

AUSTRALIAN
UNIVERSITIES
QUALITY AGENCY

**Report of an Audit of
Curtin University of Technology**

October 2002

AUQA Audit Report Number 6

ISBN 187709 0026

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The Australian Universities Quality Agency receives financial support
from the Commonwealth, State and Territory Governments of Australia.

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Abbreviations

The following abbreviations are used in this report. As necessary, they are explained in context.

AEPIC	Aboriginal Education Policy Implementation Committee
APR	Annual Performance Review
AQF	Australian Qualifications Framework
ATN	Australian Technology Network
AUQA	Australian Universities Quality Agency
CAS	Centre for Aboriginal Studies
CBS	Curtin Business School (a division)
CEA	Centre for Education Advancement (which became the LSN in April 2002)
CIC	Curtin International College
CLP	Curtin Leadership Program
CQAHE	Committee for Quality Assurance in HE
CTP	Consolidated Teaching Policy
Curtin	Curtin University of Technology
CWP	Curtin Women's Program
DEST	Department of Education, Science & Training
DOFL	Distance, Open & Flexible Learning (Committee)
DVC	Deputy Vice-Chancellor
ED	Executive Dean
EESJ	Equity, Ethics and Social Justice
E&S	Division of Engineering and Science
GSO	Graduate Studies Office
HDR	higher degree by research
HE	higher education
HoS	head of school
IGS	Institutional Grants Scheme
LEAP	Learning Effectiveness Alliance Program
LSC	Learning Support Centre
LSN	Learning Support Network (formerly known as the Centre for Education Advancement, CEA)
MCEETYA	Ministerial Council for Employment, Education, Training & Youth Affairs
NTD	new teaching development
OLLD	On-Line Learning Delivery
PMC	Planning & Management Committee
PPR	Program & Planning Review
PVC	pro vice-chancellor
QA	quality assurance
QACA	Quality Assurance for Course Administration
R&E	Division of Resources and Environment
RIBG	Research Infrastructure Block Grant
RMP	Research Management Plan
RPI	Research Performance Index
RRTMR	Research & Research Training Management Report
RTS	Research Training Scheme
SDVC	Senior DVC

SPC	Student Progress Committee
TLP	Teaching & Learning Plan
TQI	Teaching Quality Index
UGSC	University Graduate Studies Committee
URDC	University Research & Development Committee
UTLC	University Teaching & Learning Committee
VC	Vice-Chancellor
VCS	Valuing Curtin Staff
WEXDEV	Women's Executive Development Program

OVERVIEW OF THE AUDIT

Background

The Australian Universities Quality Agency (AUQA) has been established to carry out audits of the Australian universities and other self-accrediting institutions and the state and territory higher education accreditation agencies. (AUQA's terms of reference ('objects') are listed in Appendix B.) AUQA is in the process of carrying out the first cycle of audits over the period 2002 to 2006, auditing about 10 organisations each year. In 2001, AUQA appointed a panel (for membership, see Appendix C) to carry out an audit of Curtin University of Technology (Curtin). (A brief description of Curtin will be found in Appendix A.) The audit process adopted by AUQA, which is set out in the AUQA Audit Manual, is based on each organisation's own objectives. The major aim of the audit is to consider and review the procedures the organisation has in place to monitor and achieve its objectives, and to report on their effectiveness in achieving the organisation's desired outcomes.

The Audit Process

Curtin submitted a performance portfolio and comprehensive supporting documentation describing its objectives and the range of mechanisms it has in place to monitor the achievement of objectives, and assure and enhance quality across its activities.

The audit panel met for a day to discuss the portfolio, and then the panel chair and the AUQA staff member on the panel visited Curtin in Perth for a day to discuss issues arising from this first meeting. The panel visited the Bentley, Perth campus of the University for four days on 4-8 August 2002, and highly commends the University for the efficient and responsive manner in which the visit was managed.

During the Audit Visit, the audit panel met approximately 270 people including senior managers, academic, administrative and technical staff, undergraduate and postgraduate students, members of the University Council, and community members. A session was set aside to allow any member of the Curtin community to meet the panel and several people took this opportunity. Tele-interviews were held with the Executive Dean, other staff and students of Curtin Sarawak.

This report records the conclusions reached by AUQA based on documentation, interviews, discussions and observations. While every attempt has been made to reach a comprehensive understanding of the Curtin activities encompassed by the audit, the report should not be relied upon to identify every instance of quality assurance procedures, or of their effectiveness or shortcomings. This Report relates to the situation current at the time of the Audit Visit (4 - 8 August 2002) and does not take account of any changes that may have occurred subsequently.

The report contains a summary of findings, and lists of commendations and recommendations. The latter suggest possible improvements and in some cases endorse actions already being undertaken by the University.

It is acknowledged that recommendations in AUQA audit reports may have resource implications, and that this can pose difficulties for institutions and agencies where financial and other resources are constrained. Accordingly, AUQA does not prioritise these recommendations, and recognises that it is Curtin's responsibility to respond as it is able. Three months after the publication of this report, AUQA will seek information from Curtin on how it intends to address the recommendations.

The structure of this report is based on the structure of the Curtin Performance Portfolio, with variations that relate to the audit sampling process and the matters that arose therefrom.

CONCLUSIONS

Summary of Findings

Information-Gathering. Curtin carried out a very thorough self-review in preparation for the audit, and identified improvements to be made in all the areas covered, which it grouped under the headings of Strategy, planning and quality management; Institutional management and decision-making; Staffing; The enabling environment; Teaching and learning; Research and development; International activities; Social justice, equity and ethical behaviour; and Community relations. Curtin used the 'ADRI' structure (Approach, Deployment, Results, Improvement) in describing its systems and their outcomes. In most cases, the audit panel believed that Curtin had made a realistic assessment of its activities and performance.

Curtin's Performance Portfolio is forward-looking. Curtin is changing in many ways, including in areas of planning, budgeting, reviewing and structuring. Therefore the portfolio speaks a good deal about these changes and the incipient or imminent new systems. The panel requested more information on such things as former objectives and reports against them, so it could form a view on the efficacy of Curtin's processes.

Curtin showed great openness and co-operation with AUQA and the audit panel. Staff provided on request all documents determined by the panel to be of interest and relevance to its investigations. Many internal documents volunteered or provided by Curtin contained very frank assessments of systems and outcomes, with detailed self-criticisms or critical self-appraisals. The panel is therefore confident that Curtin has been very open in its interactions with AUQA, and that this report provides a reliable picture of the institution, its QA processes, and the consequent outcomes.

Curtin's self-review process, which included a simulated audit visit and interviews, also engendered a positive reaction from its own staff about the overall utility of the audit.

Quality and Planning. Curtin aspires to be a 'World-Class University of Technology'. After investigation, the audit panel concluded that this aspiration is recognised by the University community as ambitious and perhaps distant, but is also an incentive for wide horizons and continuous improvement. Curtin has a well-embedded culture of reviews, which appear to be used effectively. When the system of school reviews was itself reviewed in 1998, they were found to be somewhat inward-looking and process-oriented, and insufficiently connected to strategic planning. In response, a new integrated quality and planning framework was developed. The number of University plans was then reduced from 25 to eight, and a Balanced Scorecard approach to monitoring progress was introduced. Despite this simplification, Curtin does tend to generate a great deal of detail in its documents. This sometimes obscures their essential purpose and/or hinders their implementation.

Devolution. Curtin has a highly devolved structure, with six divisions headed by executive deans and containing about 35 schools. The divisions are expected to take the University plans and develop consistent divisional plans, and similarly at school level.

This process is still being worked through, and the integration of the various levels of plans and the consistency of their indicators with the Curtin Balanced Scorecard has not yet been comprehensively achieved. More importantly, there is insufficient monitoring to ensure that policies are understood and implemented at school level.

Performance-Based Funding. For a number of years, Curtin has worked on developing a performance-based funding system. However, the move to devolution with cascading plans has overtaken its central application, and now divisions and schools may choose to allocate at least 4% of their budget in relation to performance or apply an appropriate equivalent procedure to provide incentives. A Research Performance Index is universally used and a Teaching Quality Index is just being introduced. A link between the Balanced Scorecard and performance-based funding is still to be developed.

Staffing. One of the new Curtin plans is 'Valuing Curtin Staff'. This impressive plan is realistic about the current situation and recognises the need to look after staff. One aim is that training should be focused and closely linked to the competencies needed to complement the Strategic Plan. If followed through, it should enhance Curtin's working environment, and hence the teaching and research environment and outcomes.

Teaching and Learning. Curtin has a number of impressive and commendable results in this area. These include the Learning Effectiveness Alliance Program (LEAP), explicit work on generic attributes and the Teaching Quality Index. It also has a realistic yet comprehensive Teaching and Learning Plan. The audit panel found that the work on generic attributes has lost some momentum, and Curtin is just introducing a new course proposal form to ensure that generic attributes are included in all new developments. LEAP is a series of 13 collaborative projects that have brought major benefit in terms of staff collaboration and development, in addition to the intended outcomes of the projects themselves.

Research & Research Training. Curtin has developed its research strengths very energetically over the last decade, with some appointments of 'research-mainly' staff. There are significant research centres and institutes, and collaborations with other institutions and with industry. It is now looking to maintain a balance between teaching and research (for example for promotion). Significant new work is occurring in relation to postgraduate students, including the appointment of a Dean of Graduate Studies, an incipient Register of Supervisors, and the publication of a 'Best practice framework'. This report makes a number of recommendations for enhancement of this area.

International. The audit panel investigated in detail Curtin's QA provisions for its overseas work, and commended the University for their rigour, and the consistency between on- and off-shore quality processes.

Indigenous Affairs. Curtin is ahead of national and Western Australian averages on the standard equity indicators, most aboriginal staff are academics, and work is under way to include indigenous studies units in all courses.

(Note that the Commendations and Recommendations are not prioritised by AUQA. They are listed in the order in which they appear in the report.)

Commendations

1. AUQA commends the extent of permeation of knowledge of the ‘world-class’ aspiration through the University community.
2. AUQA commends the VC for his high level of visibility and interaction with staff and with the community.
3. AUQA commends Curtin for systematic monitoring of its performance by means of a Balanced Scorecard.
4. AUQA commends Curtin for developing a supportive and comprehensive framework (Valuing Curtin Staff) for handling all issues related to staff employment and development.
5. AUQA commends Curtin for the explicit attention it has given to generic attributes of graduates, in line with objectives in its Mission and Goals.
6. AUQA commends the Learning Effectiveness Alliance Program (LEAP) as an excellent initiative, not only in the actual learning processes and improvements from its 13 projects, but also in the collaborative team approach to the projects, and the dissemination of the learning from the projects across the University.
7. AUQA commends the development of the Teaching Quality Index by the Division of Engineering and Science as a means of rewarding teaching performance in an analogous way to that in which research performance is rewarded, thereby achieving a balance in performance-based funding of the two core activities of teaching and research.
8. AUQA commends Curtin for its research planning and policies which have led to enhanced research outcomes.
9. AUQA commends Curtin for the very thorough, rigorous and effective process of quality assurance in place in relation to courses offered overseas.
10. AUQA commends Curtin on its thorough and effective attention to indigenous matters.

