



## MINUTES

3rd IMBER Scientific Steering Committee Executive Meeting  
IUEM, Brest, France  
7-9 October 2007

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Present:

SSC Members (and IPO)

Julie Hall (chair)  
Dennis Hansell (Vice-chair)  
Patrick Monfray (Vice-chair)  
Sylvie Roy (IPO)  
Sophie Beauvais (IPO)  
Elena Fily (IPO)

Participation on conference call:

Coleen Moloney  
Michael Roman  
Debbie Steinberg  
Arne Koertzinger  
Wilco Hazeleger  
Jeff Hare

Invited participants:

Emily Brévière (IGBP)  
Ed Urban (SCOR)  
Paul Tréguer (EUR-OCEANS)

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## 1 Welcome from the IMBER chair

Julie started by thanking all participants for coming. The aims of the meeting were to:

- Review the IPO activities;
- Review the Working Groups and Task Team activities;
- Review the interactions with other projects and contributing programs;
- Review the current and future joint activities with GLOBEC;
- Develop plans for the IMBER IMBIZO;
- Identify the priorities for next year and funding requirements;
- Review the budget;

## 2 Update on the International Project Office activities

### 2.1 Support to IMBER activities

Sylvie gave an overview of the accomplishments of the IPO from May 2006 to September 2007 including working groups' support, organization of meetings and activities, meeting attended on behalf of IMBER and products developed.

Since September 2006, the IPO has organised the following meetings:

- IMBER/GLOBEC Executive Committee meeting (Plymouth, September, 2006)
- SOLAS/IMBER Carbon group meeting (Paris, April 10, 2007)
- Data Management Committee meeting (Victoria, June 10-11, 2007)
- IMBER/GODAE meeting (Unesco, Paris, June 12-13, 2007)
- Fourth IMBER SSC meeting (Victoria, June 12-14, 2007)
- IMBER/LOICZ Continental Margins Conference (Shanghai, Sept. 17-21, 2007)
- IMBER/GLOBEC Executive Committee meeting (Brest, October 7-9 2007)

IMBER sponsored the following activities:

- Sustained Indian Ocean Biogeochemistry and Environment (SIBER) Workshop Goa, India, (October 3-6, 2006)
- IMBER/ PICES Session at PICES XV Annual Meeting , Yokohama, Japan, (October 13-21, 2006): (Interactions between Biogeochemical Cycles and Marine Food Webs in the North Pacific Ocean
- Humboldt Current System: Climate, ocean dynamics, ecosystem processes, and fisheries conference. Lima, Peru, (November 27 – December 1, 2006)
- Oxygen Minimum Zone workshop, Concepción, Chile (October 24-26, 2006)
- Austral Summer Institute VII, Concepción, Chile (January 2-26, 2007)

### 2.2 Funding

This year, the IPO has worked to find funds to support several IMBER activities:

#### Secured:

EUR-OCEANS funds for workshop (CLIMECO) 20 K\$

#### Requested:

SCOR Developing country travel funds (IMBER/LOICZ OSC on Continental Margins) 7.5 K\$

ESF Exploratory Workshop (CLIMECO Workshop) max. 20 K\$

EUR-OCEANS funds for summer school (Analyses of the interactions between end to end marine food webs and biogeochemical cycles) max. 20 K\$

EUR-OCEANS funds for Workshop (IMBIZO End-to-End)	<u>max. 20K\$</u>
EUR-OCEANS funds for Workshop (IMBIZO Mesopelagic)	<u>max. 20K\$</u>
OCB fund for Workshop (IMBIZO Mesopelagic)	<u>max. 25K\$</u>

In preparation:

Brittany region (for workshop organization, CLIMECO)	<u>max. 5K\$</u>
COST: Global scale carbon synthesis Action	<u>max. 90K €/ year for 4 years</u>

The committee suggested other sources to explore:

- Oceans and Climate change in Germany;
- NOAA funds to support GODAE/IMBER activities and the SIBER workshop;
- Inter American Institute for Global Change Research (IAI; <http://www.iai.int/>) to support American participants to capacity building and training activities;
- APN-CAPaBLE (<http://www.apn-gcr.org/en/indexe.html>) to support Asian participants to capacity building and training activities.

### 2.3 Future organization of Meetings

Sylvie listed the future activities that the IPO will be involved in:

- CLIMECO Workshop (Brest, April 21-24, 2008)
- 2008 IMBER SSC meeting (Cape Town, May 4-9, 2008)
- Summer School on end-to-end marine food webs and biogeochemical cycles, in Turkey (Ankara, August, 2008)
- IMBER IMBIZO (Miami, Nov 2008)
- Global-Scale Carbon Synthesis conference (led by Niki Gruber, SIC; Venue and dates tbd, 2009)
- Training workshop on sensors (lead by Ken Johnson, SIC; Venue and dates tbd)
- Summer School on Effects of global changes in continental margins in Brest (IUEM, Brest, 2009)

Dennis suggested thinking about the effort IMBER will put in the Global-Scale Carbon Synthesis workshop. It is important to define if this workshop is simply sponsored by IMBER or if it is an IMBER activity.

### 2.4 National contacts and Endorsement

Sylvie presented the list of current IMBER national contacts: 22 countries are now represented. One objective of the IPO is to interact more directly with those contacts so they can contribute to IMBER. For instance, the IPO could send them information regarding workshops, conferences that they could circulate through their networks in their respective countries. The IPO could also circulate specific information and calls for SSC and working group members. The IPO should ask them for feedback from their organization. The national contacts should help IMBER to identify projects for endorsement.

**Action:** IPO to interact more directly with national contacts.

**Action:** Sophie to update the IMBER website with new national contacts.

**Action:** Elena to add SOCOVV Meeting and Continental Margins Meeting participants to the list of IMBER contacts e-mail list.

Recently, two PIs have asked information regarding IMBER endorsement of projects.

It seems that differences between “endorsement” and “support” need to be clarified. It has been suggested to write a clear statement about each kind of support. In order to encourage PIs to ask

for IMBER endorsement and broaden the community, it is of primary importance to identify the added values of getting endorsed. Added value may not be scientific; it could be data management, facilitating access to workshop for students etc. Patrick stated that endorsement might promote and support research under IMBER's major scientific themes (climate, acidification, nutrient supply and harvesting). The Endorsement Committee is composed of two members only (Jay Cullen and Wajih Naqvi). It has been suggested to find a third member to implement quickly the actions defined above.

**Action:** SSC to propose a third member for the Endorsement Committee.

**Action:** Sylvie and the Endorsement Committee to write a clear and catchy statement on endorsement including benefits of endorsement. Sophie to publish this text on the website.

**Action:** Sylvie to approach other marine projects about their endorsement and support policies.

**Action:** Sylvie to follow up on projects for which we provided a letter of support.

## 2.5 Products

### ***IMBER Update and e-News Bulletin***

It was agreed that the design of the IMBER Newsletter needs to be reviewed. The aims are to find an effective way to have a good "onscreen" readability and to reduce file size. Dennis proposed to edit the IMBER Newsletter and insert it in the e-mail as they are doing at the University of Miami. It is a catchy Newsletter sent by e-mail including pictures, and active links leading to articles. The IPO should explore how to develop a comparable newsletter. The e-News bulletin will be edited the same way.

