SOLAS International Project Office
GEOMAR Helmholtz Center for Ocean Research Kiel, Germany;
State Key Laboratory of Marine Environmental Science, Xiamen University, China
www.solas-int.org

7th GOOS Steering Committee meeting

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Presentation Outline

- SOLAS Overview + Strategy
- Current Projects and Events
- Thoughts on how to work together and align projects

SOLAS overview

surface ocean solas lower atmosphere study

- Established in 2004
- About 700 scientists in our database from over 60 countries
- National representatives in 30 countries
- 5 Chairs (Peter Liss, Doug Wallace, Eric Saltzman, Véronique Garçon, Lisa Miller)
- 6 Open Science Conferences welcomed over 1250 scientists
- 6 International SOLAS Summer Schools that trained over 420 young scientists
- Communication of over 100 e-bulletins/e-news, publication of 17 Newsletter issues, and 9 SOLAS event reports
- Over 100 workshops and several 100 publications contributed to international ocean-atmosphere science

- SOLAS Project Sponsors:

International Council for Science SCOR Scientific Committee on Oceanic Research

futureearth research for global sustainability

iCACGP

WCRP World Climate Research Programme

- SOLAS IPO Funders:

GEOMAR Helmholtz Centre for Ocean Research Kiel

MEL State Key Laboratory of Marine Environmental Science

近海海洋环境科学国家重点实验室（厦门大学）

State Key Laboratory of Marine Environmental Science (Xiamen University)

SOLAS overview

Participants at the SOLAS SSC meeting in May 2018.
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- **Scientific Steering Committee**

  Chairperson: Lisa Miller (Canada)

  Members:

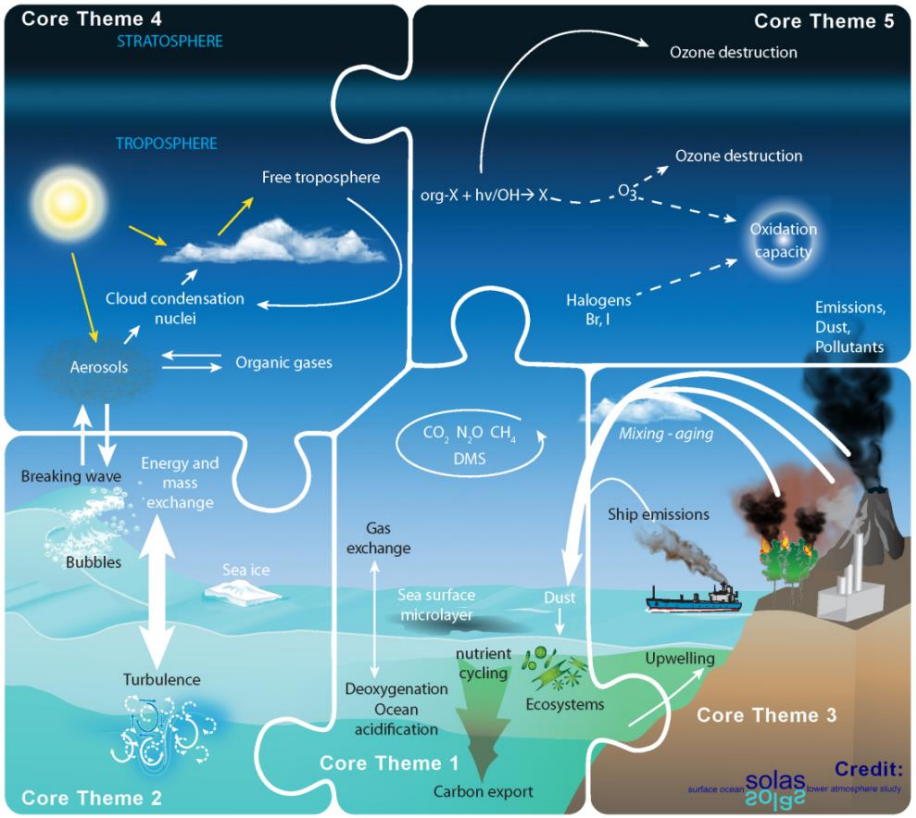
  Katye Altieri (South Africa)
  Erik van Doorn (Germany)
  Laura Gallardo (Chile)
  Santiago Gassó (USA)
  Arne Körtzinger (Germany)
  Maurice Levasseur (Canada)
  Jun Nishioka (Japan)
  Alfonso Saiz-Lopez (Spain)
  Guiling Zhang (China)
  Philip Boyd (Australia)
  Cristina Facchini (Italy)
  Véronique Garçon (France)
  Ilan Koren (Israel)
  Mohd Talib Latif (Malaysia)
  Peter Minnett (USA)
  Anna Rutgersson (Sweden)
  Parvadha Suntharalingam (UK)