Recommendations

1. That Curtin establish a Finance Committee of Council to strengthen the links between planning, budgeting and accountability.
2. That Council ensure it is well-informed about Curtin and its characteristics and operations, perhaps by holding a one- or two-day ‘retreat’ or other structured activities in which it studies aspects of the University in some detail.
3. That every effort be made to decrease bureaucratic requirements and avoid excessive detail in policies and processes.
4. That Curtin assure itself that its budgeting processes are aligned to strategic directions and performance, and that a sufficient proportion of funds flow to the operational areas.
5. That Curtin continue its oversight of the ‘cascading down’ of the performance monitoring system to ensure complete and appropriate implementation at the division and school levels.

6. That, in using the revised planning and review process, schools and other units include reviewers external to Curtin, to provide an independent perspective; and preferably some from overseas, to lend credibility to the 'world-class' aspiration; and that the external input address outcomes as well as processes.
7. That Curtin ensure, with appropriate monitoring, that policies are implemented by divisions, schools etc.
8. That Curtin clarify the parameters for deciding which activities should be located at university, division or school level.
9. That, in the light of Curtin's desire to be 'world-class', and its intent to use comparisons as a prime mechanism for achieving this, Curtin undertake a greater amount of structured benchmarking, both nationally and internationally.
10. That annual performance reviews be consistently carried out, with relevant data available to ensure their utility to both the staff member and Curtin.
11. That mandatory, co-ordinated training be provided for executive deans and heads of school.
12. That in view of the Teaching & Learning Plan target of 'Curtin-endorsed graduate attributes incorporated into all courses/units', full implementation of the relevant aspects of the course proposal process be ensured.
13. That ways be considered of accelerating the approval process for new courses.
14. That Curtin satisfy itself in a systematic way that it has adequate and comprehensive mechanisms for ensuring standards, and that these mechanisms are effectively applied.
15. That Curtin develop efficient mechanisms for tapping student opinion, translating the feedback into action, and informing students of outcomes and changes made.
16. That criteria for registration as a supervisor of research students be made more precise, that registration be mandatory for supervisors, that adequate training and development opportunities be provided for existing and potential supervisors, and that criteria and procedures for de-registration be set down.
17. That annual reports by supervisors be a mandatory part of the system for monitoring the progress of research students.
18. That the position of Dean of Graduate Studies become a 100% position (from its current 50%).
19. That since the teaching / research nexus is an important part of Curtin's goals, its implications and implementation be more clearly articulated.
20. That Curtin provide centrally coordinated induction and support for all staff teaching overseas.

1. STRATEGY, PLANNING AND MANAGEMENT

1.1 Curtin's Vision and Values

1.1.1 Vision

Curtin “aspires to be a World-Class University of Technology”. This is a long-term Vision, which is used as a reference point for decision-making. Few explicit performance indicators (PIs) have been set against which achievement of this Vision will be tested from time to time. According to Curtin, this is because any PIs that could be identified now may be irrelevant by the time Curtin approaches the achievement of its Vision. However, the Balanced Scorecard (section 1.3.5) of current performance indicators is based on Curtin's interpretation of how the Vision might be achieved, and will be revised from time to time. At present, the ‘world-class’ idea is being reiterated and discussed, with the aim of having it to the forefront of the minds of all staff. The intent is that staff, especially managers such as heads of schools (HoSs) and executive deans (EDs), will continually compare themselves or their school or division with today's world leaders in the various areas, identify any discrepancies, and then devise ways to bridge the gaps. This can include considering employer opinion of graduates, graduate schools attended by graduates, citation or commercialisation of research and international accreditations.

Curtin does not anticipate a time when all of its activities would be equal to the best in the world, but the intent is that at some time, a large number of its areas and/or activities will be comparable with the world's best in various ways. The aspiration is interpreted realistically, as indicated by the following ‘stretch target’ from the 2001-2005 Research Management Plan (RMP): “Curtin will successfully benchmark against mid-ranking overseas universities by 2003”. There is, however, no evidence of explicit planning for such benchmarking.

Commendation 1. AUQA commends the extent of permeation of knowledge of the ‘world-class’ aspiration through the University community.

This permeation was evident both in interviews with staff, students and community members, and in working documents of various university bodies. There is less awareness of other aspects and emphases of the Strategic Plan.

1.1.2 Values

Curtin's Values statement includes reference to service, equity, ethics, and cultural awareness. For example, there is a desire for “the cultivation of responsive and responsible links with the wider community”. However, there is a lack of explicit links to PIs. The panel investigated how these Values, expressed in high-level statements, are made a part of the actual thinking and actions of the University. As with the wide understanding of the Vision statement, it is acknowledged that the key is widespread and frequent sharing of information – including both top-down communication and bottom-up involvement. The VC

initiates this in a variety of ways. He has a regular daily pattern of formal and informal discussions with various senior groups, including a different subset of HoSs each week, and intermittent briefings of the whole staff. Other senior managers, and particularly EDs, are expected to communicate the Vision and Values further outwards through the institution. Discussion with HoSs and other staff suggests that this is occurring.

Commendation 2. AUQA commends the VC for his high level of visibility and interaction with staff and with the community.

The panel has a sense of Curtin as an institution whose component parts are heading in the same widely-understood direction. Despite the experience of some frustrations at the operational level, there is a general enthusiasm among both academic and general staff for being at Curtin.

1.2 Governance and Management

1.2.1 Council

The panel formed the view that in the past the Council had not been as active in strategic aspects of the governance of the University as would be desirable, but that this situation has changed substantially over recent years. This is partly due to a change in Council membership, but is also because the mechanisms being introduced by Curtin (including the strategic planning process and the balanced scorecard reporting process) lend themselves to more informed Council involvement. The Council participated in the development of the current Strategic Plan, and receives biannual reports on different selections of PIs, showing the progress on strategic priorities. From this year, EDs are attending Council as observers, and every couple of months one ED makes a detailed presentation on progress in the division. This presentation refers to PIs and the division's implementation of the Balanced Scorecard.

The Council appears committed to and enthusiastic about its role, and is looking to further strengthen its ability to exercise its governance responsibilities. It has recognised a need to have the budget and the Strategic Plan more closely aligned. At present, Curtin has no Finance Committee of Council. The need for such a body has been suggested by some Council members, and the panel supports this suggestion, as this would help Council to discharge its fiduciary responsibilities and achieve its desired alignment of budgetary and strategic decisions.

Recommendation 1. That Curtin establish a Finance Committee of Council to strengthen the links between planning, budgeting and accountability.

Early this year, Council carried out a self-survey in which Council members responded in writing to 50 questions and provided further free-text comments. The responses were generally positive, with the main areas of concern being in information on financial matters, recording of dissent, clarity of members' roles, with some concern with timeliness of meetings and adequacy of documentation.

Action is being taken to address some of the criticisms. Improvements are being monitored, and further input obtained, by briefly querying a randomly-selected Council member after each meeting as to the effectiveness of the meeting.

The panel commends the Council self-survey, but observes that a totally internal self-survey has shortcomings. It is acknowledged that many Council members have experience of other governing boards that enables them to comment authoritatively on whether the Curtin Council is working well. However, they may not know whether they have enough knowledge of the University to govern it well. It is recommended that Council develop mechanisms to ensure members are familiar with Curtin operations, such as holding a one-day or two-day 'retreat' or a structured program of visits and presentations. The objective would be to study Curtin and its operation in some detail. Such a program would tap into the Council's evident enthusiasm, and the Performance Portfolio written for this audit could be a very good base for such a study. For continuing effect, Curtin should ensure that all new Council members receive induction to the Council. Responses to the Council survey suggest that further thought should be given to ensuring that the induction includes substantive information about Curtin, not merely procedural matters.

Recommendation 2. That Council ensure it is well-informed about Curtin and its characteristics and operations, perhaps by holding a one- or two-day 'retreat' or other structured activities in which it studies aspects of the University in some detail.

1.2.2 Structure

Curtin is structured into six academic divisions, each led by an Executive Dean (ED). The divisions are Curtin Business School (CBS), Curtin Sarawak, Engineering & Science (E&S), Health Sciences, Humanities, and Resources & Environmental Sciences (R&E). The divisions are further subdivided into schools, quite a number of which are further subdivided into departments. EDs and heads of school (HoSs) control devolved budgets, with a high degree of autonomy.

The senior management group is the Planning and Management Committee (PMC) comprising the VC, SDVC, DVC(R&D), Executive General Manager, PVC(I&E), EDs, Chair of Academic Senate and the University Secretary.

1.2.3 Academic Senate

In its current form, the Senate has existed only since the beginning of 2001. (It succeeded the University Academic Board, with some re-positioning of responsibilities.) It has 39 members, including all members of the Executive (VC, DVCs, PVC, EDs, Executive General Manager), as well as some HoSs and representatives of divisions, staff association, professors, undergraduates and postgraduates. The Chair is elected by the academic staff, and the Senate reports to Council.

The Senate's role in quality assurance is the approval and monitoring of academic policies. It carries out its work through six major subcommittees, namely University Research & Development Committee (URDC), University Teaching & Learning Committee (UTLC, with the Distance, Open & Flexible Learning Committee, DOFL), University Graduate Studies Committee (UGSC), Course Committee, Student Progress Committee (SPC), and the Admissions & Matriculation Committee. The panel met members of the first five of these committees and discussed their roles and effectiveness (see the respective sections below).

At present, Senate does not systematically monitor how or whether academic policies are implemented (cf. section 1.5.1). There are some opportunities for it to do so since it receives reports from the Chairs of the Standing Committees and the EDs. Errors and problems resulting from inadequate implementation are therefore likely to come to the attention of the Senate.

1.3 Planning and Budgeting

1.3.1 Policy development

Curtin staff commonly have significant opportunity for input to policy development. One example is the extensive revisions of policies and procedures relating to student assessment carried out last year. However, once policies are in place, there seems to be a high level of associated bureaucracy that requires much effort on the part of staff, and leads to 'ticking boxes' in a superficial fashion. This may impede the effectiveness of the procedures and policies, and distract staff from their core functions. A great deal of paperwork is generated, and where reporting requirements exist, they are extensive and detailed. For example, the former Program & Planning Review (PPR) process was based on over 100 factors for self-review (reduced from an initial 165), the first pass at an internationalisation plan had 35 pages of strategies and targets, the promotion policy has almost 200 factors, the professional portfolios (for promotion) can be 10cm thick.