**Action:** Sophie and Elena to explore the technical aspect to edit a Newsletter readable online.

**Action:** Elena to edit the newsletter and the e-News in their new format by early 2008.

### ***IPO report***

The IPO report is produced monthly to improve interactions between the IPO and the IMBER SSC. The aim is to keep SSC up-to-date with IMBER and IPO activities and allow a better synergy between the IPO and the SSC. It has been recommended to personalize the requests from the IPO by sending requests directly to targeted members. Patrick brought up the fact that GODAE uses a calendar including tasks to implement and future meetings to improve communication with the members. The IPO should explore how it works and, if it is relevant to their purpose, to contact Kirsten Wilmer-Becker (GODAE Project Coordinator).

**Action:** Sylvie to send requests to SSC, targeting at specific members.

**Action:** Sylvie to add Emily Brévière (IGBP) to the IPO report mailing.

**Action:** IPO to contact Kirsten Wilmer-Becker (GODAE Office; [kirsten.wilmer-becker@metoffice.gov.uk](mailto:kirsten.wilmer-becker@metoffice.gov.uk)) to explore if the GODAE calendar is a useful tool for IMBER to enhance interactions between IPO and SSC members.

### ***Poster***

IMBER needs a new poster for the IGBP Congress (May 2008). The objective of this poster is to present what IMBER is doing by focusing on the Working Groups and key national activities. This poster will be more scientific than the first one which presented the IMBER project as a whole. The first poster should be revised as the IMBER logo is not obvious enough.

**Action:** Julie to arrange modifications on the original poster with NIWA graphic designer.

**Action:** IPO to gather information for a new poster including task teams and key national activities. The IPO will ask the input from chairs of each working groups and circulate draft information to SSC for comments.

**Action:** Julie to arrange design and printing of a new poster with NIWA graphic artist.

## **Website**

Sophie developed the IMBER/LOICZ Continental Margins Meeting website (Shanghai, Sept 2007) and is currently developing the web page for the CLIMECO workshop that will be held in Brest, April 2008, and a website for the IMBER IMBIZO.

Sophie plans to develop 3 new web pages in the coming year:

1. A common portal with SOLAS for highlighting the activities of the Joint Carbon Research Group
2. An IMBER data portal with the help of the Data Management Committee
3. An outreach portal to support the Capacity Building Group

**Action:** Sophie to develop the 3 new web pages for the website with a priority on Data Portal.

**Action:** Sophie to update the national contact pages (see section 2-4 p3).

**Action:** Sophie to develop a conference manager website for the IMBER IMBIZO

## **Gorick Illustration**

Sophie presented the latest version of Gorick's image. The Committee agreed that the previous 3-dimensional image (presented at the last SSC Meeting in Victoria) best represents the IMBER Project. The committee felt that the cube image could be very useful for educational purposes. The committee agreed to use the 3D image after a series of minor changes be made to the image:

- 1) reduce the size of instruments;
- 2) remove the corals on the right;
- 3) add 1 or 2 crustacean zooplankton in the trophic chain;
- 4) show clearer feedbacks between biogeochemistry and food web;
- 5) add land/continent on the surface (possibly with freshwater input);
- 6) change colour lines on the top: blue colours illustrating cold waters should be against land whereas yellow colours illustrating high temperatures should be more on the left (by rotating the top panel 90° clock wise).

Once these changes have been made, the IMBER committee will consider the image completed.

The committee thought it would be great to use the Gorick's illustration for IMBIZO symposium (posters, website and other promotional material). This will be possible if Gorick completes his image by early November.

**Action:** Sophie to report to Glynn with recommendations and suggestions from Exec for completion of the image.

**Action:** Sophie to see with Glynn if having a final image by early November 2007 is possible.

## **2.6 Next SSC meeting (Cape Town)**

The next IMBER SSC Meeting will be held in conjunction with the 4<sup>th</sup> IGBP Congress "Sustainable Livelihoods in a changing Earth System" in Cape Town (5-9 May 2008) [www.igbp2008.co.za](http://www.igbp2008.co.za). The first two days (May 5-6) will be devoted to core project SSC meetings. The IGBP Congress is planned from Day 3 to Day 5. Day 6 and 7 (May 10, 11) are dedicated to IGBP SC Meetings. IGBP will pay for conference rooms for SSCs. Sylvie estimated the cost of this SSC meeting at 31K USD for travel and hotel.

**Action:** IPO to contact the SSC members when the Congress programme will be finalized (at the end of October) to confirm attendance and how much of the IGBP Congress they will attend.

**Action:** Elena to block-book hotels for the duration of the Congress in Cape Town with help of Coleen (to include Ed Urban).

## 2.7 SSC rotation and new members

The list of suggested new membership has been sent to SCOR and IGBP by the end of August for approval. The list has been approved. Jean Pierre Gattuso (France), Javier Aristegui (Spain), Silvio Pantoja (Chile), Carol Robinson (UK) have accepted to be part of the IMBER SSC from January 2008. Claude Roy (France) declined. The Exec proposed to replace Claude with Niki Gruber as he represents a good connection with GODAE, oxygen etc... The Executive members suggested that a “marine resource” scientist could be proposed for the 2008 rotation.

**Action:** Julie to contact Niki Gruber to invite him to be a member of the IMBER SSC.

**Action:** Julie to inform new SSC members about the next SSC meeting and the IGBP Congress in Cape Town.

## 3 Working Groups and Task Teams

### 3.1 Continental Margins Working Group

Sylvie Roy reported on the joint IMBER/LOICZ Continental Margins Open Science Conference that was held in Shanghai, 17-21 September 2007.

The objectives of the OSC were to estimate the relative importance of the changing forcings—global, local, and human and to determine how changes in shelf ecosystems can be attributed to the respective forcings. Roughly 110 participants attended this meeting and were coming from over 25 countries. This meeting was a great success both from a scientific point of view and the organization perspective. Twenty-two students participated in the Best Student Presentation Award. Sylvie presented a rough budget: the total expenses approximate 66K USD while the incomes were 86K USD. The remaining 20K USD will be used for joint IMBER/LOICZ continental margins activities.

The major objective for the Continental Margins Working Group is now the preparation of an implementation plan for continental margins research. Participants that could potentially contribute to the Science and Implementation plan writing were identified at the meeting. The writing group is planning to meet at the Ocean Sciences Conference in Orlando (March 2008). The draft should be completed by January 2008 and sent for comments from January to March 2008. The reviewers will be appointed jointly by the IMBER and LOICZ SSCs.

**Action:** Elena to add Shanghai participants to the IMBER e-mail list.

**Action:** IPO to identify potential IMBER national contacts amongst Shanghai OSC attendees.

**Action:** Continental Margins Working Group to write the joint IMBER/LOICZ Science and Implementation plan for continental margins research.

**Action:** IMBER and LOICZ SSCs to identify reviewers for the Continental Margins SPIS.

### Chinese SCOR Committee Meeting

At the Chinese SCOR Committee Meeting the question of how to increase Chinese participants in international research was raised. The Chinese committee in ECNU has expressed his willing to welcome scientists or house a secretariat for a Continental margins sub-group. This possibility should be positive in terms of workload for the IPO.

**Action:** Tina to contact Jing to explore the feasibility to have an IMBER/LOICZ Continental Margins Office in China focusing on Continental Margins activities.

### 3.2 Capacity Building Task Team

#### **Summer School in Ankara (Turkey)**

A Summer School is planned for August 2008 at the Middle East technical University in Ankara.

