

Louise Newman
SOOS International Project Office, Australia

Oscar Schofield
Rutgers University, USA

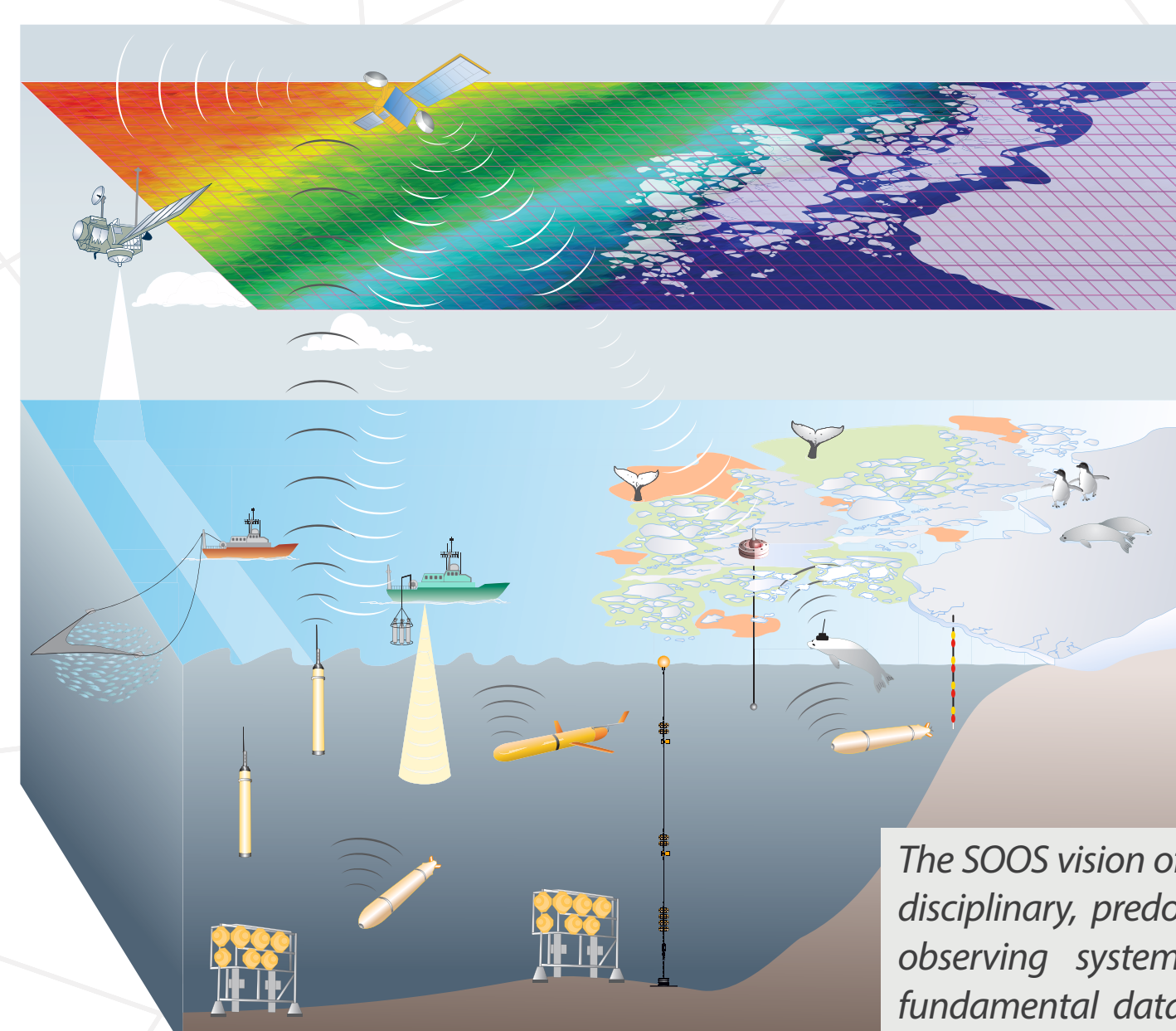
Anna Wahlin
Uni Gothenburg, Sweden

Andrew Constable
Australian Antarctic Division, Australia

Sebastian Swart
CSIR, South Africa

Phillippa Bricher
SOOS International Project Office, Australia

on behalf of the SOOS Scientific Steering Committee and the Southern Ocean Community



The SOOS vision of an integrated, multi-disciplinary, predominantly automated observing system that provides the fundamental data required to address key scientific and societal challenges

An ambitious vision

The SOOS vision is ambitious and futuristic, requiring significant international coordination and resources to achieve. It is, however, what is required to deliver the physical, chemical and biological observations needed to respond to the core challenges currently facing the global community, such as many of those defined in the SCAR Horizon Scan initiative.

How then, to achieve this vision that will require entraining a diverse, distributed and interdisciplinary community, whilst working with limited resources in a logistically challenging and expensive region?