- **IPO**: Jessica Gier (Executive Director, Germany), Li Li (Project Officer, China)
- **Executive Committee**: Lisa Miller, Cristina Faccini, Ilan Koren, Maurice Levasseur

SOLAS 2015-2015: Core Themes

"*to achieve quantitative understanding of the key biogeochemical-physical interactions and feedbacks between the ocean and atmosphere, and of how this coupled system affects and is affected by climate and global change*."

4. Interconnections between aerosols, clouds, and marine ecosystems



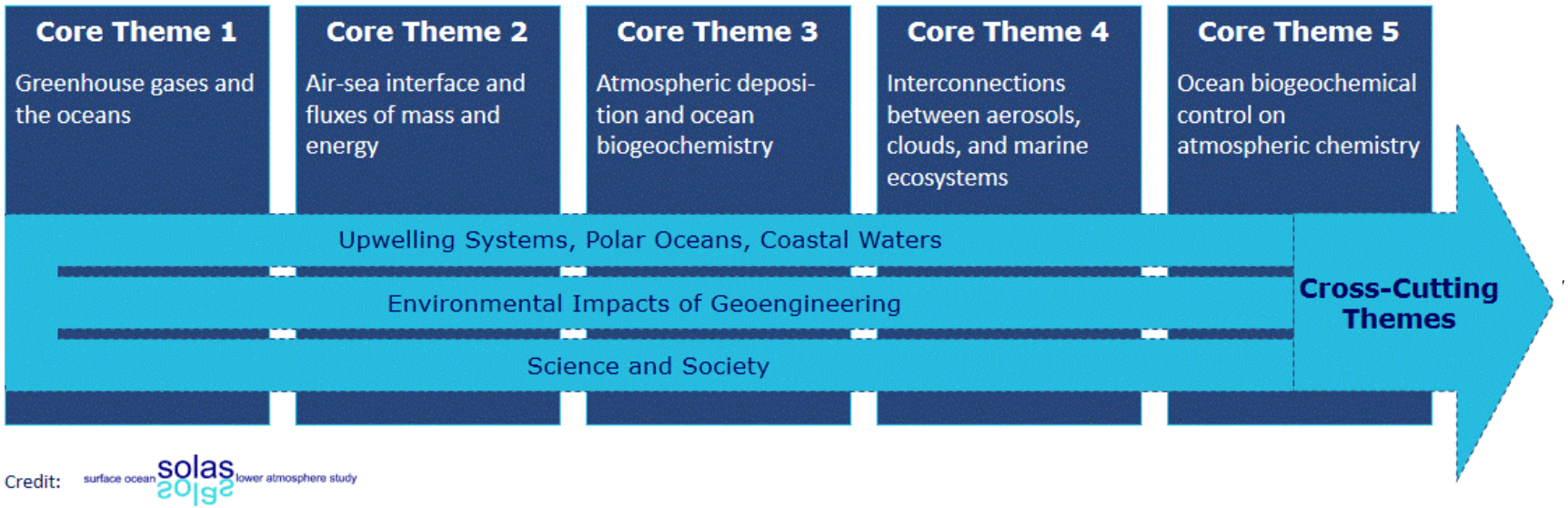
5. Ocean biogeochemical controls on atmospheric chemistry

