# Developing a Blueprint for an Atlantic Ocean Observing System

- Strong need to develop a strategy for integrated ocean observing in the Atlantic

- Seek to facilitate a more sustainable, coordinated, comprehensive system

- Need to better serve societal needs

- System should be efficient and fit-for-purpose

- Ambitious, multi-national, multi-sectoral, multi-disciplinary

- Should include capacity development and enhance partnerships between science, service, private sector and civil society

Legend

Reference stations	Tsunameter	GO-SHIP Lines	ASAP Balloons
Fixed Platform	Drifters	XBTs (2014)	VOS Ships (2014)
Moorings	Profiling floats	SOOP Lines	
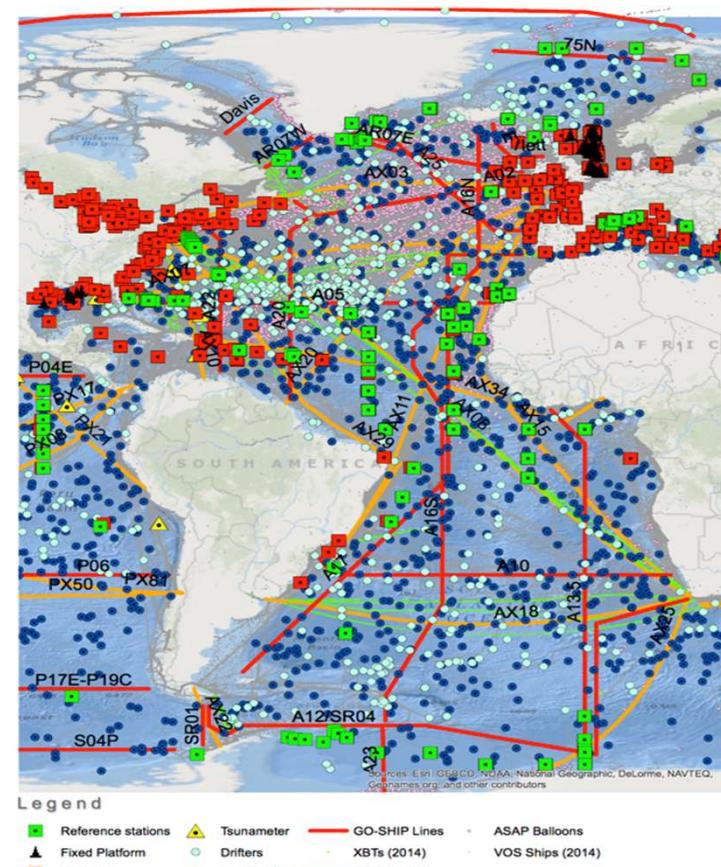
Global Ocean Observing System
Atlantic Ocean - 2015

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Follow an example based approach

Storm surge and tsunami warnings: Many clear operational systems, recognized benefit, identified gaps and opportunities for improvement

Safety and security: safety for operations at sea, navigation support, search & rescue, aquaculture and energy industry support and oil spills requiring detailed information on waves, currents, temperature and wind to support nowcasting and forecasting

 Climate: Clearly set the basin-scale challenge, with many examples including bio-geographic regime shifts of marine organisms, ocean acidification, changes in the deep ocean circulation, ….

Ocean Health: Many fisheries examples and links to anthropogenic stressors from warming, to lower oxygen levels to acidification,   spanning the local to the basin scale, Harmful Algal Blooms (HABs)

Vision for Integrated Atlantic Observing in 2030

Why do we need a BluePrint?

- Oceans play vital role in global climate system and biosphere
- Oceans are the seventh larges economy on the planet
- Given the challenges for environmental management and our social and economic dependence on the oceans, particularly in the context of climate change, it is crucial to track and understand oceans at the basin-scale
- Having trouble determining how to put the observing pieces together

Why is now the right time for the BluePrint?

- Recent political promotion of trans and pan Atlantic Cooperation
  - Signing of the Galway Statement in 2013 and the Belem Accord in 2017
  - G7 science ministers discussion ocean observation (2016, 2017, 2018?)
- International focus on climate and oceans
  - Paris Accord on climate change
  - Call for action linked to the UN SDG14 in 2017
  - IOC Decade on the Oceans – 2021-2030

Vision for Integrated Atlantic Observing in 2030

What will the BluePrint enable?

- Identify needs, benefits and opportunities
- Define principles required for sustainability
- Offer guide to enable basin-scale governance
- Provide implementation guidance for sustained ocean observing

What is new and how should we develop this discussion?

- Define both challenges and opportunities
- Clear recommendations for steps (actions) to move forward
- Focus on basin-scale integration
- Guide to Implementation and planning of New approaches

Vision Document - Outline

1. Vision for Integrated Atlantic Observing in 2030

2. Meeting User Needs – illustrated with examples, describe what is possible

3. Assessing Observing Requirement to Meet User Needs

4. Describe Existing Observing Networks (e.g. GoShip, Argo …)

5. Data Flow and Information Generation - include integration, synthesis and analysis

6. Innovation and Capacity Building

7. Governance and opportunities for Partnerships

8. Opportunities looking forward to sustainable observing in 2030

Implementation Guide - Outline

1. Introduction and Overview – make links back to the vision document

2. Defining EOVs and System Design – follow best practices

3. Network Implementation – follow best practices

4. Data Flow – managing and communicating data – follow best practices

5. Capacity building – follow best practices

6. Governance – need for basin-scale governance model with regional structures and embedded in global architecture

7. Looking forward to 2030 – describe forward looking vision

Governance- Developing

1. Principles : What do we need? What might it look like from scratch? What needs to be mobilized and integrated? How might we do that?

