



## Sponsors:



Bureau Int. SOLAS financé par:

## Sommaire:



- Le contexte
- La structure du projet
- Ses activités (sponsors, communication...)
- Activités scientifiques au niveau national

To provide scientific knowledge to improve the sustainability of the living Earth.

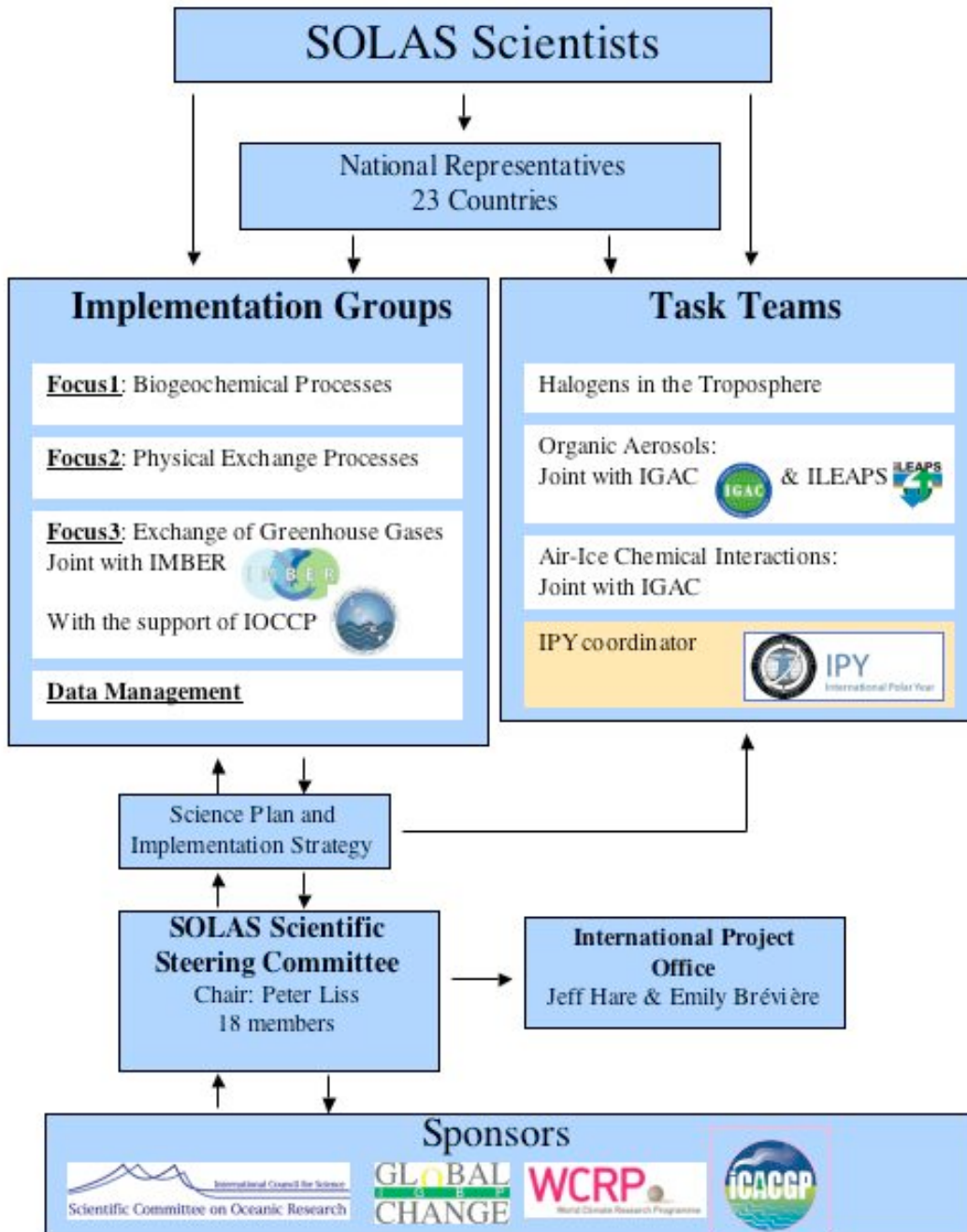


- IGBP **studies** the interactions between biological, chemical and physical processes and human systems
- IGBP **collaborates** with other programmes to develop and impart the understanding necessary to respond to global change

