...
Single supplier of reference materials	A single supplier of reference materials is a weak point in the system, can GOOS do something to raise the profile of this as an issue?	<ul style="list-style-type: none">• A discussion with SC on strategy around greater operationalisation of production, certification and distribution of reference material
Data management for GOOS data	Key issue, no solution found despite a few years work, really need a cross GOOS data planning/effort and support from GOOS to move/enable BGC data storage to be taken seriously and supported	<ul style="list-style-type: none">• Articulate a GOOS strategic data plan• GOOS Task Team on Data management
Economic justification	Cross-GOOS work is needed to articulate the value of ocean observations, more clearness in communications about how the OO community, funders/policy makers use the tools	<ul style="list-style-type: none">• See quick fire report on GOOS-OECD-University of New Mexico work - how do we communicate on this, get policy makers to recognise and use?

OOPC (Physics and Climate Panel)

Question topic	Description	Some ideas/suggestions...
WMO INFCOM – GOOS connection	Stronger connection/briefing between GOOS and WMO INFCOM	<ul style="list-style-type: none">• GOOS consider output from WMO Study Group OOIS and consider if this meets strategic aims and identified issues in an efficient manner
Connection with OCG	Briefing needs for seamless predictions	<ul style="list-style-type: none">• OCG-13
Regular meetings	GOOS Panels should meet together once a year	<ul style="list-style-type: none">• Meet after the GOOS SC for example?

GRAs

Question topic	Description	Some ideas/suggestions...
Advice on development	How to help support less developed GRAs develop, actionable suggestions	<ul style="list-style-type: none">• Can we develop exemplars or project ideas to take to GRAs and use to co-design some solutions at small scale first, with options to learn and grow over time.
UN Decade engagement	How can the GRAs build upon emerging network technologies (HF radar, Ocean Gliders, and AniBOS) and help deploy good projects under the UN Decade?	<ul style="list-style-type: none">• Focused discussion between GRAs and Decade Programmes about their projects - most are asking GRAs the same thing in reverse - cross Decade Programme discussion is planned

ETOOFS

Question topic	Description	Some ideas/suggestions...
Input on ETOOFS framework	ETOOFS as the Expert Team of IOC and WMO (links to the IOC/WMO member states), partner with the science community through Ocean Predict, the Mercator Decade Collaboration Centre (DCC) for Ocean Prediction to connect to stakeholders, operational centres and newcomers (reports to the DCU).	<ul style="list-style-type: none">•

OCG

Question topic	Description	Some ideas/suggestions...
Rising observing costs	Observing costs are on the rise (as with other costs) this will lead to decline and gaps. OCG can monitor, who will assess impact and communicate	<ul style="list-style-type: none">• ETOOFS volunteered to help with impact assessment, GOOS should work with OCG/ETOOFS to communicate impact
Connection with WMO	Opportunities increasing, need of strategic direction and scope (similar to OOPC request). GOOS consider what does success look like, what are the most important strategic connections and how do we make it work?	<ul style="list-style-type: none">• Specific call for OCG, OOPC, and interested SC members on the OOIS outcomes (same questions raised by OOPC)
Support for OCG activities	IOC staffing level is not sufficient. Does OCG need to find additional support, there are also the need to support the documentation of best practices through projects	<ul style="list-style-type: none">• OCG work with GOOS in the Implementation Planning to define needs

TPOS

Question topic	Description	Some ideas/suggestions...
Advance new governance	Advance new governance through intergovernmental organisation/work with GOOS, Panels, OCG, GRAs, and integrate with WMO	<ul style="list-style-type: none"> • Review of governance and connections to implement within GOOS, what is the pathway?
Capacity development	Engagement and commitment in South America and small Pacific island states	<ul style="list-style-type: none"> • Ocean Decade? - could potentially partner with the Pacific Solutions programme? • Observing together?
Connecting 3 tropical basins	<ul style="list-style-type: none"> • Meet after the GOOS SC for example? 	<ul style="list-style-type: none"> • OOPC role?
Raising the profile in WMO	WIGOS Pilot a start	

