INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

IODE OFFICERS MEETING

IOC Project Office for IODE, Ostend, Belgium
6-7 February 2006

SUMMARY REPORT

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1. OPENING OF THE MEETING

The Chair welcomed the participants to the 2006 Officers Meeting. She recalled that this was the first "regular" meeting of the Officers since 1998. Due to the high number of Officers (resulting from decisions of previous IODE Sessions) the cost of organizing IODE Officers Meeting Sessions had become too high to justify within the reducing budget.. She referred to the IODE review which had recommended a reduction in the membership of the IODE Officers as well as to have one Officers Meeting immediately after a Committee Session and one during the inter-sessional period.

The Chair also invited the Chairs of the Groups of Experts (Ms Suzie Davies, GE-MIM; Dr Edward Vanden Berghe, GE-BICH; and Dr Nikolay Mikhailov, JCOMM/IODE ETDMP) to meet during a sessional working group to discuss the drafting of a strategy for the future of the Groups of Experts, as instructed by the IODE Committee through Resolution IODE-XVIII.3 (IODE Groups of Experts).

The List of Participants for the Session is given in **Annex II**.

2. PRACTICAL ARRANGEMENTS

Mr Vladimir Vladymyrov, Head of the IOC Project Office for IODE welcomed the participants and informed them about practical arrangements during the meeting.

3. REVIEW OF THE IODE-XVIII ACTION SHEET

The Technical Secretary for IODE, Mr Peter Pissierssens, invited the participants to review the IODE-XVIII Action Sheet (Document IODE-OFF/06/2). Information on actions taken during the inter-sessional period (May 2005 – February 2006) is listed below, as well as comments and recommendations for future action by the Officers.

	Action taken	Comments by Officers
3.2 IOC PROJECT OFFICE FOR IODE		
62 **The Committee recommended** maintaining a calendar of events at the Project Office and making this available through the planned Project Office web site.	**DONE/** http://www.iode.org/projectoffice has calendar of events at the project office	
65 **Noting** the importance of promoting the IOC Project Office for IODE, **the Committee encouraged** Member States to promote the Project office and to second relevant experts on short or long-term basis to the Project Office.	**none**	The Officers stated that it will be best to identify specific projects/pilot projects and then approach member states to provide experts. Example: SeaDataNet-DMACS connection: maybe organize a joint meeting (technical group) at the IODE Project Office.
3.3 ACTIVITIES OF WORLD DATA CENTRES		
3.3.1 World Data Center for Oceanography, Silver Spring, USA		
80 **The Committee requested** all IODE data centres, and other institutions in IOC Member States that manage oceanographic data, to perform more thorough quality control on data before they are submitted.	**none**	It was noted that a number of projects and GEs (eg GEBICH) also have QC related guidance documentation. The Officers requested all GEs, former RNODCs and projects (eg GTSPP) to submit copies (electronic) of their QC guidelines(*) to the IODE Secretariat for distribution among the IODE NODCs. Deadline: June 06 . (Secretariat to monitor) (*): for biological data there are currently many QC "guideline" and additional work will be required to agree on common QC guidelines
81 Reference is made to Resolution IODE-XVIII.4, adopted under Agenda Item 5.1.	Secretariat contacted Syd Levitus inviting him to Chair the group (13/1/06)	The Officers requested the Secretariat to contact Syd Levitus again. If Dr Levitus is unable to assume this responsibility then Mr Ricardo Rojas and Mr Loic Petit de la Villeon will take the lead in moderating the online discussions of the Group.
82 **The Committee requested** all IODE data centres, and	**none**	The Officers requested WDC Oceanography, Silver

other institutions in IOC Member States that manage oceanographic data, to check their national ocean-profile holdings against those contained in the "World Ocean Database," which is maintained by WDC for Oceanography, Silver Spring.		Spring to contact the individual countries and inform them of specific problems. (Secretariat to monitor)
3.3.2 World Data Centre for Oceanography, Obninsk, Russian Federation		
94 **Considering** that this varied offering of the WDCs may not be clear to end users, **the Committee recommended** the development of an information page on the IODE web site that will guide users to the relevant products and services available from the WDCs.	**none**	The Officers requested the WDCs to prepare a list of URLs and descriptions of the products and services available through these URLs. In this regard reference was made to OceanPortal where many of the services and products are already documented. It was recommended for the Chair IODE, Chair JCOMM DMPA and ICSU (F. Webster) to present IODE/JCOMM requirements from WDCs.
3.3.5 World Data Center for Marine Environmental Sciences (WDC-MARE)		
112 **The Committee recommended** that all data centres consider making their metadata-databases OAI compliant.	**none**	The Officers referred this item to the SG-MEDI and JCOMM/IODE ETDMP. Reference was also made to the WMO's WIS initiative. The Officers requested N. Mikhailov to coordinate discussions.
3.6 REPORTS OF NODCS AND DNAS		
167 **The Committee welcomed** the nomination of 29 IODE National Coordinators for marine information management and **called** on Member States that have not yet nominated such an expert, to do so as soon as possible. In this regard **the Committee requested** the Secretariat to issue a circular letter to all IOC Member States.	**none**	The Officers noted that there are now 32 national coordinators for MIM. It was agreed that a clearer role of the NCs for MIM should be defined for distribution to the Member States. The Officers requested the Chair GE-MIM to produce this definition. A new Circular Letter should be sent including the definition. Deadline: April 06

177 **The Committee requested** Member States to provide separate reports for data management and information management as from the next Session of the Committee.	n/a	Include this requirement in Letter of Invitation for IODE-XIX.
180 **The Committee instructed** the Chair and Secretariat to prepare various levels of summary versions of the national reports for presentation during the IOC Assembly, to demonstrate the considerable advances made by, and changes occurring in the NODCs.	**none**	The Officers identified the need to raise awareness of IODE at the IOC governing body level. It was suggested to distil the essence from the 65 data centre reports. The message should be that the IODE NODCs are the underpinning of the IOC data management strategy. The Officers requested the Chair IODE and Secretariat, for the upcoming IOC EC, to focus on: (i) the IOC data management strategy (linkages with WMO, JCOMM…) ; (ii) progress towards a "one-stop shop" for ocean data and information; (iii) the ODIN strategy. In the longer term (Assembly 2007) an expo could be organized at IODE-XIX (1 poster/country) that highlights the achievements (services and products) of the individual data and information centres + some regional projects (ODINs, SeaDataNet,…). The need for other outputs (eg glossary report) can be discussed at IODE-XIX.
3.7 IODE DATA FLOW		
188 **The Committee stressed** the need to develop controlled vocabularies but noted the need to take into consideration the efforts made, and expertise available from marine information management experts.	**none**	The Officers recommended that MIM experts participate in MMI, WIS, MEDI and other metadata projects/initiatives.

3.8 IOC OCEANOGRAPHIC DATA EXCHANGE POLICY: IMPLEMENTATION BY MEMBER STATES		
196 **The Committee welcomed** the adoption of the IOC Oceanographic Data Exchange Policy by the IOC Assembly and **called** on Member States to use the policy as a basis for national policies on oceanographic data exchange.	**none**	The Officers requested NODCs to attach a copy of their national data policy to their next IODE national report. The Officers requested the IODE Secretariat to re-send IOC Circular Letter 2123.
4. COOPERATION WITH OTHER PROGRAMMES		
4.1 COOPERATION WITH JCOMM		
212 **The Committee recognized** that any merger between IODE and JCOMM DMPA activities must be considered with great care. 213 **The Committee stated** that this is a matter that needs careful study and consideration and **recommended** that this be included in the preparations of the IOC Data Management Strategy.	**none**	This matter is to be considered under the discussions on the IOC data management strategy.
217 **The Committee welcomed** the organization of this first joint IODE/JCOMM training event and **recommended** its support by IODE, JCOMM and IOC Member States.	**Done**	The Officers considered that the "Jamboree" is a prime example of a joint JCOMM/IODE activity that results in demonstrable results such as models for storm surges and waves. They called on WMO and IOC to provide the necessary support, possibly from extra-budgetary sources. The Officers also called for support from IOC's CB section.
4.2 COOPERATION WITH GOOS		
222 **The Committee noted with appreciation** that at		The Officers noted that the "virtual laboratory" initiative

the regional level, in particular through the ODINAFRICA, ODINCARSA and the starting ODINCINDIO projects, cooperation between regional GOOS alliances and IODE ODIN projects have been initiated and well received, and **called** for the further strengthening of such cooperation.	**none**	(models are often difficult to run for developing countries – the first Jamboree proposed to establish a "virtual laboratory" at the Project Office where regional models can be run by developing countries – expected to be operational by September 2006) will contribute to the cooperation between IODE and GRAs. The Officers invited the Chair ETDMP to collaborate in this initiative. The Officers requested the Secretariat to continue promotion of cooperation between IODE and GRAs through close coordination with GRA Secretariats. The Officers requested the Chair to discuss ways to improve such cooperation during the upcoming GSSC (6-8 March 2006, UNESCO HQ).
4.3 COOPERATION WITH SCIENCE AND MONITORING PROGRAMMES		
233 **The Committee instructed** the IODE Chair to discuss closer collaboration with the OBIS Chair.	OBI-II conference is planned	The Chair mentioned the planned organization of the second OBI conference. The Chair GE-BICH requested more information on what biological data are managed by NODCs. Preparations for the Conference have started. Reference was also made to the cooperation between OBIS and ODINAFRICA (several joint training courses have taken place and others are planned in 2006/2007). ODINAFRICA is also organizing a "data mobilization" workshop that will generate input for an ODINAFRICA web site and for the AfrOBIS OBIS node.
4.4 OTHERS		
4.4.2 SCAR		
252 **The Committee instructed** the Chair to continue to		The Chair reported that T. de Bruin had inquired about