# The IGBP Network

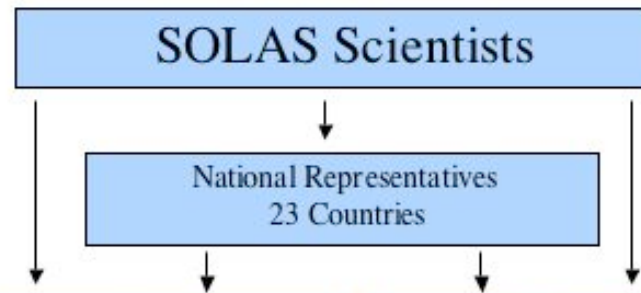


# Diagramme de la structure du projet:

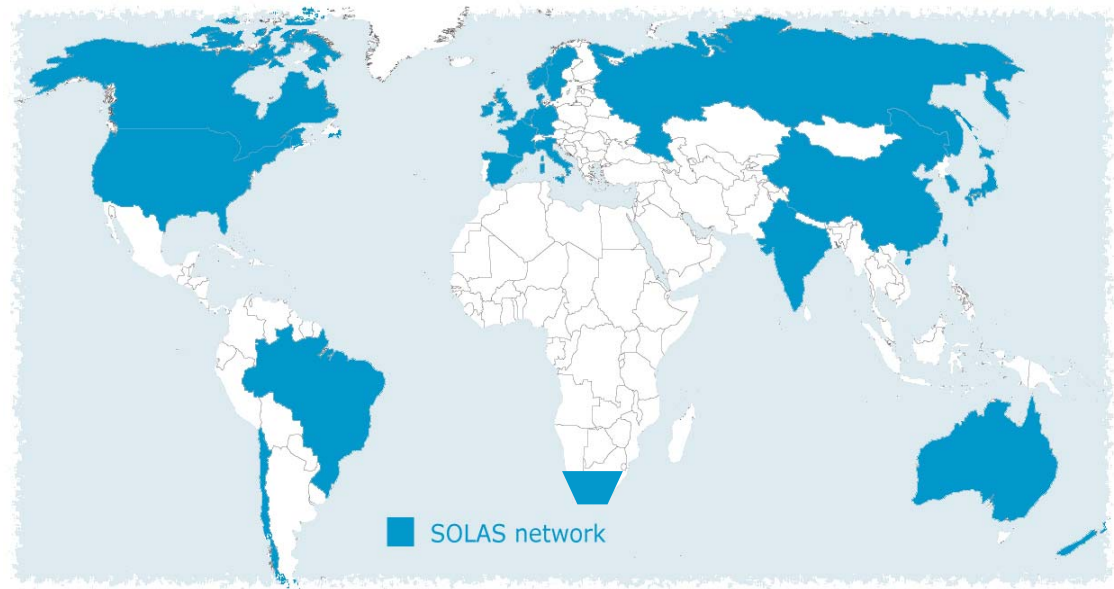




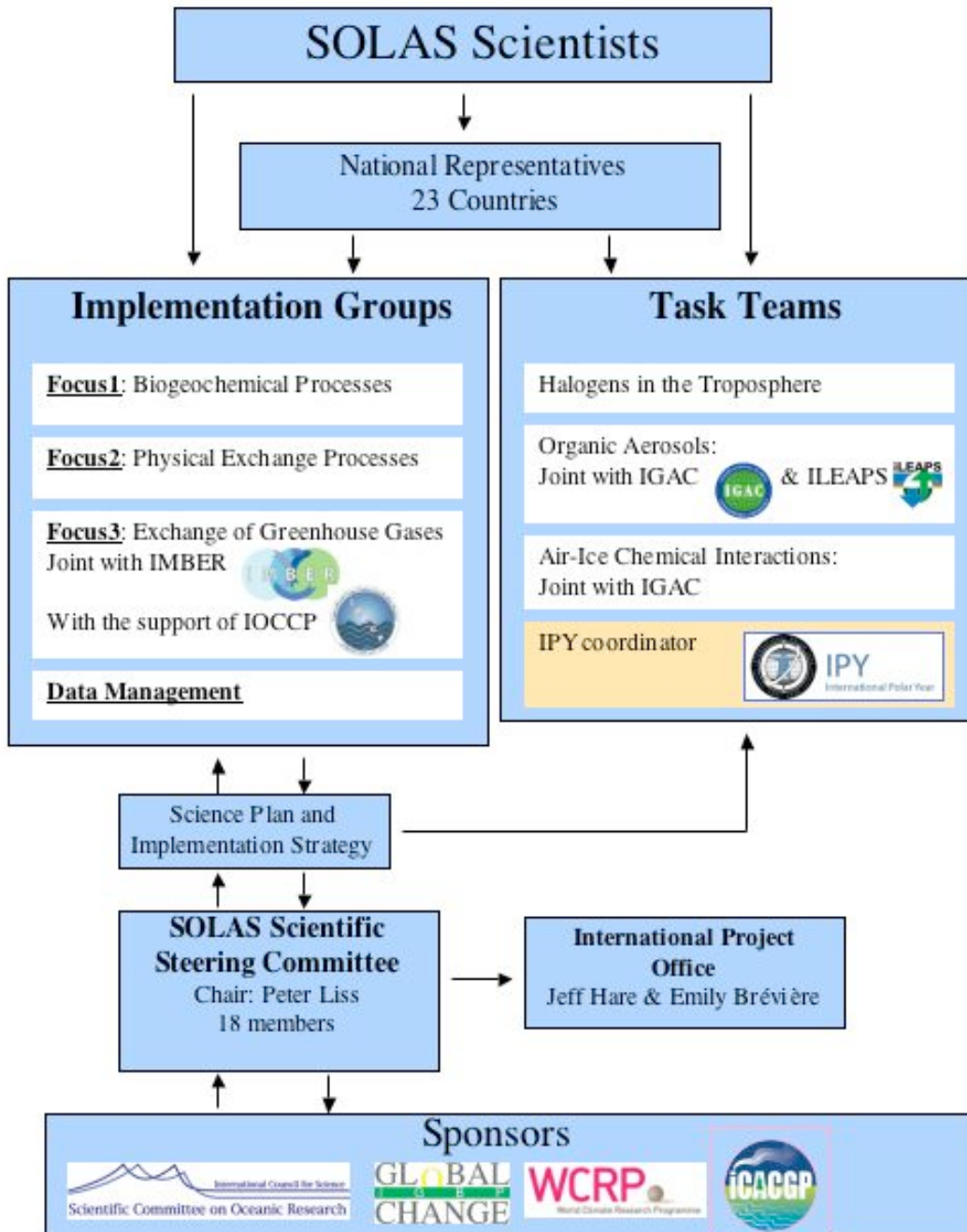
## Diagramme de la structure du projet:



