

# External Funds Generation

## Australian Institute of Marine Science

### Follow-up Audit

Tabled 24 June 1997

Audit Report No. 38 1996-97

### Abbreviations / Glossary

---

<b>The Act</b>	<i>The Australian Institute of Marine Science Act 1972</i>
<b>AIMS</b>	Australian Institute of Marine Science
<b>ANSTO</b>	Australian Nuclear Science and Technology Organisation
<b>ASTEC</b>	Australian Science and Technology Council
<b>CSIRO</b>	Commonwealth Scientific and Industrial Research Organisation
<b>DITAC</b>	The Department of Industry, Technology and Commerce
<b>PPE</b>	Staff Performance Planning and Evaluation
<b>Public good research</b>	Public good research, is research which has direct value to industry and the community, but lacks sufficient private returns to be sponsored by firms. (Industry Commission Report on Research and Development)
<b>1992 Audit Report</b>	'External Funds Generation'; Audit Report No.48, 1991-92

### Summary

1. The objective of this audit was to assess the effectiveness of the action taken by the Australian Institute of Marine Science (AIMS) in response to the recommendations contained in 'External Funds Generation', Audit Report No.48, 1991-92 (referred to as the 1992 Audit Report).
2. The subject of the 1992 Audit Report was directly related to the Government's requirement of AIMS to seek to achieve a certain percentage of their funding from sources other than Budget appropriations. At the time of the 1992 Audit Report the set target was 30 per cent of AIMS' budget appropriation. Currently (ie. for 1996-97) the set target is 20 per cent of AIMS' total annual income. The Government also clearly stated the underlying purpose of setting such targets, i.e. *the encouragement of agencies' efforts to improve their links with industry.*
3. The 1992 Audit Report made fifteen recommendations; AIMS agreed with twelve and agreed in principle or in part with two others. Recommendation 3 of the 1992 Audit Report, which dealt with assistance to be provided by the then Department of Industry, Technology and Commerce, was not agreed to by that

Department. The Australian National Audit Office (ANAO) undertook an examination of AIMS' systems and procedures based upon four distinct groups into which the fifteen recommendations of the 1992 Audit Report could be considered, namely:

- planning systems and procedures (Chapter 2);
- operational systems, procedures and guidelines (Chapter 3);
- monitoring, evaluation and adjustment (Chapter 4); and
- reporting and performance indicators (Chapter 5).

4. It is the ANAO's opinion that AIMS has either implemented the recommendations of the 1992 Audit Report fully or has established systems and procedures for achieving the thrust of those recommendations. Further improvements to efficiency and effectiveness of these systems and procedures have been identified by both AIMS and the ANAO. These are addressed by the recommendations in this audit report. The ANAO notes that, for many of the recommendations, AIMS has already made significant progress towards their implementation.

### **Planning**

5. The ANAO made seven recommendations dealing with planning issues all of which were agreed to by AIMS.

6. The ANAO found that AIMS has taken its external funding target into account in its strategic planning structure. The ANAO did, however, identify areas for further improvement related to AIMS' strategic and other planning documents including:

- the overall planning document structure;
- the use of AIMS' Strategic Directions document and Research Plan;
- the coverage and completeness of particular documents, including AIMS' Research Plan and Operational Plan; and
- the consistency across all AIMS' planning documents.

### **Operational systems, procedures and guidelines**

7. The ANAO made one recommendation concerned with operational systems, procedures and guidelines which was agreed to by AIMS.

8. The ANAO found that AIMS had developed systems, procedures and guidelines related to the identification, approval, establishment and management of externally funded projects/tasks. The establishment of these systems and procedures represents substantial progress (since the 1992 Audit Report) in integrating external funding activities into AIMS' research program. The ANAO

also noted that these systems and procedures were being further developed and has made a recommendation suggesting features that should be included in the next systems and procedures manual for additional improvement.

### **Monitoring, evaluation and adjustment**

9. The ANAO made one recommendation concerned with management monitoring, evaluation and adjustment which was agreed to by AIMS.

10. The ANAO found that AIMS has, and is continuing to, develop and formalise a comprehensive management monitoring and evaluation system based upon internal and external reviews and monthly, quarterly, semi-annual, annual and triennial cycles.

11. The ANAO identified a number of areas for further improvement including the development of a listing of non-financial delegations against significant milestones/events, the formalisation of a quality control procedure and the maintenance of a formal management trail identifying significant decisions and the reasons for those decisions. A recommendation was made dealing with these issues.

### **Reporting and performance indicators**

11. The ANAO made three recommendations to improve AIMS' performance reporting all of which were agreed by AIMS.

12. The ANAO found that, while AIMS' internal accountability systems and procedures currently facilitate a reasonable level of management control, AIMS' external performance reporting (a key component of its accountability) has substantial scope for improvement. The range of performance indicators, based mainly on planned outcomes and milestones, is considerable and the management monitoring, review and follow-up action systems and procedures being developed by AIMS provide the basis of good internal management control. In contrast, AIMS' external reports to Parliament focus on research highlights rather than performance against corporate goals, objectives, strategies and planned outcomes.

---

## **Recommendations**

*The ANAO considers that AIMS should give priority to Recommendations Nos. 1, 5, 8 and 9.*

Recommendation  
No.1  
Para. 2.36

The higher level AIMS' planning documents should clearly and unambiguously identify the components and hierarchical structure of AIMS' planning and the planning process which reviews and renews these documents. This material should be reflected in all subordinate planning documents.

**Response:** Agreed

Recommendation  
No.2  
Para. 2.36

The peak AIMS' planning document (currently titled Strategic Directions) should indicate the relative importance and timing of identified commitments and the processes by which they are to be achieved.

**Response:** Agreed

Recommendation  
No.3  
Para. 2.36

All of AIMS' high level planning statements should contain identical goals and objectives and all subordinate planning statements should directly and consistently address those goals and objectives.

**Response:** Agreed

Recommendation  
No.4  
Para. 2.36

AIMS should expedite the consolidation of all current policy statements into a complete, structured and easily accessible set to facilitate informed and consistent management.

**Response:** Agreed

Recommendation  
No.5  
Para. 2.36

AIMS should develop an operational plan which incorporates target dates, resource budgets and performance measures against identified tasks and expected outcomes.

**Response:** Agreed

Recommendation  
No.6  
Para. 2.36

AIMS' Operational Plan should incorporate business development activities and any separate AIMS' Business Plan document should be based upon a structured summary of the relevant components in AIMS' higher level planning documents and AIMS' Operational Plan.

**Response:** Agreed

Recommendation  
No.7  
Para. 2.36

AIMS' fraud control plan should be revised to consider the risk (on a project by project basis) of:

- (a) the loss of intellectual property;
- (b) the prospect of being sued;
- (c) the Commonwealth being defrauded of time; and
- (d) potential conflicts of interest.

**Response:** Agreed

Recommendation  
No.8  
Para. 3.18

AIMS should develop a systems and procedures manual which includes the list of features identified in paragraph 3.18 of this report.

**Response: Agreed**

AIMS should include in the development and formalisation of its monitoring, evaluation and adjustment systems and procedures:

Recommendation  
No.9  
Para. 4.20

- (a) comprehensive description of the systems and procedures including a flow chart illustrating the sequence of all key project/task events;
- (b) responsibility chart/listing of all key events of projects/tasks in relation to the responsible section or officer;
- (c) quality control procedures and requirements including the follow-up of faults, overdue deliverables and inadequacies in quality; and
- (d) formal management trail including a set of management registry files in a standard format for each project, to assist comparison of projects/tasks.

**Response: Agreed**

Recommendation  
No.10  
Para. 5.28

AIMS' performance indicators should be aligned with and support its high level planning statements, such as those in the Strategic Directions Document; AIMS' reporting of performance in its annual report should reflect this structure.

**Response: Agreed**

To enhance the level of accountability to Parliament, AIMS should develop a form of reporting in its annual report to Parliament which (among other things) :

Recommendation  
No.11  
Para. 5.28

- (a) reports achievement against planned outcomes;
- (b) reports on the nature, focus, range and coverage of AIMS' research and monitoring activities in relation to Australia's marine environment; and
- (c) depicts the nature, focus, effect and significance of the source and amount of external funding.

**Response: Agreed**

Recommendation  
No.12  
Para. 5.28

To ensure continuous improvement, AIMS should establish systems and procedures to determine the costs and benefits of seeking, achieving and using external funds. This should include selected case studies and a quality assurance methodology to standardise the process for comparative purposes.

**Response: Agreed**

## 1. Introduction

### Audit objective and cost

1.1 The objective of this audit was to assess the effectiveness of the action taken by the Australian Institute of Marine Science in response to the recommendations

contained in Audit Report No.48, 1991-92 External Funds Generation (hereafter referred to as 1992 Audit Report).

1.2 The audit was carried out in accordance with the Australian National Audit Office (ANAO) Auditing Standards. The cost of the audit was \$102 000.

## **Background**

1.3 The Australian Institute of Marine Science (AIMS) is Australia's only research agency committed solely to marine research with an emphasis on tropical marine science. It was established in 1972 and has its headquarters on a 207 hectare site at Cape Ferguson, 50km from Townsville in north Queensland.

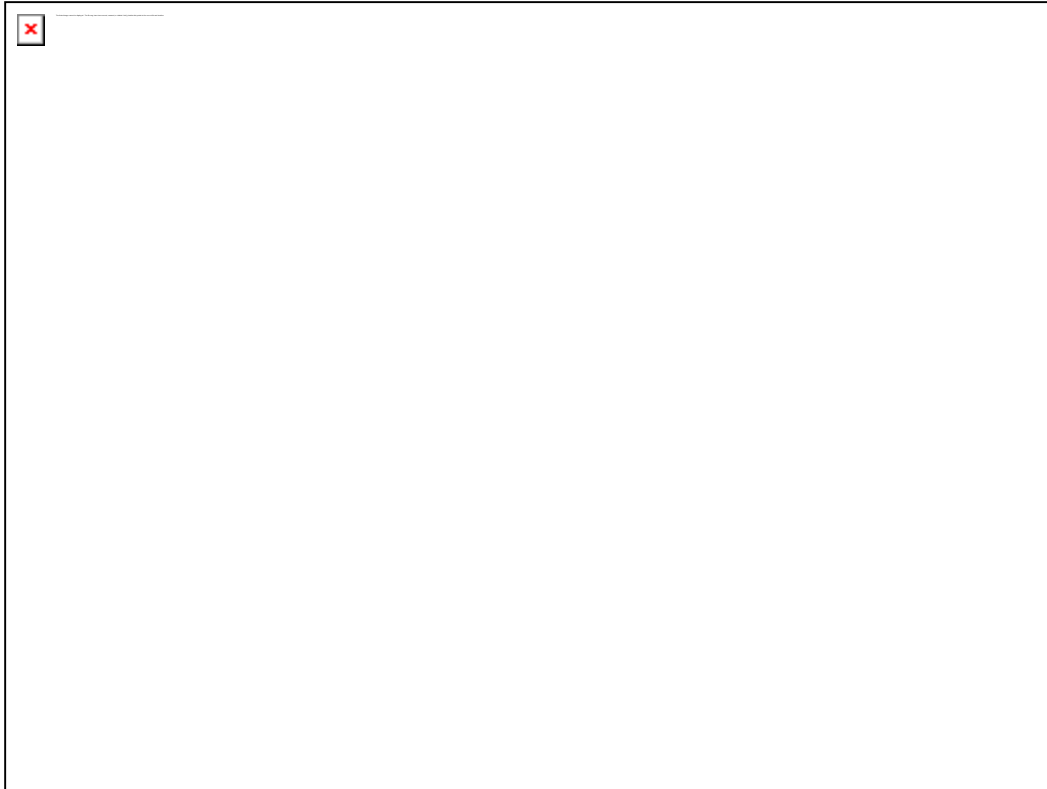
1.4 AIMS is a Commonwealth funded statutory authority reporting to the Minister for Industry, Science and Tourism. The program of the Institute is defined by *the Australian Institute of Marine Science Act 1972* (amended 1992), by the strategic priorities as determined by its Council and by the decisions of government. Its activities are primarily focused on tropical coastal and continental shelf research and the development and application of technology to problems in this zone. The Institute includes extensive laboratory facilities, an aquarium and mariculture facility. A library and computing, engineering, communications and laboratory services are also on site. The Institute has a fleet of research vessels which support the activities undertaken by scientists and visiting collaborators. The Institute has conducted research, not only around Australia, but also in South-east Asia and the Pacific and Indian Oceans.