Similarly, the Planning & Management Committee (PMC) commented this year that the new University-wide plans are being produced in too much detail, leading to lack of utility and unmanageable workload. The audit panel noted that this comment at PMC showed that the problem had been recognised, but in view of this being a long-standing pattern at Curtin, urges Curtin to take action on the matter. It should make every effort to reduce the load on staff at all levels by: reducing the amount of paperwork produced and the level of detail required for compliance, reviewing and simplifying old policies, and in general keeping routine requirements (such as meetings) to a minimum.

Recommendation 3. That every effort be made to decrease bureaucratic requirements and avoid excessive detail in policies and processes.

It is, of course, no simple matter to streamline procedures and PIs to achieve the necessary balance of communication and monitoring without bureaucratic overload. Possible approaches include sampling, or affirmations by heads of units. The high level of responsibility placed on EDs and HoSs makes management training essential (see section 2.3.1).

1.3.2 Strategic Plan

The current Curtin Strategic Plan was developed in 2000, and the total number of University plans was reduced from 25 to 8 at that time, using the new planning framework mentioned above. The Strategic Planning process appears to work well. It is commendable that risk identification is required in all documents. Divisional strategic plans are required to be consistent with the University strategic plan, and similarly each school's plan must be consistent with its division's plan. Although this mapping appears to be happening in general, it might be worth requiring EDs to confirm that school-based plans integrate into the divisional plan.

1.3.3 Budgeting

The annual budgeting process is a mix of bidding and bargaining, within the Strategic Plan. In other words, the SP passively guides the budgeting, but does not appear to drive it. Thus the budgetary process is not yet aligned to strategic directions. Rather, the budget is mostly historically-based, so the bidding is on a small margin. Curtin's goals are ambitious, and can be achieved only if sufficient funds reach the divisions and schools, where the core activities of teaching and research are carried out. Strategic planning, even when well carried out, can have no effect if insufficient funds are available for implementation. The panel also heard evidence from both staff and students that resources are thinly stretched in some areas, affecting the quality of teaching delivered to students. While it is difficult to generalise from this evidence the panel does have some concern that the budgeting processes do not permit a sufficient proportion of funds to flow to the core teaching and research areas.

Until recently, planning, budgeting and quality assurance have been treated as separate activities. The Balanced Scorecard has brought together the planning and QA. The next challenge identified by Curtin is to integrate the budget with planning and QA.

The audit panel learned from Curtin's Annual Report that the financial statements had received a qualified response from the State Auditor-General. The panel determined that the matter was a technical one, relating to different interpretations of accounting practice, and outside the scope of AUQA's audit. (The panel noted that in other states Curtin's interpretation has received a clear audit opinion.)

1.3.4 Performance-Based Funding

Performance-based funding (PBF) was developed over the last three years and fully implemented at University level in 2002, with a proportion of the funds distributed to divisions being allocated on the basis of performance measures.

However, this has been overtaken by the use of cascading plans, with EDs responsible for divisional strategic plans. In the new scheme, the aim of university-level PBF will be achieved through the annual performance review of EDs. Accordingly, the percentage to be allocated to PBF in 2003 will become part of the pool for general allocation.

Despite abandoning PBF at the institutional level, Curtin has indicated that it expects PBF or an equivalent incentive to be implemented at divisional level. The divisions appear to have discretion in the manner and extent to which they do this. Some divisions have begun to define the indicators on which they might base PBF for their schools. All divisions use the RPI in budget allocation (although the funds flow to research groups, not schools), and E&S has developed a Teaching Quality Index (section 3.7). E&S allocates 20% using PIs – 12.5% on the RPI and 7.5% on the TQI - but there is not yet a fully-implemented model in all divisions. If PBF is intended to reinforce institutional goals, it would seem sensible to base it on the Balanced Scorecard (section 1.3.5), with divisional variants where appropriate. This would create an obvious and transparent link between funding and the achievement of Curtin's goals. Such a link is currently missing. (Cf. section 1.5.1).

Recommendation 4. That Curtin assure itself that its budgeting processes are aligned to strategic directions and performance, and that a sufficient proportion of funds flow to the operational areas.

1.3.5 Balanced Scorecard

As indicated above, to plan its activities and monitor its performance, Curtin has adopted the Balanced Scorecard approach. For its Scorecard, Curtin uses four themes: Curtin Culture, Core Activities, Students and Clients, and Financial Security ('Cash') – ie the 4 Cs. Each of these has a productivity (achievements) and growth (innovations) dimension. Each cell of the resulting two-by-four matrix has one, two or three indicators – a total of 15 indicators. These indicators have sub-measures, which in turn have sub-factors. The initial draft of the Scorecard was produced at the end of 1999, and Curtin is gradually populating it with relevant measures. Each month, the Planning & Management Committee (PMC) selects one or more indicators for attention and monitoring and discussion of its efficacy. Curtin's intention is that the Scorecard be used by the VC to monitor (and reward) the performance of the EDs, by the EDs to monitor the performance of the HoSs, and by the HoSs to monitor the performance of their schools. In practice, implementation below the level of the EDs is patchy, and some divisions and schools are yet to incorporate the Scorecard into their monitoring practices.

The link between the Balanced Scorecard and the University-wide plans, for example the University Teaching and Learning Plan is clear. The TLP Plan, which has the same '4 Cs' as the Balanced Scorecard, details Objectives, Targets, Measures, Current situation, Initiatives, and Responsibilities. The measures are

more extensive but link back to the Balanced Scorecard. For Divisional Plans and School Plans (Teaching and Learning, International, etc) although the structures are the same the implementation is more variable. The Panel saw examples of excellent implementation, with some substitution of more appropriate indicators as necessary. The Panel also saw examples where the indicators were vague or did not exist, where they did not appear to relate to the objectives, and where there is no link back to the Balanced Scorecard.

Commendation 3. AUQA commends Curtin for systematic monitoring of its performance by means of a Balanced Scorecard.

Recommendation 5. That Curtin continue its oversight of the ‘cascading down’ of the performance monitoring system to ensure complete and appropriate implementation at the division and school levels.

1.4 Reviews

Curtin has a well-embedded culture of process and structure reviews, which appear to be used effectively. Reviews are often used to develop a response to an identified issue, and may be commissioned to address a specific problem. Examples include the Terrell Inquiry which was followed by the Quality Assurance Course Administration Review (see section 1.5.1), the review of the Academic Board (that led to the creation of the Academic Senate), and several structural reviews. Such ad hoc reviews usually result in action. For example, the Terrell Report made a number of recommendations and a large number of observations, and Curtin has not only carried out the recommendations but also extensively addressed the observations.

Routine reviews include those of research institutes and centres (see section 4.2.2) and Self-Assessment Reviews of schools. School reviews, known as PPRs, were introduced following the first CQAHE review in 1993. PPRs were based on a self-review process, addressing 100 factors. These were then commented on by an external validator (external to the school, but not necessarily to Curtin).

In 1998, the PPR system was reviewed. The feedback was that the self-assessments were valuable, but too inward-looking, and divorced from strategic planning. Other criticisms included that there was too great a focus on process issues rather than outcomes, and a lack of formal monitoring of action consequent on the reviews. The response was not simply to change the review process. Instead, a new planning framework was developed that incorporates mechanisms to achieve the PPR’s aims of assessment, review, and continuous improvement, thereby linking quality and planning. The same process is now to be used for developing a plan as is subsequently used for reviewing against that plan.

The new review process was piloted in the School of Occupational Therapy, the Library and the Counselling Service. Following a review, the unit or area reviewed is expected to work on the recommendations, reporting back to the Planning Office. The Library publicised on the web what had been recommended and what it then prioritised. The panel noted that the external validator for the library review recommended that an external validator's role should be to comment only on the review process and its application, rather than on the actual unit or area under review. The panel believes that this approach would revert to the situation criticised in the 1998 feedback, namely an inadequate attention to outcomes.

As described, the new review process appears thorough. Schools are expected to carry out internal and environment scans, and to involve their advisory committee, community and students in the initial assessment. The subsequent review should then use the school's advisory committee and perhaps an external evaluator. Progress against indicators and targets in the resulting plan is to be monitored at least annually. Major review intervals are a maximum of five years, but many schools believe they will need a shorter cycle because of the speed of change. To minimise the load of review, schools subject to external professional accreditation will try to link the two processes.

This process is too new for the panel to comment on its efficacy, especially since the emphasis in this first cycle is on planning rather than review. Also, the panel was informed that there are still some problems with data provision to support the review process. It is essential that the process include credible external (to Curtin) input following the self-assessment, and that the external commentator(s) comment not only on the process but on the outcomes. Care needs to be taken in the use of advisory committees. Clearly they should be a part of the self-assessment process, but they cannot then function as independent external commentators in relation to that process.

Recommendation 6. That, in using the revised planning and review process, schools and other units include reviewers external to Curtin, to provide an independent perspective; and preferably some from overseas, to lend credibility to the 'world-class' aspiration; and that the external input address outcomes as well as processes.

As noted above, the same process is now to be used for developing a plan as is subsequently used for reviewing against that plan, and different divisions are at different stages in this new process. For example, CBS has required all its schools to have their plans ready by the end of August 2002. R&E is a new division and still working on initial developments. Humanities is restructuring (from 11 schools to three faculties and a graduate school). Health Sciences is well on the way. At this stage, some schools are still operating with their old plan.

1.5 Devolution

1.5.1 Monitoring

Curtin has a highly devolved structure. Such structures are now quite common, because of their well-known advantages of permitting diversity between sub-areas (in this case, divisions, schools and departments); of permitting local decision-making; and of thereby enhancing local ownership and commitment. However, an essential feature of the successful implementation of a devolved organisation is reliable and complete communication channels, with appropriate drivers and feedback loops. For example, there must be effective mechanisms for ensuring that all policies are communicated to those who are to implement them, that the implementation methods are well understood, that there are secure feedback loops to enable the implementation of the policies to be monitored, and preferably that there are clear incentives for all these processes to occur. As already noted (see Recommendation 4), Curtin needs to strengthen the links between the financial drivers and the various strategic directions, and to ensure the flow of funds to the operational levels commensurate with the desired behaviours.