- Activités dans **25 pays**
- Réseau en développement en Afrique du Sud



# Diagramme de la structure du projet:



## International Project Office:

**Jeffrey Hare**  
**Emily Brévière**  
**Georgia Bayliss- Brown**

✓ Financé par le NERC

Basé à School of  
Environmental Sciences, University of East  
Anglia, Norwich, UK



## Roles:

- **Communication**
- **Coordination**
- **Provide an international basis for the SOLAS legacy**

\* [www.solas-int.org](http://www.solas-int.org)



\* Monthly e-bulletin



\* Bi-annual Newsletters downloadable



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## Roles:

- Communication
- Coordination
- Provide an international basis for the SOLAS legacy

### Job opportunity:

**\*\*Research Associate in the SOLAS Office\*\***

Plus d'info à <http://www.uea.ac.uk/hr/jobs/>  
Date limite de candidature: 15 Sept

\* [www.solas-int.org](http://www.solas-int.org)

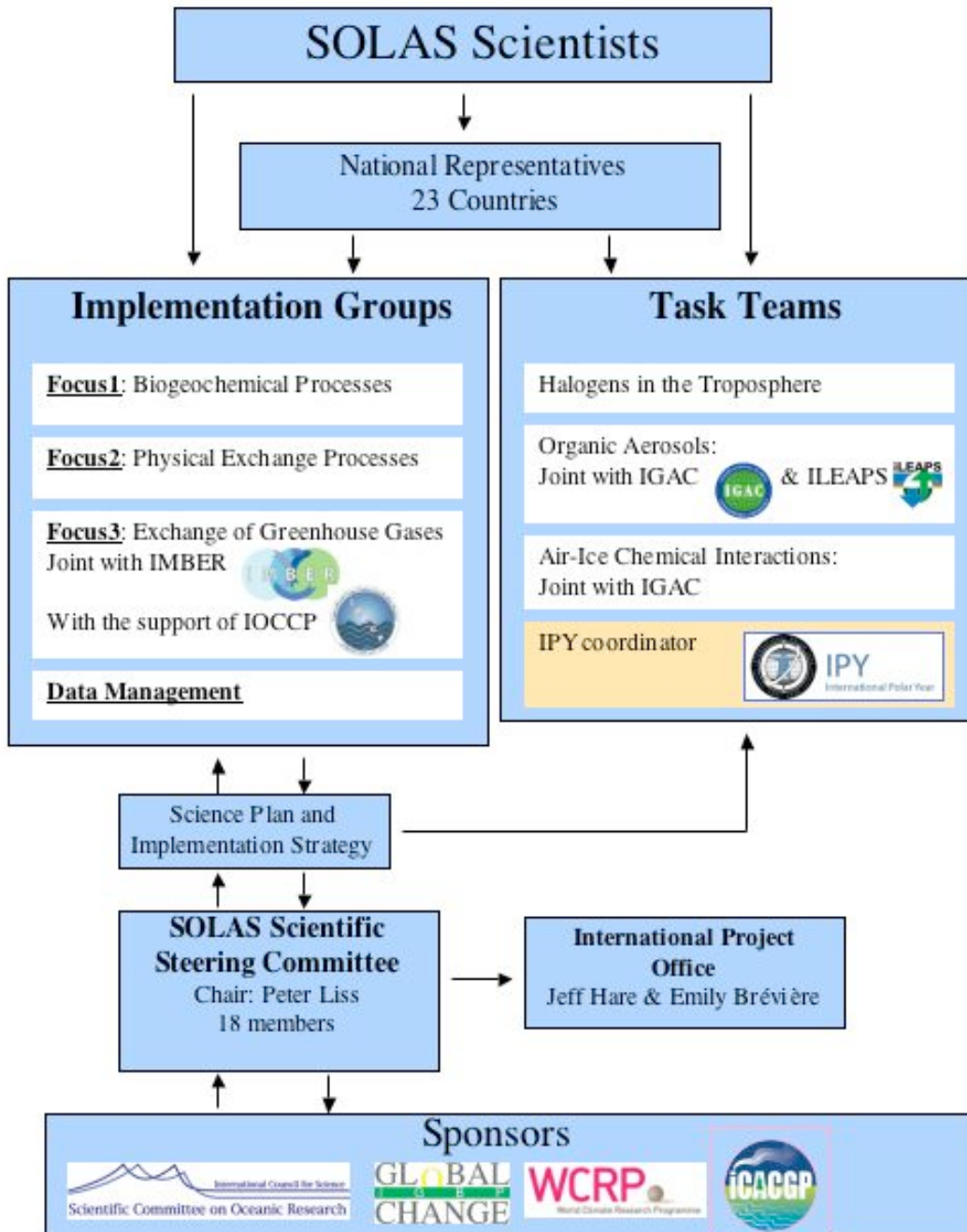


\* Monthly e-bulletin



\* Bi-annual Newsletters downloadable

# Diagramme de la structure du projet:



# Comité Scientifique de 2008:



**\*Doug Wallace (M, Germany; Chair)**

**Peter Liss (M, UK; Past Chair)**

**\*Eric Saltzman (M, USA)**

**Barry Huebert (M, USA)**

**Véronique Garçon (F, France)**

**Christiane Lancelot (F, Belgium)**

**\*Roland von Glasow (M, UK)**

**Gerrit DeLeeuw (M, Finland)**

**Guang-Yu Shi (M, China)**

**Isabel Cacho Lascorz (F, Spain)**

**Cliff Law (M, New Zealand)**

**\*Jacqueline Stefels (F, Netherlands)**

**Sergey Gulev (M, Russia)**

**Shigenobu Takeda (M, Japan)**

**Dave Kieber (M, USA)**

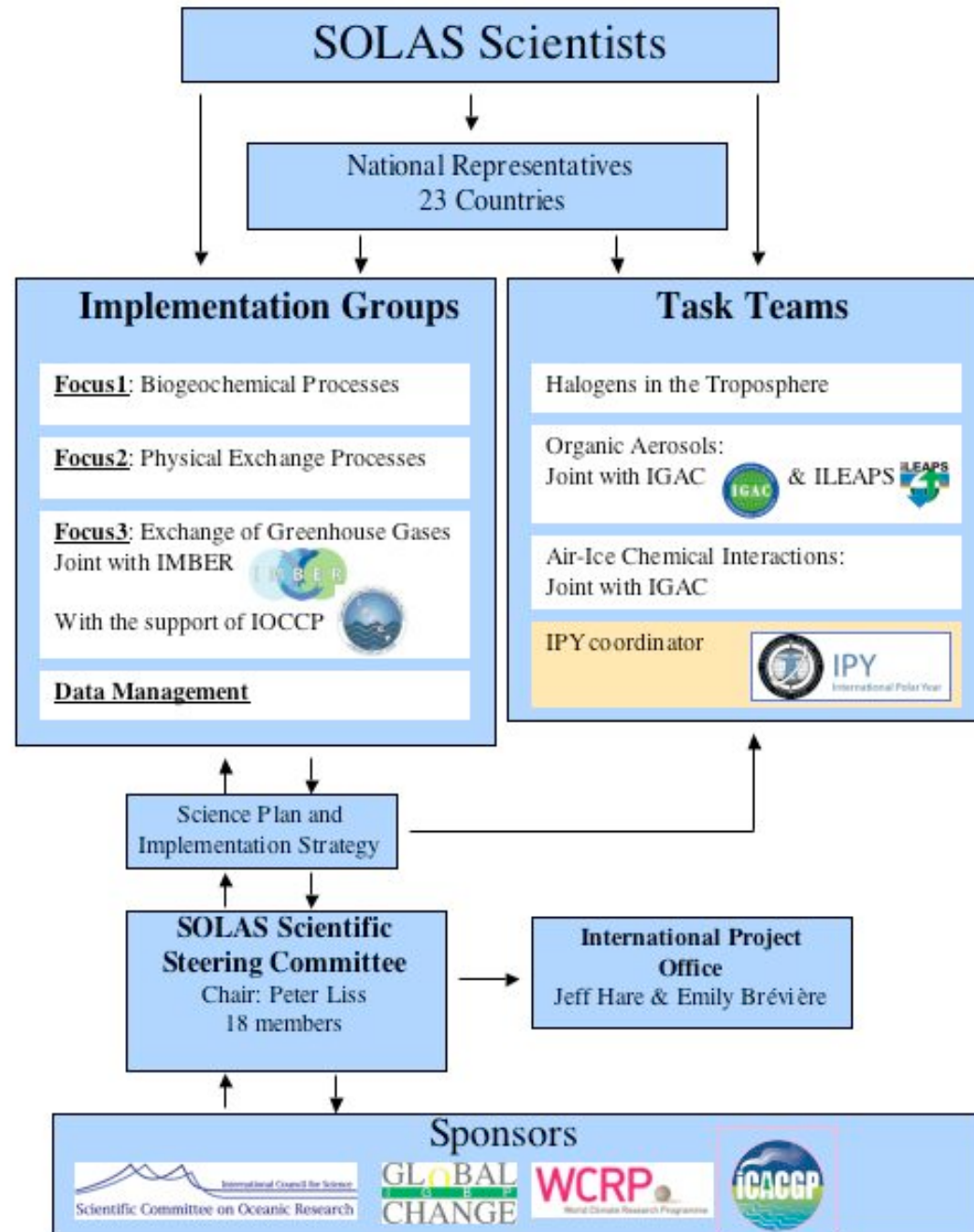