1.5 AIMS is governed by a Council appointed by the Commonwealth Government. The Council, which meets quarterly, is the policy-making body of the Institute. The Council comprises five individuals from industry and academia, plus the Director. The Director is responsible for managing the day-to-day affairs of the Institute, drawing support from an Executive Committee of senior staff - the Chief Scientist, Associate Director (Business), Associate Director (Research) and Manager of the Support Services Department. At the time of the audit the Institute's organisational structure consists of two major groups, one which covers the Institute's research and which is headed by an Associate Director (Research). The other program is Support Services, which covers the corporate and scientific support areas of the Institute.

1.6 AIMS' staff are employed under the *Australian Institute of Marine Science Act 1972* (amended 1992). As at 30 June 1996 the Institute employed 116 scientific staff and 56 support staff. See Diagram 1.

## **Diagram 1: Organisational structure**

(source: 1995-96 Annual Report)



### **Budget and external earnings**

1.7 AIMS' net cost of services over 1994-95 and 1995-96 has been \$14.435 million and \$16.501 million respectively.

1.8 AIMS' external earnings for the same period was:

	(\$ million)	per cent (see below)
1994-95	4.534	21.53
1995-96	4.659	21.91

AIMS defines external earnings for research as total income less direct appropriation, unrelated revenues and bad debts. The percentage is calculated against the total annual income of AIMS.

### **The external funding target**

1.9 As described briefly below, the obligation to generate external funds was imposed upon AIMS, and other research organisations, to, among other things, encourage closer relations between the researchers and industry and other potential users. It was envisaged that this would lead to the benefits of the research being more available to and useful to the needs of Australian industry.

1.10 In 1988 the Government set a target for external funds generation by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Australian Nuclear Science and Technology Organisation (ANSTO), and imposed a general requirement for increased external funds generation by other appropriation funded research organisations. At that time no specific target was set for the level of external funds generation by AIMS. Subsequently, in

November 1990 the Council of AIMS adopted a target of 30 per cent of the value of the budget appropriation provided by the Commonwealth. This target was adopted based upon advice from the Minister that adoption of that target would be in accordance with Government policy.

1.11 Following an Australian Science and Technology Council (ASTEC) review in 1994 which recommended standardising the external funding target, the target was altered to 20 per cent of AIMS' total annual income. This has been in place during the current triennium funding agreement (between the Government and AIMS) which expires in June 1997. AIMS advises that this target will remain the same in 1997-98.

1.12 *The Australian Institute of Marine Science Act 1972* was amended in 1992 specifically to include in AIMS' functions the power to seek outside funding; this was achieved through functions 'g' and 'h':

*(g) To provide and sell goods (whether produced by the Institute or purchased or otherwise acquired by the Institute) and services in connection with matters related to its research and development activities in marine science and marine technology; and*

*(h) To make available to other persons, on a commercial basis, the knowledge, expertise, equipment and facilities of the Institute; and*

#### **The Audit Report No.48, 1991-92**

1.13 The 1992 Audit Report contained 15 recommendations. AIMS agreed with 12, agreed in principle with one, agreed in part with one; and did not agree with one. Details of the recommendations can be found in Appendix 1.

<b>Recommendation number</b>	<b>Response category</b>
1, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15	agreed
2	agreed in part
3	not agree
11	agreed in principle

The one recommendation rejected (No.3) read as follows: *The Department of Industry, Technology and Commerce (DITAC) and other agencies with responsibility for monitoring the performance of AIMS and similar agencies, make clear allowance for the limitations of the external funding targets by taking into account all relevant factors that are required for the implementation of Government policies.* DITAC's response was: *AIMS is an autonomous authority established under its own Act and reporting directly to the Minister. As such, the Department considers that the Council and management of AIMS have responsibility for its administration.* This recommendation was not included in this follow-up audit because the recommendation's intended respondent was DITAC rather than AIMS.

1.14 The recommendations may be conveniently grouped as follows:



- planning systems and procedures: Recommendations 1, 6, 9, 12, 13, 14 and 15. See Chapter 2;
- operational systems, procedures and guidelines: Recommendations 7, 10 and 11. See Chapter 3;
- monitoring, evaluation and adjustment: Recommendation 5 and 8. See Chapter 4; and
- reporting and performance indicators: Recommendations 2, 3 and 4. See Chapter 5.

1.15 It is the ANAO's opinion that AIMS has either implemented the recommendations of the 1992 Audit Report fully or has established systems and procedures for achieving the thrust of the recommendations.

1.16 Each of the following chapters examines the extent to which AIMS has implemented these recommendations, identifies issues impeding efficient and effective administration and makes relevant recommendations to resolve those issues.

## **Other reviews**

1.17 Two related external reviews of AIMS have been undertaken. The first was by the Joint Committee of Public Accounts in their Report No.330, *Review of Auditor-General's Reports May 1991-September 1992*, tabled in March 1994. In Chapter 12, dealing with the Industry, Technology and Regional Development Portfolio, no issues of significance were identified.

1.18 The second review was undertaken by ASTEC and resulted in the report *On Target?, Review of the Operations of External Earnings Targets for CSIRO, ANSTO and AIMS*, February 1994. The review generally found that the external funding target had met with some success in promoting industry-government research interaction and made a number of recommendations to standardise the targets and to improve various systems and procedures. AIMS stated in its submission to ASTEC:

*In March-April 1992, AIMS' external funding procedures were audited by the Australian National Audit Office (ANAO). The ANAO audit was critical of a number of aspects of external funding procedures at the time. AIMS agreed with a large number of the recommendations made by the auditors. However, the Institute believes that the expectations of the auditors were inappropriate in that the requirement for 30 per cent external earnings had been in place for only one year. The audit gave little recognition to the changes taking place and effort being made to Institute in-house procedures to deal with a diversity of external funding issues.*

*Since the audit, many of the recommendations have been implemented and continue to be refined. As of 1 September 1993, only two recommendations were officially unresolved. AIMS adopted comprehensive external funding application procedures in June 1993 which provide guidelines for selection, planning and approval of external projects. Effort*

*is currently under way to implement systems for recording all types of effort attributable to external projects.*

---

## **2. Planning Systems and Procedures**

### **Introduction**

2.1 Seven Recommendations in the 1992 Audit Report (numbers 1, 6, 9, 12, 13, 14 and 15) deal with planning at AIMS. The details of these Recommendations can be found in Appendix 1. In general the Recommendations deal with the development of a comprehensive set of policies, and the specific areas of surplus funds, the management of the Corporate seal and official equipment, intellectual property and conflicts of interest.

2.2 The main criteria that apply in this area of planning are:

- there should be a clear, unambiguous statement of the purpose of the external funding target; and
- this should be reflected in the relevant subordinate objectives, strategies, operational plans, etc. in AIMS' planning documents.

### **Implementation of the 1992 Audit Report recommendations**

2.3 AIMS' strategic planning structure comprises the legislation; government directives; Council endorsed strategic directions, objectives and goals; other Council policy; operational plan (summarised in a publicly available Research Plan); a Business Plan; and annual performance agreements.

2.4 Associated plans include marketing plans; the evaluation program; the fraud control plan; and the internal audit program.

2.5 Examination of AIMS' planning documents reveals that AIMS has integrated its external funding target and the purpose of the target into its planning structure. The following paragraphs indicate how this has been accomplished and identifies areas for improvement.

#### ***The Australian Institute of Marine Science Act 1972 (the Act)***

2.6 The Act was amended in 1992 to provide AIMS with the authority to seek external funding.

### **Government directives**

2.7 The external funding target and the underlying purpose of the target were incorporated into the triennium funding agreement between the Government and AIMS. The 1994-97 Triennium Funding Agreement together with the covering Ministerial letter clearly define the External Funding Target and clearly state the underlying goal of the target; i.e.

*the Triennium Funding Agreements would include external earnings targets and*

*performance indicators that measure the effectiveness of the agencies' efforts to improve their links with industry... it has been agreed between my Department and the Department of Finance that an appropriate target would be 20 per cent.*

This fulfils the 1992 Audit Report recommendations to clearly establish the underlying reason for the target. The AIMS Council minutes of meeting No.118 (11/12 May 1995) reflects this:

*The Institute regards the external earnings targets as promoting the following positive attributes rather than as a mechanism for setting research priorities.*

- *encouraging links between AIMS and external users of AIMS research results, such as government, industry and other non-government organisations, which in turn promotes an outward-looking and client-oriented attitude among researchers;*
- *encouraging increased efficiency within the Institute by development of best practice in research, research support and research management;*
- *encouraging new skills among researchers and an increased awareness of the value of data and other intellectual property;*
- *enhancing the Institute's portfolio of research through increased resources earned externally.*

*The main constraint on AIMS external funding in terms of type of R&D is the need to avoid the level of applied research causing the Institute to vary markedly from its target of 75 per cent basic strategic research and 25 per cent applied research.*

### **The Strategic Directions document**

2.8 This document was first released in February 1997 as AIMS' peak planning document. The ANAO found that the document has a strong client focus and a specific reference to developing closer links between researchers and clients; all of which is consistent with the requirements of the Triennium Funding Agreement. The ANAO also found that the document:

- *while providing a mission statement, contains no high-level goals or objectives;*
- *identifies nine areas of commitments which contain phrases like seeks to understand, is concentrating on, is focussing on and will continue to. This wording leaves uncertainty about the status of, and interconnections between, the nine commitment areas and there is no ranking or prioritisation of the nine commitments to diminish this uncertainty. AIMS advised that:*

*AIMS' research projects are multi-disciplinary, addressing more than one priority area. The areas have been defined to reflect nationally identified needs. Since the projects often provide information relevant to more than one priority area a hierarchy is not appropriate, and since all the areas are nationally significant they all hold high priority at AIMS. Some projects may address one area more than another but it does not make the project*

*more important than a project which has greater efforts in another area. The main constraints to this are, does AIMS have the expertise and the resources to undertake the work. We have the expertise in all the areas identified in the Strategic Directions document...*

- contains five performance measures, three of which directly address external interaction; i.e.
  - client satisfaction;
  - an expanding client base and satisfaction that its products are used, useful and dependable.; and
  - effective relationships with decision-making and educational bodies, allowing flow-on of knowledge.

2.9 AIMS advised that:

*The Strategic Directions Document is not a traditional Strategic Plan. It is intended to be read with the Research Plan. This Plan is linked to the Strategic Directions document although we will make a point of emphasising this linkage in the next version of the research Plan.*

### **Other planning statements**

2.10 In response to the ANAO request for a full set of planning statements and documents, AIMS provided, among other things, a set of objectives and goals. AIMS advised that the source of these planning statements was a briefing document to the Minister and that they are still current. No other AIMS' planning document contained these objectives and goals.

2.11 The ANAO found that the objectives and goals are consistent with the underlying purpose of the external funding target in that there are three sub-headings that address external funding and commercialisation. Under the heading of 'research' there are references to 'applied' research and a specific reference to the 'commercial exploitation of research results'. In addition, all the objectives and goals under the heading of technology transfer deal with industry and industry requirements. Also, under the heading of 'resource management' the goal of developing and obtaining new external sources of funding and taking advantage of relevant commercial opportunities is included.

### **Policy statements**

2.12 The ANAO sought to identify AIMS' current set of policies and asked AIMS for a listing. Initial advice from AIMS stated that there had been nearly 300 resolutions made by Council. AIMS is in the process of consolidating and determining the status of the Council Resolutions.