2. Pragmatics: Build on national contributions. Regional coordination of national contributions. Avoid breaking what is working.

- Global coordination: EOVs, network characteristics, data issues,

- Regional/national level support – funding here

- Basin- scale – the missing gap in present governance

- Likely that different basins will require different solutions

Governance light, voluntary pariticpation - Basin-Scale

1. The BluePrint will review what presently exists (S&N)

2. Consider existing alliances – weaknesses and strengths

3. Consider possibilities for different forms of partnership

4. Need some legal status

5. What resources are needed?

6. Require a coordinating body, secretariat
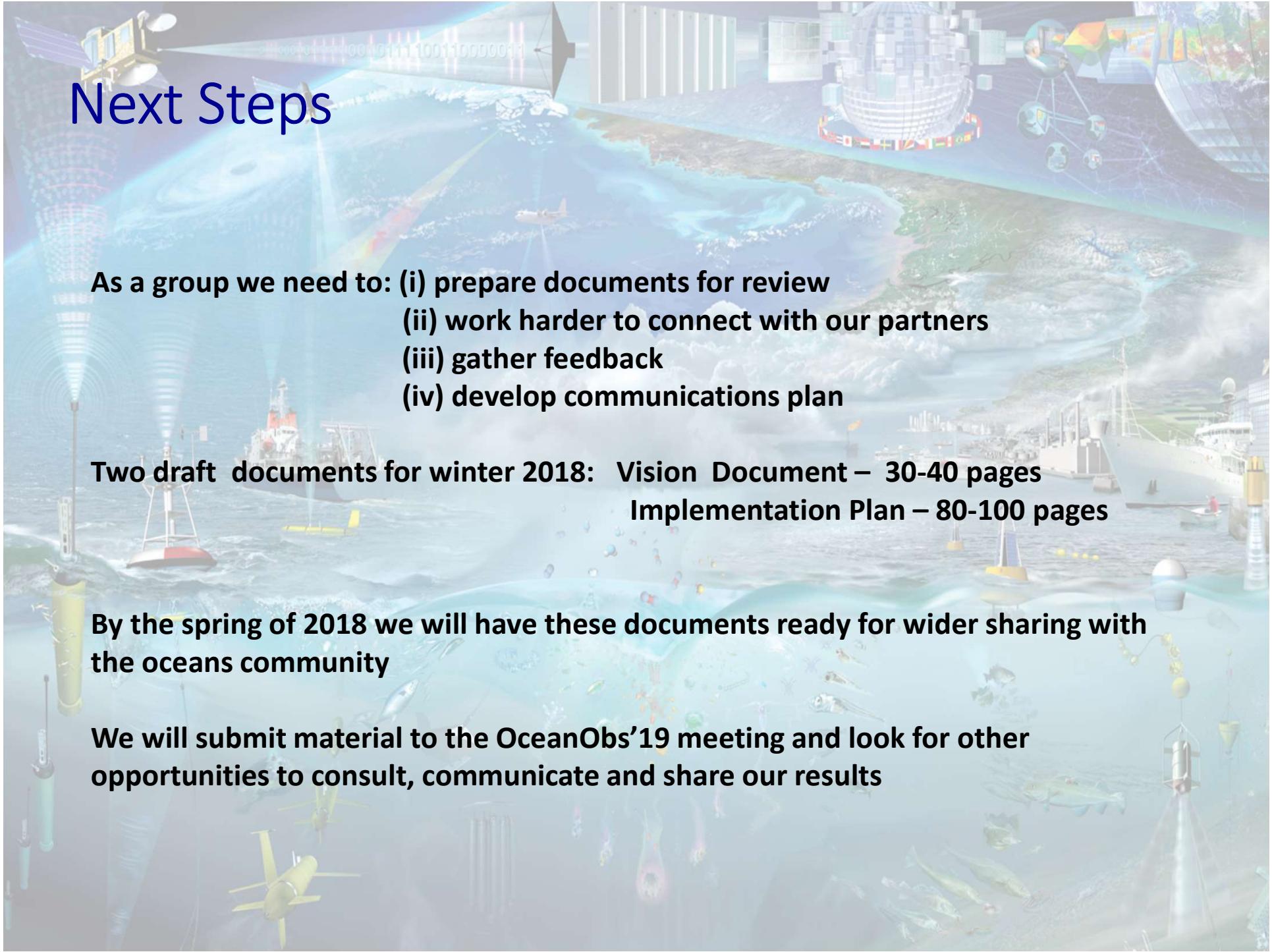
Next Steps

As a group we need to: (i) prepare documents for review

(ii) work harder to connect with our partners

(iii) gather feedback

(iv) develop communications plan

Two draft documents for winter 2018:   Vision Document – 30-40 pages

Implementation Plan – 80-100 pages

By the spring of 2018 we will have these documents ready for wider sharing with the oceans community

We will submit material to the OceanObs'19 meeting and look for other opportunities to consult, communicate and share our results

Comments?
Suggestions?