2. Air-sea interface and fluxes of mass and energy

3. Atmospheric deposition and ocean biogeochemistry

1. Greenhouse gases and the oceans

SOLAS 2015-2015: Core Themes



Credit: surface ocean solas lower atmosphere study

- Understanding upwelling systems, polar oceans, and coastal waters
- Evaluating the environmental efficacy and impacts of geoengineering
- Evaluating policy decisions and societal developments (impacts of ship-plume emissions on ocean biogeochemistry, blue carbon, open-ocean stewardship)

How to work together

surface ocean solas lower atmosphere study

The Global Ocean Observing System

Ocean Health

Real Time Services

Climate

How to work together

Ocean Health

Consecutive Workshops on

I. Influence of coastal pollution on marine atmospheric chemistry: effects on climate and human health, joint SOLAS-IGAC, 27-28 November 2018

II. Interconnections between aerosols, clouds, and marine ecosystems in contrasting environments, 28-29 November 2018

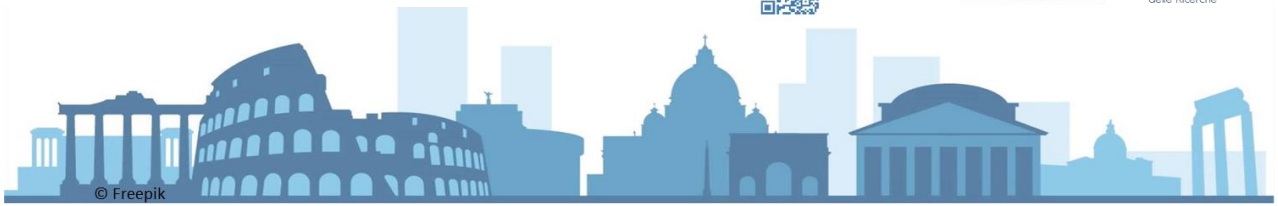
Venue: National Research Council (CNR), Roma, Italy

Scientific Organising Committees:

I. Maria Cristina Facchini (Italy)
Alfonso Saiz-López (Spain)
Hiroshi Tanimoto (Japan)
Christian George (France)

II. Maurice Levasseur (Canada)
Emmanuel Boss (USA)
Ilan Koren (Israel)

Website: www.solas-int.org/theme-4-and-5-workshop.html



How to work together

Real Time Services

Time-series station proposed by Anja Engel, Arne Körtzinger, Christa Marandino.
GOAL: Better understand ocean-atmosphere interactions and the role of the sea surface microlayer

- build on the existing time-series stations/infrastructure at Cape Verde
- Potential international partners: Prof. Dr. Douglas Wallace (Canada), Prof. Dr. Ilan Koren (Israel), Prof. Dr. Eric Saltzman (USA), Prof. Dr. Lucy Carpenter (UK), Prof. Dr. Rob Upstill-Goddard (UK), Carlos Duarte (Saudi Arabia), Cecile Guieu (France), (Minhan Dai (China)), INDP.
- Spar buoy between CVAO and CVOO with sensors for ocean and atmosphere measurements visited monthly
- Key parameters: Noble -, bio reactive-, photo reactive gases, eddy covariance fluxes, wave spectra, turbulent kinetic energy, wind speed/direction, SST, SSS, T, RH, rain, irradiation, CDOM, FDOM, organics, gel particles, surface tension, surfactant activity, chlorophyll, pigments, bacteria, phytoplankton, aerosols, nutrients, dust, trace metals deposition → All in water column, sea surface microlayer, and atmosphere
- Complete the existing Atlantic time series station network but also add new measurements
- **Fall 2018:** Kick-off meeting for the development and funding of SLIC, Kiel, Germany

How to work together

Real Time Services

March 2018: Facilitate the exchange of ideas and information about developments in remote sensing that can provide new information about the ocean-atmosphere interface, and to help forge collaborations between workshop participants and with the wider community.