2.13 Examination of the Council Resolutions and resulting policies reveals that:

- AIMS' policies take-up/endorse the Government's external funding target

requirement and deal with a number of associated issues including cost recovery, budgeting, financial delegations, systems and procedures for dealing with external clients, the external funding approval process and reporting;

- other policies directly address the recommendations in the 1992 Audit Report to develop policies in the areas of:
  - the distribution of profits (Recommendation No.9);
  - the use of AIMS' seal (Recommendation No.12); and
  - the protection of intellectual property (Recommendation No.13);
- there is a number of Council Resolutions whose current status is uncertain due to the age of the resolutions and the need to review their relevance;
- there are other documents such as Ministerial briefings and AIMS' submissions to inquiries which contain policy type statements but which have not resulted from a Council Resolution; and
- in the ANAO's view knowledge of and access to the consolidation of AIMS' policies is not sufficiently widespread within the organisation. AIMS advised that the actual consolidation process and the use of 'intranet' is addressing this issue.

2.14 Report No.48, 1991-92 Recommendation 14 and 15 dealt with the need for AIMS to develop systems and procedures for handling possible conflicts of interest. AIMS responded to these recommendations by stating in the 1992 Audit Report:

*In Council meetings there are established procedures. Council will continue to analyse and implement, where necessary, additional procedures best suited to meet the changing requirements of AIMS.*

2.15 A specific policy addressing the area of 'conflict of interest' was not found. Further advice from AIMS highlighted section 18 of the AIMS Act (disclosure of interests) and AIMS' staff 'Code of Conduct' (under the heading 'Outside Employment and Other Activities') both of which establish systems and procedures for dealing with possible conflicts of interest which the ANAO considers meets the requirements of the 1992 Audit Report recommendations. In addition, AIMS provided evidence of the application of Section 18 where in a 1997 Council meeting, those with a possible conflict of interest declared themselves and took no part in the associated deliberations.

### **AIMS' Research Plan (the operational plan)**

2.16 AIMS advised that its annual Research Plan was its annual operational plan. The ANAO examined the 1996-97 Research Plan to identify the external funding linkages and consistency with higher level planning documents and found that:

- while the major external funders are identified, their operational relationship with projects/tasks is not documented;
- the goals for each project are not linked in any way with AIMS' corporate objectives and goals. Although some links are obvious, links with the applied research goals or the basic research are not provided and links with the technology transfer objective are far from clear; and
- no time lines, milestones or resource allocation information (funds, staff, equipment) are provided.

2.17 In general, the ANAO found that the links between this document and higher level planning documents are substantially lost in this document. In addition features essential to operational plans (e.g. time lines, resource allocations) are absent casting doubt on the completeness of AIMS' planning process.

2.18 AIMS further advised that:

*The Research Plan is a document for external users and basically consolidated the more detailed internal documents termed Project Proposals. These proposals do incorporate target data, milestones, etc..*

2.19 The ANAO acknowledges that collectively the annual project proposals go some way to fulfilling the role of an operational plan and that the annual Research Plan is a by-product of the project proposals for public release.

## **Business Plan**

2.20 The AIMS Business Plan (approved by the Council in 1994) addresses in some detail AIMS' external funding activities. No document like this was in place at the time of the 1992 audit and its existence represents significant progress by AIMS in addressing the majority of the recommendations in the 1992 Audit Report.

2.21 The ANAO examined the 1994 Business Plan, which is the latest issued, and found:

- the contents of the Business Plan address the majority of purposes stated at the beginning of the document but the document is not structured in an operational manner;
- while the major and minor headings are generally logically structured the contents under each heading generally are not so structured;
- the business objectives listed in the Plan cover AIMS' reputation, marketing, use of profits and employment. This focus, while not comprehensive (the business objectives do not include for example a target income), is logically connected with the achievement of the external funding target; and

- the number of action statements incorporated throughout the Business Plan is large and are not clearly separated, categorised or scheduled to help identification and implementation. Responsibility for completing many of the action statements is not allocated and is not considered.

2.22 The ANAO also examined the level of compliance in relation to these action statements (given that the document had Council approval) and found that the majority have begun, many were completed and several were ongoing. In addition AIMS advised that the 'Business Development' was a subject reported on at each Council Meeting, i.e. quarterly.

2.23 AIMS advised that, depending upon the Project, the securing of external funding can have a significant impact on resources in terms of researchers and managers allocating time and energy to business activities. The ANAO is concerned that if these activities are not incorporated into AIMS' operational planning then issues related to the achievement of research activities may not be foreseen.

2.24 AIMS has advised that the 1994 Business Plan:

*...was developed by a previous Business Manager and is now being extensively revised to include the following:*

- *strategies for increasing external funding totals by \$1 million per year for each of the next 5 years;*
- *more detailed assessment of capabilities and expertise;*
- *identification of target markets and application areas; and*
- *more detailed marketing and financial information, including costing and charging, profit generation.*

*The AIMS Council has spent considerable time discussing the role of a Business Plan in an organisation like AIMS. To date, it has taken the view that such a document should perform the following two main objectives:*

- *facilitate the conduct of world-class marine research; and*
- *provide external revenue for the organisation which can be used to support and enhance its current basic/strategic research directions as well as to maintain its infrastructure and scientific equipment and facilities.*

*A new draft of the business Plan is currently being developed.*

2.25 The ANAO considers that a number of these objectives are of sufficient materiality to be incorporated into AIMS' high level planning statements.

### **AIMS' Performance Planning and Evaluation (PPE) process**

2.26 AIMS' PPE process is a mechanism by which individual staff agree to and are evaluated on the tasks, processes, targets, outcomes, etc. to be achieved during each planning period (usually financial year). The PPE process therefore should

reflect all AIMS' external funding target requirements, practices, goals and objectives. AIMS advises that:

*The PPE [process] is part of an overall effort to ensure top quality performance and leadership at AIMS now, and in the future, coupled with improved career planning and development.*

*The PPE links individual work objectives with those of the Institute (achieving a corporate goal) and allows the Project Leader to assess an individual's performance against these objectives. Hence, the PPE provides a Project Leader with a mechanism to track performance of staff who might be conducting externally funded activities, but this would only be part of an overall assessment, and importantly is likely to be only part of the individual's overall activities.*

2.27 The ANAO examined the PPE process and found that:

- because the AIMS Business Plan has not been recently revised and the various resource using activities incorporated into AIMS' operational plans, the direct linkage between business activities and activities of individual researchers and others is lost; and
- business activities and their successful completion or otherwise are, however, included in the individual agreements and end of year assessments respectively. Therefore, only the aggregation of performance agreements and the end of year evaluations of all staff working on a project will reflect the overall goals, objectives, planned outcomes, etc. of the respective project. This information and the evaluation of the project as a whole is staff-in-confidence material and is not available for general assessment

2.28 AIMS advised that the project diary systems and procedures are being developed to facilitate quality assurance assessments and the subsequent reports to the AIMS Executive and Council. Please see section 5.18 for more information.

### **Fraud Control Plan**

2.29 When AIMS provided the ANAO with a copy of its fraud control plan it advised:

*The Institute has a fraud control plan produced by AIMS auditors and this document was updated in 1995. This document doesn't comply with the latest requirements of the Commonwealth Law Enforcement Board. AIMS' plan is to produce a new Fraud Control Plan by the end of 1997.*

2.30 The ANAO examined the document and confirmed that it does not address all functions of AIMS and was deficient in several areas:

- in relative terms the area that controls the greatest expenditure and has the greatest number of staff (78.4 staff) , i.e. research, is analysed in one page; while the support units (71.8 staff) are analysed in approximately 20 pages.



The Fraud Control Plan states that all research programs are considered together because they operate in a similar fashion;

- there is no indication that the following areas have been considered; i.e. the risk:
  - of loss of intellectual property. This would vary from project to project depending upon the commercial prospects, the people and businesses involved, etc. and could conceivably cost AIMS heavily in lost revenue and legal action;
  - of being sued;
  - of the Commonwealth being defrauded of time;
  - of breaches of the legislation related to businesses (e.g. responsibilities of directors, partners, etc) and trade practices;
  - of the AIMS Council making inappropriate decisions through, for example, a conflict of interest. Although the AIMS Support Services would presumably do most of the administrative work in appointing, hiring and terminating staff, the AIMS Council, or its delegate, has the ultimate responsibility for awarding contracts, appointment of personnel, awarding/ approval of attractive trips, etc. While the Support Services has been analysed for the risk of fraud, the AIMS Council (with respect to major decisions) has not; and
  - that approved delegations will be observed; and
- while there is some consideration of the risks associated with commercialisation regarding the work of the Support Services, this document does not cover many of the activities identified in the Business Plan.

### **Overall planning structure and planning process**

2.31 The ANAO sought to identify the planning process by which AIMS devises, reviews and revises its planning documents and found that:

- no document describes the structure and process providing clear and unambiguous guidance to staff and those outside AIMS seeking to understand and use AIMS' planning statements and documents;
- different senior officers at AIMS provided the ANAO with different versions of the planning hierarchy and process; and
- some of the documents should, but do not, have scheduled reviews; i.e. strategic directions, business plan. AIMS advised that review schedules will be incorporated in these documents.

2.32 There is evidence that the planning structure and processes are being developed and formalised into monthly, quarterly, annual and three-yearly cycles. This is explained in more detail in the next chapter.

### **Internal consistency**

2.33 Considering all AIMS' planning documents, an area of concern to the ANAO is that of 'internal consistency'. During the audit the ANAO found four different and current versions of AIMS' Mission Statement, i.e. in the 1995-96 Annual Report; in AIMS' World Wide Web Page (as at 18 September 1996), the Strategic Directions document and in the Business Plan.

2.34 The corporate objectives and goals in the above mentioned briefing to the Minister are not to be found in any AIMS' planning document. The Business Plan contained a whole range of planning statements labelled: AIMS' shared vision, AIMS' paramount goal and AIMS' business objectives; which are not present in any other planning document.

2.35 In general the ANAO regards AIMS' planning documents as lacking internal consistency and cohesion. The ANAO acknowledges that in the two years leading up to the tabling of this audit report, significant changes have been made at AIMS with respect to internal structuring of its research. However, this has also led to the current lack of uniformity in high level planning statements.

## **Recommendations**

2.36 To resolve the issues identified above the ANAO recommends the following:

### **Recommendation No.1**

The higher level AIMS' planning documents should clearly and unambiguously identify the components and hierarchical structure of AIMS' planning and the planning process which reviews and renews these documents. This material should be reflected in all subordinate planning documents.

### **AIMS' response**

Agreed. All procedures at AIMS include a review process - in future this will include regular review of planning documents. Future versions of peak planning documents will be improved by identifying the version number and date of the publication, and a diagram showing where peak documents fit into the planning process could be included.

### **Recommendation No.2**

The peak AIMS' planning document (currently titled Strategic Directions) should indicate the relative importance and timing of identified commitments and the processes by which they are to be achieved.

### **AIMS' response**

Agreed, but note that the Strategic Directions document reflects the

multidisciplinary nature of the Institute's research. The research directions identified are not discrete and hence do not have a varying relative importance to each other. The priority areas identified in the Strategic Directions document target nationally identified issues for effective protection and sustainable use of Australia's marine resources. They were determined by an expert Council after broad consultation with major user groups.

The next version of the document will indicate the process by which activities are prioritised and will set a broad timeframe for the activities.

### **Recommendation No.3**

All of AIMS' high level planning statements should contain identical goals and objectives and all subordinate planning statements should directly and consistently address those goals and objectives.

#### **AIMS' response**

Agreed, noting that the ANAO has acknowledged that the 'lack of uniformity in high level planning statements' found during the audit was 'due to the significant structural changes within the Institute over the last few years' (Paragraph 2.35). Following the finalisation of the Strategic Directions any inconsistencies between documents are being corrected as documents are revised.

### **Recommendation No.4**

AIMS should expedite the consolidation of all current policy statements into a complete, structured and easily accessible set to facilitate informed and consistent management.

#### **AIMS' response**

Agreed, noting that the Institute has compiled all Council resolutions into a single database, and is presently arranging these into a more accessible structure (see Paragraph 2.13). This recommendation will be fully implemented by mid 1997.