In respect to policies, Curtin's present system is quite insecure in relation to the feedback loops. There are few systematic methods by which central bodies know whether there has been a break-down in implementation of policies at school or individual level. EDs are held responsible for the activities of their division through a comprehensive performance management system, but this has not yet resolved the matter. The main way in which a failure of policy implementation is discovered is through the occurrence of an error. The panel notes that this gap has been recognised (by the University Secretary and the Chair of Academic Senate, *inter alia*) and recommends that the gap be addressed as a matter of some urgency.

Recommendation 7. That Curtin ensure, with appropriate monitoring, that policies are implemented by divisions, schools etc.

As mentioned above, sampling may be a low-cost way of doing this. The computerised tracking system mentioned in section 2.2.2 may also help.

An example of a problem that might have been forestalled by such monitoring is the case of plagiarism detected last year. The subsequent review (the Terrell Review) commissioned by Curtin found that the relevant policies and procedures were intricately and confusingly related but the lack of monitoring meant that the gap emerged only when a crisis occurred. Curtin has moved extensively and on many fronts to address the recommendations and the observations emerging from the report. It developed the ideas through a follow-up review of quality assurance for course administration (QACA), and developed a new assessment policy - and students report that they are given written and oral instructions on the meaning and consequences of plagiarism in all courses.

1.5.2 Fragmentation

Devolution through many levels, or to small units, can lead to fragmentation of effort, increased overheads, competitive behaviour, loss of consistency with concomitant increase in the risk of error, and organisational rigidity. Curtin has expressed its intention that relevant QA processes be in place, and related resources be available, at divisional level, and it will be necessary to ensure that this does in fact happen. Also, the panel was given examples of meaningful collaboration between divisions, and such activities should be encouraged.

The panel noted that a number of schools are further sub-divided into departments, with some budgetary power in the hands of heads of department. The panel recognises that the nature of some disciplines means that a variation of emphasis or external presentation is appropriate. However, the formal recognition of a fourth level of university management, with budgetary authority, is likely to lead to the undesirable outcomes above. Curtin is advised to reconsider this aspect of devolution.

1.5.3 Duplication

Without clear links, schools and departments can become quite disconnected from the University, and do what they think is good, rather than being actively aligned with the University's directions. The panel detected some tendency in this direction. Another possible danger is wasteful duplication of activities between divisions. Curtin has been investing in the infrastructure to transfer functions to divisions, but some administrative devolution is happening by 'pulling' from below rather than a planned 'push' from above. Without a process for explicitly determining what activities are best located where and why, there is some duplication of activity. Several business process reviews have been carried out, but they do not appear to have influenced decisions on what to devolve and how to maintain a central/unit balance.

The audit panel noted that in the international area, central control and lateral co-ordination is well-developed and thoroughly enforced (see section 5.2.1). Student services are also more centrally controlled. These examples reinforce the point that deliberate decisions need to be made about what functions are best devolved and which best centralised.

Problems of duplication, inconsistency, distortions of accountability, poor reporting and ad hoc arrangements are mentioned in the recently-developed 'Valuing Curtin Staff' plan (see section 2.1). One example is the variability in conducting performance reviews of staff. The panel also noted that, until recently, computer acquisitions were made centrally, but now are handled by each division. Without central co-ordination, this could result in unnecessary variations in standards and unhelpful incompatibilities.

Recommendation 8. That Curtin clarify the parameters for deciding which activities should be located at university, division or school level.

1.5.4 Re-structuring

The audit panel found that re-structuring of various aspects of Curtin occurs frequently. For example, of the six divisions, two are actively re-structuring, while another is new and just developing its structure. Staff acknowledge that change is needed in these rapidly changing times (although some are finding the pace too fast). The Audit panel also acknowledges that re-structuring can be evidence of thought and creativity. Nonetheless, re-structuring activities impede the smooth operation of the University, and should be used sparingly. Despite the merits of decision-making devolution (mentioned in section 1.5.1) decisions on re-structuring should receive closer central scrutiny.

1.6 Benchmarking

Curtin routinely checks and reports comparisons between indicators of its own performance and those of other institutions, such as the whole university sector or the five universities in the Australian Technology Network (ATN). However, there is very little structured benchmarking, which is a well-developed process for adapting good practice from elsewhere to improve one's own performance. The panel noted that this year the DVC(R&D) has earmarked a small percentage of funds that are available to divisions and schools for planned projects in benchmarking.

Recommendation 9. That, in the light of Curtin's desire to be 'world-class', and its intent to use comparisons as a prime mechanism for achieving this, Curtin undertake a greater amount of structured benchmarking, both nationally and internationally.

2. STAFFING

2.1 Valuing Curtin Staff

One of the new University-wide plans is 'Valuing Curtin Staff 2002-2006' (VCS). Due to be finalised just at the time of the Audit Visit, this plan evolved from the need to address a number of structural, financial and software matters, leading to "a greater clarity on what needs to be done in the organisation for improved management practices" (VCS). The plan draws thoughtfully on appropriate literature, and emphasises trust, support, training, security and remuneration, but also the ability to cope with change and ambiguity. Given the plan's incipient status, there is as yet limited data against which to audit. However, the intentions are entirely consistent with the panel's observation (section 1.1.2) that staff are familiar with the Curtin Vision and Values. The plan is very impressive, it is realistic about the current situation, and has a good feel in relation to looking after staff. If followed through, it should enhance Curtin's working environment, and hence the teaching and research environment and outcomes.

Commendation 4. AUQA commends Curtin for introducing a supportive and comprehensive framework (Valuing Curtin Staff) for handling all issues related to staff employment and development.

One thread of the VCS Plan is to link training and development more closely. The aim is 'management for continuous improvement and growth', by ensuring that training is focused and more closely linked to the competencies needed by the Strategic Plan. All individuals are expected to have work plans for this by the end of October, from which development training needs are to be identified.

2.2 The Staffing Life-Cycle

2.2.1 Appointment

Staff reported good experiences of the process of appointment to Curtin. Informal and formal support is available for staff after appointment. Induction and orientation is provided both centrally and by the relevant school or area. Central induction is good but is offered only twice per year, so can be uselessly late for some staff. Currently, induction is optional for sessional staff, but will be made compulsory from 2003 (as one of the outcomes of the Terrell and QACA Reports).

Probationary periods are three or six months. Even the latter is unrealistically short for an academic position, since the typical academic cycle is 12 months, and it takes two to three years to demonstrate the capacity to be a good teacher and build an ongoing research program. There is provision for extending this by mutual agreement, and the audit panel believes that it would be sensible to take up this option whenever possible and set a long enough period for probation to be

a meaningful and mutually helpful process. This is more likely to ensure high performance in line with Curtin's 'world-class' aspiration.

2.2.2 Review

There appears to be variability on whether annual performance reviews (APRs) are done or not, although they are required by the EB agreement, and the HoS is responsible. They appear to be treated rather informally and not recorded in the system. Since the achievement of Curtin's goals is heavily dependent on the performance of staff, the panel considers (and Curtin recognises in its Portfolio) that the current performance management system needs strengthening.

As noted in section 3.5, SEEQ data is regarded as private to staff, although in some schools they are routinely discussed with the HoS. Since the HoS is responsible for standards, it is important that s/he see and discuss these results. The HoS can then work with the staff member if any shortcomings are identified, and communicate to others any generalisable successful practices.

Recommendation 10. That annual performance reviews be consistently carried out, with relevant data available to ensure their utility to both the staff member and Curtin.

One immediate step which could be taken is to require EDs and other senior managers to sign off all APRs within their units. The audit panel was informed that a computerised tracking system under development in-house will permit the recording of the extent to which APRs actually happen and individual HoSs implement the policy. This could be a PI for the HoS's own APR. The same concept may well be applicable to the monitoring of the implementation of other types of policies. The panel urges Curtin to complete this development and implement the tracking system; and to explore the capacity of the same concept being applied to monitoring implementation of other policies. This could assist Curtin in implementing Recommendation 7.

2.2.3 Promotion

Academic promotion applications up to associate professor are considered by Divisional Promotions Committees, and the recommendations passed to a University Promotions Committee for confirmation. All promotion committees have representatives of the Academic Staff Associations and the Student Guild, plus observers from Staff Services, Learning Support Network, and Ethics, Equity and Social Justice. Consistency across divisions is achieved by having cross-divisional membership. Twice a year, a Promotions Review Committee considers whether any changes should be made to the policies or procedures. In recent times, some very significant changes have been made, including the removal of quotas. Staff feel this has made the process more equitable.

Until last year, a staff member could nominate the weighting to be accorded to the various categories of promotion criteria, such as teaching, research, community service and professional activities. The Promotions Committee

considered, however, that some staff did themselves a disservice by the weightings they specified. In revising the criteria, it was still proposed that teaching, research, international work, community service and use of technology be listed separately, but the feedback from staff was that this would be too complicated. The revised criteria therefore are divided into teaching and learning, research and development, and qualifications. Of course, if an appointment carries an explicit time split (eg 80/20 research/teaching) then a promotion application should be weighted in this proportion.

The criteria are phrased in terms of 'Curtin's expectations'. Investigating whether this phrasing is at the expense of disciplinary or professional characteristics, the panel was informed that the model is intended to be criterion-referenced, and that disciplinary and professional characteristics are embedded in the application.

Promotion decisions are described as 'looking for excellence in Curtin's core business of teaching and research'. International, community and technology aspects (the three emphases specified in Curtin's Mission) are to be woven into the teaching and research criteria, as also is leadership. However, it is questionable how effectively this is done. The revised criteria provide long lists of possible evidentiary items. For example, there are 180 for promotion from Senior Lecturer C to Associate Professor D. With so many points (although it is stated that not all need to be covered), it is likely to be very difficult to determine the extent to which Curtin's Mission is addressed by the application. The key aspects (such as leadership and community / industry relations) are masked by the detailed specification.

The value of a nexus between teaching and research is affirmed in Curtin's Mission statement, and the promotion policy describes their integration as 'a desirable norm at the level of the individual staff member'. While this connection of process to mission is commendable, it would be easy for it to get lost and be overlooked in the complexity of the detail of the promotions criteria. Furthermore, staff may need more assistance in understanding the range of ways in which this nexus might manifest itself (see also section 4.4). At least one staff member has been promoted to the grade of professor (Level E) on the basis of excellence in teaching.

Another innovation is a requirement for the maintenance of a 'professional portfolio', which provides information and evidence of activities and achievements in teaching and learning and research and development. For promotion, a staff member is required to select materials from this portfolio and write an 8,000 word summary to highlight the evidence. Further documentation can include the result of a peer appraisal of teaching. The panel investigated to what extent the professional portfolio improves on a full curriculum vitae. Promotion Committee members believe it assists equity and provides a useful cross-check, but Curtin should monitor more formally whether this large amount of extra work adds materially to the promotion process. Staff members interviewed by the panel found the production of the portfolio rather burdensome,

but yet rewarding in making their achievements explicit. These portfolios would most naturally be accumulated over a person's career, not produced from scratch for a single application. It might relieve the pressure on staff if they were encouraged to address this requirement cumulatively rather than in full at this early stage of the new requirements.