seek close collaboration with JCADM and to find ways, together with the Chief Officers of JCADM, to expand the existing collaboration.		the possibility of a joint project to establish a Southern Ocean database. Various projects have Southern Ocean data but data collected by Antarctic surveys are often not included. The Officers requested the Chair to discuss this matter in more detail (possibly through a meeting of the Chair and T. de Bruin). The Officers suggested considering a joint IODE/JCADM/OBIS (and JCOMM) pilot project.
4.4.3 Carbon Dioxide Information Analysis Center (CDIAC)		
258 **The Committee welcomed** the participation of CDIAC in IODE-XVIII and instructed the Chair and IODE Secretariat to seek closer collaboration with this centre.	**none**	The Chair JCOMM DMPA welcomed cooperation with CDIAC. The Officers requested the Chair IODE to contact CDIAC for further discussions (cc to Chair JCOMM DMPA)
4.4.4 Caspian Environment Programme (CEP)		
265 **The Committee noted with appreciation** the increasing number of programmes and projects collaborating with IODE and **called** to extend their number.	**none**	The Chair ETDMP informed the Officers that he is trying to set up an E2EDM pilot project for the CEP but noted that telecom infrastructure is currently not sufficient for the E2EDM requirements in that region. The matter is being investigated further. The Chair ETDMP will further discuss with the CEP (data management) any CB requirements for the Caspian Sea
5. FUTURE OF IODE		
5.1 IODE REVIEW (PROGRESS REPORT)		
279 **The Committee instructed** the Chair and IODE Secretariat to compile the surveys results into an	**none**	The Officers requested the IODE Secretariat to email the two survey documents (IODE-XVIII/23 and 23b) to all

information document for distribution to the IODE National Coordinators (for data management and for information management).		NCs for DM and IM
1. Objectives of IODE		
282 **The Committee adopted** Recommendation IODE-XVIII.1	**Done**	The revised IODE objectives have been posted on the IODE web site (http://www.iode.org/categories.php?category_no=52) (3/1/06)
2. Number of IODE Officers		
283 **The Committee agreed** with the recommendation of the review team and decided that the IODE Officers should include: (i) the IODE Chair; (ii) the IODE Vice-Chair; (iii) Chairs of groups established jointly with other organizations; (iv) Chairs of Group of Experts. 284 **The Committee agreed** that in addition, the WDC Directors and selected regional, scientific or technical experts may be invited to Officers' Meetings, if the agenda calls for them. 285 Taking into account that the IODE Committee meets approximately every two years, **the Committee decided** that one Officers Meeting should follow immediately future Committee Sessions to finalize the inter-sessional Work Plan, and a second meeting should be held during the inter-sessional period to review progress and prepare for the coming Committee Session.	**Done** Inter-sessional meeting held February 2006	The revised composition of the IODE Officers has been posted on the IODE web site on http://www.iode.org/contents.php?id=365 (2/1/06) The Officers recommended that the next Session should be held after IODE-XIX as planned but, if IODE-XIX cannot be held in 2007, then at least an Officers Meeting should be held in 2007.

3. IODE Groups of Experts		
288 **The Committee noted** that there had not been sufficient guidance to the Groups of Experts in terms of issues to deal with and in terms of follow-up, and **tasked** the IODE Officers to closely monitor and guide the Groups. 290 **The Committee adopted** <u>Resolution IODE-XVIII.3</u>	**none**	See Agenda Item 4
4. Distributed national data management systems		
292 **The Committee welcomed** the initiatives of several Member States to develop distributed systems and **invited** these countries to share relevant expertise with other Member States who wish to develop similar systems. 293 **The Committee re-iterated** the need for national central focal points for data and information functions traditionally assumed by NODCs and marine libraries and **called** on Member States not to lose sight of this requirement.	**none**	The Officers requested the Secretariat and Chair IODE to identify suitable experts, in consultation with the Chairs of the IODE GEs, who could provide connections between DMACS, SeaDataNet and other distributed system projects/initiatives. No specific action required
5. Responsible National Oceanographic Data Centres (RNODCs)		
294 **The Committee decided** to abolish the system of RNODCs. However, to ensure that the resources and expertise acquired in the regional RNODCs will not be lost, **the Committee instructed** the ODIN	**none**	The Officers requested the former RNODCs to document the products and services that were provided by the RNODCs and to incorporate these, as relevant, in the terms of reference of the ODINs. The Officers tasked

projects to incorporate the resources of existing regional RNODCs. Similarly, **the Committee instructed** the Chair to discuss with host centres of other RNODCs how their operations, if considered essential for the international (science) community, could be maintained and properly acknowledged. 295 **The Committee adopted** <u>Resolution IODE-XVIII.2</u>	**none**	the Secretariat with this task in close cooperation with the (existing) ODIN project leaders. Exceptions are RNODC for drifting buoys (Canada), JASIN (UK: to be closed), IGOSS (Japan, USA and Russia), MARPOLMON (Japan, USA and Russia), ADCP (Japan). The Officers requested the centres that hosted the former RNODCs for drifting buoys (Canada), IGOSS (Japan, USA and Russia), MARPOLMON (Japan, USA and Russia) and ADCP (Japan) to continue their work until the next Session of IODE. This matter will be further discussed with these centres prior to IODE-XIX (in close consultation with the JCOMM DMPA) for advice to IODE-XIX.
6. Multi-national oceanographic data centres		
296 **The Committee welcomed** the proposal to establish multi-national oceanographic data centres in those cases where insufficient national resources or data exist to justify a fully-fledged national data facility. 297 **The Committee noted** however that the establishment of such centres might not be easy, taking into consideration such issues as data ownership and national sovereignty.	**none**	No action required
7. Quality Control		
298 **The Committee re-iterated** the high importance of quality control as one of the core priority issues for the IODE programmes.		

299 **The Committee noted** that a Pilot Project on Quality Control was included in the work plan of the JCOMM/IODE ETDMP but that no action had been taken so far in this regard. 300 **The Committee adopted** Resolution IODE-XVIII.4.	See 81	See 81.
11. IODE Regional Coordinators		
305 **The Committee decided** to abolish the system of IODE Regional Coordinators. 306 **The Committee instructed** the coordinators of ODIN projects to assume the responsibilities formerly assumed by the IODE Regional Coordinators. 307 **The Committee adopted** Resolution IODE-XVIII.1.	**none**	The Officers requested the Secretariat to contact ODIN coordinators and inform them of the responsibilities of the former IODE Regional Coordinators. Most regions are covered by ODINs: IOCINDIO: ODINCINDIO IOCEA: ODINAFRICA IOCWIO: ODINAFRICA IOCARIBE: ODINCARSA (Covers Caribbean and South America) El Niño: ODINCARSA WESTPAC: ODINWESTPAC is in preparation phase. IOCSOC: It was noted that there had been some discussions on the establishment of "Polar" ODINs, Black Sea: starting establishment of an ODIN for the Black Sea (outcome of EU ASCABOS kickoff meeting, January 2006, Istanbul). Mediterranean: partly covered by ODINAFRICA. May also be covered by SeaDataNet The Officers noted that certain areas are currently not covered by IOC regional bodies or by IODE. These are Pacific Islands, Eastern Europe, Polar regions (SCAR, IASC), North Atlantic (although covered by ICES). The Officers requested the Chair to contact agencies/programmes operating in regions currently not covered by IOC or IODE regional programmes with the

		view of establishing joint ODIN-type initiatives.
12. IODE National Coordinators		
309 **The Committee urged** IOC Member States, who not have done so, to urgently identify IODE National Coordinators for Oceanographic Data Management and IODE National Coordinators for Marine Information Management.	**none**	See 167
13. IOC Oceanographic Data Exchange Policy		
310 **The Committee welcomed** the adoption of the IOC Oceanographic Data Exchange Policy by the IOC Assembly during its twenty-third Session and **urged** Member States to apply the policy nationally	**none**	See 196
14. The IODE unit at the IOC Secretariat		
311 **The Committee urged** the Executive Secretary to ensure that the IODE programme's visibility and position in the IOC and UNESCO programme and secretariat structure is maintained in order to affirm the importance of oceanographic data and information dissemination and exchange.	The IODE programme and Secretariat have been moved within MLA-2 and its Ocean Observation and Services Section (OOS) as from 1 January 2006.	The Officers expressed their concern about the restructuring of the IOC and the impact of this on IODE. The Officers requested the Chair to write a letter to the IOC Officers and to report to the EC 2006 on the impact of the restructuring and budget on IODE.
15. IODE operational activity maintenance		
312 The Committee was informed that OceanTeacher is now a project funded by extra-budgetary resources and no Secretariat resources are used to further build OceanTeacher. 313 **The Committee re-iterated** that IOC funds are		The Officers requested more input and cooperation from GOOS, OBIS and JCOMM in terms of substance (content). The Officers urged IOC, other organizations or projects to contribute financially or in-kind to further develop OT

being used for pilot projects only and that projects should, subsequent to the pilot phase be supported by extra-budgetary support or adopted by Member States.		and to organize training activities based upon OT.
16. IOC web sites		
314 **The Committee urged** the IOC Secretariat to harmonize the IOC web sites.	**none**	The Officers were informed that efforts are underway to harmonize the GOOS and IODE web sites.
17. Role of IODE in ETDMP		
316 Referring to the review team recommendation 3, **the Committee noted** that the IODE/JCOMM ETDMP will require close monitoring and guidance.	**none**	See 288-289
5.2 FUTURE ROLE OF THE WDCS, RNODCS AND NODCS		
319 As the role of WDCs, RNODCs and NODCs had already been discussed extensively during the current Session, **the Committee decided** to dissolve the inter-sessional working group. 320 **The Committee instructed** the IODE Officers to discuss how IODE will deliver its services to users, in particular through the WDCs. **The Committee further instructed** the Officers to investigate how the institutions that currently host RNODCs that are operational, can continue to provide services, taking into consideration the decision by the Committee to abolish the RNODC system.	n/a **none**	See 294, 94
5.3 EVOLUTION OF IODE AT THE NATIONAL LEVEL		