Spring 2020: Follow-up workshop on remote sensing organised with ESA and NASA (potentially in Asia)

How to work together

Climate

Discussion sessions

Parallel discussion sessions are intended to provide an informal opportunity for round table discussions of SOLAS-related topics with the aim of furthering collaborations and research.
The parallel sessions will take place in the afternoon. Session duration: 90 min.

Discussion session proposals can be submitted here.

Received will be reviewed by the scientific organising committee.

Discussion session proposal submission

To submit your proposal you will be required to download the discussion session proposal form here (.pdf or .doc) and include the following information:

- A session title
- A list of the confirmed convener, co-convener (where relevant) and rapporteur including their email addresses and affiliations
- Main abstract text is restricted to a maximum of **150 words** (no figures or tables) and should detail the background and motivation of the proposed sessions
- The intended outcome of the discussion session
- Please note: these sessions are not intended as an arena for formal presentations

Proposal submission deadline is 15 November 2018.

Notification of discussion session acceptance: early January 2019.

How to work together

Climate

Winter/Spring 2020: Workshop on Geoengineering

How can we work together?

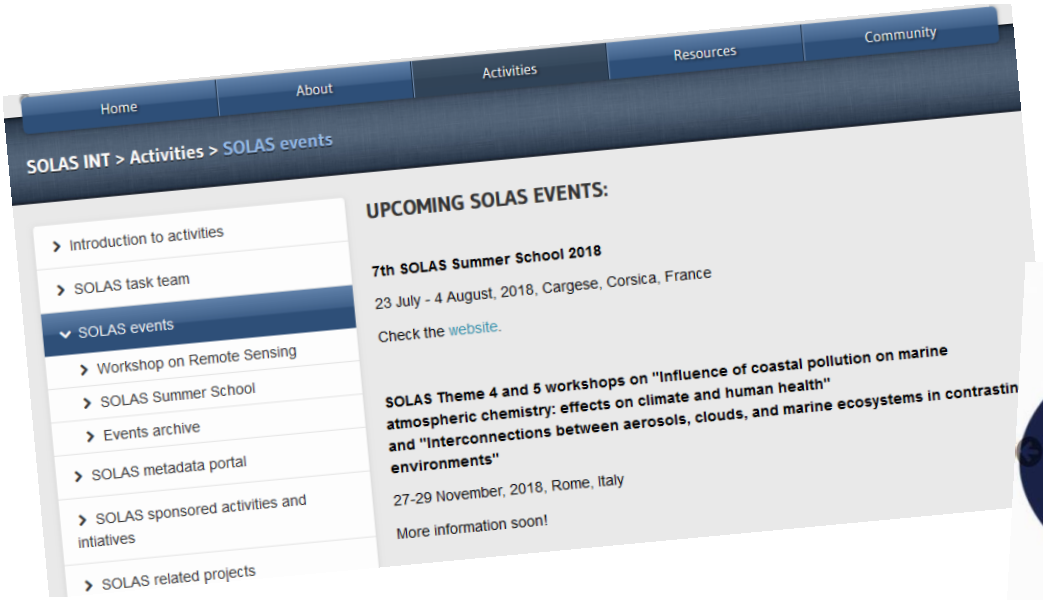
- GOOS & SOLAS discussion session at the SOLAS OSC 2019
- GOOS side meeting at the SOLAS OSC 2019
- GOOS at the Workshop 27.-29. November in Rome, Italy
- SOLAS input on the GOOS 2030 Strategy
- Marine Carbon Think Tank
- Cross linking science/implementation plans/SSC members – have a liaison?
- Communication of each others results
- Coordination of events, e.g. workshops on ocean observation/remote sensing
- OceanObs'19: SOLAS/GOOS event; SOLAS scientists contributed to community white papers (VOICE/GOOS, TAOS, TPOS2020)

GOOS 2030 Strategy:

- Hub of cooperation
- Partnerships for delivery
- Visibility of the benefits

How to get involved in SOLAS?