There is a good support process for applicants, beginning with extensive briefings for applicants, and training for Committee members. Unsuccessful applicants are counselled (usually by the Executive Dean) on the reasons for lack of success. These matters must be addressed in any subsequent re-application.

General staff also have extensive training opportunities, development paths and reward mechanisms. These appear to be generally appreciated.

2.3 Support for Staff

2.3.1 Curtin Leadership Program

The Curtin Leadership Program (CLP) is part of Curtin's organisational development strategy, and provides seven two-hour workshops aimed at senior staff to give them the knowledge and skills necessary to undertake leadership positions. The seven workshops were given in each of 2000 and 2001 (and six in 2002). There were about 200 workshop-attendances each year, ie a mean of about 30 people per workshop. Detailed evaluation sheets show that the participants found the sessions useful, and that they made extensive comments for revisions. The CLP also includes a series of less formal 'conversations'.

The CLP has its own high-level steering group that meets at least quarterly and is chaired by the SDVC. During 2002, invitations to the CLP workshops were issued to all HoSs, heads of areas, women from the Women's Executive Development (WEXDEV) group, and to other nominated staff. WEXDEV is a well-regarded ATN-wide program designed to enhance women's career prospects. Funded centrally, it is supported by academic staff and university administration, and is assisting in redressing the low number of women in leadership positions in Curtin.

The Valuing Curtin Staff Plan observes that the current leadership program is limited in application, there is insufficient development for managers, and the linkage between Curtin goals and training and development is poor. One objective of the Plan is to redress the limited application. The autonomy of action given to EDs and heads of schools (HoSs) in the devolved system (section 1.5) means that training for all such academic leaders is essential, and it is recommended that this be mandatory. This would allow for a co-ordinated approach to the continuing professional development of middle level managers.

Inspection of the statistics for the CLP workshops over the last three years suggests that HoSs have attended on average only about 3 workshops. A greater

involvement is needed in view of the rate of change at Curtin, new approaches to planning, new ways of allocating funds, and so on.

Recommendation 11. That mandatory, co-ordinated training be provided for executive deans and heads of school.

This could be the CLP itself in its current form, but as staff begin to attend more frequently, a more varied program will be needed.

Staff, including general staff, report that participation in the leadership program is a major cross-divisional link, which is vital in the context of strong devolution. Heads of school also meet regularly, and this is also vital to transverse information flow. Central consultants to which all divisions and schools can relate are a key element in providing consistency and avoiding duplication of effort.

2.3.2 Learning Support Network

The scope of the activities of the staff development unit or Learning Support Network (LSN, formerly known as the Centre for Educational Advancement) derives from the strategic plan. LSN staff ask the divisions what they would like LSN to cover. LSN has staff who spend 40% of their time working with a specific division. They talk to HoSs and try to encourage people to attend the courses. Staff development is provided on all campuses, not merely Bentley.

Evaluation of LSN courses is through surveys and liaison committees. LSN carried out a survey in 2001 that had a low response rate (30%). 70% of the respondents had taken some LSN courses. Of those, 70% said they would continue to participate. In practice, courses can be said to be popular: with a limit of 25 per course (dictated by room size), there are consistently about 20 people in each course. The audit panel formed the view that the LSN is well-focussed on the needs of its clients, although the observation of the LSN staff is that those who most need to come probably do not.

2.4 Other Matters

2.4.1 Awards

Curtin provides a large variety of rewards, incentives and recognition mechanisms. These include Innovative Teaching Practice Awards, VC Excel Awards, Performance Bonus Scheme, Salary Supplementation, among many others. However, recognition requiring local level funding (such as performance bonuses) depends on whether the particular unit can afford it. There is some concern among staff about the amount of top-slicing and inequity between divisions and schools. The panel spoke to staff about their experience of and attitude towards the range of awards, and determined that these are generally well-regarded. Incentives appear to work, and the teaching-related awards appear to be effective in raising interest in and the status of teaching.

The amount of documentation needed to support an application or nomination is very large, and staff report that there is a huge amount of work involved. However, some of the work can also be applied towards the teaching portfolio for promotion.

Curtin makes use of teaching award winners by inviting them to give an open seminar on an aspect of their teaching, to all Curtin staff.

2.4.2 Staff Surveys

Curtin has carried out two University-wide surveys on Valuing Teaching, in 1993 and 2001. On both occasions, staff valued teaching more than research, but the gap has narrowed markedly. This may be because there has been a planned effort to appoint staff who are strong researchers, to complement Curtin's teaching strengths.

Similarly, on both occasions, staff believe institutional values and promotional criteria are weighted towards research, but the gap has narrowed a great deal. It is difficult to determine the causes of such a change, but the panel's interactions with staff suggest that the teaching awards (section 2.4.1) and the LEAP scheme (section 3.6) are significant factors. Curtin's willingness to revise the promotions policy in response to staff input is also likely to have played a part.

2.4.3 Workloads

The audit panel heard evidence of high workloads for both academic and general staff, consistent with experience across the HE sector. In a period of declining resources and rising student-staff ratios it is essential that workloads be carefully managed. Some schools have implemented workload plans for academic staff, taking into account all aspects of academic activity. Where they exist, such plans appear to be valuable and appreciated, but they are by no means ubiquitous. The panel suggests that a systematic use of workload plans will help Curtin in the equitable distribution of work and in the monitoring of aggregate workloads.

3. TEACHING AND LEARNING

3.1 Teaching and Learning Plans

Curtin has had a sequence of University Teaching and Learning Plans (TLPs), the most recent being 1998-2001 and 2001-2005. The panel checked the November 1999 report to Council on the 1998-2001 TLP, and noted that some targets had already been met, and others were in progress. Following that, the new planning framework was introduced (section 1.4), and Council moved to focus on monitoring the key strategic priorities it has approved from time to time. The system now is that when the University TLP has been approved, it becomes the responsibility of each ED to ensure that the relevant teaching and learning objectives are addressed in the divisional plan, and, in turn, for each school to link to the divisional objectives. Schools can use additional measures to the core set included in the corporate scorecard. The co-ordination and coverage of these plans is monitored by PMC, which selects different facets to monitor at particular times.

Staff interviewed by the panel have some knowledge of this system of cascading TLPs, which is a good way of linking Curtin's intent with the staff's implementation. However, for the benefits to be realised, the system must operate effectively in every school, and this is not yet the case. As discussed in section 1.3.4, it may be helpful to base some proportion of school funding on achievement of the PIs in the school's TLP (cf. section 3.7).

An inter-university teaching and learning forum, held at the beginning of the academic year, was found to be valuable according to feedback from those staff who participated.

3.2 Courses

3.2.1 New Teaching Developments

New course proposals are made by means of a New Teaching Development (NTD) template which, the Performance Portfolio states, challenges course designers "to ensure that learning outcomes are identified, assessment is measured against those outcomes ... and appropriate generic skills are included". Completed NTD templates examined by the panel did not reveal that many staff have risen to this challenge. The section for 'course aims' uses 'computer and information literacy' as an example of a possible response, but does not indicate that inclusion of such generic attributes is expected. The section for 'quality outcomes' which seeks answers to the questions 'how do you plan to measure the success of this course? what mechanisms would you use?' is rarely completed, leaving the sample responses to stand alone. In general, course proposals are adequate, but not as thoughtful as the statement quoted from the Portfolio suggests. Generally, assessments are not explicitly linked to particular outcomes, and generic skills are not mentioned.

The NTD template is currently being revised, with an eye to triggering more thoughtful attention to the matter of generic attributes.

Recommendation 12. That in view of the Teaching & Learning Plan target of ‘Curtin-endorsed graduate attributes incorporated into all courses/units’, full implementation of the relevant aspects of the course proposal process be ensured.

Responsibility for this might appropriately be placed with the Courses Committee on behalf of Academic Senate.

When a new course is proposed, the EDs of the other divisions are required to indicate in writing that they have no objections to its introduction. This is a useful mechanism that is partially successful in reducing duplication. Where there is conflict over a course, this may be addressed by the chair of the Courses Committee through informal discussion, or directly between EDs.

The average length of time for the development and approval for a new course can be anything between 6 months and 18 months. This rather long period appears to result from the composition of the committee and the serial nature of the process. It depends also on whether there are accreditation issues. Consideration could be given to streamlining the process, perhaps through dealing with resource and overlap issues at a preliminary stage. The panel noted that there is a process for fast-tracking proposals, and it may be possible to learn from this mechanism and speed up the standard process. There is a requirement that courses approved through the fast-track be reviewed after the first 12 months of operation. Review results can also be slow to be fed back into the system.

Recommendation 13. That ways be considered of accelerating the approval process for new courses.

3.2.2 Consolidated Teaching Policy

Curtin is also working to reduce unit duplication through the Consolidated Teaching Policy (CTP) adopted by Council in 1999. The first part of this project, completed in 2001, has been to revise all units to a uniform structure and unit value. This has been more difficult in areas where the curriculum is more tightly controlled by external (for example, professional) constraints. Further attention will be needed in those areas where the change sits rather uncomfortably.

Curtin wishes to rationalise all service teaching, and the uniform structure means there are now no impediments to removing duplicate courses. It is hoped to ensure relevance and quality in service teaching through financial incentives and contracts between schools.

3.3 Generic Attributes

Reference to 'graduate qualities' appeared in Curtin's first teaching and learning plan (TLP) in 1993. Initially they were listed as University-wide qualities for all students. However, further reflection, work with employers and devolution have led Curtin to allow attributes to differ between divisions and schools. Sometimes the terms graduate or generic skills or attributes, or professional skills are used synonymously with graduate qualities. However, it is sometimes useful to distinguish between graduate skills, attributes etc. as denoting the totality of the characteristics of a student on graduation, including aspects relating to the specific discipline studied; and generic skills, attributes etc of graduates as being the more general abilities expected of all graduates, regardless of their discipline.

Curtin's commitment to generic attributes is indicated by the Course Experience Questionnaire results for this factor. In each of the years 1998-2000, for example, Curtin's score is about 10% above the national average. Also, in 1999-2000, Curtin participated in a DETYA-supported ATN project to develop a systematic strategy for cultivating and evaluating generic attributes.