OBPS

Question topic	Description	Some ideas/suggestions...
Outreach	Greater coordination with GOOS in outreach	<ul style="list-style-type: none">• GOOS comms to note and make connection
Expand endorsed best practices	Co-creation and production of capacity development opportunities	<ul style="list-style-type: none">• Similar request as OCG, how can we work on this across GOOS, and with GRAs?
Connection to GRAs	Leverage/connection with GRAs in OBPS global actions	<ul style="list-style-type: none">• GOOS support connections?

AtlantOS

Question topic	Description	Idea/Suggestion
AtlantOS Connect	UN Decade Project Proposal - AtlantOS Connect (Submitted) - connect to GOOS	<ul style="list-style-type: none"> • Could see if the project falls under a GOOS Programme, Co-Design, otherwise connect through DCO
	GOOS interact with overview of Atlantic initiatives and the development of the AtlantOS Engagement Board	<ul style="list-style-type: none"> •
Collaboration with Ocean Observing Co-Design	Collaboration, redefining working groups, communicate and implement co-design processes within the Atlantic, representation and close collaboration with stakeholders to ensure co-designed process, start of Consultation process - e.g., barriers, user needs	<ul style="list-style-type: none"> • Co-Design invite AtlantOS to Workshop, exemplars?
Communications	Connect on communications - AtlantOS Ocean Hour, next Ocean Hour – April –Argo	<ul style="list-style-type: none"> • Connect with GOOS Webinar series?



CoastPredict

Question topic	Description	Some ideas/suggestions...
GOOS connection to DCC	<p>GOOS SC discussion regarding connections-interaction with Decade Collaboration Centre for coastal resilience in a changing climate. This will build for GOOS connections to this community and support CoastPredict. How GOOS interface to this new entity, it should be a legacy infrastructure at the end of the Decade, how does the DCC best help GOOS connect to coastal communities?</p>	<ul style="list-style-type: none"> • DCC Coastal Resilience should be mandated to prepare for the “Coastal Ocean Services” Expert Team/Standing committee/Coordination group (name to be decided) to be inserted in a large “World Ocean System” Infrastructure commission at the end of decade.
CoastPredict - GOOS components interface	<p>Discussion regarding the interface to the GOOS components - OCG, Panels, GRAs, ETOOFs, how best to work this for GOOS, CoastPredict will be leading new coastal capability, how GOOS connect/follow to integrate as needed</p>	<ul style="list-style-type: none"> • Create linkages between Panel/GRA associated data/metadata repositories to create clear data flow pathways • Presentation of an overview (including expected linkages) to Panel/GRA meetings • A Coastal OCG (through the DCC?) It could be but I would prefer a Joint action between CoastPredict and Obs-co-design • A joint action between CoastPredict and Obs-co-design (joint project)? • Connect through the forum of the Implementation Planning (Don't know what it is) • Role DCC? Prepare the “World Ocean

Ocean Observing Co-Design

Question topic	Description	Some ideas/suggestions...
SC member engagement with workshop	Attend, consider the exemplars and who should be contributing, promote the workshop and outcomes, consider and suggest organisations that could be interested in funding or supporting the exemplars to connect for the Final Exemplar Projects review/presentation	<ul style="list-style-type: none"> • SC members who volunteer to engage for the next months?
Sponsor engagement with Exemplars	GOOS Sponsors WMO and UNEP encouraged to think about how they will engage with the exemplars	<ul style="list-style-type: none"> • WMO, UNEP address in the sponsors session?
Modelling co-lead	Who would the SC suggest as the Ocean Observing Co-Design modelling co-lead?	<ul style="list-style-type: none"> • Suggestions
OCG/BioEco engage networks	OCG/BioEco Panel consider exemplars that are going forward and what/how networks engage with the exemplars	<ul style="list-style-type: none"> • Needs clear articulation of what an “exemplar” would look like so Panels understand how best to interact - perhaps provide short overviews to Panel meetings • Discuss at next meetings, OCG-13, BioEco Panel meeting (Frank?)