323 **The Committee urged** NODCs to take into consideration the global move towards distributed systems which would also be reflected in GEOSS. However **the Committee cautioned** countries that distributed systems would still require a focal point for national data acquisition and liaison with international programmes.	**none**	The Officers requested to stress that distributed systems require careful coordination that needs resources.
5.4. IOC STRATEGIC PLAN FOR OCEANOGRAPHIC DATA AND INFORMATION MANAGEMENT		
337 **The Committee requested** the IODE Chair to report the findings of the First Session of the Task Team and the meeting of the sessional working group to the 23rd Session of the IOC Assembly in June 2005. 338 **The Committee requested** the Executive Secretary IOC to identify the necessary funding for the proposed Consultant in 2005 and early 2006, to ensure timely delivery of the strategy document. 339 **The Committee endorsed** the outline and time lines proposed by the sessional group, and **requested** the IODE Secretariat to avail the document well ahead of the next IODE-XIX and the 24th Session of the IOC Assembly.	**Done** **none**	The Officers recalled that US$ 2000 was initially set aside by IODE for 2006 but is no longer available in the new budget allocation. The Officers concluded that the work must be done otherwise. Discussions were held by the Chair and Chair JCOMM DMPA during the Officers Meeting. See Agenda Item 7. The Officers requested the Chair to make a presentation on the first draft to the 2006 EC and that the final version be submitted to IODE-XIX and to the 2007 Assembly.
6. PROGRAMME PROGRESS REPORTS		
6.1 GROUPS OF EXPERTS		
6.1.1 Group of Experts on Biological and Chemical		

Data Management and Exchange Practices (GE-BICH)		
349 **The Committee**, recognizing the importance of maintaining the momentum of the work being done by the GE-BICH and during the COD and OBI Conferences, **strongly welcomed** the proposal for a second OBI Conference.	**none**	See budget discussions Agenda Item 6
350 The JCOMM Co-President, Dr Savi Narayanan, suggested that JCOMM Secretariat consider supporting financially, the activities of GE-BICH Pilot Projects as JCOMM's mandate related to non-physical variables is consistent with GE-BICH's Terms of Reference.	**none**	See budget discussions Agenda Item 6.
351 **The Committee welcomed with satisfaction** the achievements of the Group of Experts on Biological and Chemical Data Management and Exchange Practices and **stressed** the importance of the pilot projects.		
352 **The Committee adopted** the summary report of the Second Session of the IODE Group of Experts on Biological and Chemical Data Management and Exchange Practices (GE-BICH), and recommendations included therein.		
353 **The Committee adopted** Recommendation IODE-XVIII.2.		
6.1.2 Group of Experts on Marine Information Management (GE-MIM)		
381 **The Committee adopted** the Summary Report of the Eighth Session of the Group and all recommendations contained therein, taking into	n/a	See budget discussions Agenda Item 6

consideration the decisions made by the Committee regarding the Groups of Experts.		
6.1.3 JCOMM/IODE Expert Team On Data Management Practices (ETDMP)		
391 **The Committee expressed** its strong satisfaction with the great progress made by the ETDMP and the enthusiasm of its participants, and **adopted** the JCOMM/IODE ETDMP work plan for 2006–2007**. The Committee further urged** the JCOMM Co-President to endorse the work plan on behalf of JCOMM.	n/a	See budget discussions Agenda Item 6
392 **The Committee recommended** to have on the web the manuals and guidelines available for new organizations wishing to join the E2EDM prototype and to expand the number of data providing Member States.	**Done** http://data.meteo.ru/e2edm/index.php?section=19	
394 **The Committee noted** that there are great possibilities for cooperation of the JCOMM/IODE ETDMP and OBIS and **recommended** to establish the common terminology and vocabulary.	**none**	The Officers requested the Chair JCOMM/IODE ETDMP and Chair GEBICH to deal with this matter. Deadline: July 2006
6.2 GLOBAL PROJECTS		
6.2.2 Global Ocean Surface Underway Data Pilot Project (GOSUD)		
402 **The Committee noted with satisfaction** the great progress achieved by the Global Ocean Surface Underway Data Project. 403 **The Committee strongly encouraged** other organizations to participate in the project.		

6.2.3 Global Oceanographic Data Archaeology and Rescue (GODAR)		
415 **The Committee endorsed** the continued support for the GODAR Project.	**none**	No funds required
6.2.4 Global Temperature and Salinity Profile Programme (GTSPP)		
425 **The Committee noted** that the interest for the project results was high and **requested** that results should be reported to future IODE Committee Sessions along with the results of other projects. 427 **The Committee noted** the agreement with BODC to link to their data dictionary and **recommended** to implement this as soon as possible.	**none** **done** http://www.bodc.ac.uk/data/codes_and_formats/parameter_codes/bodc_para_dict.html	The Officers requested the Chair GTSPP (R. Keeley) to note this request.
6.2.5 Development of a marine XML (marineXML)		
436 Noting the importance of MarineXML to the IODE community, **the Committee stressed** the need to continue work on MarineXML. 437 **The Committee adopted** <u>Recommendation IODE-XVIII.7</u>	**none**	The Officers noted that the SG-XML will work by email.
6.2.6 Marine Environmental Data Inventory (MEDI)		
446 **The Committee instructed** the SG-MEDI to work with other national and international initiatives to develop a marine profile of ISO 19115 and seek collaboration with other communities to develop an ISO	**none**	The Chair SG-MEDI reported no progress in SG-MEDI since IODE-XVIII. The current software tool (available online from the IODE web site), based on DIF, is no longer supported (since 2003). In Australia a "marine

19115 compliant metadata tool.

447 **The Committee noted** that it would be difficult for IODE to maintain software applications on a long-term basis and **instructed** the Chair of the SG-MEDI and IODE Chair to work closely with other communities who are developing similar tools.

449 **The Committee decided** to include a session of the SG-MEDI in the 2005–2007 work plan.

450 **The Committee urged** Member States to utilize MEDI as appropriate, and to promote its use at the national level in relevant academic and ocean research facilities.

451 **The Committee further invited** Member States that use other systems, to ensure their ISO 19115 compliance so they can easily exchange records with MEDI.

452 **The Committee decided** to revise the Terms of reference of the MEDI Steering Group.

453 **The Committee adopted** Recommendation IODE-XVIII.3. | **none**

none

none | community profile" of ISO 19115 is being developed. It is in its final draft. This is now being documented. It will be distributed for comment in Australia and beyond (consultation with Chair GEBICH). SG-MEDI will then also be consulted (March 2006). SG-MEDI (and IODE) is then expected to adopt the profile.
In Australia a web-based metadata tool (metadata entry and search tool – MEST) will also be developed and will be made available to the IODE community. Expected delivery: June-August 2006. This fits within the project BlueNet.
Metadata in the current MEDI DB will require conversion into the new system.

It was noted that WIS will use a similar structure but is using GML. The Officers requested G. Reed to further investigate the differences with WIS, common data index (CDI) and E2E. (ref SeaDataNet – first technical meeting to be held in April).

It was requested to have a SG-MEDI Session (3 days) around October/November 2006. |
| **6.2.7 Global Directory of Marine and Freshwater Professionals (OceanExpert)** | | |

467 **The Committee expressed its appreciation** for OceanExpert but **instructed** the inter-sessional working group to urgently resolve the remaining technical issues. 468 **The Committee called** on the newly nominated IODE National Coordinators for Marine Information Management to actively participate in the population, maintenance and promotion of OceanExpert at their national level. 469 **The Committee endorsed** the continued support for OceanExpert.	Ongoing/done Planned 2006	Some additional issues have been identified (eg Privacy statement, unique author ID for publications,…). New uses (as alumni tool) have also been identified. The Officers requested the Secretariat and GEMIM to deal with the Privacy statement issue. The Officers requested the Chair GEMIM to contact the IODE NCs for MIM to actively participate in the population, maintenance and promotion of OceanExpert at their national level. See budget discussions Agenda Item 6
6.2.8 OceanPortal		
478 **The Committee agreed** that OceanPortal needs to be continued and **decided** to set aside funding in the inter-sessional work plan for the continued maintenance of OceanPortal.	Updated workplan/ Officers	See budget discussions Agenda Item 6
6.2.9 OceanTeacher/ODIMex		
491 **The Committee**, while acknowledging the huge content of OceanTeacher, **called** on the project to consider translation into French and Spanish and requested Member States to assist with this task.	Translation/SG-OceanTeacher	The Officers noted that Peru prepared a translation into Spanish of one section of OceanTeacher. The Officers requested the Secretariat to contact IODE NCs and remind them of this action item.
492 **The Committee called** on Member States to ensure that students, nominated for training courses are selected carefully on the basis of the course programme and their skill level that should be appropriate for the course.	**none**	No action required. The Officers stressed the importance of course assessment and follow-up.
6.2.10 Ocean Information Technology Pilot Project		