**Truls Johannessen (M, Norway)**

**\*Nilgun Kubilay (F, Turkey)**


**Wade McGillis (M, USA)**

**\* = new**

# Diagramme de la structure du projet:

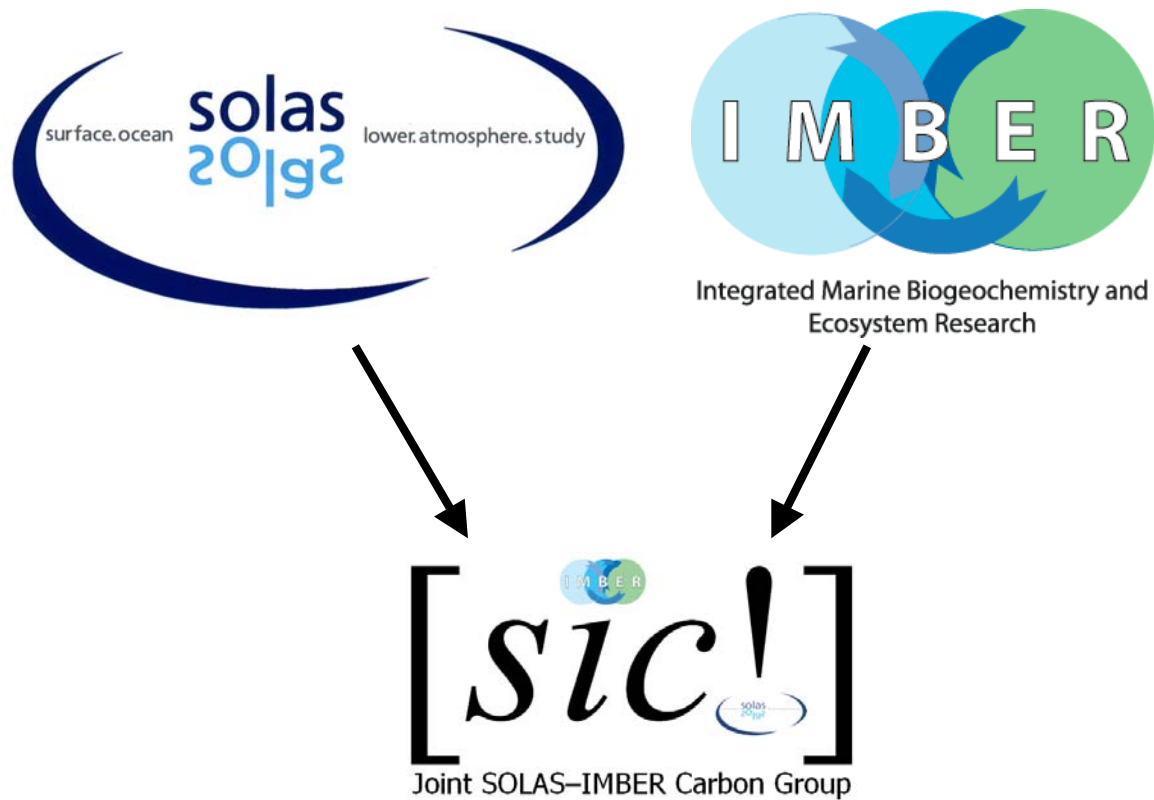


# Science répartie en 3 groupes:

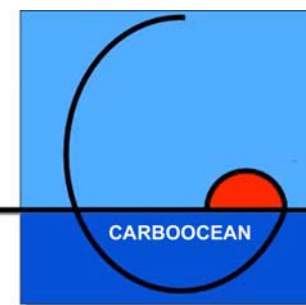
<b><u>Group 1:</u></b>  <b>Biogeochemical Processes</b> <b>Co-chairs: B. Miller (USA)</b> <b>M. Uematsu (Japan)</b>	✓Funding from the Belgian Science Policy Office for the Secretariat; Veronique Schoemann (Belgium)
<b><u>Group 2:</u></b>  <b>Physical Exchange Processes</b> <b>Chair: W. McGillis (USA)</b>	✓Funding from the Canadian Foundation for Climate and Atmospheric Sciences for the Secretariat; Daniela Turk (Canada)
<b><u>Group 3:</u></b>  <b>Exchange of Greenhouse Gases</b> <b>Co-chairs: T. Johannessen (Norway)</b> <b>A. Koertzing (Germany)</b>	✓Joint SOLAS-IMBER science  ✓Seeking funding for the Secretariat
<b><u>Data Management Task Team:</u></b>  <b>Biogeochemical Processes</b> <b>Chair: D. Wallace (Germany)</b>	✓1st meeting in Nov 2005, Amsterdam ✓Data Management Plan in development



# Carbon Research:



SOLAS has also endorsed:



# Groupe Carbone SOLAS/IMBER (SIC):

Arne Koertzing (Germany), co-chair

Truls Johannessen (Norway), co-chair

Niki Gruber (Switzerland)

Nicolas Metzl (France)