All Council resolutions have been compiled into a database. Redundant resolutions have been rescinded or replaced at recent Council meetings. Work began on this 18 months ago and we have substantially completed the task. We will be in a position to publish the database within a few months, hence the mid-1997 date in the 'response column'.

The process is ongoing and could include a rolling review of all Council Policy to ensure it is relevant to the Institute's operations and overall direction. This goes beyond the ANAO recommendation, but if Council agree then the next action required is to present a paper to Council summarising present policies and identifying potential gaps. This could be done by end-1997.

### **Recommendation No.5**

AIMS should develop an operational plan which incorporates target dates,

resource budgets and performance measures against identified tasks and expected outcomes.

2.37 The purpose of this recommendation is the development of a comprehensive AIMS' operational plan in one document which establishes a firm start to AIMS' management trail rather than having a number of separate documents related to research, support, business development, etc. variously located.

#### **AIMS' response**

Agreed, noting that the ANAO 'acknowledge that the Institute's detailed project proposals capture much of the information expected by the ANAO in an operational plan' (Paragraph 2.19). The project proposals incorporate target dates, resource budgets and performance measures against tasks and outcomes. The proposals (both research and support) are combined into a single document, which is then used for resource management. General information about the projects is summarised in the annual Research Plan.

#### **Recommendation No.6**

AIMS' Operational Plan should incorporate business development activities incorporated and any separate AIMS' Business Plan document should be based upon a structured summary of the relevant components in AIMS' higher level planning documents and AIMS' Operational Plan.

#### **AIMS' response**

Agreed, noting that the Institute is developing a Business Plan that will be consistent with the Strategic Directions document and will integrate well with the operational plan.

#### **Recommendation No.7**

AIMS' fraud control plan should be revised to consider the risk (on a project by project basis) of:

- (a) the loss of intellectual property;
- (b) the prospect of being sued;
- (c) the Commonwealth being defrauded of time; and
- (d) potential conflicts of interest.

#### **AIMS' response**

Agreed, noting that the Institute does have established systems and procedures for each of the points identified in the recommendation (covered in the Terms and Conditions of Service - Part 4, Attendance and Duties of Officers) which are binding on each member of staff. In response to the changing requirements of the Institute, additional systems and procedures were established through the implementation of a Code of Conduct in 1995.

Specifically in relation to conflict of interest, the ANAO acknowledges that the AIMS Act and AIMS' staff 'Code of Conduct' 'establish systems and procedures for dealing with possible conflicts of interest' (Paragraph 2.15).

AIMS is in the process of reviewing its fraud control plan in compliance with the current fraud control policy of the Commonwealth (as noted in Paragraph 2.29). The plan will address the various risks, on a project by project basis, as outlined by the ANAO.

---

### 3. Operational Systems, Procedures and Guidelines

#### Introduction

3.1 Three Recommendations in 1992 Audit Report (numbers 7, 10 and 11) deal with operational systems, procedures and guidelines at AIMS. The details of these Recommendations can be found in Appendix 1. In general the Recommendations deal with the development of a comprehensive set of systems, procedures and guidelines for externally funded projects/tasks with emphasis on the preparation of proposals and the maintenance of appropriate records.

3.2 The main criterion that applies to this area is that AIMS should develop guidelines and procedures to operationalise its goals, strategies and objectives.

#### The nature of external funding at AIMS

3.3 In the document *The External Funding Procedures and Guidelines* (dated 11 February 1992, the latest edition available) AIMS has defined four types of external funding arrangements:

- **consultancies:** AIMS provides advice, assistance and reports based on existing knowledge, expertise, technology or existing research. Consulting involves the transfer of information or data to the commercial partner with the methodology remaining with the Institute unless the agreement specifies otherwise;
- **contract research:** this is where AIMS undertakes a project with the aim of establishing a product or a process, as defined by the sponsor;
- **collaborative research and development:** this is an arrangement whereby the Institute undertakes a project with the aim of establishing a product or process in joint venture with another organisation; and
- **grants:** in the case of grant-funded research, funds are normally provided by non-profit bodies which disperse funds to support basic or strategic research.

3.4 The way each type of arrangement eventuates is a function of several factors, including:

- **rarity:** AIMS has ocean-going vessels, workshops, test facilities, etc. and

knowledge and experience in particular disciplines and coastal/ocean environments which few if any other organisations in Australia can match;

- price: in circumstances where AIMS is in a sellers market (i.e. AIMS has something which someone needs and which no-one else has) AIMS can seek external funding which more than covers cost. In other circumstances where the subject of an externally funded project coincides with AIMS own basic research (Government funded) AIMS has the flexibility to seek external funding which partially covers costs;
- the level of market place knowledge about AIMS: to attract external funding the market place needs to be aware of what AIMS can or is doing, how well it does it and at what cost. Consequently, marketing plays an important part in determining what type of external funding AIMS will attract; and
- level of 'in kind' goods and chattels that AIMS can negotiate with: similar to 'price' AIMS can negotiate collaborative arrangements with clients who seek to use AIMS' ocean-going fleet and other facilities depending on the priority placed on the project. Priority varies depending on the type of project, the funding involved, the availability of resources, etc..

3.5 One important factor in the type and extent of external funding is the level of interest of the AIMS executive, project leaders and research staff. Information provided to the ANAO in interviews with senior AIMS staff indicates that, once AIMS has decided on the project areas to pursue and has assembled the appropriately skilled staff, the majority of AIMS' staff are primarily interested in pursuing their areas of research rather than pursuing external funding. The areas of research are determined at the start of each planning triennium based upon a consideration of resources, what is in the national interest, their geographical location, etc. AIMS' staff and others whose interests coincide with these research areas are recruited. While research staff are interested in the eventual *usefulness* of their research, the level of interest in pursuing external funding is primarily driven by the need to secure additional funding in order to maintain and/or expand research programs. Ideal external funding is that which coincides with AIMS' research program, requiring no or little alteration. Alternatively, short, high profit consultancies requiring no additional facilities, testing, ship time, etc. are viewed positively.

3.6 The ANAO uses the word 'usefulness' in its broadest sense without inferring any particular focus. AIMS expressed concern that 'public good' was not included and advised:

*The Institute's research is mainly public good and therefore it is inappropriate to measure the staff's interest in 'the eventual usefulness of their research' by the 'level of interest in pursuing external funding'. This view is consistent with both the ASTEC review and the government policy which considered that the primary role of the research agencies should be public good research - an area important to the future of Australia's resources but of little interest to industry.*

*It is also worth noting that while there may have been an impression that staff were 'primarily interested in pursuing their own areas of research interest' that the recent restructuring of the research program and prioritisation of this research could identify specific instances where the Institute's research direction has taken priority over individual research interests.*

### **Implementation of the 1992 Audit Report recommendations**

3.7 The ANAO identified and examined all AIMS' systems, procedures and guidelines related to the identification, approval, establishment and management of externally funded projects/tasks and found that AIMS has developed systems, procedures and guidelines for the following external funding project/tasks activities/milestones:

<b><u>Activity/Milestone</u></b>
Establishing the triennium research plan and the Annual Research Plan
Marketing
Development of externally funded task proposals
Approval of externally funded projects/tasks
Legal papers assembled and signed
Maintenance of data-bases related to external funding
Commencement of project
Day-to-day and monthly financial monitoring, reporting and review
Day-to-day staff time recording for accounting purposes
Monthly Finance dept. report on all projects
Monthly progress report on all projects and tasks
Ad-hoc reporting cycles required by funding organisations
Three-monthly report to Council
Six-Monthly Financial Services Report
Annual project report
Completion of project
Distribution of profits

3.8 The ANAO considers that the establishment of the above procedures and guidelines represents substantial progress in integrating external funding activities into its research program.

3.9 Further examination of the above listed activities or milestones within AIMS revealed the following issues:

## **Overall structure of AIMS' systems and procedures**

3.10 AIMS does not have a comprehensive and up-to-date guide to the management of externally funded projects/tasks:

- there is not a consolidated description of all the systems and procedures as they apply to externally funded projects/tasks or for research activities at AIMS in general. Two general documents exist - one summarising Council resolutions and the other provided by the AIMS Finance Section. During the course of the audit, however, the ANAO provided assistance in drafting a revised set of procedures;
- there is no flow chart/description illustrating, for the guidance of staff, the various stages and requirements related to externally funded projects/tasks. This is the case for AIMS and AIMS' internal auditors; and
- there is no comprehensive table of responsibilities listing all key events of projects/tasks against the responsible officer. AIMS advised that: *The intranet is already collating a table of responsibilities using ORACLE. As the Procedures are reviewed responsibilities are included for each procedure.*

3.11 AIMS also advised that:

*AIMS' management is at the project level (not sub-project or task). The needs of external funding are often unique to the project so comprehensive guides may not be a general solution. Moreover, for external funding decisions of small value (specified in the delegations) the Project Leader makes decisions regarding the impact or feasibility of external funding. Larger externally funded 'projects' must be approved by the Executive using the Research Prioritisation Cycle.*

3.12 The ANAO is of the opinion that, depending on what level of detail is being considered, all externally funded projects/tasks undertaken at AIMS will have both common features and unique features. Without a set of guidelines identifying such areas and the method by which they should be managed, external funding projects and clients may not be dealt with equitably and effectively.

### **Existence of a management trail**

3.13 The ANAO sought to review examples of project/task management trails and expected to find corporate files formally recording significant events and decisions; no such documentation was found and in particular::

- there are no systems and procedures to structure the management files of projects/tasks. Project/task managers are provided with no guidance regarding the planning and administration side of records management. The ANAO considers that management files should include: planning; milestones; products/reports; quality assurance; resource use; file (database) structure; correspondence; contracts; etc.; and



- although there is evidence that AIMS' management information systems are being revised and developed, a set of comprehensive and formal guidelines for standardising the way that projects/tasks will be monitored, reported on, reviewed, assessed and managed is not in use. This would be a pre-requisite for effective management allowing quality assurance activities and comparative analysis to occur.

## **Project management**

3.14 There are no formal systems, procedures and guidelines to assist project/task managers in their project management activities; i.e. arranging all activities and resources in an efficient and effective way to produce the required outputs/products:

- the method of project management is left to individual project/task managers; differing project management methods may result in project/task administration and reports which cannot be compared;
- project management details are not required in the Application for External Funding. AIMS' management expect, however, that externally funded projects/tasks will fit into existing projects;
- the Research Plan (operational plan) gives no information regarding opportunities, priorities, etc. related to each project/task. If the majority of external funding and associated research/report writing requirements come in on an ad-hoc basis it can only be assumed that these unplanned additional tasks will have some effect on existing projects/tasks. Examination revealed and AIMS confirmed that, at the time of the audit, neither the Research Plan or any other project tracking mechanism is adjusted and upgraded when these events occur. AIMS advised that: *The Annual Project Report will track changes to the approved Project Proposal. Since the research structure has been in a state of flux as restructuring took place updating of proposals has been overtaken by new proposals however, as the triennium projects begin, this part of the Reporting Cycle will be a prominent part of reporting;*
- ANAO examination revealed and AIMS confirmed that there is no evidence of formal project management work; ie. scheduling, adjustments, etc. on registry files. AIMS advised that *the project diary system being developed will track changes;*
- there are no formal systems and procedures for applying for and approving changes to project/task milestones and budgets; and
- the only formal milestone tracking system that was found at the time of the audit was that produced by the Finance Section of AIMS which delivers a milestones report to the Executive on a monthly basis. However, not all externally funded projects/tasks have, or are required to have, a meaningful set of milestones. AIMS advised that *the project reporting cycle*

*(which includes the diary) reports milestones (achievements). AIMS also advised that: reports and other methods of identifying unmet milestones are acted upon. Analysis of the delivery times of reports indicates that more than 30 per cent of reports are delivered late, some by more than a year. Chapter 5 of this report contains more detailed statistics.*

### **Quality control**

3.15 There are no formal systems or procedures identified in any of AIMS' policies or procedural manuals addressing quality assurance of projects/tasks. AIMS advised that while such a system is not specifically identified, the following mechanisms address the issue of quality assurance:

- day-to-day oversight by project leaders;
- the PPE process (see Chapter 2);
- the monthly project reporting process by project leaders and by the Finance Section;
- peer review including the annual AIMS' Science Conference; and
- external assessment related to reports delivered to clients, manuscripts submitted to journals, publishers and conferences, and dissertations submitted for post-graduate degrees.