Observing Together

Question topic	Description	Some ideas/suggestions...
SC members for governance	Request for some SC member/s to actively engage with the governance of Observing Together	<ul style="list-style-type: none">• Volunteer/s to contribute to governance structure.• Specific request will be made in near-future
Connection to GOOS components	The first projects are developing and Observing Together will need to find some support (generally time) from experts within the GOOS components and networks. Already foreseen would be OCG, networks (GLOSS; OceanGliders...), GRAs. How should we do this?	<ul style="list-style-type: none">• SC members to utilise their networks to respond to specific requests for expertise• Could Observing Together attend GOOS component meeting to give an overview ahead of requests, e.g. attend GRA Meetings, OCG-13...?

Some summary points

Connections:

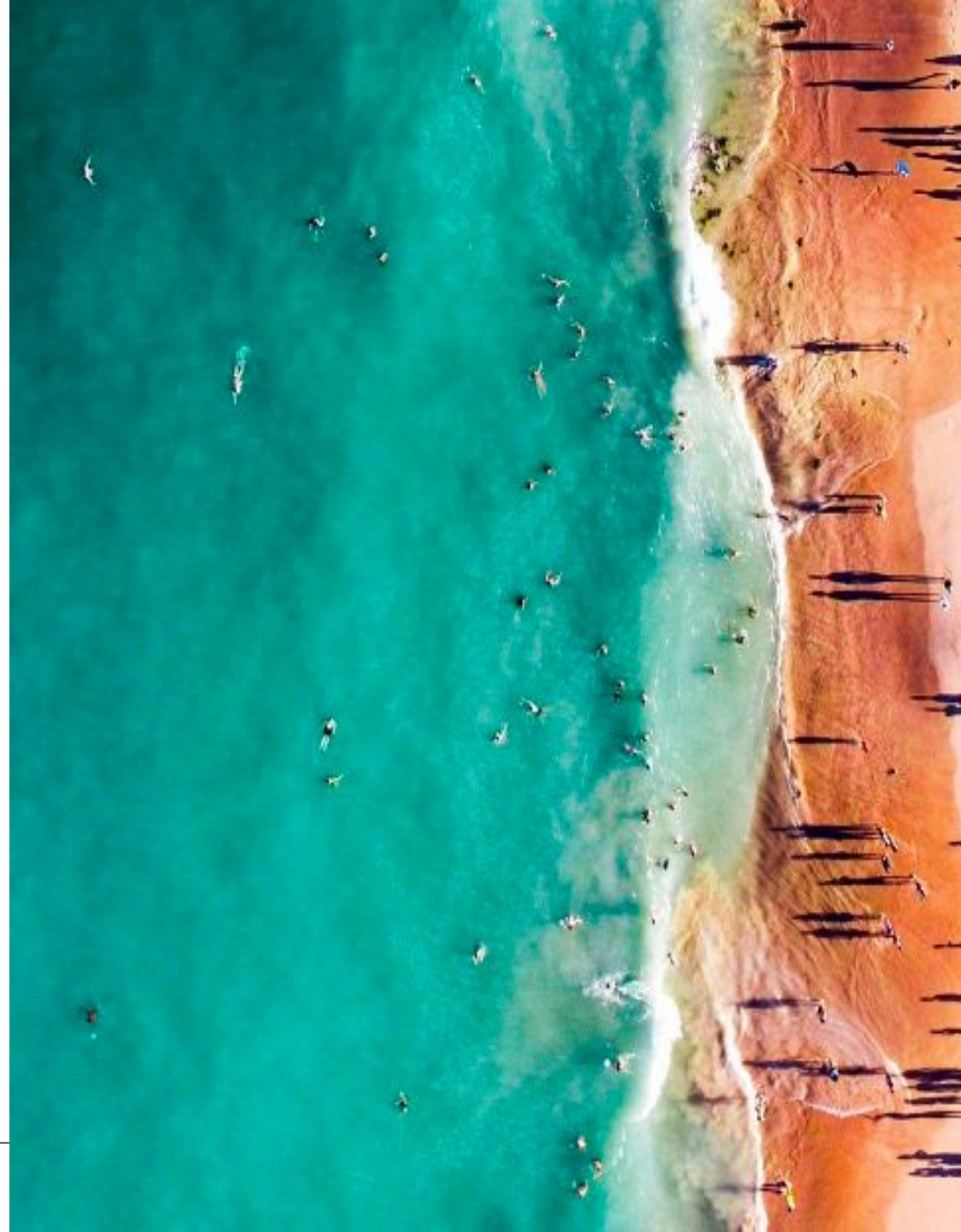
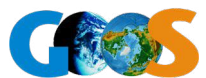
- A number of issues solved by better connections across GOOS - Use the Exec/Implementation Plan, what stops components reaching out?
- Ocean Decade has complicated the operating and implementing environment - programmes, DCOs, DCCs - what do these do to help GOOS Strategy, what are roles, again implementation useful
- WMO - similar questions around strategic oversight and what will it do for GOOS