- Join the mailing list or follow us on twitter for current news on SOLAS, conferences, events, publications, and more.
  → **www.solasint.org/community/join.html**



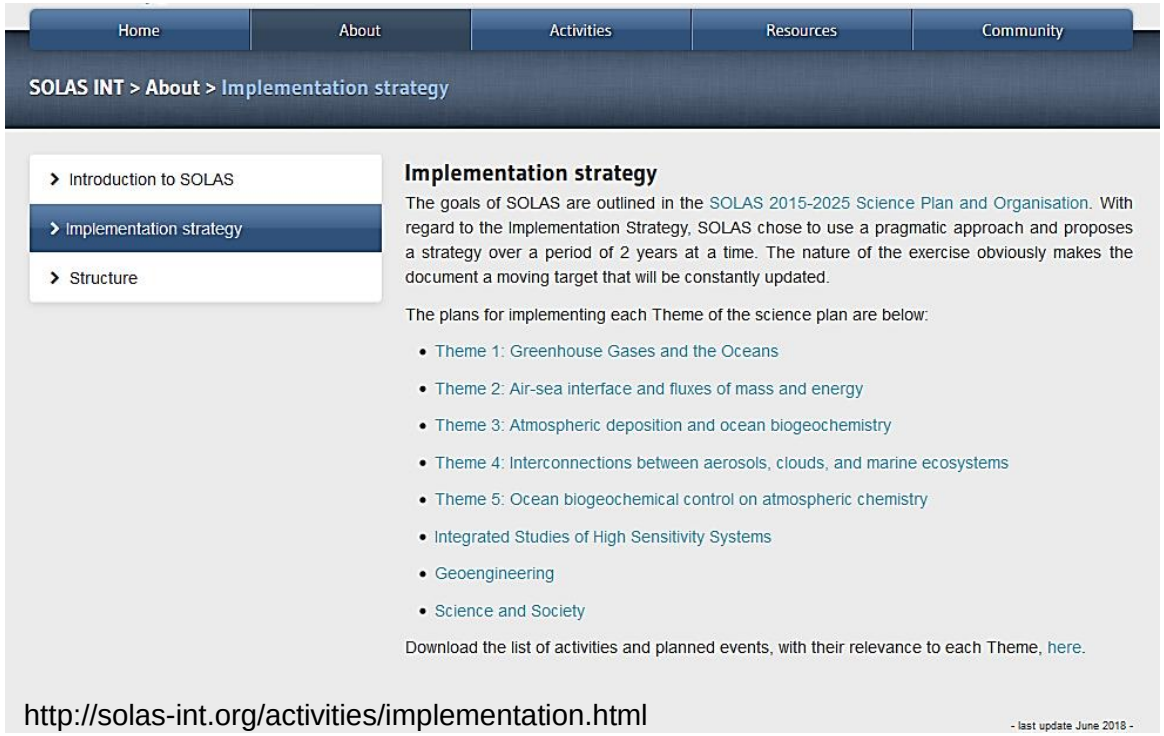
URL: www.solas-int.org; E-Mail: solas@geomar.de; Twitter: @SOLAS_IPO

Thank you!

extra slides

SOLAS Implementation Strategy

- SOLAS just released Version 2 of its live web-based Implementation Strategy
- Detailed activities and events that directly address SOLAS science
- Provides information about established working groups and planned developments