Temel Oguz has accepted to lead of the summer school. The school is focused on analyses of the interactions between end-to-end marine food webs and biogeochemical cycles in various systems. The aims of the Summer School are:

- To provide students with the knowledge and skills to increase their understanding of global change and its impacts on marine biogeochemical cycles and end to end food webs;
- To introduce students to new methods, techniques and models available for understanding the combined effects of forcings (physical, biological) on marine biogeochemical cycles and ecosystems;
- To provide both pre- and post-doctoral students with training within the frame of high quality international research topics, including those in emerging fields of research;
- To stimulate collaboration in multidisciplinary research, by supporting extensive discussions between students and lecturers.

So far, three lecturers have confirmed their participation: Temel Oguz, Jing Zhang (tbc?) and Icarus Allen. Mike St John, Mike Roman, Philippe Pondaven, Olivier Maury and Yunne Shin have been contacted. Temel suggested looking for a fishery biologist as Coleen will not be able to attend this summer school. Coleen proposed Fritz Koster from Danish Institute for Fisheries Research or Steve Martell from the University of British Columbia.

The total estimated budget of this Summer School is approximately 63K€. The IPO has requested 50K€ from EUR-OCEANS. The University of Ankara will cover the local expenses. NATO provides financial support for Advanced Study Institute (ASI) but a book must be published in NATO-ASI series after the Summer School. Someone from the organizing committee will have to take the responsibility of handling the book issue after the summer school.

[http://www.nato.int/science/nato\\_funded\\_activities/grant\\_mechanisms/asi-nfa.htm#PaF](http://www.nato.int/science/nato_funded_activities/grant_mechanisms/asi-nfa.htm#PaF)

The IPO will explore other funds. The IPO needs to find funds for North Americans and young scientists from other countries. Emily explained that SOLAS Summer School students are often covered by national funds. Registration fees were set to 400€ for SOLAS Summer School.

Dennis also suggested revising the title of the Summer School to attract students. The focus seems too broad.

**Action:** Sophie to ask the organisers to re-think the title of the Summer School so it is more focused.

**Action:** Sophie to ask organisers to think about an alternative terminology for “Summer School”.

**Action:** Sophie to explain the organisers what the NATO book is and to ask who is volunteer to take the responsibility of holding this book.

**Action:** Sophie to contact Fritz Köster (and Steve Martell if Fritz declines) to invite them to participate in the Summer School as fishery biologist lecturer.

**Action:** Sophie to explore other funding sources to cover the Summer School such as APN, IAI, and national funds.

### ***Summer School in 2009, Brest, France***

Sylvie explained that the organization of a Summer School in Brest (France) for August 2009 is being explored by scientists at IUEM. The IPO has been approached to help with the organisation. The summer school must focus on topics clearly associated with IMBER.

### ***Floating University: Bonus Good Hope***

As there were no births available for students, it was decided not to move forward with the organization of a Floating University on board Marion Dufresne during the Bonus Good Hope campaign Leg1 (Feb 2008).

### ***Floating University in South Africa***

Julie has been approached by Isabel Unisoga regarding a yearly 3 weeks-long Floating University for South African undergraduate students in sub-arctic islands. This FU will focus on physics and oceans/atmosphere interactions. Scientific links with IMBER could be obvious if biogeochemistry and ecosystem interaction are included.

**Action:** Julie to establish a link between Coleen and Isabel to discuss the Floating University planned in South Africa.

### **3.3 Data Management**

Sophie reported on the DMC meeting held in Victoria (June 2007) and pointed out the major recommendations.

The challenge for the DMC is to design a data management strategy for IMBER that spans the wide range of multidisciplinary data that will be collected.

The DMC recommended promoting a cooperative data management approach. This implies:

- involving data specialists right from the start. This means that a person with data management experience should be appointed, delegated or hired to serve as the Project Data Specialist;
- training young scientists to become data specialists;
- promoting “carrots” rather than “sticks”. “Carrots” means that IMBER will facilitate access to data experts (National or Specialist data centres) help with calibration, validation and back-ups and facilitate access to other data etc.

Sophie reviewed the Terms of Reference of the DMC and highlighted the changes that were proposed at the SSC meeting. In the coming year, the DMC will write the data policies, the guidelines for IMBER scientists and manuals for data providers. Another objective is the setting up of IMBER data web pages when material will be available. Sophie will construct a database compiling all IMBER projects, with data types, contact names and so on. Ed suggested using lessons from past projects. He quoted a paper from US-JGOFS.

**Action:** Ed to send Sophie the paper regarding lessons about Data Management from US-JGOFS.

It has been suggested at the last SSC meeting that the IMBIZO would be a good opportunity to promote data management. The Executive members encouraged the idea of developing DM training activities. Patrick suggested looking at other committees than just marine scientists, and who are more advanced. The nature of the data implies that WOCE type approach will not work. JGOFS experience and IODE are good examples for IMBER.

**Action:** Sophie to consult the DMC on DM training activities and to bring the idea of embedding DM training in the IMBIZO and the Summer School.

**Action:** DMC to write data policies, guidelines for IMBER projects.

**Action:** DMC to think about a practical manual for data specialists.

**Action:** Sophie to start developing a database compiling all IMBER projects.

### **3.4 Carbon Working Group**

A conference call took place with Arne to discuss about SIC group activities and next priorities.

#### ***Sub-Group 1. Surface ocean systems***

SG1 organized the “Surface pCO<sub>2</sub> variability and vulnerabilities workshop” (UNESCO, Paris, 11-14 April 2007). A report of this workshop was published in *EOS* and a special issue of *Deep-Sea Research II* is in preparation.

### ***Sub-Group 2. Interior ocean carbon storage***

This Sub-group formed a task team that prepared a white paper proposing incorporation of oxygen on Argo floats. The Argo-Oxygen task team will take the lead to coordinate the development of pilot projects focused at a regional/basin level to evaluate the long-term stability and accuracy of the sensors. This subject will be the focus of a special session at the AGU/ASLO Ocean sciences meeting March 2008 led by Niki Gruber and Steve Riser.

#### **Global scale Carbon data synthesis**

This sub-group is also developing a Carbon Synthesis Task team to lead the international synthesis effort. The Atlantic synthesis is moving forward within CARBOOCEAN and the U.S. OCB Program. The Atlantic synthesis group has already met twice (Iceland, June 2006 and Kiel, Germany, March 2007). The report from the Iceland meeting is available at <http://www.carboocean.org/upload/images/IcelandRptFinal.pdf>

A proposal for a global-scale synthesis conference was submitted by Niki Gruber for a 2009 conference in Switzerland.

### ***G-IMBER***

Arne reported on IMBER related activities in Germany.

Two consortia prepared proposals to be submitted to the German Federal Ministry for Education and Research for funding under the umbrella of IMBER.

- 1) North Sea Project on Climate/ C exportation will be submitted soon
- 2) The Ocean acidification project has been submitted

These 2 projects will compete against each other for funding.

The German project on Oxygen Minimum Zone in the Atlantic has been submitted earlier and received a positive review. The decision by the Research foundation will be known in November. If it is funded, the 1<sup>st</sup> cruise will start 1<sup>st</sup> of January.

### ***Structure of the SIC Group***

The Exec has discussed the structure of the SIC group. The Exec expressed his concerns about the functioning of this group. The Chairs of the sub-groups do not seem to know what their responsibilities are. The three sub-group chairs need guidelines from the IMBER and SOLAS SSC's. As the chairs were appointed for 3 years, it may be a good time to re-organise the SIC group. The proposed Orlando meeting is a good opportunity to review the tasks and renew the membership. The Exec suggested that the SSCs interact directly with sub-group chairs.

**Action:** Arne to contact Truls to inform him of the recommendations from the IMBER Exec regarding the SIC structure and to discuss a way forward. Ideas will be discussed at the SOLAS Exec Meeting.