In 1999, Curtin commissioned a reviewer to assess the extent of coverage of generic attributes across the Curtin curriculum, and suggest ways of developing them. The project found that work-related skills were addressed very well; critical thinking, sensitivity to aboriginal issues, and a sense of service and social justice were generally not well-addressed; and history of science, information literacy and communication skills were addressed well in some areas and poorly in others. Recommendations for addressing this included the production of a policy on teaching and assessing generic attributes, creation of a proposal form for new courses that explicitly provides for generic attributes, and support of staff in this area through pilot projects and professional development. The panel noted that it has taken a very long time to implement the recommendation to create a new course proposal form.

An appropriate Curtin Teaching and Learning objective was constructed, and divisions invited to address it in their own TLPs and actions. In CBS, for example, a task force (including employers, students, library and LSN) met over eight months and identified seven professional skills. In May 2000, CBS agreed that all unit outlines should contain learning objectives for each skill (indicated by a specific icon), assessment criteria for each skill, and the relation of each skill to the course content. It also agreed that professional assistance should be provided to staff in measuring the effect of course revisions. A Curtin-wide check by the Director of Teaching and Learning a year later showed that the implementation of this system had been patchy, and depended rather on the enthusiasm (or otherwise) of individual staff. The same check revealed similarly detailed attribute identification in some units in Health Sciences, and the use of a matrix of generic outcomes against first and second year units in the Faculty of Education.

Discussion of this matter with staff in the Division of Engineering and Science reveals that pressure for explicit attention to generic attributes has come more from the accreditation requirements of the professional association (the

Institution of Engineers Australia) than from internal factors. E&S is now working on an attributes project with LSN, with a major review of first year, looking towards developing a balanced education. As an outcomes orientation is becoming increasingly sought by professional associations world-wide, and as Curtin has so many professional disciplines, analogous external pressure is likely to be felt more widely through the University.

In the Faculty of Education, LEAP (see section 3.6) triggered wide discussion of this issue, resulting in 14 attributes. While it was recognised that this was too many, discussion about the appropriate smaller number has dragged on. With the current review of HE putting teacher accreditation on the agenda again, the issue will be re-visited.

Commendation 5. AUQA commends Curtin for the explicit attention it has given to generic attributes of graduates, in line with objectives in its Mission and Goals.

However, as suggested by the observations above, momentum in this area appears to have been lost. In its self-review, Curtin has identified the need for LSN to work with HoSs to make all courses outcomes-based, incorporate generic attributes more explicitly and give fuller attention to skills development for Communication, IT and information literacy. The panel endorses these actions as being necessary for the achievement of Curtin objectives.

3.4 Standards

It is implicit in the outcomes of every university that students are expected to reach certain standards or levels of achievement on graduation: that a 'pass' (or other grade or honours) has some describable significance. Therefore the audit panel investigated how standards are set, achieved and monitored at Curtin.

The universal response to the panel's question was that every school or program is required to have an advisory committee or board with external membership. The expectation is that through their involvement in curriculum design, including assessment mechanisms, these external members will contribute the current external expectations of graduates. The audit panel discussed the above with some advisory committee members, and (from a small sample) ascertained that some committees would not see themselves as able to play a role in monitoring and affirming graduation standards.

The second response to the question was to point out that over 60% of Curtin's disciplines are subject to external professional accreditation. Furthermore, the VC receives all accreditation reports. Curtin expects external accreditors to look at samples of examinations and student assignments, and the corresponding grades awarded. However, heavy reliance on external accreditation leaves Curtin at the mercy of the scope and expertise of the external accreditor, as well as the requirements of the accreditors' approach and processes.

Thirdly, Curtin has developed an employer survey for use by all schools, which may be particularly useful for those courses that are not subject to professional accreditation. This is related to the statement of graduate attributes. Schools can adapt it to their own discipline and may use it annually or biennially. While a significant weight should be placed on employer views, care should be taken in interpreting them, as they can be affected by many factors. Furthermore, not all schools have developed their statement of generic attributes (section 3.3) to the point at which such an employer survey can be meaningful.

Fourthly, some schools have a board of examiners that, *inter alia*, carries out cohort analysis. This looks for discrepancies in the marks of a cohort, both within a semester and over successive semesters. This is a consistency check, rather than a level check.

Other mechanisms mentioned were high entry standards, teaching evaluations every semester, comparison of curricula with other universities, staff visiting other institutions, staff working in industry, joint undergraduate / industry projects, and feedback from students placements.

Although each of these mechanisms for ensuring that standards are achieved has its own drawbacks, the totality provides a quite secure basis. Nonetheless, there would be value in reflecting on how Curtin can re-assure itself that no courses or schools fail to be adequately covered.

Recommendation 14. That Curtin satisfy itself in a systematic way that it has adequate and comprehensive mechanisms for ensuring standards, and that these mechanisms are effectively applied.

Curtin could consider using structured benchmarking to address this issue in the first instance. Also, EDs could perhaps be asked to include in their annual report to Academic Senate reference to the mechanisms used for ensuring standards are adequate and up-to-date.

3.5 Evaluation & Feedback

Curtin's Portfolio reports quite extensive feedback from students & graduates. Evidence is given that where poor results have been noted improvements are planned. There is less evidence that all these results are collated into a holistic picture and acted on. Nor is it clear that these results are disseminated to Units and areas for action (and there were comments from one school of difficulty in accessing institution-level feedback data). The panel was informed that there is no overall framework for promulgating survey results. It was also clear that overall there is insufficient feedback to students on action taken as a result of surveys (with the library being a notable exception). Curtin itself has recently identified this matter as being in need of attention.

SEEQ data is treated as private to staff, and many students see little value in completing the evaluations thoughtfully. They also begrudge the time spent in doing so, as this is done in every unit. The panel recommends a more sampled approach to unit feedback, for evaluative data to be discussed with at least the HoS (the panel learned of at least two schools in which this happens), and feedback to students on action taken as a result of the information gathered. The panel learned that some staff do indicate to students at the beginning of the next semester what comments were made by the previous cohort of students. There could be more use of small surveys mid-semester instead of all surveying being done at the end. This would allow more immediate action on matters raised by students.

More generally, the panel believes that there is a risk of students being over-surveyed. The panel learned of one University survey that is to be combined with a Students' Guild survey. Curtin should explore more ways of streamlining and combining surveys, and of using sampling techniques and focus groups. Student representatives on committees and boards should be involved as much as possible in the processes of data collection, interpretation and use. It is important to make as much use as possible of all data collected. At present, there is little attention to whether data provided is used.

Recommendation 15. That Curtin develop efficient mechanisms for tapping student opinion, translating the feedback into action, and informing students of outcomes and changes made.

3.6 LEAP

The Learning Effectiveness Alliance Program (LEAP) was initiated in 1998, supported by teaching and learning strategic initiative funds, to raise the status and “quality of teaching and learning ... by providing financial and other forms of support for exemplary developments ... to facilitate significant change through collective effort by teams of colleagues”.

Altogether, 13 projects, selected competitively, have been funded over the period 1999-2003. Some started in each of the first three years, and each is funded for three years (\$100,000, \$50,000 and \$30,000 respectively in the successive years). Most projects have related to flexible learning in some way, but others are working on student performance evaluation, information literacy, and supporting ‘at risk’ students. LEAP expos and displays have been held, and interaction between different LEAP teams has been very fruitful. (There were no LEAP projects in Curtin Sarawak because of its early stage of development when the LEAP funding was allocated.)

The genesis of one successful project was a response by the Graduate School of Business to its students’ increasing interest in flexible learning options. The School was given a LEAP grant to develop, implement and evaluate an integrated model for mixed mode delivery. The project assisted the generalisation of the

necessary planning and procedures across the University. This project now has three years of data, has given rise to conference presentations, and continually involves new aspects of the learning environment across the University (eg the library, in relation to e-journals).

Commendation 6. AUQA commends the Learning Effectiveness Alliance Program (LEAP) as an excellent initiative, not only in the actual learning processes and improvements from its 13 projects, but also in the collaborative team approach to the projects, and the dissemination of the learning from the projects across the University.

Furthermore, the panel noted that LEAP is consistent with Curtin's usual modus operandi, namely pick up a good idea wherever it arises, kick-start the process from the centre, get good practice going without coercion, disseminate and celebrate the success. This has proved to be a very effective model for Curtin.

The On-Line Learning Delivery (OLLD) project is sometimes confused with LEAP, as so many of the LEAP projects relate to on-line learning. However, the focus of OLLD is to embed the use of on-line learning. Its immediate aim is to have all units web-supplemented by the end of 2003 (at least to the extent of having the unit outline on-line). Because of Curtin's approach to devolution, it is not always possible for the centre to know that units are on-line (although there is a record of those that are WebCT based). Nationally, on-line delivery is in its infancy, so there are few models to draw on. It is important that the use of WebCT be driven by pedagogical considerations.

3.7 Teaching Quality Index

Building on previous work by the School of Biomedical Sciences on developing and implementing a teaching quantum in 2000, the Division of Engineering and Science in 2001 created a model for the distribution of the teaching and learning performance-based funding component (7.5%) of the 2002 recurrent budget allocations to schools (and departments). The model, called the Teaching Quality Index (TQI), scores three areas of teaching and learning performance on a 0-100 point scale:

Part A - Quality of Programs – 50% weighting

Part B - Reflective Practice and Strategic Planning – 25% weighting

Part C - Program and Course Flexibility – 25% weighting

Part A uses measures from the Course Experience Questionnaire, normalised with respect to Divisional and national disciplinary means. Part B reflects the proportion of staff using student feedback, the proportion involved in staff development, and the quality of the school's planning. Part C is based on the proportion of units which exhibit some degree of flexibility and the proportion of staff involved in Curtin flexible learning initiatives.

The TQI reflects the University's and the Division's teaching goals and is therefore an appropriate measure of performance.

Commendation 7. AUQA commends the development of the Teaching Quality Index by the Division of Engineering and Science as a means of rewarding teaching performance in an analogous way to that in which research performance is rewarded, thereby achieving a balance in performance-based funding of the two core activities of teaching and research.

The panel was informed that the development of a culture of valuing good teaching and learning practices in E&S over recent years has been triggered by the advent of performance-based funding. The TQI concept is now being considered for adoption by the Division of Health Sciences.

4. RESEARCH AND RESEARCH TRAINING

4.1 The Research Environment

4.1.1 Planning

As befits its nature as a university of technology, Curtin's emphasis in its research and development is on 'seeking creative solutions to practical problems'. Over the last ten years, Curtin has put in place a range of mechanisms to develop and support its research activity, with some success, as evidenced by an overall increase in research outputs. Over this time, Curtin has appointed staff whose specific goal is to develop Curtin's research activity and/or to increase the number of research students.