Britt Stephens (USA)

Gerhard Herndl (Netherlands)

Ken Johnson (USA)

Kevin Arrigo (USA)

Toshi Saino (Japan)

Hermann Bange (Germany)

Dick Feely (USA)

Hartmuth Thomas (Canada)

Kitack Lee (Korea)



# Sous-groupes du SIC:

## 1. Surface ocean

Chair: Nicolas Metz

Surface pCO<sub>2</sub> Variability and Vulnerabilities workshop

Paris 11-14 April 2007

Rapport disponible à <http://www.ioccp.org/>



## 2. Interior ocean

Chair: Niki Gruber

Friends of ARGO Task Team - white paper to promote oxygen sensors on floats

[http://www.ioc.unesco.org/ioccp/docs/o2\\_argo\\_whitepaper\\_15feb07\\_r.pdf](http://www.ioc.unesco.org/ioccp/docs/o2_argo_whitepaper_15feb07_r.pdf)

## 3. Carbon cycle climate sensitivities and feedbacks

Chair: Kitack Lee

Mesocosm studies, guidelines and protocols

# 1er workshop sur la comparaison de modèles océaniques de DMS :



- **4-8 December 2006, Brussels, Belgium**
- **20 scientists, both modelers and experimentalists, who succeeded to:**
  - (1) investigate the different DMS model simulations performed before the workshop**
  - (2) conduct a first comprehensive synthesis. This first CODiM exercise included two complementary initiatives that were jointly handled:**
    - \* a 1D initiative which aimed to apply and compare different 1D DMS-ecosystem models at 3 different identified ocean sites**
    - \* a 3D initiative which aimed to compare global mechanistically-based DMS models against global data sets**