### ***Call with Jeff from SOLAS***

The Exec members had a conference call with Jeff Hare to explain the concerns regarding the SIC Group structure. The exec presented to Jeff a suggestion for a restructuring of the SIC group by removing the chairs and getting the subgroup heads to report directly to the SSCs. It is suggested to change the leader of SG3 for Dave Hutchins.

Jeff will report back to Peter, Doug and Truls and feedback to us after the SOLAS Executive meeting.

The organization of a meeting with the South African Marine Scientists at the IGBP Congress was also discussed. It was debated what would be the best time to hold this meeting. Ed suggested contacting South Africa SCOR for coordination and local costs. Jeff is to propose this at the SOLAS Executive and get back to Ed on the matter.

**Action:** Ed to contact the South African SCOR representative to initiate the organization of a meeting with the South African marine scientists during the IGBP Congress.

## 4 Interactions with other projects and programmes on joint activities

### 4.1 GODAE

Patrick reported on the GODAE-IMBER Meeting that was held in Paris (12-13 June 2007).

The minutes of this meeting will be available on the IMBER website soon.

We must concentrate on activities where synergies exist and where the aims are realistical. The focus should be on subset activities.

The IMBER Executive has asked the joint IMBER/GODAE task team for a set of concrete recommendations for future joint activities over the next 5 years addressing the following points:

- 1) What are the priorities including strategies for cross-fertilization and implementation.
- 2) What is the action plan for the next 5 years? Define a calendar of milestones including also education and training issues.
- 3) What are the responsibilities of GODAE and IMBER respectively? Identify key people on both sides to move activities forward.

Overall, oxygen cycle is a crossroads to enhance biogeochemistry systems and also to improve the models.

The IMBER Executive Committee stated that IMBER/GODAE cross-fertilization is strategic for both programmes. Implementation steps need to be defined in a 3-5 pages proposal to be submitted to the next IMBER SSC in May 2008.

**Action:** Sophie to post the minutes of the IMBER/GODAE meeting on the IMBER website.

**Action:** Patrick to take the responsibility to ensure that the report from the IMBER-GODAE task team is completed.

**Action:** Patrick to ask Niki Gruber to advise IMBER SSC on action plan and priorities.

**Action:** IMBER-GODAE group to write implementation document (3-5 pages) for review at the next IMBER SSC in May 2008.

### 4.2 SCOR

SCOR has approved the nomination of the IMBER SSC new members and the nomination of the Transition Task Team (TTT).

#### **Working Groups**

SCOR has approved Working Group 131 focusing on synthesis of Fe addition experiments to be chaired by Phil Boyd and Dorothee Bakker.

A second WG approved focuses on land based sources of nutrients and brings together GEOHAB and GLOBAL NEWS (IOC), and is linked to LOICZ.

#### *DOI (Digital Object Identifier)*

Following the SCOR Project Summit Meeting in London (7-9 Dec 2006), SCOR sent a letter to other organizations regarding their interest in participating to a Panel to make recommendations about data publication, and DOIs. DOI is seen as an incentive to publish data sets.

The proposed panel is composed of D. Wallace, C. Werner, R. Lowry, P. Wiebe, M. Costello (OBIS). SCOR is looking for someone from Europe and genomics microbiology community to be a member of this panel. Draft terms of reference are being prepared.

### **Next Project Summit**

SCOR has already secured half of the funds from the Sloan foundation to organize another meeting in 2008. SCOR is looking at supporting one person from each project.

### **SCOR Capacity building group**

SCOR created a Capacity Building Panel in 2007 to coordinate SCOR's capacity building activities, develop new activities, and to identify funding for these activities. This group is chaired by Venu Ittekkot. Wajih Naqvi is a member of the group.

The group is working on 2 major activities:

- ✓ Submit a proposal to APN a SE Asian graduate school initiative;
- ✓ Submit a proposal to Rockefeller Foundation for the development of a global strategy for capacity building in marine science in collaboration with POGO and IOC.

Murray Brown from SCOR has developed a catalogue of international activities related to marine sciences. This catalogue attempts to cover Continuous Professional Development (**CPD**) and Capacity Building (**CB**) resources, major oceanographic programs and agencies ([http://www.scor-int.org/Capacity\\_Building/index.htm](http://www.scor-int.org/Capacity_Building/index.htm)).

### **SCOR WG 128 on Natural and Human-Induced Hypoxia and Consequences for Coastal Areas**

This group met in conjunction with the IMBER/LOICZ Continental Margins OSC in Shanghai (September 2007). They are preparing papers for submission to *Biogeosciences*.

### **Funding**

NSF confirmed funding for 2 years for various SCOR activities.

50K USD per year are guaranteed for IMBER for 2008 & 2009. Also 10K USD were secured by SCOR for the 1<sup>st</sup> IMBER IMBIZO in support to developing country scientists.

### **4.3 IGBP**

IGBP is organising its 4<sup>th</sup> Congress "Sustainable Livelihoods in a Changing Earth System" to be held in Cape Town (5-9 May 2008) [www.igbp2008.co.za](http://www.igbp2008.co.za).

IGBP Projects will be holding their annual Scientific Steering Committee Meetings on 5 and 6 May. Three IMBER-related working groups and one jointly with GLOBEC have been selected. Sylvie is finalizing the titles, conveners, and the text.

The programme is not finalized yet. It will be available soon on the IGBP web site <http://igbp2008.co.za/>. Scientific posters will be a central part of the Congress, with a dedicated poster session on Day 3. A call will be made for contributed posters during the coming months. There will also be a poster session for non-experts in association with the public events on Day 2.

IGBP aims at publishing the "*Cape Town Declaration*" following the IGBP Congress and asks the SSCs to write a sentence about their projects related to African issues. The target is the *Amsterdam Declaration on Global Change* written in July 2001 after the IGBP Congress "Challenges of a Changing Earth: Global Change Open Science Conference".

**Action:** Sylvie to circulate the information regarding the "Cape Town Declaration" to IMBER SSC.

Julie thought this Congress is a good opportunity to create collaboration with South African Scientists. Pedro Montero chairs a new climate project. Ed suggested that SCOR organises this meeting for all the marine projects.

### **4.4 IMBER-PICES**

The North Pacific Marine Science Organization (PICES) is organizing its Sixteenth Annual Meeting to be held October 26 - November 5, 2007, at the Victoria Conference Centre in Victoria,

Canada. Julie will attend this meeting to develop links with IMBER, especially with the new PICES research programme FUTURE. The next PICES annual meeting will be held in China (Oct 23-Nov 2, 2008). PICES launched a call for special sessions. Julie and IMBER Chinese contacts proposed a joint IMBER/PICES Session. Some IMBER funds will be needed to support this activity.

Dennis suggested to further connections with PICES through an extension of the Basins project for example.

**Action:** IPO to look at potential collaborative interactions with ICES (Fisheries Pollution), through interactions with ICES working groups.

#### **4.5 PACKMEDS**

PACKMEDS is led by SCOPE. SCOPE's scientific programme consists of projects focused on the concepts and practices of sustainability: maintaining the life-support system of humankind by safeguarding the natural resources over time. This group met in April and is preparing a book including 12 chapters. Ed Urban is editing this book that will be published in 2008.

Snelgrove, P., M. Flitner, W. Ekau, M. Glaser, H.K. Lotze, C.J.M. Philippart, P. Sompongchaiyakul, E. Yuwono, J. Melillo, M. Meybeck, N. Rabalais, B. Sundby, E. Urban & J. Zhang (under review) Governance and management of ecosystem services in semi-enclosed marine systems. In: E. Urban & S. Greenwood (Eds) PACKMEDS - *Dynamics and vulnerability of semi-enclosed marine systems: the integrated effects of changes in sediment and nutrient input from land*.