496 **The Committee recommended** to the IODE Officers and the JCOMM DMCG to reconsider the project action items in view of the recent activities of the JCOMM/IODE ETDMP and bring forward a revised work plan for implementation. 497 **The Committee further recommended** to find a sponsor for the project activity.	**none**	The Officers noted that the ETDMP, other JCOMM and IODE groups are gradually addressing all OIT issues. OIT has thus in effect been broken down in a number of small projects. The Officers stated that the DMCG should pull the different threads together.
6.3 IODE CAPACITY BUILDING		
6.3.1 Ocean Data and Information Network for Africa (ODINAFRICA)	ongoing	No action required
6.3.2 Ocean Data and Information Network for the Caribbean and South America regions (ODINCARSA)		
518 **The Committee adopted** <u>Recommendation IODE-XVIII.5</u>	ongoing	See budget discussions Agenda Item 6
6.3.3 Ocean Data and Information Network for the Central Indian Ocean Region (ODINCINDIO)		
528 **The Committee pointed** out the need to strengthen the ODIN projects as a mechanism for coordination of activities at the regional level in view of the abolition of the RNODCs and the position of Regional coordinator. 529 **The Committee adopted** <u>Recommendation IODE-XVIII.4</u>.	Ongoing	See budget discussions Agenda Item 6

531 **The Committee** instructed ODIN project coordinators to liaise with the regional OBIS node managers to promote collaboration.	None	See also 233
6.3.4 Other Regions		
6.3.4.1 Polar Regions		
535 **The Committee noted** that IODE-XIX will be held during the International Polar Year. In view of this, **the Committee recommended** that IODE should direct its attention to focus on the polar data during IODE-XIX **and instructed** data centres to include information on related activities in their reports to IODE-XIX. The list of data types required for IPY should be sent to appropriate centres so that they can do data mining. WDC for Oceanography, Silver Spring offered to start the process moving as soon as possible.	**none**	The Officers requested the Secretariat to contact WDC Oceanography, Silver Spring to find out about any progress. The Chair was requested to contact the NODCs (after her discussion with T. de Bruin) on this matter.
6.3.4.2 Eastern Europe		
537 **The Committee endorsed** the proposal that EURASLIC should work with GE-MIM to develop the proposal for an ODIN for ECET.	**ongoing** A survey was done in the region and problems identified. A preliminary meeting took place in 2005 and it was decided to establish an O(D)IN for MIM. A training course will be organized in March (funded by Flanders) and kickoff meeting. Activities will be built	The Officers welcomed the progress and recommended to recognize the initiative as an ODIN.

	upon EURASLIC activities. The kickoff meeting is expected to request formal recognition as an ODIN.	
6.3.4.3 WESTPAC		
538 **The Committee recognized** the excellent work done by JODC in WESTPAC during the last 20 years, especially in capacity building related to data management and GODAR. JODC has been organizing two-week training courses initially annually and recently biannually in its capacity as an RNODC. JODC would like to continue with these services, possibly under an alternative mechanism in view of the abolition of RNODCs. 539 **The Committee emphasized** the need to continue this work and invited the upcoming WESTPAC Session to consider the establishment of an ODIN network for the region.	WESTPAC-VI requested investigations towards the establishment of ODINWESTPAC. A first planning meeting is scheduled around October/November 2006.	See discussions on budget Agenda Item 6
6.3.4.4 Pacific Islands		
541 **The Committee agreed** that GE-MIM should continue with its activities in the region and the progress reviewed at IODE-XIX.	The GEMIM Chair reported that the initial discussion group was disbanded but a new group was established.	The Officers requested the GEMIM Chair to continue monitoring and guiding discussions of the discussion group.
6.3.5 E-repository for Africa (OdinPubAfrica)	ongoing	No action required
6.3.6 New Requirements in regional capacity building		

549 **The Committee requested** that the JCOMM/IODE secretariat to maintain an up-to-date web page of upcoming training events. This will help the member countries to plan their participation in such activities or influence the content of such activities	Calendar of IODE project office training activities is available on the Project Office web site.	The Officers requested the IODE Project Office Training Coordinator to maintain a list of IODE training activities as well as other data and information management training courses on the IODE web site. The Officers requested the Chair DMPA to contribute to the list.
7. IODE PUBLIC AWARENESS		
7.1 IODE WEB SITES		
553 **The Committee expressed its general satisfaction** with the new web site and **requested** the Secretariat to continue developing the site, taking into account the comments from the Members of the Committee.	Ongoing	The Officers were informed about the plans to migrate from BeeBox to a common IODE/GOOS web platform. The IODE and GOOS web sites will continue as separate sites but the underlying technology will be the same. This will enable common address databases, meetings list and document management systems. The Officers welcomed this initiative. The Officers expressed this concern about the vagueness of the JCOMM web presence as there are now JCOMM web sites hosted by WMO, IOC as well as by JCOMMOps and JCOMM products bulletin. They urged the JCOMM Co-Presidents to harmonize and focus the JCOMM web presence.
7.2. IODE BROCHURES, POSTERS AND PUBLICATIONS		
557 **The Committee concluded** that the production of a brochure would be useful for publicizing the activities of IODE and instructed the IODE Secretariat to further study this issue. 558 **The Committee instructed** the IODE Secretariat to make the IODE posters available in an electronic and layered version so that they can be printed and customized locally.	**none**	The Officers re-iterated the need for such a brochure. The Officers suggested to use the JCOMM brochure as an example. However, it was suggested to wait with the concrete brochure until the Strategy is drafted. The brochure should be available in draft form for IODE-XIX.

559 **The Committee noted** the need to translate the posters to other languages so as to reach a wider community, and **recommended** that a composite poster covering all the IODE activities be produced as some institutions have limited space for posters.	Files are no longer available	The Officers suggested to design new posters for IODE-XIX. These should be multi-lingual.
8. REQUIRED RESOURCES AND PLAN OF ACTION		
562 **The Committee adopted** Recommendation IODE-XVIII.8.	n/a	Need to re-assess work plan and budget based upon available funds
10. DATE AND PLACE OF IODE-XIX		
568 **The Committee noted t**he offer of Italy to host next session in Rome in 2007, and **instructed t**he Secretariat in consultation with the Chairman to follow-up on the offer.	**none**	See budget discussions
11. ADOPTION OF THE SUMMARY REPORT		
570 **The Committee requested** the IOC Secretariat and its Chairman to make editorial corrections as necessary, taking into account the discussions held during the Session.	done	n/a
571 **The Committee requested** the IODE Chair to present the Executive Summary with all Resolutions and Recommendations therein to the Twenty-Third Session of the IOC Assembly that will take place in June 2005 at the UNESCO Headquarters in Paris, France.	done	n/a

4.   STRATEGY FOR IODE GROUPS OF EXPERTS

The Chair recalled that the IODE review had questioned the need for, and effectiveness of the IODE Groups of Experts. The IODE Committee, during its 18th Session had noted that "there had been insufficient guidance of the Groups of Experts in terms of issues to deal with and in terms of follow-up, and tasked the IODE Officers to closely monitor and guide the Groups". The Committee had stated further that the current rules that define the establishment, membership and *modus operandi* of the Groups of Experts needed revision and established a sessional working group to address this matter. This group had drafted Resolution IODE-XVIII.3 which was adopted by IODE-XVIII. The action paragraphs of the Resolution state:

*"**Instructs** the Chairs of the IODE Groups of Experts to jointly develop a strategy for the future, addressing issues such as:*
- *(i)   recommending a new structure and membership format for the IODE Groups of Experts, which offers flexibility, increased access to expanded pool of experts, and stronger focus on completion of tasks, whist also maintaining a wider coordination role;*
- *(ii)   suggesting mechanisms for improving communication and reporting between IODE Groups of Experts and National Co-ordinators for both data management and information management;*
- *(iii)   including in the new mechanism, the potential for establishing steering groups based on specific projects, and gaining appropriate expert advice when required;*
- *(iv)   suggesting mechanisms for improving communication amongst IODE Groups of Experts, and for offering direction to IODE Groups of Experts from the IODE Officer Group;*

***Instructs** the Chairs of the IODE Groups of Experts to submit the strategy to the next Session of the IODE Officers for their consideration, and to the 19th Session of the IODE Committee, for adoption."*

The Chair requested the Chair GE-MIM (Ms Suzie Davies), Chair GE-BICH (Dr Edward Vanden Berghe) and Chair JCOMM/IODE ETDMP (Dr Nikolai Mikhailov) to organize a sessional working group meeting and draft recommendations for consideration by the Officers. This resulted in the following recommendations by the GE Chairs:

(i) Structure and membership format
Flexibility – It is suggested that the new structure provide for a percentage of a group's membership to be ongoing, and for the remaining percentage to be short-term and associated with a specific project/task. This would increase group's ability to respond to changing needs & be more flexible in its approach to issues. It would also place a stronger focus on the completion of tasks. Continuity of the group's knowledge management and ongoing longer-term issues would be ensured by the ongoing positions.