Boundaries and focus

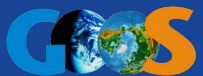
- What is best done where - some activities better central/cross GOOS and some through strategic partnership
- Often not clear from reports where the activities were implementing the strategy - makes SC advice more difficult

Core work

- Funding not secured, this needs to be part of our funding/resource plan



GOOS Implementation Planning



2 Years...

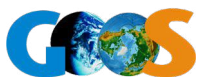
- 2019 - Global Ocean Observing System 2030 Strategy
- 2020 - Roadmap published and GOOS components major actions identified and discussed across GOOS
- 2021 - GOOS Implementation Plan - 72 actions, cross-GOOS actions developed, SC discussion around impact vs. Roadmap and integrating the Ocean Decade Programmes and Projects
- 2022 - actions in Monday project management software, GOOS poised to take a step forward in cross GOOS implementation, resource identification and fundraising



A Roadmap for the Implementation of the Global Ocean Observing System 2030 Strategy

for an open planning process

April 2020



S01: Strengthen partnerships for delivery

		Status	Priority	Timeline
1.1 GRA assessment for forecasts and services		Just started	Medium	Apr 1, '21 - Dec 31
1.2 Partnerships for delivery		Working on it	Low	Jun 1, '21 - Dec 31
+ Add Activity				

S02: Advocacy and communications

		Status	Priority	Timeline
2.1 Value of Ocean Observations Project		Working on it	Medium	Apr 1, '21 - Dec 31

Subitems

		Priority	Timeline	Status	
OECD-GOOS-MEDIN Survey Report		Medium	Aug 31, '21	Done	
Additional Survey Partners		Medium	Apr 24	Working on it	
Paper BP Value of Ocean Observing		High	May 31	Near Complete	

+ Add Subitem

The essence of this board is to provide a high-level overview of your project. This is the place to plan and track your progress.

For more information and a full explanation of how to use this template check out this video:

<https://www.youtube.com/watch?v=ug5TyvMd-3Y&feature=youtu.be>

[See More](#) ▾

- Main Table
- Gantt
- Kanban status
- Kanban Action le...
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- Output Impact Vi...
- More ▾
- + Add View
- Integrate
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[New Activity](#) ▾ Person Filter ▾

