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IMOS EIF UPDATE #8

11 January 2010

Dear IMOS colleagues,

In line with the IMOS EIF Timetable (http://imos.org.au/eif_timetable.html), the Advisory Board met on 21st December 2009. The purpose of this meeting was to assess Node and Facility Proposals against the Five Year Strategy, drawing on review and analysis by the IMOS Office, international peer reviews (for the Bluewater & Climate and WAIMOS Nodes), discussion at the 26th November National Meeting, and further discussion at the Steering Committee Meeting of Node Leaders on 9th December.

The Board has now agreed on a package of Facility Proposals to be recommended for approval in line with available EIF and NCRIS funding, and co-investment as indicated by partners. This package will underpin development of a Project Plan for submission to DIISR in February 2010, with final approval from the Department expected by the end of March 2010.

A full (46 page) report of the Advisory Board Assessment and Recommendations is available at http://imos.org.au/fileadmin/user_upload/shared/IMOS%20General/EIF/IMOS_EIF_Advisory_Board_Assessment_and_Recommendations.pdf. This report builds on the review and analysis paper discussed at the National Meeting, and provides an assessment of all Facility Proposals as "essential", "highly-desirable", "next stage" or "unsuitable". As indicated at the National Meeting, only essential enhancements are able to be supported from core IMOS funding, though the opportunity remains for most highly-desirable enhancements to be supported through further co-investment.

A summary of key elements of the Advisory Board Assessment and Recommendations is as follows:

1. **All current Facilities will be extended to June 2013.** This will require an estimated \$25.595M of IMOS EIF funding (i.e. excluding co-investment). Initial NCRIS funding of \$50M will be invested over four years, so it is not surprising that a two year extension will require ~\$25M of resourcing.
2. A brief summary of extension priorities recommended by the Board for approval is as follows. The full report provides a complete record of the decision-making process.

Facility/Sub-Facility	\$
1 Argo	3,667,233
2a SOOP - Underway Network XBT	1,458,182
2c SOOP - SST Sensors	298,359
2d SOOP - Real-time Air-sea Fluxes	207,403
3a SOFS	515,784
3b PULSE +	1,442,577
4 ANFOG	2,058,379
5 AUV	430,500
6a ANMN - Queensland	1,736,275
6b ANMN - New South Wales	1,570,950
6c ANMN - Southern Australia	1,021,014
6d ANMN - Western Australia	741,636
6e ANMN - Acoustic Observatories	357,706
6f National Reference Stations	1,892,497
7 ACORN	1,442,616
8 AATAMS	518,502
9 FAIMMS	589,430
10 eMII	3,280,001
11a SST L2P Products	394,296
11b AODAAC	180,000
11d Satellite Ocean Colour	201,000
12 Office	1,591,000
Grand Total	25,595,340

3. Total extension funding is ~\$6.5M (or 20%) lower than proposed by the current Facility Operators. Reduction has been achieved through negotiation with Operators where possible. Given the size and scale of the Australian National Mooring Network Proposal, the Board has made two important decisions in this area. In the case of National Reference Stations, investment has been capped and scope will need to be managed to match available resources in line with priorities articulated in the Board Assessment. In the case of existing regional shelf mooring arrays in GBR, southwest WA, NSW and SA, these will be sustained but not intensified and expanded as proposed by the current Nodes. This is necessary in order to implement a national approach to monitoring the major boundary currents and interbasin flows, and to address Commonwealth budget imperatives in Northern Australian waters and the Southern Ocean.
4. As a condition of IMOS EIF funding, the Board was required to make decisions about investment of the first \$8M in June 2009 (for implementation in 2009-10). **EIF first \$8M investments will be extended to June 2013.** This will require an estimated \$11.893M of IMOS EIF funding (i.e. \$8M plus \$3.393M to extend).

5. A brief summary of EIF first \$8M priorities recommended by the Board for approval is as follows. The full report provides a complete record of the decision-making process.

Facility/Sub-Facility	\$	Comments
Argo	1,800,000	ice-capable, oxygen-capable, completion of southern hemisphere array
ANFOG - Seagliders for SOTS	1,507,004	transects from Hobart to SOTS site
ANFOG - Seagliders for GBR	753,502	Coral Sea
National Reference Stations	3,369,792	new Stradbroke Island NRS, CO ² &PH (Maria & Yongala), ADCP's (all)
NAOS - ITF Deepwater Array	622,421	first year only - see essential enhancement for outyears
NAOS - Kimberley shelf array	1,077,579	part-funding of Kimberley shelf array
AATAMS	721,728	extending OTN into Queensland, and seals etc in GAB
AATAMS - Southern Ocean Seals	2,040,747	Southern Ocean Seals as Samplers
Grand Total	11,892,773	