### **Accounting**

3.16 The systems and procedures for the accounting side of externally funded projects/tasks are more formally established/ documented than most other aspects of these projects/tasks. Efficient and effective accounting is, however, diminished by:

- the Monthly Finance reports which identify unmet milestones show little evidence of follow-up action. AIMS has advised that active follow-action is taken and this needs to be recorded;
- time recording (specifically associated with the 1992 Audit Report Recommendation No.11, see Appendix 1) is still not fully introduced at AIMS. In response to an ANAO request for information regarding the time keeping records of AIMS' officers against externally funded projects/tasks, AIMS advised:

*a proposal to introduce relevant time keeping records has been incorporated in the current Enterprise Agreement. The Institute is currently considering Activity Based Accounting to capture the relevant data. The proposed new FMIS system will also assist the introduction of time keeping records;*

*All staff submit time records for externally funded projects however the AIMS Council has approved a plan to produce a full activity accounting system.*

## **Risk assessment**

3.17 *The External Funding Procedures and Guidelines* (dated 11 February 1992) specify that the research officer directly involved in arranging external funding should conduct an analysis of the proposed commercial partner. The *Application For External Funding Form* does not require a formal risk assessment. Examination of AIMS' externally funded project files revealed no that such an analysis has been carried out. Given the specialist nature of such risk assessments, the ANAO considers that it would be prudent for AIMS to ensure that an appropriately qualified and experienced officer should be responsible for conducting credit checks, Corporate Affairs checks, and the like.

## **Recommendation**

3.18 The ANAO supports AIMS' undertaking to revise its systems and procedures manual and suggests that the issues identified in this chapter be addressed in the revision with emphasis on the following features:

- (a) a flow chart identifying the chronological sequence of major events and significant corporate milestones related to all aspects of projects/tasks, clearly identifying timing and those that relate to the external funding;
- (b) a listing and description of all the systems, procedures and guidelines related to each event or milestone at a level of detail appropriate to the relative risk and materiality of the task;
- (c) the identification of financial and other delegations and responsibilities related to events and milestones;
- (d) the cross referencing of Council Resolutions to related systems, procedures and guidelines;
- (e) the requirement to maintain, and the method of documenting, a formal management trail for significant decisions made during the course of projects/tasks.
- (f) formal project management requirements including the approval of initial schedules and budgets and mechanisms for approving alterations during the course of projects/tasks (again appropriate to the relative materiality);
- (g) a formal and verifiable method of staff time recording against projects/tasks to ensure that there is, at the least, a management trail for hours charged to external fund providers;
- (h) a formal system of reporting against project/task milestones;
- (i) a formal and reportable quality assurance program focusing on the outputs of projects/tasks; and
- (j) procedures and guidance for conducting external client risk assessments.

## **Recommendation No.8**

The ANAO recommends that AIMS should develop a systems and procedures manual which includes the list of features identified in paragraph 3.18 of this report.

3.19 In making this recommendation the ANAO acknowledges that a number of the above points are already in place and/or being developed; e.g. features 'd', 'e', 'f' and 'h' above. The purpose of this recommendation is, however, to provide guidelines for the development of a comprehensive set of project guidelines where all items listed above are formally identified and built into the system.

### **AIMS' response**

Agreed. Most of the items listed here are already complete, on-going or due for completion by the end of 1997. AIMS notes that :

1. the ANAO has made this recommendation to assist in the further development of a systems and procedures manual;
2. major events and milestones referred to by the ANAO are at the Institute level; and
3. the ANAO acknowledges that a number of the above points are already in place and/or being developed, e.g. Part 'd', 'e', 'f' and 'h' (see Paragraph 3.19).

## **4. Closing the Loop - Monitoring, Evaluation and Adjustment**

### **Introduction**

4.1 Two Recommendations in the 1992 Audit Report (numbers 5 and 8) deal with monitoring, evaluation and adjustment at AIMS. The details of these Recommendations can be found in Appendix 1. In general the Recommendations deal with obtaining the maximum value from reviews and the completion of the management loop through the tasks of monitoring, evaluation and adjustment.

4.2 The main criteria related to these recommendations are:

- AIMS should develop a monitoring, review and evaluation system and procedure to facilitate management control of projects/tasks and to improve performance;
- any reviews and assessments commissioned by AIMS should be formally considered and decisions made regarding action to take; and
- in situations where reviews have been undertaken, AIMS should establish a clearly defined baseline of which recommendations are accepted, rejected, actioned, deferred, etc.

### **Implementation of the 1992 Audit Report recommendations**

4.3 The ANAO identified and examined a number of Government (external reviews) and AIMS' mechanisms by which projects/tasks (including those that receive external funding) are reviewed. The ANAO concludes that, in general,

AIMS has begun, and is continuing to develop and formalise, a comprehensive management monitoring and evaluation system based upon external and internal reviews and a triennial, annual, semi annual, quarterly and monthly cycle.

4.4 Regarding follow-up action from reviews, the ANAO found that AIMS has put considerable effort into responding to recommendations in external reviews. However, examination of the 1995 and 1996 internal reviews of externally funded projects found little evidence that AIMS follows up Council-accepted recommendations in a timely fashion.

4.5 The following outlines the main components of AIMS' monitoring and review system and identifies related issues for attention.

### **External reviews**

4.6 In addition to the 1992 Audit Report there have been two related external reviews of AIMS external funding activities.. The first was by the Joint Committee of Public Accounts in their Report No.330, *Review of Auditor-General's Reports May 1991-September 1992*, tabled in March 1994. In Chapter 12 dealing with the Industry, Technology and Regional Development Portfolio, no issues of significance were identified.

4.7 The second review was undertaken by ASTEC and resulted in the report: *On Target?, review of the Operations of External Earnings Targets for CSIRO, ANSTO and AIMS*, February 1994. The review generally found that the external funding target had met with some success in promoting industry-government research interaction and made a number of recommendations to standardise the targets and to improve various systems and procedures. These recommendations have been taken up by the Government in the triennium agreement and by AIMS.

### **Internal reviews**

4.8 The ASTEC 1994 review recommended and the AIMS Council required that AIMS' external earnings activities be reviewed in 1995 and 1996. Relevant reports were presented to the AIMS Council Meetings No.118 - 11-12 May 1995 and No.123, 13 - 14 June 1996

The objectives of the reviews were to note the previous decisions of government and the AIMS Council related to external funding and to focus on:

- the amount and sources of external earnings;
- the balance between basic and applied research; and
- the effect of increased external earnings on AIMS' research activities.

4.9 The review findings and recommendations included the following:

- There is a need to define basic research and applied research so that an estimate of the mix can be made and compared with the 75:25 government requirement.

- With present AIMS' contributions to externally funded projects/tasks running at close to 50 per cent of costs, external grants are having a significant effect on AIMS' core-funding. This is not a major problem unless projects/tasks are being accepted that are not aligned with AIMS' strategic directions and this should be assessed in the annual project review.
- AIMS needs to cost its research projects/tasks more accurately in order to implement a proper pricing and charging policy.
- The primary focus for AIMS should be to maintain its basic scientific research programs, while achieving the external earnings targets through grants and consultancies that are aligned with the approved strategic directions of the Institute.
- The Institute should be selective in how it achieves the target, making sure that:
  - major external contracts do not detract from the Institute's basic research programs either through consumption of core funds or erosion of infrastructure; and
  - the portfolio of external grants and consultancies is not biased towards small, easily obtainable projects/tasks that are highly applied (the 'workshop for industry') and divert the Institute from its strategic directions.
- The Institute should develop performance indicators for its external earnings that promote more efficient internal management of grants and consultancies and allow the Institute to report against all of the indicators required under the new Resource Agreement.

The ANAO concurs with these findings and supports the recommendations.

4.10 The Council meeting minutes show that the Council noted the paper (associated with the agenda item) together with its conclusions and recommendations. There was no indication of acceptance or otherwise or that follow-up action was delegated and undertaken.

4.11 The 1996 review report contained similar information to the 1995 report and did not indicate that action had occurred as a result of the previous review recommendations. The Council made a number of recommendations following consideration of the report providing direction on the acceptance or otherwise of external funding. Examination of the files which show 'actions required' by the Council do not indicate that any action occurred regarding those Review recommendations.

### **Triennial budget planning**

4.12 Every three years AIMS' reviews (through its formal mechanisms; i.e. Science

Conference, Standing Committee, Executive Committee and Council meetings) all projects, tasks and the research direction of AIMS. This process leads to a three-year research program and budget which forms the basis of negotiations for the Triennium Funding Agreement between the Government and AIMS. The Government reviews information from several sources and negotiates the agreement with AIMS.

4.13 This process includes externally funded research indicated by the last agreement, which included a changed external funding target and a clear statement of its underlying purpose.

#### **Annual, semi-annual, quarterly and monthly reviews**

4.14 AIMS has developed a system of reviews (illustrated in Diagrams 2 and 3 below) throughout each financial year as follows:

- monthly reviews: the AIMS Finance Section produces an extensive summary of financial and milestone information specifically about externally funded projects/tasks. A project diary data base is being developed for the storage of project/task project management information. This information can be used by the monthly Standing Committee and Executive Committee meetings;
- quarterly reviews: the AIMS Council meets quarterly. The monthly reviews can be used at these meetings;
- semi-annual reviews: these are conducted by the AIMS Finance Section and are essentially financial in nature; and
- annual reviews: these are a combination of financial and project management and are based upon the reviews of the shorter period reviews and can be used by the Science Conference and in the AIMS annual report.

#### **Management information systems**

4.15 Servicing and facilitating these review cycles are a number of management information systems; i.e. the registry, financial/accounting data base and a project diary data base.

4.16 The registry system is manual. An electronic catalogue data base exists with searching capabilities. A standardised project management registry file system does not exist for projects/tasks to facilitate monitoring, review and comparison.

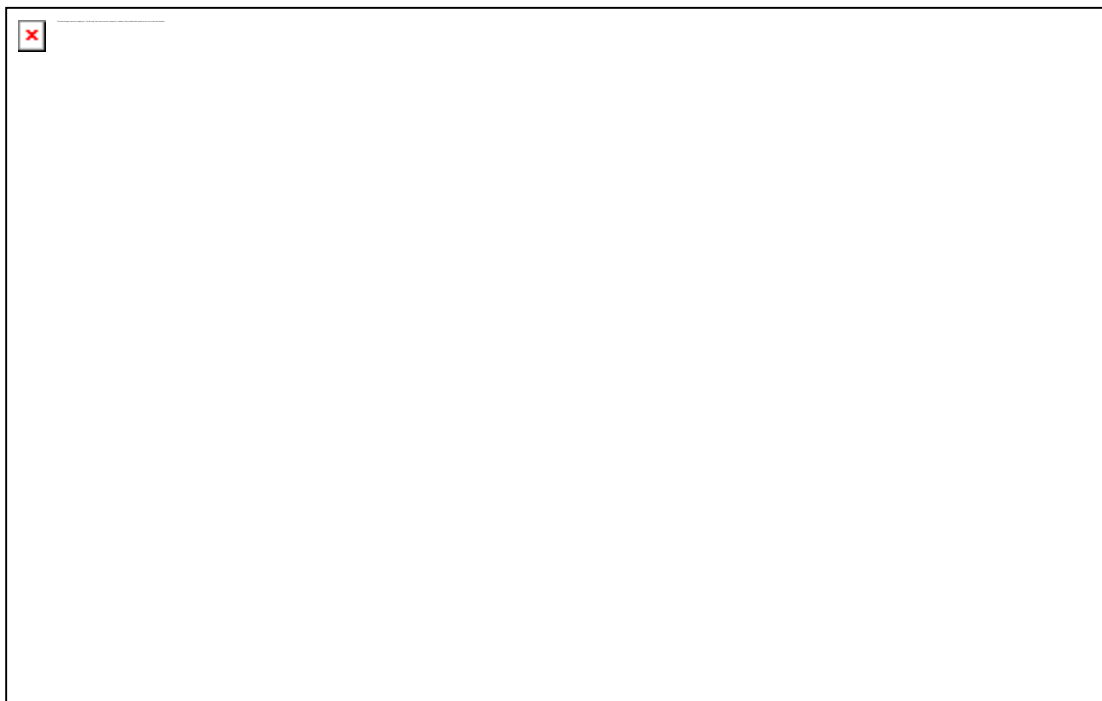
4.17 The financial/accounting data base is one based on cost centres and the usual accounting activities. During the course of the audit AIMS was installing a new accounting system known as 'FINANCE 1'. An 'access' structured data base exists for external funding milestone, payment and receipt information And has been developed by AIMS' Finance Section.