Working on it / 22

6.7 Environmental Stewardship

Status Working on it

7.2 Metadata standardisation glob...

Status Working on it

6.12 Marine network additio...

Status Working on it

7.4 OCG Data Implementation Stra...

Status Working on it

7.5 Establish OpenGTS Prototype

Status Working on it

+ Add Activity

Done / 1

9.1 Organize global online trai...

Status Done

+ Add Activity

Stuck / 3

11.1 GOOS support structure indep...

Status Stuck

11.3 Develop a GOOS Resourcing T...

Status Stuck

5.3 Strategy for Ocean Heat a...

Status Stuck

+ Add Activity

Future steps / 3

3.3 Ocean Forecast evaluatio...

Status Future steps

9.7 Capacity Exchange Materi...

Status Future steps

9.3 Implementing ocean moni...

Status Future steps

+ Add Activity

In Planning / 4

9.6 Ocean monitoring and forecasti...

Status In Planning

3.4 Global map of ocean forecastin...

Status In Planning

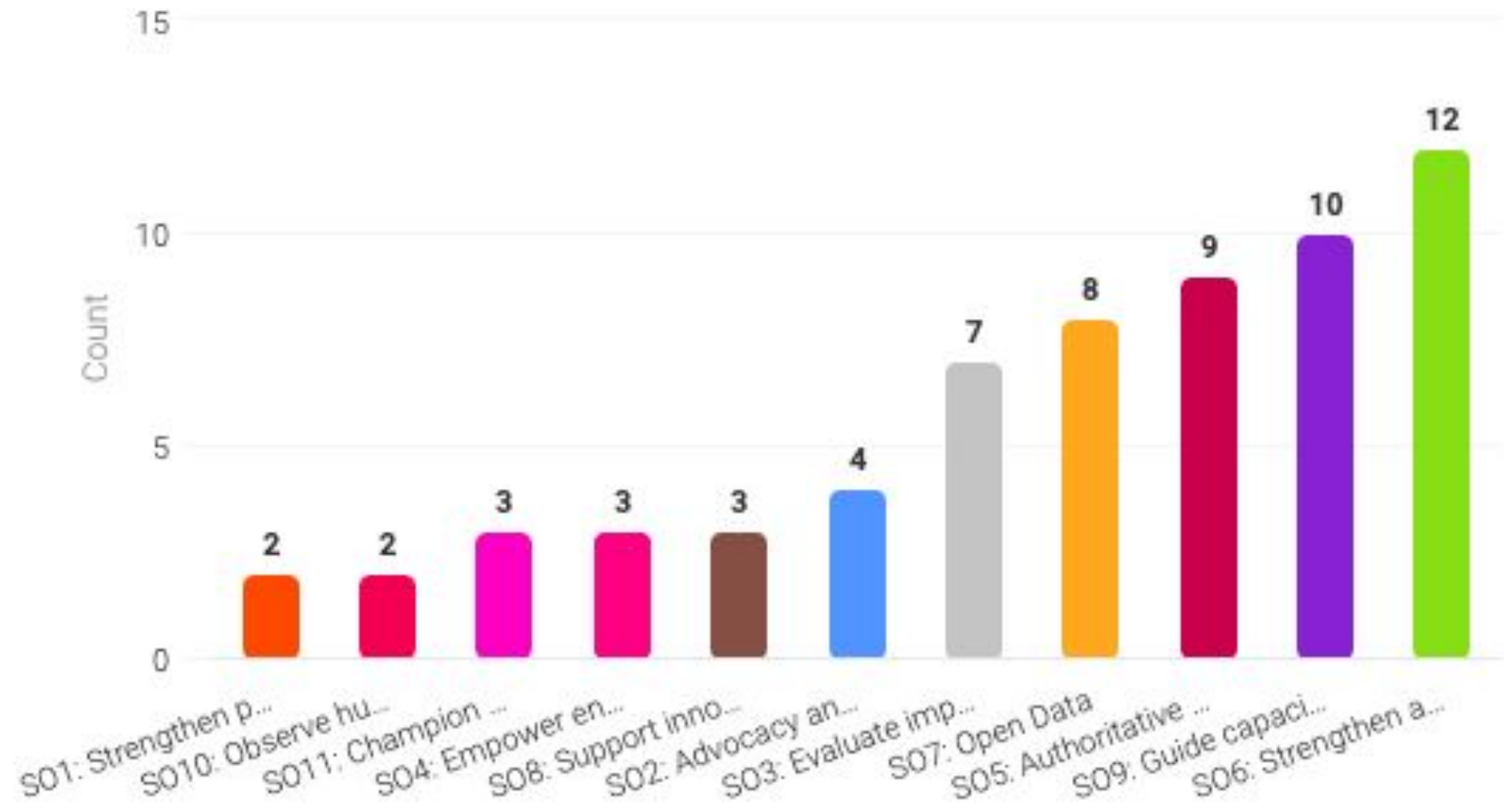
3.2 Observing System evaluat...