Access to expanded pool of experts - IOC has available 2 pools of potential experts within the IOC structure: national coordinators for information management & national coordinators for data management. It is suggested that members of both groups be invited to submit their professional details to OceanExpert, so that IOC can maintain a current directory of experts, their skills and expertise. MIM experts are also available via IAMSLIC (refer MOU)

Wider coordinating role of GEs – GEs should take a co-ordinating role with NCs. This should involve each GE establishing a work program (under IODE direction) with clear priorities. Tasks/projects would be then allocated to NCs, and GEs would continue with a co-ordinating/management role.

Selection of GE membership – Review method of selection of GE members by member countries. Is this still appropriate?

(ii) Improving communications (GEs to NCs)
It is suggested that an email listserv be established for both data and information National Coordinators, also including any GE members who are not in these groups. It is recommended that people undertake an induction process when they first take on these roles, to ensure that they have a clear understanding of the role & responsibilities of the positions. The GEs should perform a coordinating role for National Co-ordinators. Annual reporting procedures should be established so there is a constant flow of information between groups. Biennial Workshops/Conferences aligned with outside bodies should be encouraged (eg. OBI, IAMSLIC).

(iii) Steering groups
The new GE structure would be flexible enough to establish steering groups based on specific projects. Access to the larger pool of experts (see (i) above) would greatly assist with this process.

(iv) Improving communications (NCs to GEs to IODE Officers Group)
NCs should prepare annual reports to the GEs (eg. achievements, progress on tasks, issues of concern, interactions with other NCs). GE Chairs should meet annually (virtual meetings?), to share this information. Outcome of Virtual meeting should be a report to IODE Officers Meeting, for discussion and acceptance.

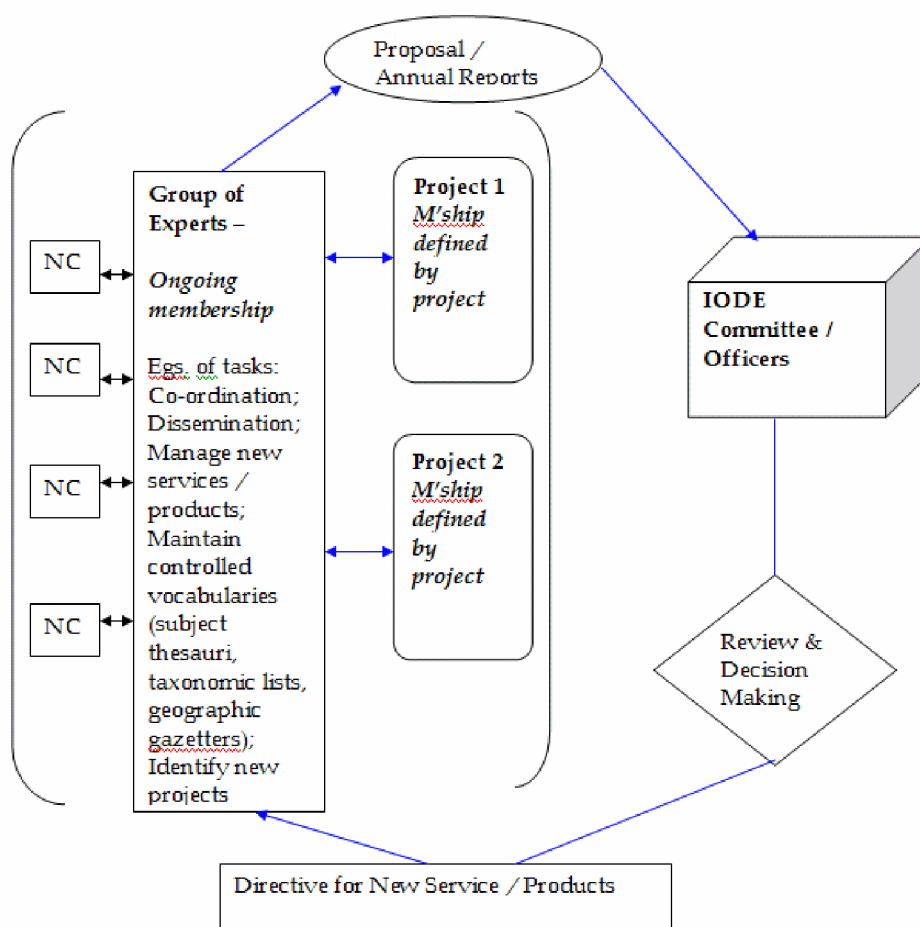In addition the following structure and reporting lines for IODE Groups of Experts were agreed upon:

Figure 1: Structure and reporting lines for IODE Groups of Experts

The Officers made the following observations:

1- Membership: there should be a core, selected from Member State nominations by the IOC Executive Secretary (guided by Chairs GEs and Chair IODE). In addition extra experts can be added based upon the agenda of the meeting. Chairs of existing project Steering Groups can also be added;

2- Duration of membership of core group: the membership duration will be one intersessional period, renewable after a positive assessment by the GE Chair and Chair IODE. The GE Chair will be assessed by the Chair IODE;

3- Implementation of GE work plans: this should not be limited to the members of the GE but can be "volunteered" by IODE national coordinators (for DM and IM). In this regard mailing lists will be established by the IODE Project Office for the GEs and, as necessary for specific activities of the GE to get additional input and help;

4- Communication: GEs should better communicate their activities to the IODE community through sending regular information to the national coordinators (NCs). In return the GEs can send questions to NCs

The Chair requested the Chairs of the GEs, taking into consideration the comments by the Officers, to finalize the proposed structure and strategy as a working document and draft resolution for consideration and adoption by the IODE-XIX Session.

5.   BUDGET 2006-2007: REPORT ON EXPECTED REVENUE

The Technical Secretary for IODE, Mr Peter Pissierssens introduced this item referring to Document IODE-OFF/06/3. He provided the following breakdown of expected revenue for the biennium 2006-2007:

- UNESCO Regular Programme (IOC)): US$ 62,700 for 2006, and US$ 55,000 for 2007.
- UNESCO Regular Programme (IOC): In addition US$ 100,000 will be allocated for staff cost (V. Vladymyrov) in 2006 but only US$ 20,000 in 2007 (which means that, unless additional funds are identified, Mr Vladymyrov will leave IOC in March 2007);
- UNESCO Regular programme (Cross-cutting initiatives – Regional Ocean Portals): US$ 43,500 in 2006 and US$ 43,500 in 2007. Note that these funds are earmarked for specific activities;
- Extrabudgetary sources – earmarked funds (Flanders, European Commission): US$ 1,154,963 in 2006, 703,351 in 2007 (provisional)
- Extrabudgetary sources – not earmarked: US$ 48,429 in 2006, 0 in 2007 (provisional)
- Extrabudgetary – Flanders – IODE project office: US$ 586,496 in 2006, US$ 586,980 for 2007

The total budget for IODE will therefore amount to US$ 1,952,588 in 2006 and 1,365,331 in 2007. The distribution of revenue sources for 2006 and 2007 is illustrated in Figures 2 and 3 below.

The Officers noted with regret and concern that the revenue from UNESCO's regular programme had reduced dramatically by approx. 40% from approx. US$ 100,000/year for the biennium 2004-2005 to US$ 62,700 and only US$ 55,000 in 2007. The Officers requested the Chair to express strong concern about this reduction and its impact on the execution of the IODE programme to the Executive Secretary IOC, the IOC Officers and the upcoming IOC Executive Council.

The Officers further urged the Executive Secretary IOC to identify funds to maintain the position of Dr Vladymyrov as Head of the IODE Project Office. As the Office is now a core component of the IODE programme execution and delivery mechanism abolishing this position will

not only be detrimental to the programme but will also send the wrong message to the Government of Flanders which is providing a considerable support to IOC and its IODE.

The Officers, while congratulating Dr Vladymyrov with attracting substantial European Commission funding for the project office, called on Member States to also provide financial or in-kind support for the project office so as to provide a more sustainable funding base.
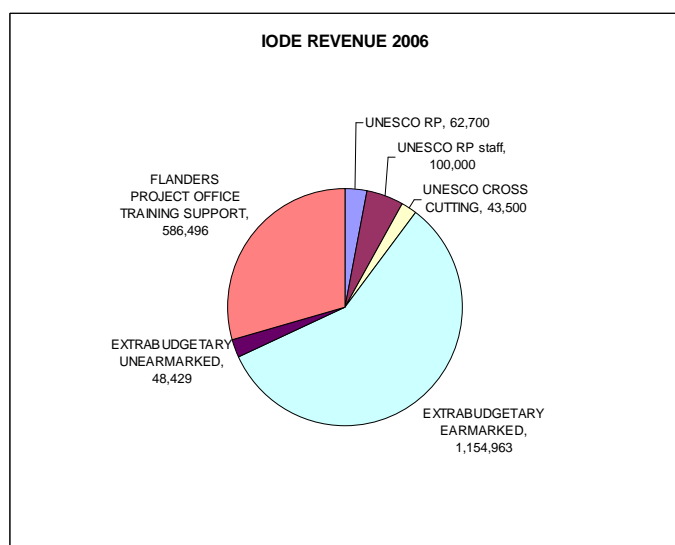
Fig 2: revenue distribution 2006 by source
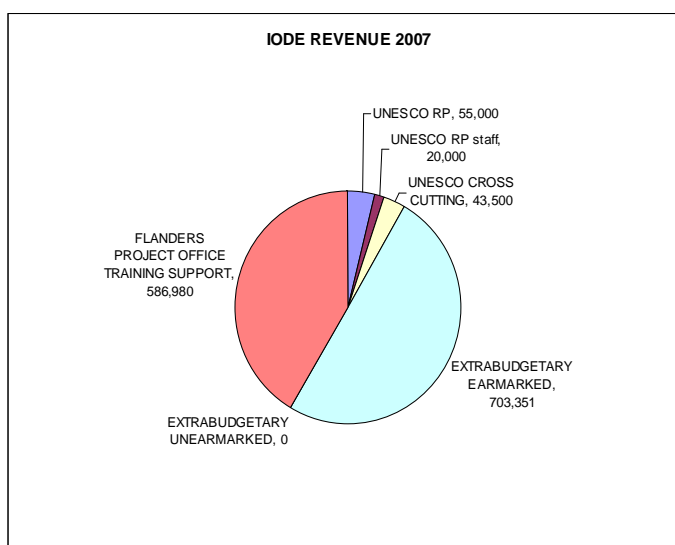
Fig 3: revenue distribution 2007 by source