4.18 The project diary data base is also based on the 'access' computer language. This data base contains project/task management information.

4.19 AIMS advised that the financial/accounting data base systems are being upgraded and will be (inter alia) be compatible with the project/task data base systems.

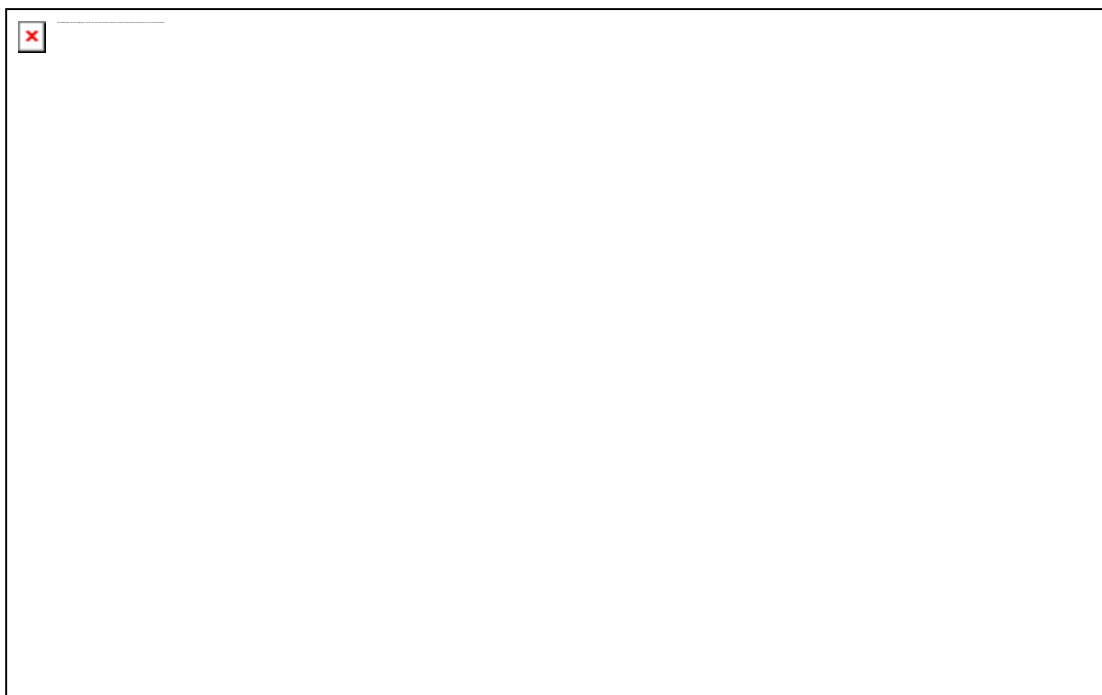
### **Diagram 2: Three year cycle**

(Source: AIMS 1996-97)



### **Diagram 3: Annual cycle**

(source: AIMS 1996-97)



### **Recommendation**

4.20 To resolve the issues identified above the ANAO recommends the following:



## **Recommendation No.9**

AIMS should include in the development and formalisation of its monitoring, evaluation and adjustment systems and procedures:

- (a) a comprehensive description of the systems and procedures including a flow chart illustrating the sequence of all key project/task events;
- (b) a responsibility chart/listing of all key events of projects/tasks in relation to the responsible section or officer;
- (c) quality control procedures and requirements including the follow-up of faults, overdue deliverables and inadequacies in quality; and
- (d) a formal management trail including a set of management registry files in a standard format for each project, to assist comparison of projects/tasks.

### **AIMS' response**

Agreed, noting that these issues are part of the review and documentation of the Institute's procedures referred to in Recommendation 8, which are already well under-way. This has been recognised by the ANAO which concluded that 'AIMS has begun, and is continuing to develop and formalise, a comprehensive management monitoring and evaluation system' (see Paragraph 4.3). The continuing development of systems and procedures is a high priority at AIMS.

---

## **5. Reporting and Performance Indicators**

### **Introduction**

5.1 Three Recommendations in 1992 Audit Report (numbers 2, 3 and 4) deal with reporting and performance indicators at AIMS. The details of these Recommendations can be found in Appendix 1.

5.2 The main criteria related to these recommendations are:

- external funding performance indicators should be clear, unambiguous, effectiveness oriented and should reflect upon the primary purpose of the external funding requirement; and
- the factors which facilitate, or otherwise, AIMS' achievement of its external funding target should be identified and reported in conjunction with the reporting of the external funding target and associated performance indicators.

5.3 In addition to recommendations 2, 3 and 4, the 1992 Audit Report highlighted the related areas of efficiency, consistency and the maintenance of research standards, which are addressed in this chapter.

### **The nature of AIMS' performance indicators**

5.4 The full set of performance indicators used in AIMS can be found in the following documents:

- the Triennium Funding Agreement;
- the Strategic Directions document;
- the Research Plan;
- project proposal documents; and
- individual staff performance planning and evaluations (PPE) agreements.

5.5 The annual report is the formal vehicle by which AIMS delivers its performance reports to Parliament. Other reports of performance used in different forums include:

- externally: refereed papers submitted to journals, examination of dissertations submitted by postgraduates working with and at AIMS, examination of AIMS tenders, applications, progress and other reports by external funders; examination required by external funders; and
- internally: the annual science conference; the monthly, quarterly, half-yearly and annual reporting process using the Project Proposal/Reporting pro-formas and the financial reports, the annual review of externally funded projects/tasks and the individual staff PPE assessments.

### **Implementation of the 1992 Audit Report recommendations**

5.6 The documents, systems and procedures for reporting performance externally to Parliament and internally to management were examined. The ANAO found that, while AIMS' internal accountability systems and procedures currently facilitate a reasonable level of management control, AIMS' external performance reporting (a key component of its accountability) has substantial scope for improvement. The range of performance indicators, based mainly on planned outcomes and milestones, is considerable and the management monitoring, review and follow-up action systems and procedures being developed by AIMS do provide the basis of good internal management control. In contrast, AIMS' external reports to Parliament focus on research highlights rather than performance against corporate goals, objectives, strategies and planned outcomes.

### **Triennium Funding Agreement**

5.7 The Triennium Funding Agreement specifies clearly the external funding performance indicator, how it is to be calculated and the underlying purpose of the indicator.

5.8 Other performance indicators related to the development of links with industry are also specified in the Agreement. Some of these indicators are to be reported triennially and some annually. Examination of AIMS' 1995-96 Annual Report reveals that AIMS complies with the annual reporting requirements of the

Agreement. The Agreement does not specify where and how AIMS will report performance at the end of the triennium.

5.9 The Agreement also requires to be reported, again without specifying where, significant trends and meaningful comparisons. The ANAO found that, while research highlights are the focus, the AIMS 1995-96 Annual Report (AIMS only report to Parliament) does not provide an overview of the nature and extent of its external funding and client activities. Information such as the number, type and contribution of external funders, which projects/tasks attract external funds; the level of resources committed to obtaining external funding, etc. does not appear.

### **Strategic Directions**

5.10 The Strategic Directions document published by AIMS in February 1997 details 40 commitments together with five performance indicators. The ANAO would expect AIMS to report against at least a substantial proportion of the more important commitments using indicators in the 1996-97 Annual Report.

### **Research Plan and Project Proposals**

5.11 AIMS project proposal pro-formas (discussed in Chapter 3) require the listing of milestones, such as critical tasks and outcomes with dates, and outcomes, such as reports, journal submissions and postgraduate degree theses. AIMS advised the ANAO that the outcomes are subsequently listed in the annual Research Plan, a publicly released document which was discussed in Chapter 2. The ANAO found that:

- the Research Plan contains extensive outcome listings against each project/task but 'dates of completion' are not included and
- there is no reporting of achievement of these outcomes in the 1995-96 Annual Report or any other public document where a comparison could be made between AIMS' publicly released planned outcomes and what was actually achieved.

5.12 AIMS advised that only research highlights are reported in the annual reports and that the detailed listing of achievements is required in each project's annual report. The ANAO notes that these project reports are internal documents.

5.13 The ANAO also examined the setting and reporting of project milestones (the basis of most of AIMS' reporting) and found that:

- initially milestones were set or recorded and tracked by the AIMS Finance Section for projects/tasks which attracted external funds. This occurred because payments were directly linked to the achievement of milestones;
- AIMS has now expanded the practice of setting milestones to all projects/tasks because it provides a useful project management tool. Consequently, all projects/tasks irrespective of whether or not they are externally funded are required to have milestones;

- the monthly reporting cycle for projects includes reporting the achievement or otherwise of milestones as well as the reporting of outcomes;
- systems and procedures are still being established for management to act on reports of the non-achievement of milestones; and
- no annual summary of overall achievement of milestones is produced.

5.14 The ANAO analysed the Finance Section's monthly reports between the periods July 1995 and January 1997 and found (for projects/tasks receiving external funding) that:

- 57 projects/tasks were listed as having submitted their final reports. Of these, six projects had formally amended their original due dates to later dates;
- for the original due date: of the 57 projects/tasks which had submitted final reports: 26 (46 per cent) were delivered early, 10 (17 per cent) were delivered on time and 21 (37 per cent) were delivered late;
- of those that were delivered late, twelve (21 per cent) were delivered more than six months late; and
- there were eleven additional projects/tasks yet to submit their final reports (as at the end of January 1997) for which the due date of delivery had passed. Of these, five were more than six months late.

5.15 The ANAO considers this type of analysis should be regularly undertaken by AIMS' management. As described above, these statistics indicate that a relatively high percentage of projects/tasks did not achieve critical milestones.

AIMS advised that:

*In any given month there is a great deal of variation in the numbers of reports that would fit into the categories described by these statistics. The Executive regularly reviews completion of external reporting milestones and has extended the reporting process beyond exception reporting. The trend during the last twelve months has been one of continuous improvement and mechanisms are being implemented to improve reporting through the Project Diary.*

5.16 One other area of concern is AIMS' reporting of activities related to the securing of external funding and commercialisation in general. AIMS advised that these activities are undertaken by a range of officers including research staff and take considerable resources. A measure of this resource use is unavailable because the time recording systems have not been developed to this level of detail. The ANAO found that the Research Plan does not list these activities or expected outcomes; and the most recent annual report (1995-96) does not provide an overview of these activities.

## **Individual staff Performance Planning and Evaluation (PPE)**

5.17 The ANAO reviewed examples of PPEs and compared them to annual project reports and found that:

- PPEs identify the next financial years planned outcomes of all AIMS' staff;
- at the end of the financial year, the achievement of planned and unplanned outcomes is also documented in PPEs. These are compared with the planned outcomes and formally assessed by the appropriate supervisor, resulting in a performance appraisal; and
- collectively, the PPEs provide AIMS' most complete documentation of planned outcomes and the achievement or otherwise of the outcomes. However, while providing a quality assurance/ management control mechanism, this process is 'staff-in-confidence' and cannot be used for AIMS' public accountability and reporting purposes;

5.18 AIMS advised that achieved project outcomes are reported monthly and are fully listed in the annual project reports for internal assessment.