Status In Planning

3.1 Network status reporting

Status In Planning

+ Add Activity



Purpose

This is set up for the GOOS components and the SC

Objectives

- Raise visibility/knowledge of GOOS actions towards implementing 2030 Strategy
- Enable priority setting, Steering Committee to 'steer'
- Implement cohesive cross-GOOS actions
- Identify resource needs and target fundraising activity against action/impact
- Enable gap filling, including through partnerships
- Identify and tackle any barriers to GOOS ability to execute

Implementation

- Strategy is vital, but without implementation it is meaningless
- GOOS is implementing the 2030 Strategy, a view of this process
- SC must engage with implementation plan to provide effective oversight of how the 2030 Strategy is implemented

Reporting

- Needs to start to be about status towards objectives (Roadmap)



Input - Professor Kawanarti

1. Monday Software

- Monday software is very important for GOOS SC to understand the tools in the software to monitor programs that are already in the Implementation Plan phase. We need guidance to be used by GOOS SC to monitor the 74 actions contained in the Implementation Plan more easily.

2. Implementation Plan and Governance

- Currently, the implementation activities in GOOS will be conducted by involving many partnerships, agencies and, for some activities, across the nations. In this case, we need to designate GOOS governance carefully so that all the programs can be implemented smoothly and aligned. Therefore, there is a strong need for Governance task team members to have enough knowledge on those implementation plans as determined through SO's as their considerations to design the GOOS governance.

2. Decade Programs

- As I have informed that some GOOS activities proposals to the Decade Programs have been endorsed and others have been submitted, is there any link to have more information so that we may assist or support on the implementation?



Actions and trends that support work ahead, particularly for resourcing:

- GOOS Communications Plan
- GOOS Philanthropic sector fundraising insight/plan
- Increasing awareness of fundamental role of ocean in climate and sustainable development
- Ocean Decade resource mobilisation and awareness raising
- Increase in downstream service excitement - creates pull - e.g. Digital Twins of the Ocean, UNEP GEMS

Next Steps

Identified in 3 areas - seek SC feedback and how to engage

- *What information does the SC want from Monday and how often to support its oversight role?*
- *As resource needs are developed, what role will SC members play in transmitting this?*
- *Should we revise the GOOS Implementation Roadmap? What would be the process?*

Resourcing

- **Baseline resource needs mapped;** new resource, existing resources, and areas of weakness, create overview of resource needs against actions
- **Recognition to existing providers:** web and report
- **Outward facing impact focused ‘ask’:** encompass cross-GOOS needs, perhaps highlight ‘headline’ projects that need support, coupled with a summary that shows here these fit into the overall implementation plan - for discussion with stakeholders

Complete planning tools

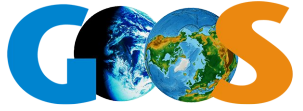
- **Include GOOS Projects as actions:** with funding needs
- **Include Decade Programmes:** now they are more developed, ask for an outline of main actions and funding needs next 3 years
- **Finalise all impact and action revision:** complete analysis for SC and GOOS Exec

Ultimately more advanced tasks: risk assessment, SWOT, gaps, where partners could aid

Ongoing cross GOOS implementation work

- **GOOS Exec to meet quarterly:** to review actions, make connections, cross GOOS work, priorities, un-sticking actions, resource work,
- **Suggest start to report out against Strategic Objectives** - trial in 2022?
- **Suggest a review of Roadmap/IP:** In 1-3 years (2023-4) - one third of the way towards the 2030 Strategy. Should we think about a process with partners?