# Impact de l'azote anthropique sur l'océan:

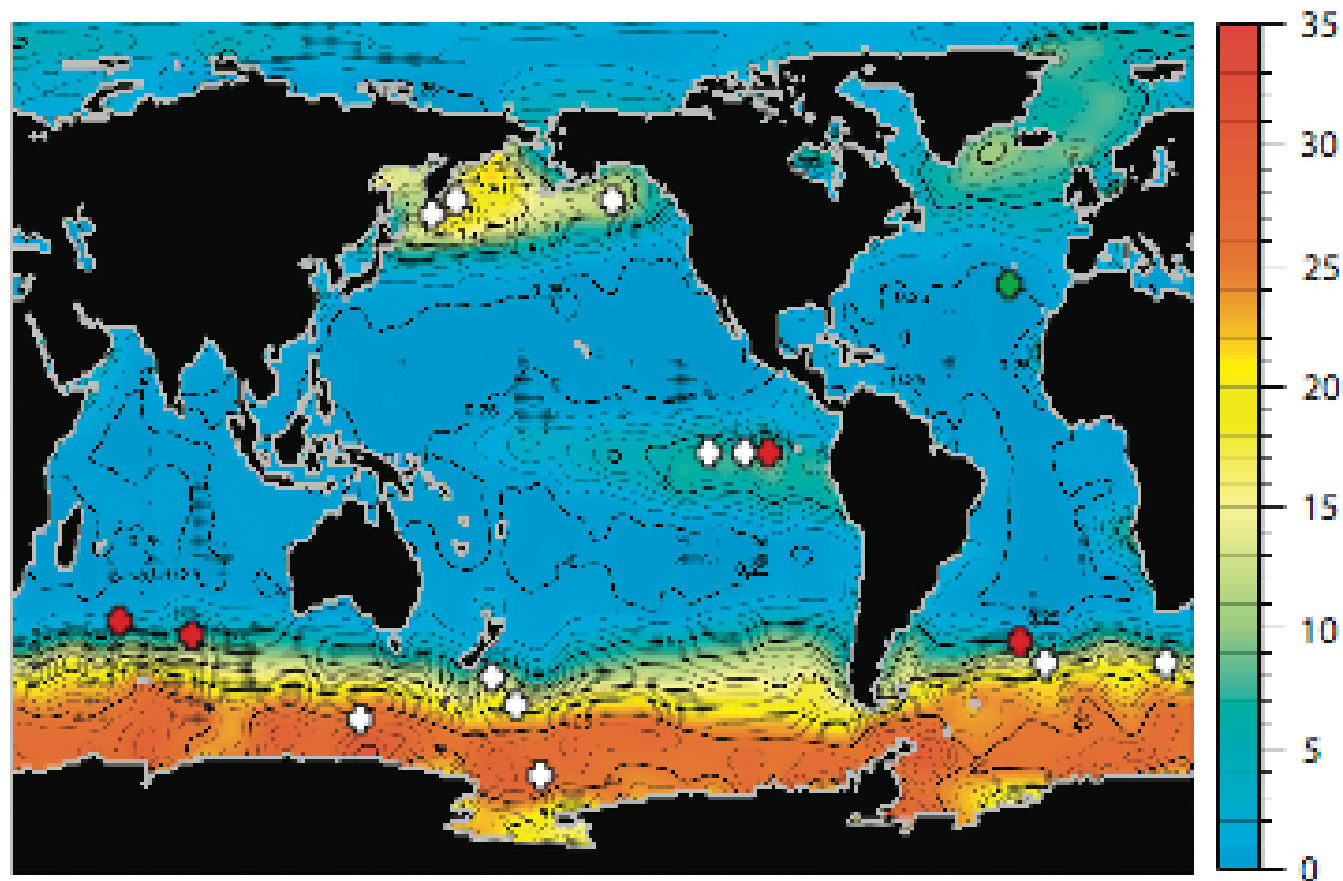




# Cycle global du fer (2003-2005):

a fast track initiative of IGBP and SCOR

Mesoscale Iron Enrichment Experiments 1993-2005: Synthesis and Future Directions, *Science*, Boyd *et al.*, 2007