#### **4-6 GEOTRACES**

GEOTRACES is a new international program on the study of trace elements and isotopes in the world oceans. GEOTRACES held a series of planning workshops this year, one each for the Atlantic, Pacific and Indian oceans, as well as one that was focus on model/data synergy.

- Pacific (26-29 June, 2007 – Hawaii, USA)
- Data-model synergy (6-8 September, 2007 – Delmenhorst, Germany)
- Atlantic (10-13 September, 2007 – Oxford, UK)
- Indian (23-26 October, 2007– Goa, India)

The purpose of the basin planning workshops is to refine the scientific objectives, and place them into a framework of specific sections, and to identify nations that are prepared to take the lead on carrying out those sections. The GEOTRACES SSC will use the output from the workshops when it meets in November to draft a coherent global plan for the GEOTRACES program, to be implemented over the next decade. NSF has funded 2 calibration meetings. Greg Cutter is the chair of the GEOTRACES Standards and Intercalibration Committee.

Ed will ask GEOTRACES an update about their plan with standard methods.

**Action:** Ed to represent IMBER at the GEOTRACES SSC meeting in Barcelona in November.

#### **4.7 OOPC**

OOPC would like to work with IMBER to develop, as rapidly as possible, inclusion of ocean biogeochemistry variables in an agreed global ocean observing system plan. OOPC would like to ensure that IMBER is able to make the best possible use of ongoing observing, analysis and reanalysis activities. There is intense interest in developing observing system components for marine ecosystems and biogeochemistry as part of a more comprehensive integrated observing system. A decade after the OceanObs99 conference OceanObs09 is being proposed for late 2009. OOPC suggests collaboration with IMBER following the OceanObs99 example.

At the CLIVAR SSG, Detlef Stammer and Ed Harrison asked Wilco to provide an IMBER candidate for the scientific steering committee of the Ocean Obs 09 conference. The OceanObs99 conference was a great success. It defined the needs for a sustained ocean observation system for climate. In the 09 conference ocean the system will be reviewed. Ocean biogeochemistry and ecosystems will be important new items. <http://www.oceanobs09.net/>

A good candidate should have an expertise on biogeochemistry, non-carbon and have a large scale of interests (time series, moorings). Denis Gilbert, Ken Johnson, Steve Riser, Osvaldo Ulloa, have been proposed.

**Action:** Julie to discuss this list with Ed Harrison and Alberto Fisher to ensure IMBER interests are represented on the organising committee for the conference.

#### 4.8 CLIVAR

A conference call took place with Wilco on Tuesday, October 9<sup>th</sup>.

Wilco summarized the programme and the format. Five lecturers have confirmed their participation; Matthew Collins, Benjamin Giese, Gustavo Goni, Geert Jan van Oldenborgh and Anne-Marie Tréguier. Marina Levi still needs to confirm.

Patrick said that CLIMECO is maybe a good opportunity to link with GODAE scientists. If "CLIMECO type" activities are organised on a regular basis, IMBER should have to think about future links with GODAE.

**Action:** Wilco to send CLIMECO material to Ed so that Ed will be able to contact NOAA for funding request. Julie will also contact Steve P. at NOAA regarding funding for this workshop.

#### **Poster and Website**

The poster and the web site are in preparation. The first announcement should be published in early November. The IMBER IPO has presented 3 versions for the poster. The posters look great but the Exec has suggested focusing more on ocean and ecosystems. Wilco proposed that Sophie and Roberta Boscolo from CLIVAR office interact to find appropriate images for the poster. The advertising of the workshop must start as soon as possible. It is suggested to remove the unconfirmed lecturers from the website.

**Action:** Sophie to contact Roberta Boscolo to find more illustrations for the CLIMECO poster.

**Action:** Wilco and Sophie to interact to complete the CLIMECO poster and web site.

**Action:** IMBER IPO to announce the CLIMECO training through e-mails early November.

The idea of having continuing training course was raised. There is a few existing ones: on biogeochemistry (Kiel), on modelling (NCAR; Jim Morel), physical oceanography (every 2 years).

#### 5- IMBIZO Conference Call

A conference call took place to review the recent activities and define the next priorities for the organisation of IMBIZO (with Coleen Moloney, Mike Roman and Debbie Steinberg)

IMBER is organizing the 1st IMBER IMBIZO for November 2008. This event will take the form of a set of three concurrent workshops. The topics of the three workshops will be:

- 1) *Mesopelagic* (co-chaired by Debbie Steinberg and Hiroaki Saito),
- 2) *Bathypelagic* (co-chaired by Dennis Hansell and Gerhard Herndl), and
- 3) *End-to-end Food Webs* (co-chaired by Coleen Moloney and Mike Roman).

The overall theme of the IMBER IMBIZO is "*Biogeochemical and ecosystems interactions in a changing ocean*".

## 5.1 Venue

Sylvie summarized the prices and services offered by several venues in the Eastern USA. After comparing advantages and disadvantages of each possibility, the committee agreed to hold the IMBIZO at the Grand Bay Miami Hotel. The local science community is broad and interested in the IMBIZO. Sharon Smith has offered to chair the local organizing committee.

Julie thanked Ed for offering to host the IMBIZO in University of Delaware. This venue is a possibility to keep in mind for future IMBER events.

## Dates

The IMBER IMBIZO is planned for November. Dates to avoid should be the US Thanksgiving which is on Nov 27 and also the week-end of Nov. 14-16 which is blocked at the Grand Bay hotel. The specific date will be determined with the local committee. The duration of the IMBIZO will be 3.5 days.

**Action:** IPO to discuss dates for the IMBIZO with hotel and local committee.

## 5-2 Scientific Organizing Committee

The current membership of the organizing committee is Julie Hall, Wajih Naqvi, Jing Zhang, Coleen Moloney, Mike Roman, Dennis Hansell, Debbie Steinberg, Gerhard Herndl, Hiroaki Saito and Sylvie Roy. The co-chairs of each sub-committee will form an organizing group of 4-6 people for each workshop.

**Action:** Co-chairs to form the organizing committee for each workshop.

## 5-3 Goals

The project goals of IMBIZO will be to:

- showcase IMBER science;
- foster multidisciplinary approaches;
- entrain new scientists to IMBER;
- provide data management training;
- develop outreach products;
- produce scientific products.

The committee must determine specific scientific aims for each workshop and define the specific outputs. Patrick suggested it is important not to focus only on processes but to push toward new observing systems as well. The 3 workshops should consider integrating new instrumentation and new technology. The workshop organizing committees must write a short paragraph on each of the workshop, outlining the goals. Julie said it is important to define multidisciplinary state of knowledge and identify new research directions.

**Action:** Each chair of the IMBIZO workshop to write a short summary including goals for each IMBIZO workshop. This information will be needed for the website.

## 5.4 Outputs

Outputs from IMBIZO could be the development of implementation plans from each workshop identifying key scientific questions and how to approach those issues. Other outputs should be scientific publications i.e. special issues, articles presenting state of knowledge, synthesis papers, etc. All workshop chairs agreed with the expected outputs.

**Action:** IMBIZO Workshop chairs to inform the workshop committee about the expected products for each workshop (i.e. scientific publications and short document outlining how to move each area of science forward).

## 5.5 Format

“Gordon Conference” or “Dahlem” approaches could be taken.