http://solas-int.org/activities/implementation.html

SOLAS 2015-2015: Core Themes

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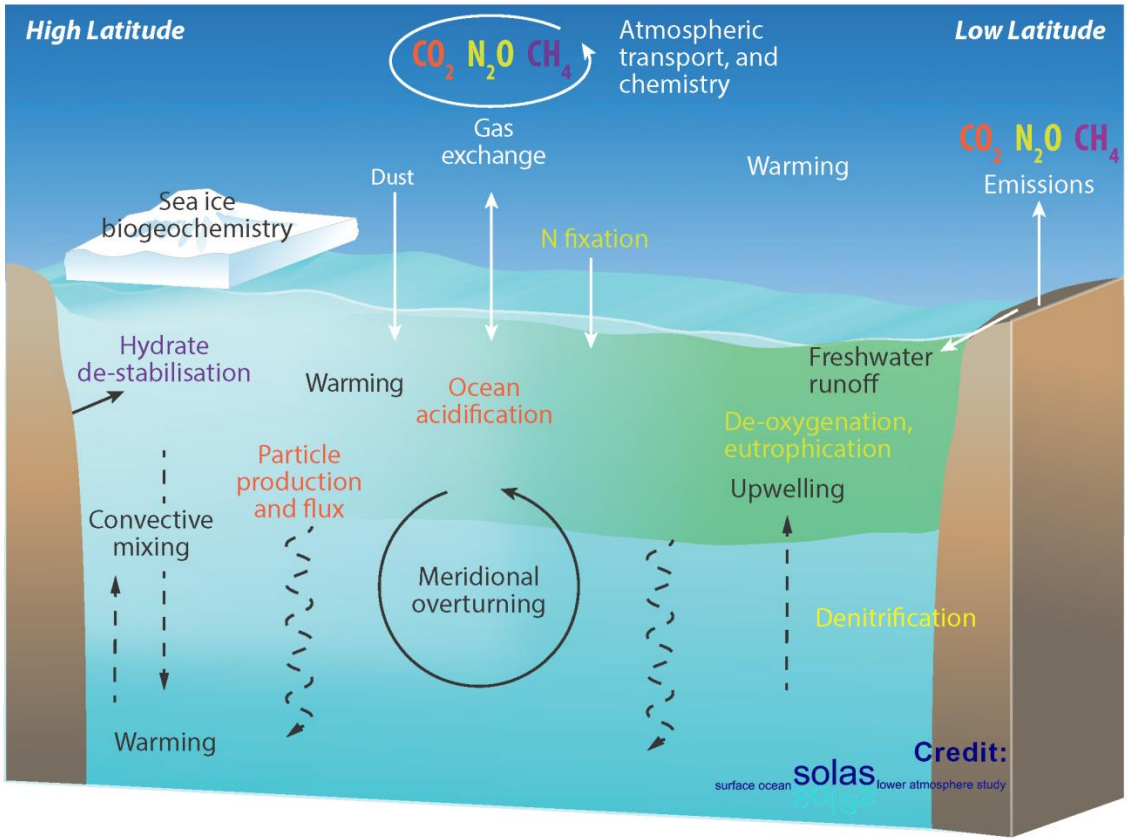