6.   WORK PLAN AND BUDGET REVIEW

The Officers reviewed the work plans prepared by all IODE Groups of Experts as well as project leaders. Reference is made to working documents IODE-OFF/06/4 to IODE-OFF/06/24. Relevant comments are summarized:

GE-BICH
The Officers approved a budget allocation for the GE-BICH-III Session in 2006, to be held at the IODE Project Office in Ostend. Dates should be identified as soon as possible.
OBI-2: The Officers approved a budget allocation of US$ 10,000 in 2007. Mr Bob Keeley reported he may be able to set aside some funds from Canada. He will be able to confirm in the second semester (science data management budget).

JCOMM/IODE ETDMP
It was noted that technical work very similar to the work carried out in the ETDMP Pilot Project will be done by SeaDataNet. The Officers therefore agreed that no additional budget allocation should be provided for continued technical work. SeaDataNet 2006 will focus on standardization and looking at what has been done. The technology framework for SeaDataNet (version 1) is planned to be ready by September 2007. The Officers noted that some funds will be required to ensure coordination between IODE, SeaDataNet, DMACS and others. In this regard it was noted that IODE should fund cooperation of SeaDataNet experts in DMACS. The Officers further recommended that, as from 2007, efforts should be undertaken to link SeaDataNet with ODINs.

The Officers requested the Secretariat to investigate financial contributions to the ETDMP from IOC (JCOMM budget) and WMO.

GTSPP
The Officers noted that considerable in-kind support is provided which is not visible in the budget table.

GOSUD
The Officers noted that considerable in-kind support is provided which is not visible in the budget table.

MEDI
Meeting SG-MEDI: planned for October-December 2006.

OCEANPORTAL
Through the current contractor (Dr Murray Brown) the reduced budget will only allow for addition of selected new sites; weekly attention to reported broken links; twice a year broken link check (automatic) for all sites. Alternative solutions (eg maintenance of OceanPortal by the IODE Project Office) will be investigated.

ODIN SOUTH PACIFIC
It was noted that although some interest had been expressed in the past, no requests had been received by the Secretariat. The Officers requested the secretariat to investigate if interest still exists.

ODINAFRICA
The Officers were informed that the current phase of the project (III) focuses on the development of concrete products by data and information centres and on dealing with operational data through the installation/upgrade and operation of sea level gauges. It is expected that the sea level gauge network will be operational during the first quarter of 2007. This will add on to the IOTWS sea level network.
An African sea level data centre will be established at the IODE Project Office and operated by African experts who will work there for periods of 3 months. Two sea level training courses will be organized in November 2006 and May 2007. ODINAFRICA is now also collaborating with the Benguela current project. 2006 product of ODINAFRICA will be atlases, based on LMEs (Agulhas/ Somalia LMEs; Benguela/Gulf of Guinea; Canary Islands/ Mediterranean). The Officers were further informed that the ODINAFRICA seminar will be organized between 24-26 April 2006. This will enable to review progress made and to discuss a possible future ODINAFRICA-IV. The Officers recommend to take into consideration the application of the E2EDM framework and possible development of an ODINAFRICA distributed data system.

Based upon the available funds (see Agenda Item 5) the Officers revised the Work Plan and Budget adopted by IODE-XVIII through Recommendation IODE-XVIII.8 as detailed in **Annex III**.

It is noted that there is a shortfall of US$ 19,500 fir 2007 caused by the cost of organizing IODE-XIX. The organization cost of IODE Session is generally covered by the host country, except for Secretariat staff travel and cost of interpretation. The Officers concluded that, unless additional support is provided from Member States to cover the cost for interpretation it will not be possible to hold a Session in 2007. The Officers requested the Chair to mention this during the upcoming Executive Council in June 2006.

7. IOC DATA MANAGEMENT STRATEGY

This Agenda Item was presented by the Chair. She recalled discussions on this topic during IODE-XVIII and quoted from the document that had been prepared by the sessional group established during IODE-XVIII to deal with this issue.

Vision statement

A comprehensive and integrated ocean data and information system, serving the broad and diverse needs of IOC Member States, for both routine and scientific use

- The concept of delivering a data service for the "global ocean commons" (global public good) is central to this vision

Scope:
- Comprehensive and across all of the disciplines within the mandate of IOC
- No a priori separation of functions based on the lead time for data delivery (e.g., real-time versus delayed mode)
- Different strategies might be employed to satisfy global, regional and local requirements, and to meet timeliness needs

Suggested document outline:

1. Executive Summary
2. Introduction
3. The IOC Data Management Vision
4. The Long-Term Objectives: Define what IOC data management wants to be;
5. Basic Principles: data policy, data provision to all member countries, etc.; products and services; technological aspects, capacity building; involvement of NODCs, specialized data centres, project data management elements; collaboration with other relevant groups; etc.;
6. Current Structure of data management: Description of IOC programs that have implications to and responsibility for data management; Description of programs (research and conventions) that have data of interest to IOC community; example – those under the regional seas conventions, regional alliances); how these are run (ex. At IOC how the secretariat deals with the responsibility, same for other programs; Coordination: Chair, Management Committee, Capacity Building aspects; etc.;
7. Key Gaps
8. Proposed structure: organizational structure, operational structure (how things should work together; data flow, QC, etc.); technological tools and standards; define components: how data can be acquired, processed, managed; data flow; data centres, special data centres; type of data acquisition.
9. How to apply the principles in new data management: This could include incorporation of new elements, pilot projects, science and technology workshops and conferences, and role of regional bodies;
10. Mechanism to collaborate with other entities: This may involve subsidiary bodies of UN system, other governmental and non-governmental global organizations, links to science programmes, and the private sector. Every IOC programme should have a data management element;
11. Performance Evaluation: Review of work plans of subsidiary structure, reporting to the parent bodies, external review. Regular review and assessment should be part of the IOC data management strategy.
12. Communications and Outreach: Need to use a variety of tools. IODE has already developed a range of these (including web site, posters, OceanTeacher, etc).

Way forward to develop the strategy:

Approach:
Consensus among group members that best approach is to select and task a dedicated, knowledgeable individual to develop the strategy.
As for IODE and GOOS reviews information should be compiled using: Questionnaire; Face-to-face interview; Review of available documents such as the GOOS data management strategy, strategy in the COOP Implementation and design plans, WMO/FWIS, DMAC, etc.

Time line:
Selection of the Consultant by end of August 2005
Progress report for IOC Executive Council (2006)
Draft Report to be submitted to IODE-XIX and/or the IOC Assembly in 2007.

The Chair noted that a consultant had not been selected. It was decided that the Chair IODE and the Chair of the JCOMM DMPA would meet during the next few days while in Ostend. A first draft will be prepared for the IOC Executive Council for a brief presentation (not for distribution). It will be circulated after the IOC Executive Council to various stakeholders for comments. A more final draft will be prepared for IODE-XIX and final draft for Assembly in 2007.

Following the Officers meeting, the Chair IODE and Chair JCOMM DMPA held brief discussions on the IOC Data Management Strategy and its relationship with other developing and complementary strategies, in particular the JCOMM Data Strategy. It was noted that DFO, Canada, and JCADM are also developing data management strategies. The Chair IODE will meet with the Chair JCADM in early March to ensure that the IOC and JCADM strategies are aligned where appropriate. The discussions on the long term priorities for IODE, reported in section 8, will also feed into the strategy. This was very much a preliminary meeting and close contact will be maintained over the coming months to ensure that the IOC and JCOMM data strategies develop in a coherent and harmonised manner.

8.   LONG-TERM IODE PRIORITIES FOR 2006-2009

Reference was made to the vision statement of JCOMM: "*JCOMM is inherently multi-disciplinary and multi-organizational in concept and operation. It seeks to pool the expertise and resources of the meteorological and oceanographic communities, both nationally and also internationally through separate intergovernmental Organizations, WMO and IOC, to coordinate operational oceanography in support of the requirements of governments, industry, commerce, global climate studies and individual marine users for marine data, products and services. The vision of JCOMM is of a dynamic, forward looking body, which coordinates a fully integrated marine observing, data management and services system, responsive to the evolving needs of all users of marine data and products as well as the development of new technologies and capabilities. It ensures close coordination with GOOS, GCOS, the WCRP and the World Weather Watch (WWW), and endeavours to meet the needs of these programmes for operational ocean data and products. JCOMM includes as a major outreach programme to enhance the capacity of all maritime countries, both to contribute to JCOMM activities and also to benefit to the maximum extent from the outcome of these activities*"

It was noted that the difference between the JCOMM and IODE vision statement is meteorological data management. JCOMM deals with RT operational data and very little attention is given to biological data. These are currently only dealt with by IODE.