## **Objectives**

5.19 In the 1995-96 AIMS Annual Report a set of AIMS' objectives is listed. These statements are also described in the Annual Report as the Institute's indicators of success. These statements are not found in any other high-level AIMS' planning document, nor are they specifically addressed later in the report.

## **Assessing and reporting efficiency**

5.20 In the 1992 Audit Report the lack of an effective project/task cost tracking system was highlighted and questions regarding how much it was costing AIMS to secure the external funding were raised. The ANAO examined systems and procedures related to the monitoring and assessing externally funded projects/tasks and found that:

- while there is no electronic system for staff to record work against particular projects/tasks and other duties, there is a detailed budgeting system for research and support services required by each project/task. Also, on a monthly basis, actual costs (resource use) are recorded against these budgets. At the time of this audit, AIMS was in the process of revising and improving the accuracy and level of detail of these systems;
- the recording of resources used generally in identifying sources of external funds and activities undertaken to 'set-up' an externally funded project/task is not well established. Consequently, statistics on this area of resource use are not readily available;
- AIMS' submission to the ASTEC inquiry included cost-benefit case studies of a number of externally funded projects/task indicating that AIMS has

the capability of undertaking at least occasional assessments of externally funded projects/tasks; and

5.21 AIMS advises that its Finance Section is developing an 'end of task' assessment process and report.

### **Consistency**

5.22 The 1992 Audit Report drew particular attention to the ad hoc approach taken by AIMS to commercialisation and the resulting lack of consistency of approach. The ANAO examined systems and procedures related to AIMS' project management and found that:

- apart from differences which are a function of changes to systems and procedures over time and differences which reflect the particular needs and requirements of grant agencies and other external funding organisations, AIMS has developed a standardised approval system which is being used; and
- while all the project management systems and procedures are being revised some level of inconsistency can be expected.

### **Maintenance of research standards**

5.23 In the 1992 Audit Report concern was expressed about the effect of AIMS' activities pursuing external funds on AIMS' research standards. The ANAO examined relevant systems and procedures and found that:

- AIMS has, and is developing, a rigorous in-house vetting system which includes the PPEs, monthly assessments, annual reports and annual Science Conferences; and
- many project/task outcomes are subject to external scrutiny, this includes reports which are delivered to clients, manuscripts for journal articles and text books, theses for post-graduate degrees and conference papers.

5.24 AIMS advised that on a number of occasions the pursuit of particular external funds had been terminated because, for example, the area of focus would take resources away from research areas that the Council had determined were in the national interest, or that standards of research could not be maintained.

5.25 The ANAO notes, however, that these activities relate to research standards rather than project management standards, the latter being found to have scope for improvement. This was discussed in Chapter 3.

### **Achievement of the 1992 Audit Report Recommendations**

5.26 Recommendations 2 and 3 dealing with the calculation of the external funding target and a range of related performance indicators, have been substantially attained. The area remaining to be achieved is information which will provide an overview of the nature, focus, coverage, significance, etc. of

external funders and externally funded projects/tasks.

5.27 Recommendation No.4 dealing with the need to provide agencies with appropriate resources and guidance in instances where new obligations were being imposed, has a Government-wide focus and has not been examined in this follow-up audit.

### **Recommendations**

5.28 To address these issues the ANAO recommends the following:

#### **Recommendation No.10**

AIMS' performance indicators should be aligned with and support its high level planning statements, such as those in the Strategic Directions Document; AIMS' reporting of performance in its annual report should reflect this structure.

#### **AIMS' response**

Agreed, AIMS can report performance in the Annual Report to reflect the Strategic Directions document. Noting that the Institute also reports against performance indicators that are part of its triennium funding agreement with the Government, and that the strategic directions are not mutually exclusive but interconnected. The projects currently report annually on achievements against objectives and these are aligned to the Institute's strategic directions.

#### **Recommendation No.11**

To enhance the level of accountability to Parliament, AIMS should develop a form of reporting in its annual report to Parliament which (among other things) :

- (a) reports achievement against planned outcomes;
- (b) reports on the nature, focus, range and coverage of AIMS' research and monitoring activities in relation to Australia's marine environment; and
- (c) depicts the nature, focus, effect and significance of the source and amount of external funding.

The ANAO suggests that AIMS make use of maps and graphs to depict ranges, proportions, etc. in its annual reports for more informative comment on its performance.

#### **AIMS' response**

Agreed, noting that this recommendation focuses on the format of the annual report to Parliament. AIMS already reports against agreed performance indicators as part of the triennium funding agreement in this report and is in regular, direct contact with the Minister and Department. Achievements are assessed against objectives as part of the project reporting and evaluation cycle, and these will be summarised in the annual report to Parliament.

## **Recommendation No.12**

To ensure continuous improvement, AIMS should establish systems and procedures to determine the costs and benefits of seeking, achieving and using external funds. This should include selected case studies and a quality assurance methodology to standardise the process for comparative purposes.

### **AIMS' response**

Agreed. AIMS has conducted such analysis (see Paragraph 5.20) and would continue to do so on a rolling review basis.

Canberra ACT

23 June 1997



P. J. Barrett

Auditor-General

## **Appendix 1**

### **Listing of Recommendations in Audit Report No.48, 1991-92**

#### **Recommendation No.1 (Paragraph 2.8.2)**

**The AIMS Council seeks to have the reasons for the externally generated funding requirement and the basis for the 30 per cent target documented.**

#### **AIMS response**

Agreed. Will seek precise documentation through DITAC.

#### **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: These are being developed as required. A plan for documentation will be prepared by 1 January 1993

10/12/92: Quarterly Report: Letter was sent to Deputy Secretary, DITAC on 31 August, 1992 seeking reasons for externally generated funding requirement and the basis for the 30 per cent target. No reply received from DITAC. However, attached is a letter from the then Minister which does clarify the situation.

Dr R. Steedman, Chairman, Australian Institute of Marine Science

Dear Dr Steedman

I write concerning the Efficiency Audit, Report No.48 1991-92, conducted by the Auditor-General into External Funds Generation by AIMS.



No doubt, the AIMS Council will be discussing the report and I would appreciate being advised, in due course, of how the Council proposes to respond to the issues raised.

I note that the Auditor-General has expressed concern about the composition of AIMS' external funding. The objective of the Government in setting the 30 per cent target for such funding was to encourage AIMS to ensure that it met the needs of the end users of its research, of which industry is only one. I recognise that much of the research undertaken by AIMS is environmental or of other long-term potential benefit and often holds little direct use for industry, although, in the long term, research such as that into biotechnology could well produce significant commercial returns.

The report raised concern also about potential conflicts of interest between AIMS Council members and AIMS's activities relating to its external earnings target. My understanding is that the Council has in place procedures to address such potential conflicts, and that Clause 18 of the AIMS Act provides a mechanism for conflict of interest disclosures by Council members. It may be necessary, however, to make these procedures clearer.

It may be helpful for AIMS to seek assistance from the Department in preparing a response to the report. You may wish to consider having a Departmental representative present at Council meetings, as is the case with other Commonwealth statutory authorities.

Yours sincerely

ROSS FREE

Minister For Science & Technology

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

### **1994 ASTEC Review**

This review found that:

*The stated objective of the targets is to promote links between government research agencies, industry and other research users. This is a broad objective, and no particular types of interaction or funding sources are targeted. Linkages might include: a research agency seeking a partner to commercialise technology developed in the agency; industry seeking access to agency knowledge or facilities for use in the firm's own business; collaborative research and development (R&D) involving a shared research program; or national interest research work commissioned by a government department.*

*ASTEC believes that the operation of external earnings targets has been effective in promoting links with industry and other research users - and has improved the effectiveness of the research agencies.*

*ASTEC recommends that targets be retained (with minor modifications) and negotiated on a triennial basis.*

### **Recommendation No.2 (Paragraph 2.8.3)**

**In setting target rates for statutory authorities, Departments ensure that the method of determining that rate is identified and set out clearly and that the target and the means of measurement reflect the policy objectives of the Government.**

### **DITAC response**

Targets for external earnings for Government Research Enterprises are

determined by Cabinet and not by the Department. In this case, the appropriate levels were set by the Minister for Science and Technology in consultation with Council and Director of AIMS and having regard to current and future earnings potential.

### **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: A business plan is in the process of development and the second draft is to be reviewed by Council in October 1992.

10/12/92: Quarterly Report: AIMS measures its achievement on external earnings by defining that externally generated funds includes all funds other than direct appropriations received by the Institute. These funds include:

- research and consultancy contracts with companies
- grants from institutions, councils and governments
- cooperative research centre funds
- sale of assets, royalties and licenses
- donations and bequests
- interest from banks and other financial institutions
- sale of publications, bench fees, review fees, laboratory services, accommodation rental, vessel hire, commission on salary and other revenue.

We (AIMS) quote the statement made by the Minister:

'I note that the Auditor-General has expressed concern about the composition of AIMS' external funding. The objective of the Government in setting the 30 per cent target for such funding was to encourage AIMS to ensure that it met the needs of the end users of its research, of which industry is only one. I recognise that much of the research undertaken by AIMS is environmental or of other long-term potential benefit and often holds little direct use for industry, although, in the long term, research such as that into biotechnology could well product significant commercial returns.'

We feel that our present target does reflect the policy and objectives of the Government.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

### **1994 ASTEC Review**

This review found that:

For the purpose of the targets, 'external earnings' comprises all non-appropriation

funding, including:

- private sector industry funds (from Australia and overseas);
- primary industry and energy research and development corporations and other Commonwealth government research funds, including competitive grants, such as Cooperative Research Centres program funding, and non-competitive commissioned work;
- State government funds; and
- any other non-appropriation revenue including funds from sources such as proceeds from the sale or licensing of intellectual property, the sale of assets (including land), and interest on investments.

ASTEC recommends that standardised guidelines on reporting the targets be established through the Coordination Committee on Science and Technology; and that the targets should:

- a) exclude revenue that is clearly unrelated to the provision of research and technology services or inputs;
- b) be calculated as a proportion of total annual budget (revenue basis) for each agency; and
- c) report sub-components in as much detail as practicable and on a common basis.

ASTEC recommends that:

- a) government research agencies, as part of their annual report, provide information on their links to industry and other users by a set of performance indicators; and
- b) agencies consult through the Coordination Committee on Science and Technology to develop and publish a set of appropriate indicators on a common basis.

### **Recommendation No.3 (Paragraph 2.8.4)**

**The Department of Industry, Technology and Commerce (DITAC) and other agencies with responsibility for monitoring the performance of AIMS and similar agencies, make clear allowance for the limitations of the external funding targets by taking into account all relevant factors that are required for the implementation of Government policies.**

#### **DITAC response**

AIMS is an autonomous authority established under its own Act and reporting directly to the Minister. As such, the Department considers that the Council and management of AIMS have responsibility for its administration.

## **Management advice regarding achievement of the recommendation**

### 1994 ASTEC Review

ASTEC recommends that setting of targets be a matter of negotiation between the research agency and its Minister, linked to existing triennial funding negotiations and using the existing target requirements as a starting point.

ASTEC recommends that:

- a) government research agencies, as part of their annual report, provide information on their links to industry and other users by a set of performance indicators; and
- b) agencies consult through the Coordination Committee on Science and Technology to develop and publish a set of appropriate indicators on a common basis.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

### **Recommendation No.4 (Paragraph 3.3.5)**

**Organisations such as AIMS, with little or no prior commercial experience, be provided with guidance and, if required, assistance to develop and implement appropriate procedures to achieve commercial targets.**

#### **AIMS response**

Supported.

## **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: This will be incorporated in the business plan which will be reviewed six monthly.

10/12/92: Quarterly Report: Business Plan is being developed which will address the four recommendations. The first draft of the Business Plan was presented to the November 1992 Council meeting.

27/4/93: Quarterly Return: The Institute has adopted a number of measures for implementation of procedures to achieve commercial targets:

- a) Employed Head of Corporate Services with full commercial background, whose current objective is to achieve the commercial targets.
- b) Employed Finance Manager with commercial experience.

A Business Plan has been adopted and will be updated as an ongoing process. We feel that the Institute now has the necessary resources to develop and implement procedures to achieve commercial targets.