## Position du comité scientifique sur la fertilisation oceanique à grande echelle:

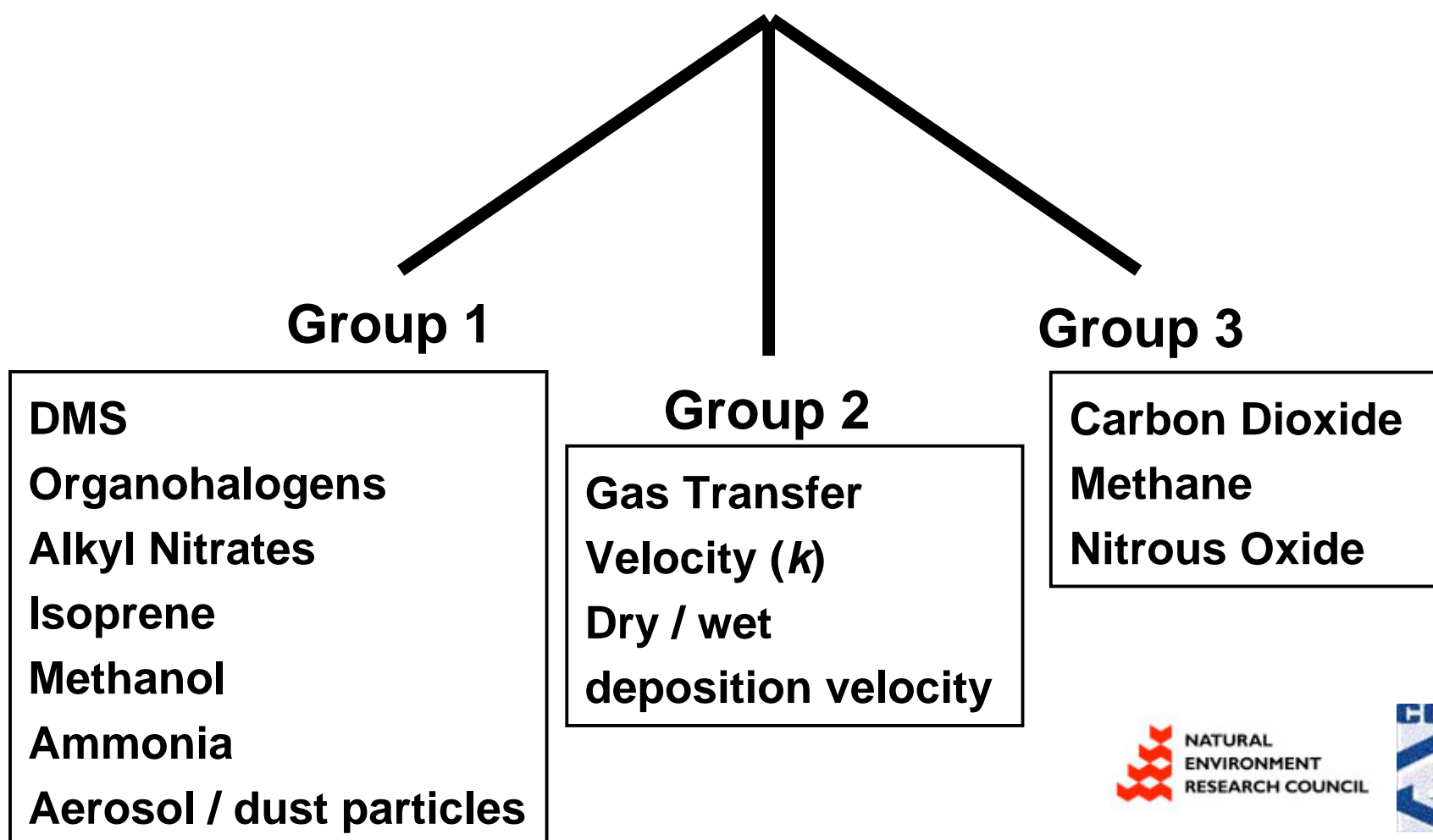


*“Large-scale fertilisation of the ocean is being actively promoted by various commercial organisations as a strategy to reduce atmospheric CO2 levels. However the current scientific evidence indicates that this will not significantly increase carbon transfer into the deep ocean or lower atmospheric CO2. Furthermore there may be negative impacts of iron fertilization including dissolved oxygen depletion, altered trace gas emissions that affect climate and air quality, changes in biodiversity, and decreased productivity in other oceanic regions. It is then critical and essential that robust and independent scientific verification is undertaken before large-scale fertilisation is considered. Given our present lack of knowledge, the judgement of the SOLAS SSC is that ocean fertilisation will be ineffective and potentially deleterious, and should not be used as a strategy for offsetting CO2 emissions.”*

## COST Action 735:

**SOLAS** is leading an EU effort on creation of air-sea fluxes  
~ €500k for a European network from “**COST**”

### SOLAS and COST Project Integration



# SOLAS Open Science Conference:



## Scientific Organising Committee:

Jill Cainey, Australia  
Minhan Dai, China  
Shizuo Feng, China  
Véronique Garçon, France  
David Ho, USA

Caroline Leck, Sweden  
Maurice Levasseur, Canada  
Peter Liss, UK  
Patricia Matrai, USA

Uli Platt, Germany  
Guang-Yu Shi (chair), China  
Mitsuo Uematsu, Japan  
Osvaldo Ulloa, Chile

Photo courtesy of J. Rebeyrolle

**225 participants  
from 30 countries  
220 posters  
20 plenary talks  
11 discussion sessions**

# SOLAS Open Science Conference:



厦门欢迎您

[www.solas-int.org](http://www.solas-int.org)  
Registration open in May

## Scientific Organising Committee:

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Osvaldo Ulloa, Chile

Photo courtesy of J. Rebeyrolle



# Ecoles d'été SOLAS:

**3<sup>rd</sup> SOLAS International Summer School**  
**Cargèse, Corsica, France**  
**22 Oct - 3 Nov 2007**



**Visit and apply now:**

<http://www.uea.ac.uk/env/solas/summerschool/>

## **Objective:**

To expose graduate students and young scientists to recent developments and methodologies in the study of biogeochemical and physical feedbacks between the ocean and atmosphere in a changing environment.