The Global Ocean Observing System

Thank you

goosocean.org



unesco
Intergovernmental
Oceanographic
Commission



WORLD
METEOROLOGICAL
ORGANIZATION



UN
environment
programme

International
Science Council



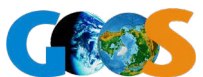
Questions & Asks: GOOS Panels

BioEco Panel:

Connections with external networks, organisations (partners), can we coordinate activities across GOOS, e.g. GCOS, have visibility of asks, how can we better manage this? How best to use our time - need visibility

Support: Funding for support (IPO?) - need to move to stable long term funding, work to identify USP of panel, assistance with this. OBIS support, success with EU projects helping, but again needs long term sustained view

Citizen science across GOOS: Would like to see a focus on citizen science initiatives for GOOS/across GOOS, see things coming up in the UN Decade and will be important for BioEco, have the OceanOPS Odyssey Project - learn from other areas, some obs are already citizen science e.g.



Questions & Asks: GOOS Panels

BGC Panel:

Single supplier of reference materials - Problem with single supplier of reference materials, weak point in the system, can GOOS do something to raise the profile of this as an issue?

Data management for BGC - key issue, no solution found despite a few years work, really need a cross GOOS data planning/effort (session yesterday) and support from GOOS to move/enable BGC data storage to be taken seriously and supported

Economic justification: value of ocean observations more and more important in discussions that are having, ROI etc. Cross-GOOS work is needed to articulate the value of ocean observations, more clearness in communications about how the OO community, funders/policy makers use the tools



Questions & Asks: GOOS Panels

OOPC:

Stronger connection/briefing between GOOS and WMO INFCOM

Connection with OCG - briefing needs for seamless predictions

GOOS Panels should meet together once a year



Questions & Asks: Decade programmes

CoastPredict:

GOOS Connection to DCC: GOOS SC discussion regarding connections-interaction with Decade Collaboration Centre for coastal resilience in a changing climate. This will build for GOOS connections to this community and support CoastPredict. How GOOS interface to this new entity, it should be a legacy infrastructure at the end of the Decade, how does the DCC best help GOOS connect to coastal communities?

CoastPredict connection to GOOS components - discussion regarding the interface to the GOOS components, OCG, Panels, GRAs, ETOOFs, how best to work this for GOOS, CoastPredict will be leading new coastal capability, how GOOS connect/follow to integrate as needed



Questions & Asks: Decade programmes

Ocean Observing Co-Design:

SC members engage with Workshop; attend, consider the exemplars and who should be contributing, promote the workshop and outcomes, consider and suggest organisations that could be interested in funding or supporting the exemplars to connect for the Final Exemplar Projects review/presentation

GOOS Sponsors WMO and UNEP encouraged to think about how they will engage with the exemplars

Ocean Observing Co-Design Modelling co-lead - who would the SC suggest

OCG/BioEco engage networks: OCG/BioEco Panel consider exemplars that are going forward and what/how networks engage with the exemplars

Questions & Asks: Decade programmes

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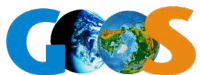
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Connect 3 tropical basins planning/consistency - OOPC role?

Raise the profile in WMO - WIGOS Pilot a start



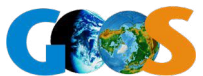
Questions & Asks: GOOS Projects

OBPS:

Greater coordination with GOOS in outreach

Expand endorsed Best Practices - co-creation and production of capacity development opportunities

Leverage/connection with GRAs in OBPS global actions



Questions & Asks: GOOS Projects

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Connect on communications - AtlantOS Ocean Hour, next Ocean Hour – April –Argo, (*part of GOOS Webinar series...?*)



Questions & Asks: GOOS Implementors

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