IODE data centres should serve JCOMM but also the research community. JCOMM is wider than the DMPA. On the other hand NMHS focus on operational weather services.

Long-term priorities of the IODE Marine Information Management programme

To encourage and support the sharing of marine information between IOC member countries, by facilitating the development of a network of complementary technologies (such as electronic repository services), and providing the appropriate training, capacity building and infrastructure support for technical marine information professionals to maintain these services (eg ODINPUBAfrica, ODINPUBCarsa)

This will involve:

- **Review of information management policy development & technological applications** (*Scope: identifying and reviewing developments in policy, and technological applications of marine information management by keeping user requirements under continuing review and ensuring that these requirements are met adequately*)
- **Capacity building** (*Scope: developing programs to improve the capability of IOC member states, particularly developing countries, so that they can benefit from and participate in marine information systems, and to keep member states informed on how they might best gain access to such systems through the application of information technology*)
- **Filling gaps in international MIM resources** (*Scope: identifying existing gaps in international marine information management resources, and to participate in the development of appropriate products and service*)
- **Intra-agency & inter-agency communication & collaboration** (*Scope: further enhancement of strong levels of co-operation and collaboration within IODE, and to represent the IOC on inter-agency panels on marine information management, and to establish co-operative arrangements with other relevant marine organizations*)

It was noted that meteorological information (journal articles, …) is currently not covered by the MIM programme. The Officers wondered whether there exists a system similar to GEMIM in WMO (needs further investigation).

Long-term priorities of the IODE Data Management programme

No equivalent for the data side was available, thus the Officers discussed IODE data priorities for 2006 through 2009.

These are summarised below.

The primary aim over the coming four years can be summarised as:

Developing the future IODE Data System - "the marine data ATM"

Components of this system are already underway in the GEs/ETs and project steering groups, but these have not been linked together under a single heading. How these different components need to develop is outlined below, with links to work already ongoing and developments needed. By the end of 2009 the intention is to have available a comprehensive (and interoperable) data system for IODE, which will also meet the needs of JCOMM and be compatible (interoperable) with WIS.

The "marine data ATM" will be built around the activities described below under the headings of metadata, technology, quality control and capacity building.

1. **Build a unified discovery metadata system that describes the data holdings available through the IODE data centre system.** This will be a standards based solution:
   - Using ISO19115 marine (and atmospheric) profiles (Dublin Core – link with MIM/Data citation)
   - Developing tools (e.g. ISO19115 compliant metadata entry tool – automatic as well as manual)
   - Using standard vocabularies and/or ontologies
   - To include at least 20 data centres with ISO-compliant discovery metadata inventories by the end of the period

- Led by SG-MEDI; collaboration with ETDMP (and input from GE-MIM)

2. **Promote the use of best available technology.** This will:
- Build on the experience of the E2EDM prototype
- Recommend a unified distributed system or to achieve at least interoperability between systems using metadata (and other) standards; XML, OGC, web and map services, standards registries, etc.
- Led by ETDMP; input from GE-BICH and SG-XML
- Include input from external sources:
    - § SeaDataNet, national experience (Australia, Japan, Netherlands, Russia, US DMAC,)
    - § WMO Information System (WIS)
    - § OBIS (DiGIR)

3. **Quality control.** This activity will:
- Recommend best practices for QC and reporting results
- Be led by SG-Quality control (Note: The Officers agreed that this should be wider than ocean profile data, and recommended that if Syd Levitus is not able to lead this group then Ricardo Rojas and Loic Petit de la Villeon should be asked to do so)
- Include input on biology, biodiversity, chemistry from GE-BICH
- Include input from IODE global data projects (e.g. GODAR, GTSPP, GOSUD, Surface drifter archive, etc)
- Include input on automatic real-time qc
- Include input from other sources, e.g.:
    - National QC procedures (e.g. QARTOD (US), Japan, Russia, etc.)
    - JCOMM (DBCP, GLOSS, etc.)
    - International projects (e.g. CLIVAR, Argo, JGOFS/GLOBEC)
    - International organisations (e.g. ICES, PICES)

4. **Capacity building. This will:**
- Take place through developing a global coverage of ODIN networks
- Be backed up by a standard training curriculum (ODiMEX/OceanTeacher)
- Include input to training from JCOMM in addition to IODE groups
- Include further Jamboree-like events to deal with specific advanced aspects of training (e.g. operational oceanography/wave forecasting models)

9. OTHER BUSINESS

Data citation

The Officers decided that this matter should be further discussed between the Chairs of GE-BICH, GE-MIM and JCOMM/IODE ETDMP by email and that they should prepare a discussion paper by the end of March. It was further decided to invite Roy Lowry, Pauline Simpson, Alex Kozyr and WDC-MARE to participate in the discussions and to provide information on existing data citation guidelines.

GEO

With regard to GEO the Officers agreed on the need to make sure that IODE expertise is sufficiently advertised in GEO through IOC and GOOS representation.

10. CLOSING OF THE SESSION

The Session was closed by the Chair on Tuesday 7 February at 17h00.

ANNEX I

AGENDA

1. OPENING OF THE MEETING
2. PRACTICAL ARRANGEMENTS
3. REVIEW OF THE IODE-XVIII ACTION SHEET
4. STRATEGY FOR IODE GROUPS OF EXPERTS
5. BUDGET 2006-2007: REPORT ON EXPECTED REVENUE
6. WORK PLAN AND BUDGET REVIEW
7. IOC DATA MANAGEMENT STRATEGY
8. LONG-TERM IODE PRIORITIES FOR 2006-2009
9. OTHER BUSINESS
10. CLOSING OF THE SESSION

ANNEX II

LIST OF PARTICIPANTS

Ms. Suzie DAVIES
(Chair, GE-MIM)
Librarian, Great Barrier Reef
Marine Park Authority
2-68, Flinders St.
P.O. Box 1379
Townsville Qld 4810
AUSTRALIA
Tel : 61 7 4750 0801
Fax : 61 7 4772 6093
E-mail s.davies@gbrmpa.gov.au

Mr Bob Keeley
(Chair, JCOMM DMPA)
A/Director MEDS
MEDS, Fisheries and Oceans Canada
200 Kent St, Ottawa, On, K1A 0E6
CANADA
Tel: +1 613 990-0246
Fax: +1 613 993-4658
E-mail: Keeley@meds-sdmm.dfo-mpo.gc.ca

Dr. Nicolay MIKHAILOV
(Chair, JCOMM/IODE ETDMP)
Head, Russian NODC/RIHMI-WDC ODC
6, Korolev St.
Obninsk, Kaluga Region
Tel: 7 843 974 907
Fax: 7 095 255 22 25
E-mail: nodc@meteo.ru

Dr. Lesley J. RICKARDS
(**Chair IODE**)
Deputy-Director,
British Oceanographic Data Centre (BODC)
Natural Environment Research Council
Joseph Proudman Building
6, Brownlow St.
Liverpool L3 5DA
Tel: 44 151 795 4897
Fax: 44 151 795 4912
E-mail: ljr@bodc.ac.uk

Sr. Ricardo L. ROJAS
(Vice-Chair IODE)
Physical Oceanographer M.S.
Head, National Hydrographic & Oceanographic
Data Center (CENDHOC)
Servicio Hidrografico y Oceanografico de la
Armada de Chile (SHOA)
Errazuriz 254, Playa Ancha
Valparaiso
Tel: 56 32 266 674
Fax: 56 32 266 542
E-mail: rrojas@shoa.cl

Dr. Edward VANDEN BERGHE
(Chair GE-MIM)
Manager, Flanders Marine Data & Information
Centre
Flanders Marine Institute
Vismijn, Pakhuizen 45-52
B-8400 Ostend
Tel: 32 59 34 21 35
Mobile: 32 474 97 27 85
Fax: 32 59 34 21 31
E-mail: wardvdb@vliz.be

Secretariat

Mr. Peter PISSIERSSENS
IODE Programme Coordinator
Intergovernmental Oceanographic Commission (of
UNESCO)
1 rue Miollis
75732 Paris Cedex 15
FRANCE
Tel: + 33 1 45 68 40 46
Fax: + 33 1 45 68 58 12
E-mail : p.pissierssens@unesco.org

Mr Wouter ROMMENS
Training Coordinator
IOC Project Office for IODE
Wandelaarkaai 7
B-8400 Oostende
Tel: +32 (59) 34 01 60
Fax: +32 (59) 34 21 31
E-mail: Wouter.Rommens@vliz.be

Mr. Vladimir VLADYMYROV
Head, IOC Project Office for IODE
Wandelaarkaai 7
B-8400 Oostende
Tel : 32 59 34 21 38
Fax : 32 59 34 21 31
E-mail : v.vladymyrov@unesco.org