The panel examined the RMP for 1998-2000, the strategies adopted and then the analysis of progress. Initiatives foreshadowed in this plan include: identifying emerging needs, encouraging research excellence, streamlining research processes, facilitating technology transfer and supporting postgraduates. A large number of sub-strategies and (about 50) measures were created, mostly input and process measures. By the end of the triennium, about one quarter of the targets had been achieved, and another one third were described as 'in progress' or 'partially complete'. This may seem a modest rate of progress, but it should be noted that research outputs such as publications and higher degree completions did rise significantly during that period.

Outcomes of this RMP, quoted in the foreword to the 2001-2005 RMP, and verified by the panel, include the establishment of procedures for revising the operating and policy frameworks, and the concentration of resources into key areas of research strength and emerging areas of national and international importance. Research recognition is now more inclusive of creative activities, and the RPI has brought a closer fit between school activities and rewards. Guidelines relating to postgraduate research students have been developed and a Dean of Graduate Studies appointed (see section 4.3.4).

The current RMP has been developed using the new Curtin planning framework, with objectives and measures spread across the Balanced Scorecard indicators. The panel investigated the continuing progress in research and development in relation to this plan. One indicator is the steady increase in research publications since 1997.

The panel investigated the procedures for monitoring human and animal ethics, and concluded that they are satisfactory.

The panel heard, from both inside and outside the University, complimentary comments on the research leadership being provided centrally at Curtin.

4.1.2 Funding

The parameters for research funding within Curtin have been very opaque. The Research Quantum has not explicitly been passed through to the areas generating it. A rather complex, but more explicit new funding model has been developed (set out in the current RMP and RRTMR). This guarantees more funding to the 'earners', although there are several stages along the way where funds can be intercepted.

Curtin has for some years used a Research Performance Index (RPI) as a way of rewarding groups of researchers. The RPI for each group is calculated on the basis of a number of indicators (grants, publications, research higher degree completions, editorships, prestigious awards, etc), with points being awarded for performance on each indicator. Groups are awarded funds according to the number of points they amass (based on a four-year weighted average), provided they exceed a minimum threshold. The dollar value of each point is simply the total sum allocated to the scheme divided by the total number of points amassed by all the research groups who qualify.

The RPI scheme rewards research performance and encourages staff to work in groups (since it is difficult for individuals to reach the qualification threshold). The rewards in recent years have varied from around \$2,000 to almost \$100,000 per group, with the larger amounts generally going to larger groups. As research activity has increased, the value per point has declined, but Curtin intends to address this problem by allocating a fixed proportion of its RIBG (100%) and IGS (20%) funds to the scheme, commencing in 2004. It is hoped that increased research performance by groups will lead to increased RIBG and IGS income, which will in turn maintain the value of RPI points.

Staff appear generally positive about the RPI, appreciating the direct reward for their work, though there was concern over the amount of bureaucracy involved (the latter point has been addressed in a recent review of the scheme).

4.2 Research Performance

4.2.1 Research Strengths

In pursuit of its objective to 'focus strategic and performance-based resources into key R&D areas', Curtin has been going through a process of identifying its research strengths. Approaches used in different divisions include the establishment of a new institute (in R&E), creating a graduate school (Humanities) and seeking self-nominations (E&S). Judgements are being made in relation to international, national and local ranking. Once groups are identified, the funding formulae used will provide differential support, the groupings will guide staff appointments, and so on.

To allow for individual research excellence, broader 'research themes' are also being recognised. These should enable the majority of researchers to be associated with strengths, at least in a loose way. There may be about half a dozen of these in total.

4.2.2 Research Centres & Institutes

In its 2000-2001 Research Report, Curtin lists 12 research centres and four research institutes, several of which are joint ventures with other universities and organisations. A centre is defined as an area “accommodating a major research activity ... meriting repute beyond the University. It will have the potential to be a contributor in its field of expertise at national and international level and provide industry and the community with a reference point in the field of study”. Thus, a centre is an identifiable activity but not necessarily internationally eminent. Institutes may span several schools (and organisations). Following a major review of centres and institutes, two of the centres have been closed.

The panel investigated the criteria for continuation or closure of a centre or institute. Proposals emerge from schools and divisions, and the URDC considers whether it will satisfy the criteria. If so, it is recommended to PMC for approval. Some central funds are provided to some institutes. The main rationale for the establishment of a centre or institute is to get more of an identity to attract students and generate research income. The closures reported were due to the centres failing to be financially viable, and/or to meet the strategic objectives of the centre itself or the University, and/or to be a significant reference point distinguishable from the school. The panel commends this attention to achievement of objectives. It also noted that international standing is more likely to be required now than ten years ago.

Institutes are now reviewed every three years and centres every five years, based on an internal review and external moderation. In the case of institutes, this moderation consists of a three-day intensive review by an external panel. Curtin is about to revise its mechanisms for reviewing centres and institutes, and should attend to the standing and effectiveness of these entities.

4.2.3 Research Outcomes

The audit panel examined whether the planning and policies of the last decade have resulted in enhanced research outcomes. In terms of quantitative indicators, the current RMP reports increases over the period 1997-2000 in RPI points, publications, research income and research higher degree completions. The RMP does not report on outputs per capita, nor does it provide benchmarking comparisons with other universities. However, further research performance data is provided in the 2001 Annual Report. This indicates that over the period 1998-2000 Curtin improved its research income and publication performance to come closer to the Australian university average, and its performance on these indicators was higher than the ATN average. Per capita performance data is clouded by a redefinition of research academic staff in 2000.

In terms of qualitative indicators, the Portfolio quotes several examples of research with significant local and national impact. Curtin also ranks highly in research income derived from CRCs, indicating that it is heavily involved in applied research with commercial partners. There is no published evidence of

international impact, and the panel was unable to discern any trends in the quality of research outcomes.

Overall, there is little doubt that Curtin has improved its research performance over the last few years, and has maintained a position ahead of the ATN average. To attain its goal of being 'world class' it needs to compare itself more systematically with comparable universities overseas.

Commendation 8. AUQA commends Curtin for its research planning and policies which have led to enhanced research outcomes.

4.3 Postgraduate students

4.3.1 'Best Practice Framework for Research Training'

The panel noted several instances of good practice in this area.

In 1998, Curtin commissioned a review of postgraduate supervision. The Liston Report contained 35 recommendations, most of which have been implemented. This year, a 'Best Practice Framework for Research Training' is being developed. The Framework is built around a number of principles, each of which has associated outcomes, strategies and measures. In 2002, it is expected that divisions will ensure that the Quality Research Training Allocation (that is the 10% of RTS funds distributed to divisions based on completions) is used to assist in implementation of the Framework.

It is, of course, not possible for the panel to comment on the effectiveness of this new initiative, but it commends the approach and its deployment. It will need careful monitoring. In relation to the 10% of RTS funding, the Dean of Graduate Studies is negotiating target minima with EDs. Next year, a report will be required, and the funding could be reallocated.

It will be important to ensure that the RTS money is not used to pay for support within a school or division that duplicates support already available elsewhere.

4.3.2 Thesis Committees

Every student, including those overseas, has a thesis committee. The 'Guidelines for thesis committees and supervisors' defines a 'thesis committee' as a 'supervisory panel ... appointed by the UGSC on approval of Candidacy and associated with a specified student ... It comprises a Chairperson, Supervisor and Associate Supervisor(s)'. This is a particularly useful concept in cases where schools currently have few PhD holders on staff, as co- (perhaps external) supervisors can bring this background to the supervisory activity. None of the research students interviewed by the panel knew the members of their thesis committee per se (ie they knew at least one supervisor but were unaware of any role played by the committee). Curtin could usefully examine this situation, and clarify the nature and role of the thesis committee. If a structure exists, it should

be working, and if it is not then it needs attention. It may be that the name of the committee leads students to think that it is an examination committee, and therefore irrelevant until the time of thesis submission.

4.3.3 Register of Supervisors

Over the last year, training opportunities for supervisors have increased. For example, in the first semester of this year there were a number of programs with over 200 attendances, extending from basic matters like helping students with applications, through to dealing with student/supervisor relationships.

Curtin is establishing a Register of accredited supervisors. The current specification of who is eligible to be registered is rather circular, and includes 'anyone currently supervising'. If such a register is to have any significance, it should distinguish between those seen as well-qualified (by training and/or experience) to supervise postgraduate students and those who are not. It is vacuous to assume that everyone currently supervising is in the former category. It is therefore recommended that this criterion have a sunset clause added to it. There should also be some clarification of the role and qualifications of associate supervisors, including external industry-based supervisors.

Also, the Register is currently voluntary, ie one can supervise even without being on the Register, which undermines its purpose.

Recommendation 16. That criteria for registration as a supervisor of research students be made more precise, that registration be mandatory for supervisors, that adequate training and development opportunities be provided for existing and potential supervisors, and that criteria and procedures for de-registration be set down.

The Register specifies a formal monitoring process and an annual review of supervisors is being considered. The panel suggests that rather than creating a new review process the monitoring of supervision be linked to the annual performance reviews of staff and to the monitoring of PhD completion and attrition rates.

Students report positive experiences of helpful school postgraduate co-ordinators.

4.3.4 Support

Curtin has a form of agreement between supervisor and student for completion in writing at an early meeting of the two parties. As, according to the policy, this action is voluntary, the agreement is not always addressed. The panel suggests that the use of this agreement be required for all students and supervisors.

Curtin has a set of guidelines for essential facilities for HDR students. When the initial application for funds is made, the HoS must confirm that the student's requirements can be met. Curtin provides \$1500 per annum per research student, and some schools pass it straight to the student, some schools have the student

draw down against it, and some pool the money. While the needs of various disciplines dictate some differences, all students should receive their entitlement in some well-defined way that is made explicit to students.

4.3.5 Progress Reports

The panel was informed that separate annual progress reports are produced by the student and the supervisor, and both are seen and signed off by the HoS. The panel was also told that the reports go straight to the divisional office, not to the school. It was not clear how problems signalled by students and/or supervisors are handled or actions taken at the level of the system or the individual. The panel commended the production of separate reports by the student and supervisor as offering the opportunity for each side to make comments that they would be diffident about passing via the other. However, the 'Guidelines for thesis committees and supervisors' states that the supervisor discusses the student's Annual Progress report with the student 'prior to forwarding the report to the HoS'. There appears to be some confusion about (or variability in application of) the policy.

Curtin policy permits the supervisor to decide whether or not to make a report, although some divisions make it mandatory. It is rather curious that it would be appropriate to go for more than a year without a formal report on a student from the supervisor, and it is recommended that the report be mandatory in all cases.

Recommendation 17. That annual reports by supervisors be a mandatory part of the system for monitoring the progress of research students.