The first step...integrating existing international and national efforts

EXISTING OBSERVATIONAL EFFORTS

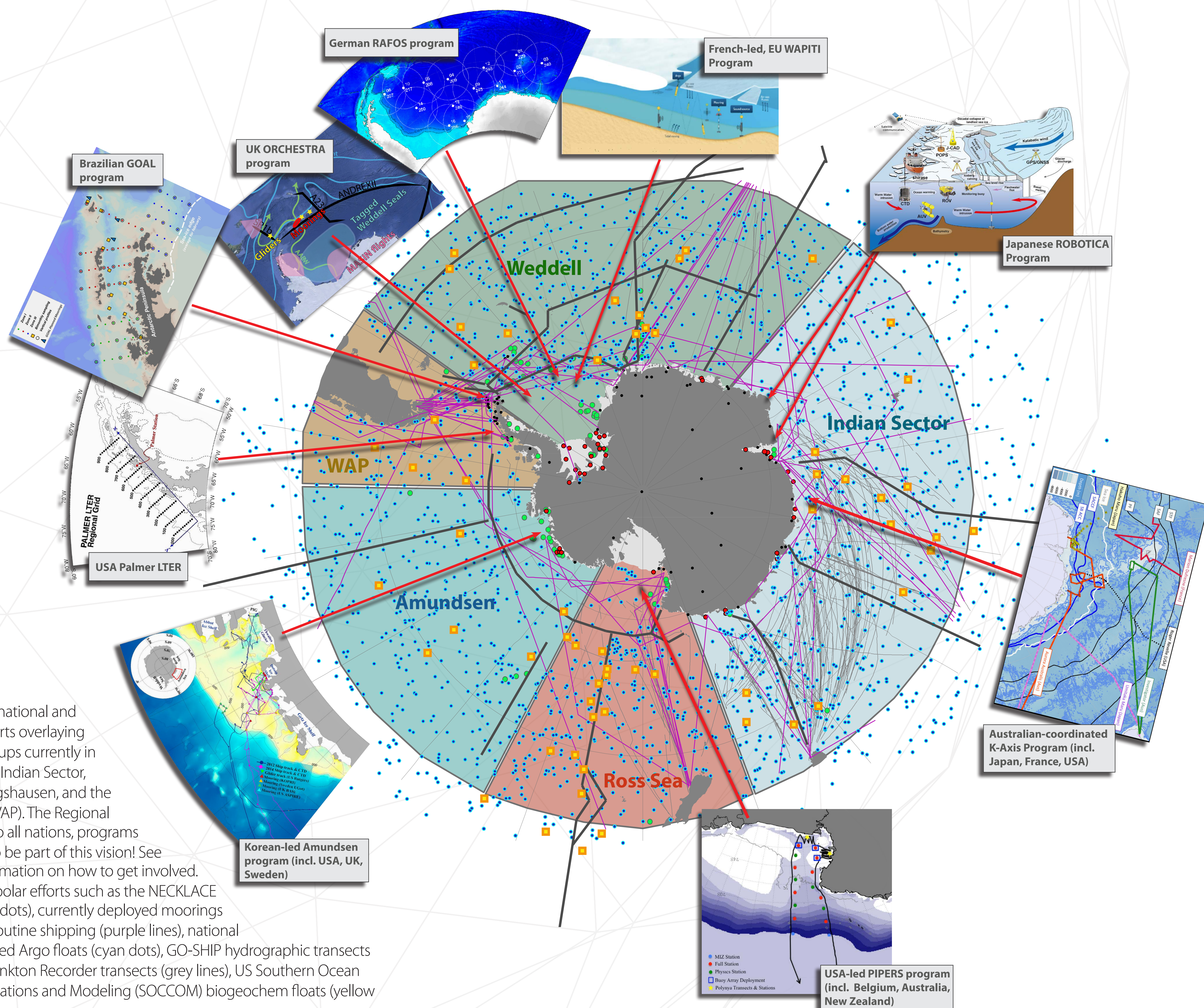
There are many existing field campaigns that contribute to addressing the critical gap in Southern Ocean observations. In order to build an **integrated system** that provides fundamental data on status and change in Southern Ocean systems across all disciplines, these disconnected efforts need to be brought together into an **internationally coordinated system of shared effort** (resources) and **shared outcomes** (data) towards **global benefit**.

REGIONAL WORKING GROUPS

SOOS is developing **5 Regional Working Groups** based on the existing distribution of national infrastructure and observing efforts. These groups (shown in colour segments below) will integrate existing observational activities towards development of regionally coordinated observing systems. The Regional Working Groups will also work with circumpolar programs to ensure appropriate coverage within each region.

Regional Working Groups will:

- 1) Identify all existing and planned observational activities within a region
- 2) Identify gaps in the observing system and work to address gaps
- 3) Identify sampling approaches and protocols and work towards standardisation
- 4) Identify data streams and repositories and work towards open data



Some examples of existing national and international observing efforts overlaying the 5 Regional Working Groups currently in development: The Weddell, Indian Sector, Ross Sea, Amundsen/Bellingshausen, and the West Antarctic Peninsula (WAP). The Regional Working Groups are open to all nations, programs and individuals who wish to be part of this vision! See www.soos.aq for more information on how to get involved.

Base map includes circumpolar efforts such as the NECKLACE ice-shelf melt program (red dots), currently deployed moorings (green dots), approximate routine shipping (purple lines), national stations (black dots), deployed Argo floats (cyan dots), GO-SHIP hydrographic transects (black lines), Continuous Plankton Recorder transects (grey lines), US Southern Ocean Carbon and Climate Observations and Modeling (SOCCOM) biogeochem floats (yellow squares)