Each chair discussed about the advantage and disadvantages of each format according to their experience. A final decision must be taken by the workshop committees.

**Action:** Mike to circulate documents on Dahlem Conference to all participants to the conference call.

**Action:** Each workshop committee to decide what format they would like to adopt for their workshop.

## 5.6 Budget

*Confirmed outcomes*

10K USD are provided by SCOR through NSF

*Outcomes to be confirmed*

7.5K USD for developing countries from SCOR

7.5K USD and 4.5K USD have been requested from EUR-OCEANS for E2E and Mesopelagic workshops respectively. As the IMBIZO will take place outside of Europe, the chance of having funds from EUR-OCEANS is low. However, being endorsed by EUR-OCEANS will allow EUR-OCEANS scientists to use EUR-OCEANS funding to attend the meeting.

25K USD were requested from OCB for the mesopelagic workshop. The answer should come soon.

**Action:** Debbie to tell the SSC if OCB supports IMBIZO Mesopelagic workshop.

*Other sources*

The other possible funding sources are:

- For E2E workshop: NSF-CAMEO program; NASA satellites for fishery services, NSF for biological oceanography, Phil Taylor);
- For Bathypelagic and Mesopelagic workshops: ONR (Office for Naval Research), NOAA (Ocean Exploration Program, ORION), NASA;
- For overall IMBIZO: Dennis will explore funds provided by University of Miami for supporting social event;
- APN, IAI, START for developing countries;
- PICES.

**Action:** Dennis to contact NOAA and Univ. of Miami regarding IMBIZO funding.

**Action:** Mike to contact Phil Taylor at NSF, and Paula Bontempi at NASA for E2E workshop support.

**Action:** Debbie to contact ONR for Mesopelagic workshop support

**Action:** Ed to check SCOR money for E2E workshop and let Mike know where at NSF the funds came from.

**Action:** Sylvie to deal with APN, IAI, START find out about possible funding for the IMBIZO.

**Action:** Julie to contact PICES to find out about possible funding for the IMBIZO.

## 5.7 Data Management Training

The IMBIZO symposium has been identified as a good opportunity to promote data management. The Exec recommends that DMC develops a workshop for training young scientists. The chairs of IMBIZO welcomed this idea. Data training session could be half a day long. Dennis suggested to find an attractive title for this activity. For example the training could be called “Access to data”, or “data access, management and visualization” rather than “Data Management” to foster scientists attendance.

**Action:** Sophie to contact Raymond and DMC members with recommendations regarding DM training at IMBIZO and ask if they are willing to go forward.

### 5.8 Timetable

IMBIZO will be 3.5 days long with a possible writing session the last afternoon for the workshop committees. It is really important to develop a timetable, develop goals, and define the structure quickly.

Sophie will develop the website as soon as the information is available. The committee should send Sophie the information by mid-November in order to have the website ready by mid-December.

**Action:** Sophie to contact chairs of each workshop to get the required information for the website.

**Action:** Sophie to develop the IMBIZO website by Mid-December.

### 5.9 Number of attendees

Around 120 participants (40 for each workshop) are expected. Plenary speakers could be invited. The committee must think about selection procedure and determine if there will be a call for abstracts (poster and/or oral). The application form should include: expertise, how scientists will contribute (poster, oral), CV etc... Younger scientists need to be selected according to a post-doc/PhD ratio.

**Action:** Mike to send IPO examples of registration form for the IMBIZO.

### 5.10 Miscellaneous

It was suggested to organise IMBIZO Symposium every year to collect results and discuss about “state of the art” research. Each second year, IMBER could organize an Open Science Conference to synthesize advances.

## 6 Update on contributing projects and regional activities

### 6.1 SIBER

A writing workshop of approximately 20 people is planned in Goa in late November to prepare the Science Plan for an Indian Ocean research activity with IMBER science themes. The list of people is still being discussed and funding has yet to be secured (NASA, NOAA, France, Goa, and IOC). IMBER has accepted to provide financial support (5K USD). Julie will attend the workshop.

**Action:** Sylvie to tell Wajih that IMBER will provide support to the SIBER Meeting (5K USD) for travels.

### 6.2 EUR-OCEANS

Paul gave an overview of EUR-OCEANS and reported on major activities. The three marine Networks of Excellence EUR-OCEANS, MarBEF, and Marine Genomics Europe, jointly set out their position on the scientific challenges for the next 10 years. EUR-OCEANS scientists contributed to significant advances in marine science: one example is about the ecosystem approach of fisheries, with a synthesis paper submitted by Philippe Cury on: “*From ‘Fisheries Oceanography’ towards ‘Ecosystem Oceanography’*”.

In 2007 EUR-OCEANS started their Integration Project (IP). It includes 3 activities:

1) a project to improve biogeochemical and biological models, led by Stéphane Pesant and Gabriel Gorsky (CNRS, Villefranche-sur-mer, France);

- 2) a project that will develop vital rates experiments to improve zooplankton modeling, led by François Carlotti (CNRS, Marseille, France);
- 3) a project on what it takes to create specific **diatom blooms** and quantify the effects on pelagic ecosystems in **mesocosms**, led by Jens Nejstgaard (University of Bergen, Norway).

Several projects are preparing review or synthesis papers:

- Impact of climate change on the **Mediterranean Sea ecosystems**.
  - 1) the plankton dynamics and food web structure in open waters, with Ioanna Siokou-Frangou (HCMR, Greece), M. Mazzochi and M. Montresor (SZN, Italy) and F. Rassoulzadegan (CNRS, France) as leaders;
  - 2) the dynamics of gelatinous plankton, led by M. Nejib Daly Yahia (FSB, Tunisia);
  - 3) the impact of heat waves on the zooplankton communities will be assessed by S. Piontkovski (IBSS, Ukraine).
- **North-East Atlantic Ocean: from physics to whales**, project coordinated by Clive Fox (SAMS, UK), Roger Harris (PML, UK) and Svein Sundby (IMR, Bergen, Norway);
- Project on the **coastal upwelling ecosystems** led by Astrid Jarre (DIFRES, Denmark).

In 2007, EUR-OCEANS organised two summer schools:

- 1) "Habitat modelling of Marine Populations", 2-13 July 2007, Lisbon, Portugal. Co-organized and co-sponsored by IFREMER and IPIMAR.
- 2) "Combining data and models-statistical analysis and data assimilation in biogeochemical oceanography", 10-14 September 2007, Kiel, Germany. Co-funded by CARBOOCEAN.

In 2008, EUR-OCEANS co-organises a symposium "Coping with global change in socio-ecological systems" in collaboration with GLOBEC and FAO. It will be held in Roma (Italy), 8-11 July 2008.

Ten films were produced by the EUR-OCEANS Network of aquaria. The most recent ones deal with acidification and ocean manipulation. Films are available on [www.eur-oceans.info](http://www.eur-oceans.info). IMBER has to explore possible outreach activities in 12 coming months. EUR-OCEANS could be a good example and could help in this area.

## 7 Implementation of IMBER

### 7.1 IMBER Budget Review

Sylvie reviewed the budget for 2007 and 2008. Because of the tight budget we are facing for 2008, it has been suggested to revisit the discretionary budget.

The IPO has secured funds from CNRS, IRD, Brittany region and UBO until August-September 2008. Funding for the IPO is up for renewal in 2008. This important issue was discussed on Tuesday 9<sup>th</sup> October afternoon with the French contributing organizations.