6. As with NCRIS extension (point 2 above), funding for EIF first \$8M extension is lower than proposed by the Facility Operators. In this case by ~\$5M (or 30%). Again, reduction has been achieved through negotiation with Operators where possible, and through capping investment in the National Reference Stations (see above). The Board has also decided to cap investment in satellite tagging in the GAB, which was proposed to grow at an overly-ambitious rate. The EIF first \$8M included \$1.7M to commence development of a Northern Australian observing system (NAOS) in line with the Commonwealth budget imperative. This will be targeted towards establishing a deepwater array to monitor the Indonesian Through Flow and a shelf array in the Kimberley. Further investment required to complete these arrays has been considered as enhancement funding (see below).
7. With \$37.488M of IMOS EIF Funding committed through NCRIS extension and EIF first \$8M, ~\$15M is available for further enhancement. Proposals for further enhancement totalled \$53.914M, meaning that 72% of these Proposals cannot be supported without further co-investment.
8. Enhancement proposals assessed as **unsuitable** largely relate to decisions to cap investment in certain areas, as noted above. N.B. There is no suggestion that any of these Proposals are unworthy. Only that they are not suitable for funding under IMOS EIF.
9. Enhancement proposals assessed as **next stage** are potentially suitable for IMOS investment, but not on an EIF timeframe. This has been determined based on assessment of risk factors such as maturity of the technology, logistical constraints, and operator delivery constraints. For example, the proposed Timor Sea (RAMA) Flux Station is a high priority, but the risk of non-delivery is currently considered to be too high given that the Southern Ocean Flux Station stage 1 is yet to be deployed and a stage 2 is required to ensure continuity of this time series. Also, some current Facilities/Sub-Facilities (such as the Coastal Radar Network and Acoustic Observatories) need to remain focused on delivery of current commitments before further enhancement can be considered.
10. Ideally, all **essential** and **highly desirable** enhancements would be supported. However in total they represent ~177% of available IMOS EIF funding. The Board's

decisions have been designed to ensure that essential enhancements can be supported from IMOS EIF funding, and that as many highly desirable enhancements as possible can also be supported if further co-investment is forthcoming. Negotiations are continuing with several State Governments in this respect, and should be concluded during the first quarter of 2010. In most cases, the outcomes of these negotiations will have a neutral or positive effect. However in a couple of cases, the Board may need to review its priorities based on co-investment decisions by partners. A new Tasmanian Regional Node will be established.

11. A brief summary of essential enhancement priorities recommended by the Board for approval is as follows. The full report provides a complete record of the decision-making process.

Facility/Sub-Facility	\$	Comments
SOOP - Underway Network BGC	205,120	bringing Aurora Australis into the BGC underway network
SOOP - Underway Network CPR	853,601	expanding and integrating the CPR network
SOOP - Bio-acoustics	852,654	commencing bio-acoustic observing of mid-trophic organisms
SOFS	1,148,162	SOFS stage 2, contingent on SOFS stage 1
Deepwater Arrays - ITF	291,647	completing the array (part-funded under the first \$8M)
Deepwater Arrays - Polynya	304,487	first stage of deep ocean monitoring
Deepwater Arrays - EAC	1,535,730	monitoring full depth transport of the EAC at 26° S
ANFOG	500,000	Slocum gliders for new Tasmanian Node
AUV	452,000	support for national program of benthic monitoring
ANMN - New South Wales	147,629	support for consolidation of existing shelf mooring array
ANMN - Southern Australia	352,204	support for consolidation of existing shelf mooring array
ANMN - Western Australia	318,796	support for consolidation of existing shelf mooring array
National Reference Stations	508,045	phased roll-out of bio-optical sensors on the NRS
ANMN - NAOS, ITF	2,023,008	Bonaparte shelf array, aligned with ITF array to capture Leeuwin Current
ANMN - SEQ	848,637	part-funding of shelf array at 26° S
ANMN - CO2	687,027	additional acidification mooring, for upwelling zone
AATAMS	1,689,661	monitoring apex predators in Southern Ocean + technical officer
Satellite Ocean Colour	1,228,000	bio-optical database and national products (to be further developed)
Satellite Altimetry	1,093,000	cal val moorings and data, aligned with Tasmanian Node
Grand Total	15,039,408	

12. The full report also includes a section on **Portfolio Balance** (pp 43 to 45) which looks at the sum of decisions made, and considers them in response to the Federal Budget and Five Year Strategy, shifts in investment by research theme, trends in investment

by Facility, and trends in maturity of observations. This is intended to provide overall context for the package of decisions made by the Board.

Next steps (during January and February 2010)

- Next steps will be focused on clear communication of Board decisions, dealing with the consequences of those decisions, and developing the Project Plan for submission DIISR.
- Letters to will be sent to all Facility Operators as soon as possible to lay a platform for preparation of Project Plans/budgets.
- Specific feedback will be provided to proponents of proposed new Facilities/Sub-Facilities that have not been supported.
- Written feedback will be provided to all Nodes. Comments from international peer reviewers have already been provided to Bluewater & Climate and WAIMOS, and a summary can be found at <http://imos.org.au/eif.html> . The WAIMOS Node Proposal has been revised as a result of the review process, and an updated version can also be found at <http://imos.org.au/eif.html> . All Nodes will be asked to revise their Proposals into approved Science & Implementation Plans in line with Board decisions. Timing will be negotiated with the Nodes, but is likely to be around mid-2010 (i.e. not required for the February Project Plan deadline). The remaining Node Plans will be internationally peer reviewed during 2010-11 (timing to be determined).
- I will travel to all capital cities between mid-January and early February and be available to meet with Node communities and Facility Operators and discuss specific issues. Dates will be advised as soon as possible. This will include briefing of key stakeholders, such as DIISR.
- The Project Plan for submission to DIISR will be finalised by no later than Friday 26th February.

The 4th IMOS Annual Meeting in Perth, to be held 15 - 17 February, provides a timely opportunity for the IMOS community to come together again, and I look forward to seeing many of you then, if not before.

In the meantime, please do not hesitate to contact me if you wish to discuss further.

Regards,

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