ANNEX III

REVISED WORK PLAN AND BUDGET 2006-2007

	2006						2007				
	Requested	RP avail	EB avail.	Required	priority		Requested	RP avail	EB avail	Required	priority
IODE subsidiary bodies											
GEMIM	**13,000**	**7,000**	**0**	**5,000**			**22,000**	**10,000**	**0**	**12,000**	
- GE-MIM-IX Session	0	0	0	0			10,000	8,000	0	2,000	1
- MIM travel grants	5,000	0	0	5,000	3		5,000	0	0	5,000	4
- ASFA participation (no cost in 2006: Ostend)	0	0	0	0			2,000	2,000	0	0	2
- Aquatic commons IAMSLIC-IOC support	3,000	3,000	0	0	2		0	0	0	0	
- IAMSLIC support	5,000	4,000	0	0	1		5,000	0	0	5,000	3
ETDMP	**28,000**	**8,000**	**0**	**0**			**39,000**	**11,000**	**0**	**0**	
WP1: Development/ Expanding of E2EDM Core Technical Specifications	7,000	0	0	0			3,000	0	0	0	
WP 2: Development/Expanding of E2EDM Core Software	10,000	0	0	0			7,000	0	0	0	
WP 3: Development of E2EDM Common Code Tables	3,000	0	0	0			2,000	0	0	0	
WP 4: Development of E2EDM Marine Data Assembling procedures	0	0	0	0			2,000	0	0	0	
WP 5: E2EDM End-User Software Applications and System testing/ operating	5,000	0	0	0			5,000	3,000	0	0	
WP 6: E2EDM Solutions and Software for interactions with other systems	3,000	0	0	0			5,000	0	0	0	
WP 7: Project Management: ETDMP-II Session	0	0	0	0			15,000	0	0	0	
REVISION: COORDINATION ETDMP-SEADATANET-DMACS-other/ ODIN	10,000	8000	0	0			10,000	8,000	0	0	
GEBICH	**24,000**	**8,000**	**9,000**	**0**			**15,000**	**10,000**	**0**	**10,000**	
- GE-BICH pilot projects	9,000	0	9,000	0			0	0	0	0	

- GE-BICH-III meeting	15,000	8,000	0	0		0	0	0	0
- publication OBI-I proceedings	0	0	0	0		0	0	0	0
- OBI-II conference	0	0	0	0		15,000	10,000	0	10,000	1
Regional networks									
ODINAFRICA	**277,200**	**0**	**277,200**	**0**		**318,600**	**0**	**318,600**	**0**
ODINCINDIO	**272,200**	**7,500**	**111,600**	**0**		**296,200**	**5,500**	**55,000**	**0**
WP 1: NODC/NOIC Establishment & Support									
-1.2: Organization of advisory mission	6,000	0	0	0		0	0	0	0
-1.11: Provision of operational support for startup NOIC	10,000	0	0	0		0	0	0	0
WP 2: Capacity Building									
-2.1: regional data management training course (B. LEVEL)	61,200	0	61,200	0		61,200	0	0	0
-2.2: regional information management training course (B. LEVEL)	50,400	0	50,400	0		50,400	0	0	0
-2.3: regional data management training course A. LEVEL)	61,200	0	0	0		61,200	0	30,000	0
-2.4: regional information management training course (A.LEVEL)	50,400	0	0	0		50,400	0	25,000	0
-2.7: Helpdesk service data management training	5,000	0	0	0		5,000	0	0	0
-2.8: Helpdesk service information management training	5,000	0	0	0		5,000	0	0	0
-2.9: Short-term visits to other data/information centres	5,000	0	0	0		5,000	0	0	0
WP 3: Awareness									
-3.2: Development and maintenance of project web site	1,000	1,000	0	0	1	1,000	1,000	0	0
-3.4: Development of regional awareness tools	2,000	2,000		0	2	2,000	0	0	0
WP 6: Cooperation and Collaboration	15,000	4,500	0	0		15,000	4,500	0	0
WP 7: Project Coordination	0	0	0	0		40,000	0	0	0
ODINCARSA	**10,000**	**9,000**	**0**	**0**		**11,000**	**9,000**	**0**	**500**
WP1: Institutional support	500	500		0		0	0	0	0
WP 2: Technical cooperation between Members	0	0		0		0	0	0	0
WP 3: Coordination with GOOS, JCOMM									
3.1 project proposal	1,000	1,000		0		0	0	0	0
3.2 pilot project	0	0		0		1,600	1,600	0	0

WP 4: Development of products:								
4.1 ODINPUBCARSA	2,000	2,000		0	2,000	2,000	0	0
4.2 translation OceanTeacher to Spanish	600	600		0	0	0	0	0
4.3 Regional database (GRASP)	500	500		0	0	0	0	0
WP 5: Capacity Building	0	0		0	0	0	0	0
WP 6: Awareness								
6.1 two digital newsletters	700	700		0	700	700	0	0
6.2 brochures	500	500		0	500	0	0	500
WP 7: Project Management								
6.1 web site maintenance	1,200	1,200		0	1,200	1,200	0	0
6.2 project coordination	3,000	2,000		0	3,000	1,500	0	0
6.3 travel coodinator	0	0		0	2,000	2,000	0	0
ODINWESTPAC	**60,000**	**0**	**25,000**	**0**	**95,000**	**0**	**60,000**	**0**
- GODAR-WESTPAC and 1st Steering Committee ODINWESTPAC	25,000	0	25,000	0	25,000	0	25,000	0
- Data management training course (Ostend) beginner	35,000	0	0	0	35,000	0	35,000	0
- Data management training course (Ostend) medium	0	0	0	0	35,000	0	0	0
ODIN for S.Pac. Ilands	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
ODIN for Black Sea	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Regional OceanPortal AFR	**11,500**	**11,500**	**0**	**0**	**11,500**	**11,500**	**0**	**0**
Regional OceanPortal LAC	**12,000**	**12,000**	**0**	**0**	**12,000**	**12,000**	**0**	**0**
WP1: Editorial Review and updating								
- chief editor	5,000	5,000	0	0	5,000	5,000	0	0
- editors	3,400	3,400	0	0	3,400	3,400	0	0
WP 2: Awareness and Promotion								
- two digital newsletters	700	700	0	0	700	700	0	0
- brochures	500	500	0	0	500	500	0	0
- project management	1,200	1,200	0	0	1,200	1,200	0	0

WP 3: Project management									
- admin expenses UNESCO Quito	1,200	1,200	0	0		1,200	1,200	0	0
Special Training Courses									
	268,800	**0**	**128,800**	**0**		**39,000**	**0**	**39,000**	**0**
JCOMM/IODE/GOOS Modeling Training (Jamboree)	48,000	0	26,000	0		0	0	0	0
Young scientists DM training	39,000	0	0	0		39,000	0	39,000	0
GIS Training (see IOI/IODE course)	39,000	0	0	0		0	0	0	0
Remote sensing training (see IOI/IODE course)	40,000	0	0	0		0	0	0	0
MIM course for ECET countries	61,200	0	61,200	0		0	0	0	0
MARBEF/IODE training course	21,600	0	21,600	0		0	0	0	0
IOI/IODE training course GIS/remote sensing	20,000	0	20,000	0		0	0	0	0
Products and Services									
MARXML									
no requirements defined	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
MEDI	**15,000**	**7,200**	**0**	**0**		**5,000**	**0**	**0**	**5,000**
WP1: Disseminate the marine community profile of ISO19115	0	0	0	0		0	0	0	0
WP 2: Test metadata entry and search tool	0	0	0	0		0	0	0	0
WP 3: Meeting of SG-MEDI	15,000	7,200	0	0		0	0	0	0
WP 4: Develop procedures	0	0	0	0		5,000	0	0	5,000
OCEANPORTAL	**7,000**	**4,000**	**0**	**0**		**7,000**	**4,000**	**0**	**0**
- WP1: QC and new entries	6,000	3,000	0	0		6,000	3,000	0	0
- WP2: Weekly response to "broken link"	1,000	1,000	0	0		1,000	1,000	0	0
OCEANEXPERT									
- software maintenance	**2,000**	**0**	**0**	**0**		**2,000**	**1,000**	**0**	**0**

could
be cut

Projects									
GODAR - WORLD	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
no requirements									
GTSPP	**0**	**0**	**0**	**0**		**0**			**0**
no requirements									
GOSUD	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
no requirements									
ODIMEX/OceanTeacher	**93,000**	**0**	**93,000**	**0**		**110,000**	**0**	**110,000**	**0**
no requirements									
ODINPubAfrica	**14,000**	**0**	**14,000**	**0**		**0**		**0**	**0**
Events									
QC Ocean Data, Ostend	**0**	**0**	**0**	**0**		**0**	**0**	**0**	**0**
Programme management	**39,000**	**17,000**	**20,000**	**0**		**49,000**	**29,000**	**20,000**	**0**
Staff and Officer travel	9,000	7,000		0		9,000	9,000	0	0
OFFICERS meeting	10,000	10,000		0		0	0	0	0
IODE-XIX, Italy	0	0	0	0		20,000	20,000	0	0
Project Office operational expenses	20,000	0	20,000	0		20,000	0	20,000	0
Other									
	0	**0**	**0**	**0**		**15,000**	**15,000**	**0**	**0**
IOC Data management strategy dev. (*)	0	0	0	0		0	0	0	0
IT contracting (regional oceanportals maintenance)	0	0	0	0		15,000	15,000	0	0

Public awareness										
no activities planned	0	0	0	0			0	0	0	0
TOTALS	**1,146,700**	**83,200**	**678,600**	**5,000**			**1,047,300**	**118,000**	**602,600**	**27,500**
Available		91,200						98,500		
UNESCO RP IODE requested (excluding staff)		**62,700**						**74,500**		
UNESCO RP IODE available (excluding staff)		**62,700**						**55,000**		
Difference UNESCO RP IODE		0						**-19,500**		

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EB exp: Extra-budgetary expected (confirmed) from Member States or other donors (includes also funds from cross-cutting themes UNESCO RP).

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