#### **IMBER sources of funds**

- IMBER benefits from a SCOR/NSF support of 50K USD for 2007 and 2008 (including respectively 38K USD and 26K USD of discretionary funds).
- IGBP is facing financial problems and reduced our block grant to 18K USD per year.
- SCOR allocated 10K USD for developing country scientists' travel for the Continental Margins conference in Shanghai.
- CNRS allocated 32K USD in 2007 for travels. 27.5K USD of those funds were discretionary funds.
- The Continental Margins Open Science Conference balance is positive, with a profit of 20K USD. These funds will be dedicated to future Continental Margins Working group activities in 2008.

There is a clear need to find funds for the IMBER activities.

### ***Expenses decisions***

Discretionary expenses approved for 2007 is: (all values are in USD)

- SOLAS group meeting (3.5K)
- SOCOVV workshop (9.5K)
- Travel to Continental Margins Conference (Julie and Sylvie) (5K)
- Travel for Coleen to CLIOTOP Symposium (4K)
- Parameterization workshop (10K)
- DMC meeting (12.5K)
- IMBER/GODAE workshop (8K)
- SIBER writing meeting (5K)
- CLIOTOP symposium (8K)
- ASI VII in support for Latin Americans (2K)
- Hydrography Advisory Panel meeting (2K) will be paid in 2008

Discretionary expenses approved for 2008 is:

- SIC activity, Meeting Orlando (10K)
- ICED science plan printing (1K)
- ICED SSC meeting (5K)
- Upwelling symposium (10K)
- CLIMECO (10K)
- IMBER IMBIZO (10K)
- Social-ecological symposium FAO (Rome) (3K)
- ASI VIII (2K)

Hydrography Advisory group has been formed, co-sponsored by GSOP, IOCCP and the SOLAS/IMBER Carbon group. Their first meeting will be held in Victoria, Canada (1-2 Nov 2007).

**Action:** Sylvie to talk with Maria Hood to plan how to support the Hydrography Advisory group.

## **7.2 Future tasks for next 12 months**

### ***Working Group activities***

- SIC Group: The SIC will meet in Orlando (March 2008) in conjunction with the 14th Ocean Sciences Meeting. In this framework a Town Hall will be organised (Dennis will be the chair) to increase the interactions between IMBER and the marine science community.
- Capacity building: A Summer School in Ankara (Turkey) led by Temel Oguz is planned for August 2008.
- Continental Margins: The major objective for the Continental Margins Working Group now is the preparation of an implementation plan for continental margins research. Participants contributing to the Science and Implementation plan writing will possibly meet at the ASLO meeting in Orlando (March 2008).
- DMC: The DMC has to write the data policies, the guidelines for IMBER scientists. The DMC must also develop ideas for training for the next IMBER IMBIZO.

### ***Regional Projects***

- ICED: The review of ICED Science Plan and Implementation Strategy should be completed as soon as possible.
- SIBER: IMBER supports the writing workshop planned in Goa in late November to prepare the Science Plan for an Indian Ocean research activity with IMBER science themes.

### **Promotion**

- Posters: IMBER needs a new poster for the IGBP Congress (May 2008). The objective of this poster is to present what IMBER is doing by focusing on the task teams and the essential national activities. The first poster regarding IMBER introduction will be redesigned.
- IMBER update: The Update will be edited under a new electronic version (readable on-screen) early 2008.
- Website: A Data portal will be developed in 2008.
- Gorick Image: The final Gorick image should be ready by early November so that it can be used for the IMBIZO poster.
- Endorsement benefit for projects: The IPO will write a clear and catchy statement on endorsement including benefits to get endorsed.

### **Meetings**

In 2008, IMBER IPO will be involved with the following meetings:

- Town Hall at the 14th Ocean Sciences Meeting (Orlando, March 2008)
- CLIMECO Workshop (Brest, April 21-25, 2008)
- 2008 IMBER SSC meeting (Cape Town, May 4-9, 2008)
- The “International Symposium on Eastern Boundary Upwelling Ecosystems” (Gran Canaria, Spain, 2-6 June 2008).
- Summer School in Turkey (Ankara, August, 2008)
- IMBER IMBIZO (Miami, Nov 2008)

### **Funding**

There are a lot of activities to support in 2008. There is a clear need to find funds for the IMBER activities over the next years. List of funding sources to explore is as follows:

- ESF COST initiative: coming from the scientists, EU project funds, IPO can help;
- APN for Asian scientists;
- START for IMBIZO;
- NATO-ASI for Summer School;
- French funds for IPO renewal .

### **7.3 Next exec meeting**

The Executive Committee has agreed to plan the next Executive Meeting in conjunction with the 1<sup>st</sup> IMBER IMBIZO Symposium in Miami (Nov 2008).



## Joint IMBER/GLOBEC Executive Meeting

IUEM, Brest, France

8 October 2007

### Present:

#### IMBER members

Julie Hall, Dennis Hansell, Patrick Monfray, Sylvie Roy, Sophie Beauvais

#### GLOBEC members

Cisco Werner, Roger Harris, Manuel Barange

### Sponsors

Ed Urban, Emily Brévière

## 1 End-to-End food web activities

The joint committees commented on the two papers written by Coleen Moloney and Mike St John. The first one (Moloney et al., in preparation for Ecosystems) captures much of the detailed discussion from the meeting of the Task Team in December 2005 in Hamburg, and attempts to provide a framework for future end-to-end food web research. The second manuscript (St John et al., in preparation for Journal of Plankton Research) provides a conceptual overview of issues concerning end-to-end food webs. Both manuscripts are still in draft stage, but should be submitted before the end of 2007. The task team hopes that these two draft manuscripts can serve as Final Report related to the primary task of the End-to-End food webs Task Team.

### Recommendation:

The joint IMBER/GLOBEC committees decided to accept Mike's paper as it is and to accept Coleen's paper after she adds missing tables. Those two papers, with an overall introduction, will be accepted as End-to-End food webs Task Team final report. We will ask them if we can post those papers on the project web sites, before their official publication in peer-review journals.

**Action:** Manuel to report to Mike and Coleen with Execs' recommendations and ask them if we can post their papers on the web sites and in the next newsletter.

**Action:** Mike and Coleen to send the final report (with the inclusion of the above mentioned introductory overview) of the End-to-End TT to the IMBER and GLOBEC SSCs.

To move End-to-End research forward the following activities are planned:

- Workshop: End-to-End food webs and biogeochemical cycles / 1<sup>st</sup> IMBER IMBIZO (10-13 Nov 2008). This workshop is co-convened by Coleen Moloney and Mike Roman. A proposal has been submitted by Mike St. John to EUR-OCEANS for endorsement and funding (7,5K€);
- A topic session on end-to-end at the IGBP Congress;
- Summer School: Analyses of the interactions between end to end marine food webs and biogeochemical cycles (Ankara, Turkey, 2008).

## 2 ICED review

The ICED Science Plan and Implementation Strategy was externally reviewed. Mary-Elena Carr (IMBER) and Svein Sundby (GLOBEC) are currently coordinating the ICED SPIS review and will make recommendations to the SSCs. Six reviews were received until now. The joint IMBER/GLOBEC commented on the reviews. It was decided to wait for the final report from Mary-Elena and Svein Sundby, at which point both Executives will evaluate the report from Mary-Elena and Svein before sending recommendations to Eileen and Eugene.

(Subject to a successful process the Plan and Strategy will be adopted and published jointly by GLOBEC and IMBER.)

**Action:** Sylvie to ask Mary-Elena and Svein to complete the ICED report and send their assessment and recommendations as soon as possible to GLOBEC and IMBER Execs. [Update since the Exec meeting: the reports from Mary-Elena and Svein are now in hand and the Execs are reviewing the recommendations (19 Nov 2007).]