Dr Meryl Williams was recently appointed Director, and intends to raise the issue

of business planning at a strategic planning workshop with program leaders in April.

A consultant will also be hired to develop a proposal for commercial exploitation of bioactive substances. Progress under this recommendation is ongoing.

18/7/93: Quarterly Return: As advised in a previous report (9/3/93) the Head of Corporate Services and the Finance Manager were employed to assist with preparation of procedures to achieve commercial targets. Procedures are being developed to meet needs.

A Business Plan has been drafted and continues to be updated.

A check list and project estimation procedure for externally funded projects has been drafted and is scheduled for consideration by the Management Committee in June.

AIMS has also embarked on a process of positioning its research results for:

- environmental assessment and advice;
- mariculture; and
- extraction of bioactive compounds for marine organisations.

AIMS recently hired a consultant to provide advice to progress the implementation of its natural products development project for a pharmaceutical firm. The contract is currently being developed.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

#### **Recommendation No.5 (Paragraph 3.3.6)**

**The AIMS Council ensure any recommendations arising from management consultancies and reviews are analysed and, where appropriate, implemented in a timely manner.**

##### **AIMS response**

Agreed. Those aspects of reports supported by Council are implemented by management as soon as practicable.

##### **Management advice regarding achievement of the recommendation**

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

#### **Recommendation No.6 (Paragraph 4.2.16)**

**AIMS management determine policies and plans consistent with Government policy and the achievement of the 30 per cent target for external funding.**

##### **AIMS response**

Agreed. Target activity and commercial groupings were identified at the February 1992 Council meeting; the Director and Management Committee are identifying specific industries and agencies to approach, within Council policies.

Management advice regarding achievement of the recommendation.

15/9/92: Quarterly Report: All these matters are being dealt with in the business plan which will be completed by 1 January 1993.

10/12/92: Quarterly Report: A Business Plan is being developed which will address the four recommendations. The first draft of the Business Plan was presented to the November, 1992 Council Meeting.

27/4/93: Quarterly Return: The Director, Program Leaders, in consultation with senior staff have addressed the areas that can be marketed to industry and government agencies.

Proposals have been submitted to organisations in Australia and overseas countries. Value of proposals that the Institute has applied for and is awaiting answers is over \$16 million as at 9 March 1993. Some of the projects are long-term and could take two to three years to come to fruition.

18/7/93: Quarterly Return: Program Leaders, Director and the Council have identified the areas where opportunities are available and are developing plans to penetrate such markets.

The Council held a meeting in Western Australia in August 1992 to assess the market and industry opportunities. This was followed through by a presentation to WA industry and the State Government.

In late April 1993 a meeting between AIMS senior staff and the oil industry was held in Perth to discuss the requirements of the industry. Plans are currently being developed for the WA initiative and AIMS' thrust into Vietnam.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

#### **Recommendation No.7 (Paragraph 5.2.15)**

**Detailed guidelines providing for the selection, planning and approval of external funding activities be established and applied in AIMS.**

#### **AIMS response**

Agreed.

#### **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: All these matters are being dealt with in the business plan which will be completed by 1 January 1993.

10/12/92: Quarterly Report: A Business Plan is being developed which will

address the four recommendations. The first draft of the Business Plan was presented to the November, 1992 Council Meeting.

27/4/93: Quarterly Return: Detailed guidelines providing for selection, planning and approval of external funding projects is part of the Business Plan development. The process has begun and will be determined in conjunction with the newly appointed Director.

The single AIMS Award has been accepted by the Council and unions.

18/7/93: Quarterly Return: Detailed guidelines and plans continue to be reviewed together with the Business Plan. The presentation of the Business Plan to Council has been deferred until August 1993.

A comprehensive check list for external projects has been developed and is under consideration by the Management Committee.

Aug/93: Quarterly Return: A comprehensive external funding application form has been developed and accepted by the Management Committee. The application form was introduced on 25 June 1993. The prime purpose of the form is to enable AIMS to know the cost of each external project before it undertakes it and develop a basis on which to price. In the event of subsidising projects it will also give us a basis on which to make informed decisions as to the cost of the subsidy and the ownership of intellectual property arising from the project.

The new forms have been designed to serve not only as application forms but also as guidelines for the selection, planning and approval of internal projects.

The 'Evaluation of Completed External Project' form has also been introduced to evaluate the results of the external projects.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

The AIMS 1993-94 submission to the ASTEC inquiry: The imposition of the 30 percent external earnings target has had a considerable, and largely desirable effect on management practices within AIMS. It has helped force a rapid evolution in the systems for calculating and attributing operational, staffing and infrastructure costs to and within research programs.

24 October 1996: Further advice from the auditee

Detailed guidelines for external projects The application for external funding form has been further refined.

Various parts of the AIMS standing procedures and policies for external projects have been reviewed and implemented [contracts, agreements, intellectual property and application forms]. However, our standing document, which encompasses all aspects has not been updated for changes.

The last such document was issued on 11/2/92. The review of this document is

scheduled to be completed by 30/6/96.

#### **Recommendation No.8 (Paragraph 5.2.16)**

**AIMS introduce a system of management reviews of externally funded activities in order that the lessons from their conduct may be applied to the better management of future activities.**

##### **AIMS response**

Agreed. Considered to be good management practice.

##### **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: All these matters are being dealt with in the business plan which will be completed by 1 January 1993.

10/12/92: Quarterly Report: Business Plan is being developed which will address the four recommendations. The first draft of the Business Plan was presented to the November, 1992 Council Meeting.

27/4/93: Quarterly Return: Detailed guidelines providing for selection, planning and approval of external funding projects is part of the Business Plan development. The process has begun and will be determined in conjunction with the newly appointed Director.

The single AIMS Award has been accepted by the Council and unions.

18/7/93: Quarterly Return: A review form has been drafted and is under consideration by the Director and the Management Committee. The review form requires review by the Project Officer, Program Leader and Director.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

#### **Recommendation No.9 (Paragraph 5.2.17)**

**The provisions for the distribution of the assessed surplus on commercial work be reconsidered to ensure they are appropriate to the goals and operations of AIMS.**

##### **AIMS response**

Agreed. The reconsideration suggested is already in place in the development of a single AIMS award, which should be completed by November 1992.

##### **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: All these matters are being dealt with in the business plan which will be completed by 1 January 1993.

10/12/92: Quarterly Report: AIMS considers that its current policy on distribution of surplus is adequate and appropriate to the goals and operations of



AIMS.

27/4/93: Quarterly Return: Detailed guidelines providing for selection, planning and approval of external funding projects is part of the Business Plan development. The process has begun and will be determined in conjunction with the newly appointed Director.

The single AIMS Award has been accepted by the Council and unions.

18/7/93: Quarterly Return: The Institute is reviewing the present formula for distribution of assessed surplus on commercial work to develop incentives to meet the current goals and operations. The matter of incentives to individual staff members will also be reviewed at the same time.

The single AIMS Agreement is now in place for a period of two years.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

24 October 1996: Further advice from the auditee: The distribution of the assessed surplus on commercial work has been reviewed and a new formula agreed to by the Council. The new distribution formula is :

- 70 per cent to project to be used for research at the discretion of the Project Leader, and
- 30 per cent to the Institute for redistribution at the discretion of the Executive Committee.

The Institute considers the formula provides an incentive to staff to take on external projects.

#### **Recommendation No.10 (Paragraph 5.3.31)**

**AIMS review the procedures for the preparation of proposals for externally funded activities to ensure there is consistency in their quality and content.**

##### **AIMS response**

Agreed. Practices suggested are already in place and will be periodically reviewed.

##### **Management advice regarding achievement of the recommendation**

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

#### **Recommendation No.11 (Paragraph 5.3.32)**

**AIMS review procedures related to its record keeping activities to ensure that proper records are maintained.**

##### **AIMS response**

Very general, specifics can be implemented in the ongoing audit processes.

**Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: All these matters are being dealt with in the business plan which will be completed by 1 January 1993.

10/12/92: Quarterly Report: Procedures for record keeping activities have been improved. Time records procedure is being developed and should be implemented in the new year.

27/4/93: Quarterly Return: The Council has outlined its policy for the introduction of time sheets throughout the Institute. The matter is now in the hands of the Director.

18/7/93: Quarterly Return: The Council has resolved to introduce time keeping records for all employees and this has been agreed by the Joint Consultative Committee. A working committee has been formed to assess how the information is to be gathered and recorded. The proposed timetable is that by 1 July 1993 time keeping system, for all employees, will be implemented.

Aug/93: Quarterly Return: Council has resolved to introduce time keeping records for all employees and this has been agreed by the Joint Consultative Committee. A working committee is currently considering the methodology for the process.

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

24 October 1996: Further advice from the Auditee: Proposal to introduce relevant time keeping records has been incorporated in the current Enterprise Agreement. The Institute is currently considering activity based accounting to capture the relevant data. The proposed new FMIS will also assist the introduction of time keeping records.

**Recommendation No.12 (Paragraph 5.3.33)**

**AIMS ensure that proper procedures relating to the use of seals and other official equipment are implemented and complied with.**

**AIMS response**

Agreed. The practices are already in place.

**Management advice regarding achievement of the recommendation**

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

**Recommendation No.13 (Paragraph 5.4.2)**

**AIMS develop and promulgate within the Institute, guidelines and criteria pertaining to the protection of intellectual property, e.g. patents.**

## **AIMS response**

Agreed.

## **Management advice regarding achievement of the recommendation**

15/9/92: Quarterly Report: All these matters are being dealt with in the business plan which will be completed by 1 January 1993.

10/12/92: Quarterly Report: AIMS has developed and promulgated guidelines for the protection of its intellectual property.

### **NOTICE**

Members of staff and visitors are reminded that all information gathered or used at AIMS is either the property of AIMS or the property of some other person who has authorised AIMS to use it. Such information remains the property of AIMS (or the other person) even after you leave AIMS.

Some of the information which you may encounter is confidential and as such may not be communicated to any other person without the express permission of AIMS. In appropriate cases it may be necessary for AIMS and the person receiving the information to enter into a confidentiality agreement. To ensure the protection of AIMS' confidential information, members of staff are advised that, in the matter of collaboration between scientists, staff should consult with their Program Leaders as to the material they propose to communicate **before** such collaboration takes place.

Any manuscripts for publication should also be vetted by Program Leaders and must be approved by the Director before they are released to the publisher. AIMS Copyright and royalties arising therefrom are not to be transferred without the prior written approval of the Director.

Visitors to AIMS are required to observe and maintain the confidentiality of AIMS' information and to acknowledge in their reports AIMS' ownership of, and Copyright in, any information belonging to AIMS.

All members of staff are aware that the advancement of AIMS' position as a world class tropical marine research institute - through obtaining the recognition and support of Government, industry and the community - requires protection of its property, including confidential information and all other forms of intellectual property.

Your assistance and cooperation in this matter is required.

J.T. Baker  
Director

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

## **Recommendation No.14 (Paragraph 6.1.5)**

**AIMS Council, if necessary with the assistance of the DITAC, institute procedures that will overcome possible conflicts of interest.**

## **DITAC response**

The Department considers that this is an issue that should be addressed by Council. However, the Department will provide advice if requested by Council.

## **AIMS response**

In Council meetings there are established procedures. Council will continue to analyse and implement, where necessary, additional procedures best suited to meet the changing requirements of AIMS.

**Management advice regarding achievement of the recommendation**

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.

**Recommendation No.15 (Paragraph 6.1.6)**

**In cases where a possible conflict of interest may arise, consideration be given to the introduction and use of a panel of experts to provide agencies with expert technical and commercial advice that they would not otherwise have available.**

**DITAC response**

Again, the Department would consider that this is an internal issue for AIMS.

**AIMS response**

In Council meetings there are established procedures. Council will continue to analyse and implement, where necessary, additional procedures best suited to meet the changing requirements of AIMS.

**Management advice regarding achievement of the recommendation**

18 July 1993: AIMS considers that its obligations regarding the Audit Report No.48, 1991-92 were fulfilled as at 18/7/93.