SOLAS 2015-2015: Core Themes

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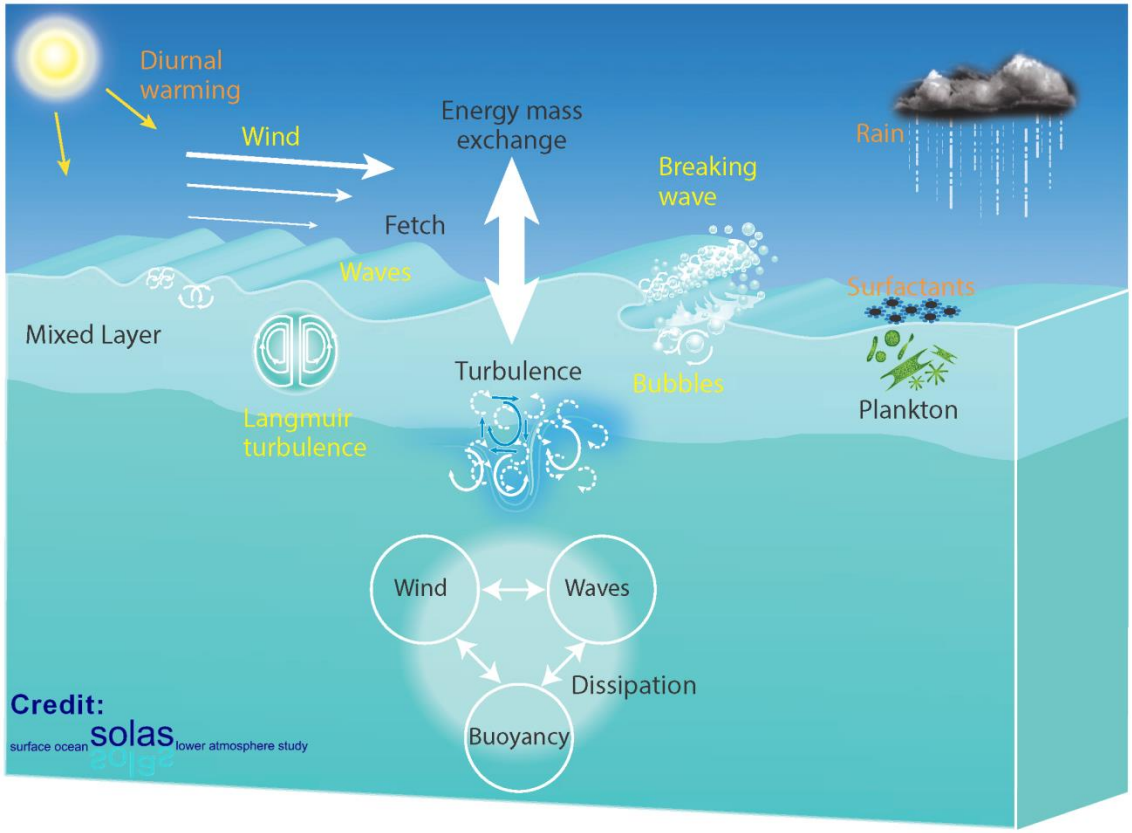
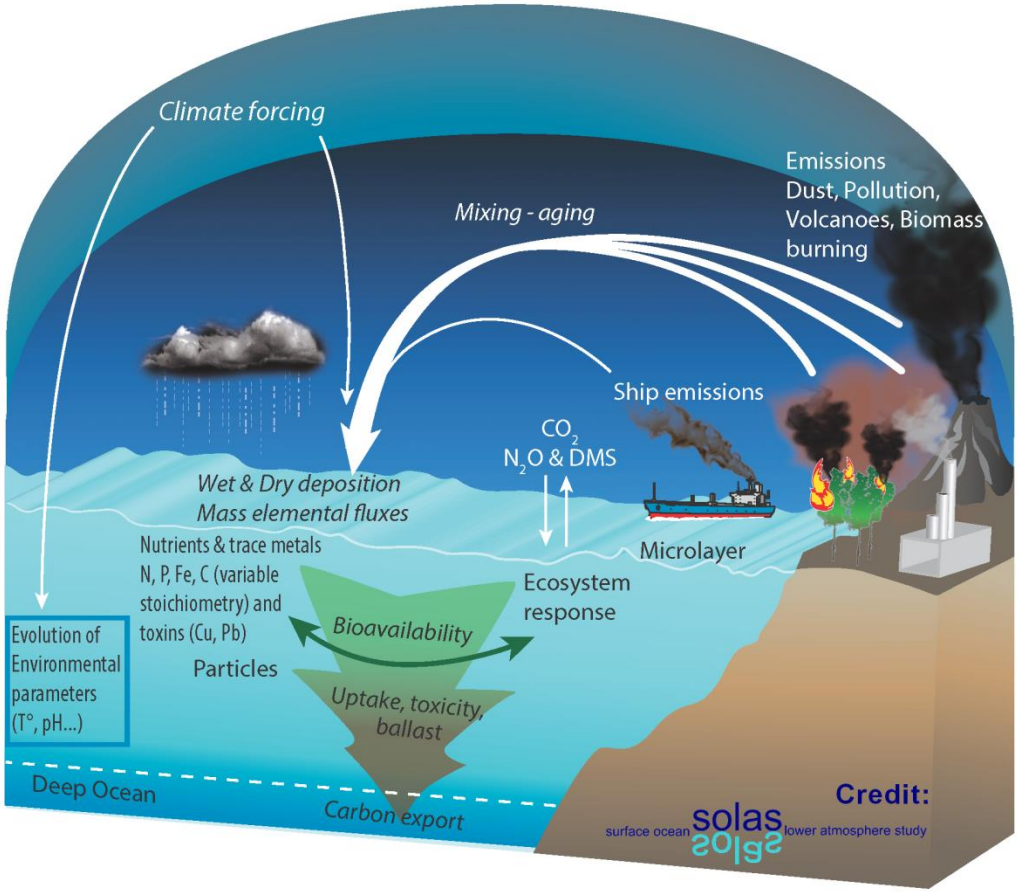