**Action:** Sylvie to send the final report from the GLOBEC and IMBER Execs to Eugene and Eileen.

The next priority for ICED is to formally establish an active Steering Committee (8-9 people). Eugene proposed to hold the first SSC meeting with the modelling workshop (early 2008, no location yet). No funds are requested for the workshop but for the SSC to meet. ICED provided both GLOBEC and IMBER SSCs with a list of proposed membership.

The Execs made the following recommendations regarding the proposed membership:

- Geographical distributions need broadening; for example Southern Hemisphere is missing (Chile, Argentina, South Africa, Korea, and Japan).
- Need a representative from developing countries;
- Range of expertise is well covered but maybe someone from “acidification” and “climate” could be proposed;
- Need to better link with Arctic.

**Action:** After the SP/IP is accepted, Sylvie to send Eileen and Eugene the recommendations regarding the ICED proposed SSC.

## 3 TTT activities and plan

The Transition Task Team membership and draft of ToRs have been approved by both IGBP and SCOR. Both SCOR and IGBP requested to add a report to the Officers meeting in September 2008 in the timeline of the task team. Qisheng Tang will be the first fisheries person on the list to be approached. The Transition Task Team (TTT) will develop the scientific content of the addendum to the IMBER science plan.

**Action:** SCOR and IGBP to send letter to TTT for official invitation.

### **Financial assistance**

IMBER and GLOBEC had approached SCOR and IGBP for financial assistance with the TTT. SCOR and IGBP agreed to provide 7.5K USD for a meeting of the TTT. GLOBEC and IMBER would provide 7.5K USD each, leading to a total amount of 30K USD in total (15K USD per meeting). IMBER and GLOBEC IPOs will organize each meetings alternatively. [Subsequently it has been agreed that GLOBEC will liaise with J Field with regards to the first meeting and IMBER will do the same for the second meeting.]

#### 4 IGBP Congress: topic sessions

The 1<sup>st</sup> TTT meeting will be in Cape Town in association with the IGBP Congress.

**Action:** IMBER and GLOBEC IPOs to coordinate a meeting for the IMBER and GLOBEC SSC's at the IGBP Congress for discussions on ICED, TTT, E2E, and GLOBEC OSC.

At the IGBP Congress the IMBER, GLOBEC and SOLAS SSC's are keen to meet with local marine scientists and have asked SCOR to organise a joint meeting.

**Action:** Ed to contact South African SCOR committee to initiate the organization of a meeting with local marine scientists.

Four topic sessions were proposed by IMBER and three have been accepted. GLOBEC proposed one and has been accepted.

**Action:** Sylvie and Manuel to work with IGBP session leaders to ensure required information regarding the topic session is forwarded to IGBP.

#### 5 IMBER involvement in 3rd GLOBEC OSM

GLOBEC will hold its final 3<sup>rd</sup> Open Science Meeting at UNESCO in Paris (late May 2009). This conference will feature a session on the transition to IMBER. GLOBEC invites the IMBER SSC to propose a scientific committee member to contribute actively to the organisation of the conference. Ian Perry is the Chair of the organising committee. GLOBEC is developing the format which could be:

- Scientific sessions and/or
- Oriented topics/programmes and/or
- Workshops for particular topics or different combination of workshops.

IMBER could be involved through End-to-End topics coming from ESSAS, CLIOTOP, ICED. It is suggested to identify areas and new scientific questions from from the TTT to be included in the session. This will be discussed in Cape Town at the IGBP Congress.

#### 6 Upwelling symposium

The "International Symposium on Eastern Boundary Upwelling Ecosystems" will be held in Gran Canaria, Spain (2-6 June 2008) <http://www.confmanager.com/main.cfm?cid=845&nid=6529>. This symposium is co-sponsored by GLOBEC, IMBER, EUR-OCEANS, IRD, SOLAS and ULPGC. The symposium will consider most aspects of the dynamics, structure and functioning of the four major eastern boundary upwelling ecosystems the Benguela, California, Canary (African Canary and Iberian Peninsula) and Humboldt Current systems. These aspects include climate and ocean dynamics, climate change, physics of the ocean and atmosphere, biogeochemistry, ecosystem production, ecology (including behavioural ecology), food-web structure and dynamics, trophic interactions, fisheries assessment and management.

Every day (except the first day) will start with a keynote address on the synthesis of knowledge of each one of the major Eastern Boundary Upwelling Systems, in the following order: Canary Current (Day 2), California Current (Day 3), Benguela Current (Day4) and Humboldt Current (Day 5). A chair has been nominated for each session. The deadline for abstract submission is 1<sup>st</sup> of January.

The budget is almost completed and looks reasonably comfortable. IRD will provide 35K USD. 15K USD will be covered by EUR-OCEANS. IMBER and GLOBEC should provide 10K USD each.

GLOBEC suggests support for one person per IPO (3 people) to assist the local people on site with the conference organization during the meeting. GLOBEC will bring one person.

## 7 CLIOTOP, ESSAS and SPACC

IMBER is responding to requests for interact from GLOBEC projects that will finish after 2009. Coleen Moloney will attend the CLIOTOP SSC meeting and symposium (La Paz, Mexico, Dec 2007).

The regional program "Ecosystem Studies of Sub-Arctic Seas" (ESSAS) aims at comparing, quantify and predict the impact of climate variability and global change on the productivity and sustainability of Sub-Arctic marine ecosystems. There has not been internal discussion about the potential links with IMBER yet. ESSAS organizes 2-3 workshops a year. The next one in Halifax (15-19 September 2008) and this could be a way to link with IMBER.

SPACC: It has been suggested that interactions with SPACC could occur at the Social-ecological Symposium at FAO in Rome in July 2008.

## 8 CLIMECO

Wilco Hazeleger is preparing the "Climate driving of ecosystem changes (CLIMECO) training activity that will be held in Brest (April 2008). This activity intends to increase the interactions between physical climate science and marine biogeochemistry and ecosystems communities with **focus on impacts of climate variability on the marine environment**. The co-conveners are: Wilco, Martin Visbeck, Olivier Aumont, Geir Ottersen and Richard Sanders. The lecturers are currently being appointed. CLIMECO will welcome applications from early careers scientist, either working toward or having recently completed a doctorate on a topic related to CLIVAR, IMBER or GLOBEC or showing strong interest in those topics. The core projects will select some of the participants. Sophie has prepared registration form available on the website.

The Exec committees thought that the term "workshop" does not suit well for this kind of activity. As the target is training for students and young scientists, the committee has proposed to call this event "training activity". A possible way is to keep "workshop" but add a subtitle including "training". It has also been suggested to add the term "Marine" somewhere in the title as this event is dedicated to marine science community. The budget looks relatively good. EUR-OCEANS will provide 20K Euros. GLOBEC will confirm its contribution of 7.5K euros. IMBER has set aside 7.5K Euros to support this workshop. CLIVAR has confirmed funding of 3K Euros. The IMBER IPO will submit a proposal to Brittany Region early 2008 requesting for 2K Euros. A proposal has been sent to ESF for 15K Euros and decision should be know on November 30th. Ed proposed approaching NOAA for funds; SCOR has received funds from NOAA for this kind of activity in the past.

One person from each sponsoring programme is on the organising committee.

**Action:** Sophie to report to Wilco with Exec recommendations regarding the title for CLIMECO.

**Action:** Sophie to develop CLIMECO poster and web site.