## **Lecturers:**

Laurent Bopp  
Phil Boyd  
Véronique Garçon  
Alison Green  
Dave Karl  
Karen Kohfeld  
Corinne Le Quéré  
Margaret Leinen  
Peter Liss  
Hubert Loisei  
Wajih Naqvi  
Phil Nightingale  
Uli Platt  
Stefan Rahmstorf  
Eric Saltzman  
Osvaldo Ulloa

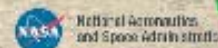
## **Scientific**

## **Committee:**

Phil Boyd  
Minhan Dai  
Véronique Garçon  
Corinne Le Quéré  
Maurice Levasseur  
Peter Liss  
Natalie Mahowald  
Uli Platt  
Eric Saltzman  
Mitsuo Uematsu

**Application deadline:**  
**13 April 2007**

**Institut d'Etudes Scientifiques de Cargèse**  
<http://www.iesc.univ-corse.fr>



National Aeronautics  
and Space Administration





# SOLAS-Canada:



**Ended: April 2007**

**NEW: CANADIAN ARCTIC IPY project**

**Duration: 4 years**

**Fund allocated: \$450k Canadian**

**Cruise planned in sept-oct 07**

# **SOLAS-UK: Measuring, monitoring and modelling in the North Atlantic:**



**Coordinator: Phil Williamson**  
**Fund allocated: \$20 million over 5 years**  
**(24 sub-projects, 15 Institutions)**  
**4 cruises in 2007, plus 2 in 2008**  
**End in 2009-2010**

# SOLAS-Japan:W-Pass



Western Pacific Air–Sea interaction Study

<b>Coordinator:</b>	<b>Mitsuo Uematsu</b>
<b>Started:</b>	<b>June 2006</b>
<b>Duration:</b>	<b>4 years</b>
<b>Fund allocated:</b>	<b>\$10 million</b>
<b>First meeting in March 2007</b>	
<b>10 cruises the first year</b>	



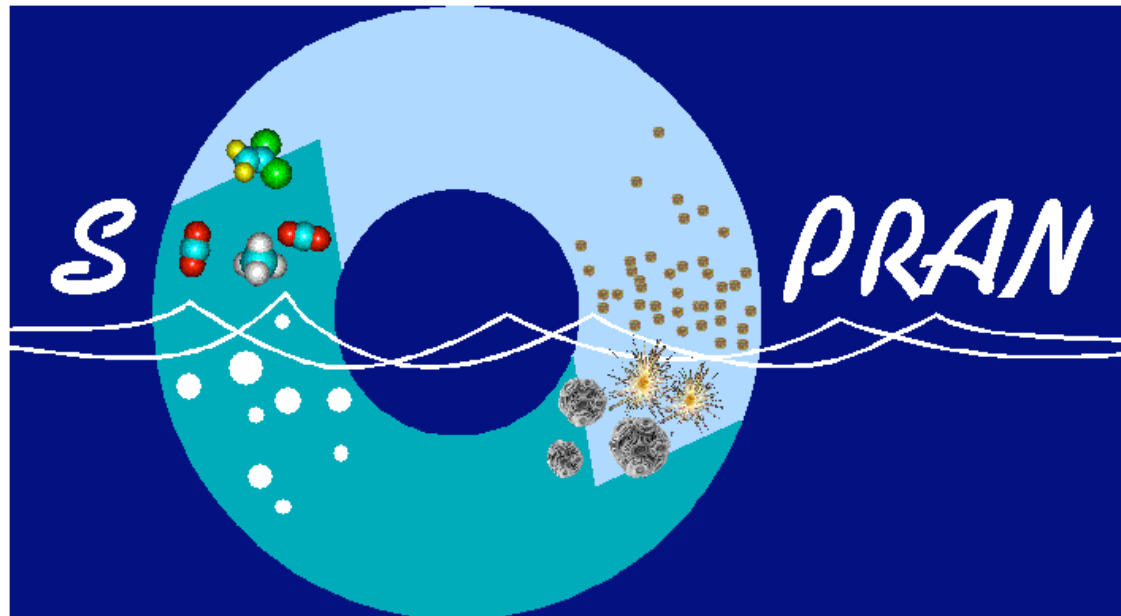
# W-PASS (Western Pacific Air-Sea interaction Study)



## **Objectives**

- 1) Quantify the transport of natural and anthropogenic materials from the Asian continent to the western Pacific which contributes to primary production in the marginal and remote regions.**
- 2) Determine the response of marine ecological systems to changes in atmospheric composition over the western Pacific.**
- 3) Investigate the production and emissions of marine biogenic gases that might lead to changes in atmospheric composition, especially in subtropical and subarctic regions of the western Pacific.**
- 4) Evaluate the contribution of marine biogenic gases to global climate change.**
- 5) Provide basic knowledge of the interaction between global climate change, marine resources, and oceanic processes to policy makers.**

# SOLAS-Germany:SOPRAN



Surface Ocean Processes in the Anthropocene

<b>Coordinator:</b>	<b>Douglas Wallace, IFM-GEOMAR, Kiel</b>
<b>Proposal submitted:</b>	<b>January 2006</b>
<b>Proposed start:</b>	<b>January 2007</b>
<b>Requested funding:</b>	<b>EU 6.5 million over 3 years</b>
<b>(12 Institutions, 43 Investigators, 23 sub-projects)</b>	

# 4 themes principaux de SOPRAN



**Theme 1:** The oceanic response to atmospheric dust

**Theme 2:** Effect of high CO<sub>2</sub> on marine ecosystems and sea-to-air gas fluxes

**Theme 3:** Production / emission of radiatively and chemically active gases in the Tropical Oceans

**Theme 4:** Inter-Phase Transfer at the Sea Surface





[www.solas-int.org](http://www.solas-int.org)