3. Atmospheric deposition and ocean biogeochemistry



SOLAS 2015-2015: Core Themes

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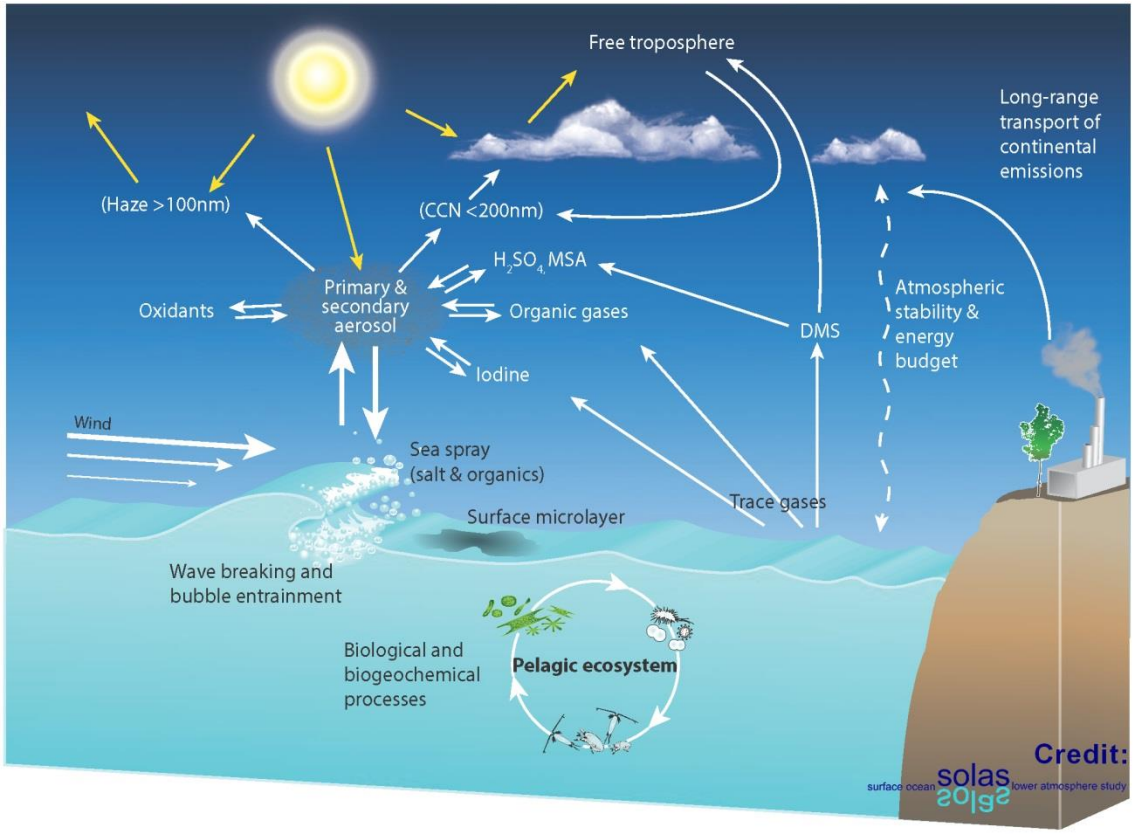

5. Ocean biogeochemical controls on atmospheric chemistry