If a student has a problem that needs the attention of someone other than the supervisor, they can go to the chair of the thesis committee (provided they know who this is). If this is not successful, the student can go to the HoS or ED. There is also a grievance process and counselling available. Curtin reports a good success rate with resolving issues.

4.3.6 Examiners

Supervisors choose the examiners for their postgraduate students, usually in consultation with the student. The Curtin guidelines provide the option for the student to comment. The HoS makes the formal recommendation, indicating why each examiner was chosen. Given Curtin's aspirations to become 'world class' the panel suggests that at least one examiner be from overseas. (This is not to say there are no world class examiners in Australia, but to guarantee an international perspective on all theses.)

Theses are submitted to the Graduate Studies Office (GSO) and the examiners' reports come back to the GSO and then to the student's thesis committee. The chair in conjunction with the committee is then responsible for making a decision about instructing the student on any revisions which may be necessary. The final decision on the steps to be taken and ultimately the recommendation on the award

of the degree lies with the Dean of Graduate Studies. The Dean of Graduate Studies reads all examiners' reports, and would take action if some systemic issues emerged. (The position of Dean of Graduate Studies is a recently-created half time position.)

Some schools are monitoring completion times. This should be a widespread practice. In order to get current feed-back data, student exit surveys are being carried out (as the PREQ data is so dated when the University receives it).

Overall, Curtin is moving in the right direction with its postgraduate student supervision framework. The panel was impressed with the approach and actions of the Dean of Graduate Studies, but notes that the identified workload is already greater than a 50% appointment. To implement fully the Best Practice Framework and to handle the anticipated increase in research student numbers, the position needs to become full-time (but perhaps still involving the supervision of a number of research students).

Recommendation 18. That the position of Dean of Graduate Studies become a 100% position (from its current 50%).

4.4 Teaching/Research Nexus

As indicated in section 2.2.3, it is a target in Curtin's TLP to 'strengthen the nexus between teaching and learning'. The initial proposed action is to introduce awards for the scholarship of teaching, and further proposals are to be developed. The teaching / research nexus is significant on Curtin's goals, but at present few implementation mechanisms have been widely explored.

The audit panel discussed this with a number of staff, and was informed of various ways in which undergraduate project work is based on or linked to the research interests of the staff member, staff industry experience, or research students in the same school. Despite these examples there is no clear articulation by Curtin of the teaching / research nexus, or how it can be recognised or achieved, and Curtin is encouraged to give it more attention (in line with its goals).

Recommendation 19. That since the teaching / research nexus is an important part of Curtin's goals, its implications and implementation be more clearly articulated.

5. INTERNATIONAL ACTIVITIES

5.1 Internationalisation

The Internationalisation plans of 1996-1998, 1999-2000, and 2001-2005 all include aspects such as internationalising the curriculum and research, staff exchange, student mobility, and cultural variety, as well as developing educational markets, attracting international students, establishing teaching partnerships, etc. The audit panel found some significant instances of internationalising the curriculum. However, the 1999 investigation into generic attributes (see section 3.3) found that 'internationalisation often tended to be understood in terms of attracting international students' and 'that the benefits of internationalising the curriculum ... have not been fully understood'.

The 1996-98 plan was very detailed, and contained a well-researched definition of 'internationalisation' for Curtin, which divisions and schools were required to map into their own strategic plans. It also contained some 35 pages of detailed strategies and targets, which staff found hard to understand and which obscured the key priorities. The 1999-2000 document took a fresh look at the area and, following a brief discussion of internationalisation, there is a more realistic number of target areas, together with examples of what two divisions have achieved in internationalisation. The current 2001-2005 Plan was developed using the new planning framework (section 1.4). It is quite succinct while containing objectives within each theme. The 2002-2003 'Priorities for Action', based on the current plan, sharpens the requirements on divisions and schools by identifying priority objectives and targets on which they are to concentrate their efforts in that period.

As noted previously in reference to division and school plans in general (section 1.3.2), there is variability in the extent to which divisional Internationalisation Plans reflect the intentions of the Curtin Plan. The panel confirmed Curtin's own self-review conclusion that the actual implementation in Divisions and Schools is variable, as is awareness of the concept of internationalisation and of Curtin's international objectives. The Priorities for Action document already mentioned is an attempt to remedy the situation, and Curtin is commended for that initiative. Progress towards the achievement of the priorities and targets should be monitored.

Divisions and schools are supported in their international activities by a large number of structures. These include an International Strategy Group, an International Policy Committee, an International Marketing Committee, 15 Country Reference Groups (each responsible for one of Curtin's main geographic areas of interest), divisional committees, International Students Advisory Group, International Fees Working Group, International Office (which has ISO9001:2000 certification), PVC(International & Enterprise), and divisional co-ordinators. The CBS International Programs Office and the School of Architecture, Construction & Planning's international operations are also certified to ISO9001.

Curtin has a substantial overseas operation, operating in two main models, namely partners who offer all or part of programs on Curtin's behalf, and

Curtin's campus in Sarawak. On the basis of its initial positive impressions of the QA processes for overseas courses, the audit panel provisionally decided that its sampling would not need to include an overseas visit. Further investigation confirmed that tele-interviews with students and staff, including the ED, of Curtin Sarawak would suffice.

5.2 Courses offered with Partners Abroad

5.2.1 Planning

Courses are developed and approved through the normal Curtin process. However, proposed courses abroad must be submitted to the relevant Curtin Country Reference Group. No school is permitted to begin a new program without permission from the Country Reference Group, which contains representatives from each division. The preference in any country is to stay with one partner for all courses, changing partners in the event of dissatisfaction. Prospective partners are carefully checked by the Country Reference Group to ensure that they are not of low status in their own country.

Marketing is allocated funds from both central and divisional sources. Each division has an international marketing co-ordinator and the Curtin Marketing Committee agrees an annual schedule.

5.2.2 Support

Support for the programs abroad always involves visits to the overseas operation by Curtin staff from Perth. The frequency of such visits varies between divisions, and can relate to whether the students are enrolled at the partner institution or are Curtin students. These activities seem to be satisfactory (see below).

The panel learned of some good school-based support for staff teaching overseas. For example, the School of Architecture, Construction & Planning briefs staff on the cultures they will meet, and staff usually stay in the same place overseas; while the Graduate School of Business has extensive manuals that provide reassuring backup. In general, however, the audit panel considered that better induction is needed for staff teaching abroad. This view is confirmed by the 'Valuing Curtin Staff' Plan (see section 2.1) which comments that there is very little preparation of staff before they undertake offshore teaching. A requirement for training in cross-cultural education is included in the Offshore Operations Policy, which is currently under review. Provision and monitoring procedures should be put in place to ensure that adequate training and orientation is in fact given.

Recommendation 20. That Curtin provide centrally coordinated induction and support for all staff teaching overseas.

Staff interviewed by the panel were positive about the overseas teaching experience, but (again quoting the VCS Plan) off-shore teaching is considered to

be separate from on-shore responsibilities. Last year, PMC addressed the possible negative implications for teaching and research at Curtin of large amounts of staff time spent overseas, and some students interviewed by the panel expressed a similar concern. Some staff assured the audit panel that there is usually scope for re-arranging overseas commitments to fit around research and home teaching constraints, but Curtin should investigate whether this matter needs further attention.

The provision of teaching material, library facilities and electronic support is generally satisfactory, although gaps were mentioned to the panel, including at Curtin Sarawak.

5.2.3 Monitoring

Each year, HoSs or course co-ordinators complete a written review of all overseas programs. This is submitted via the ED to the Quality Manager International, who checks and comments on them and passes them to the PVC(I&E). Each review report covers the set of programs offered by a particular partner. The audit panel examined six annual reviews, two judged by Curtin to be 'Good'; two considered 'Acceptable'; and two which required a site visit follow-up.

The template used in the report is very comprehensive, covering areas of 'Overall Quality', 'Accreditation and Entry Level', 'Student Staff and Site Assessment', 'Administrative Processes', 'Market Assessment', and 'Collaboration Assessment', with each of the areas including many sub-categories on which reporting is required. Examples examined by the audit panel indicate that they are fully completed. Follow-up of the reports is very thorough. On the basis of the Quality Manager's investigation, the PVC(I&E) sends a written assessment to the HoS in cases where action needs to be taken. Site visits are made by the PVC(I&E) where there are unresolved issues.

There is no audit of compliance with entry requirements, nor with assessment requirements. Such audits are not seen as necessary since the selection for entry and the marking of examinations are undertaken at Curtin in Australia. The situation with moderation of assignment marking is less clear. Moderation is undertaken during the period of Curtin staff teaching visits to the partner. This usually involves re-marking a sample – up to 100% - of assignments, and a moderation report is then prepared. This report is not included in the annual report template (although the Quality Manager International may request it), nor is there an audit of the moderation process. There is a tracking system for monitoring the meeting of responsibilities by Curtin staff, for example on the timely provision of marking schemes for assignments. PIs based on the tracking system are not required in the annual report, but it may be useful to include them.

Curtin works as necessary with partners to survey the academic and administrative support provided, both from Perth and abroad.

Commendation 9. AUQA commends Curtin for the very thorough, rigorous and effective process of quality assurance in place in relation to courses offered overseas.

The panel suggests that, to further improve this process, Curtin obtain feedback annually about the moderation reports, and monitor some PIs based on the meeting of task responsibilities (probably by the school and the partner).

The panel inspected international agreements, and satisfied itself that they are generally well implemented. The panel was also satisfied that the frequent interaction between Curtin staff and the staff and students of partner organisations is usually an adequate quality assurance measure. It suggests, however, the Curtin be alert to the possible need in some places to pay more structured attention to the quality of the staff in partner organisations, and to undertake formal (including student) evaluations of them.

The panel noted that in one case investigated, where a partnership was dissolved, appropriate contingencies were implemented to allow all existing students to complete their course.

5.3 Curtin Sarawak

Curtin Sarawak is a Joint Venture Agreement between Curtin (in Perth) and Curtin (Malaysia) Sdn Bhd which owns and operates the Curtin Sarawak campus. There is a Curtin Sarawak campus Council and a Management Board, but the approval of the Curtin Council is required for control of all academic matters. Curtin Sarawak functions as a division of Curtin, and is headed by an ED. All academic staff employed at Curtin Sarawak must be approved by Curtin. This may involve joint interview panels. Of 63 academic staff, 13 have PhDs, 36 have masters (of whom 5 are enrolled for a PhD), and the remainder have at least a bachelor degree.

The panel investigated the way in which Curtin's policies and procedures are worked through in the case of an overseas campus, and was satisfied that the translation is done well. The strategic plan maps down appropriately, the Balanced Scorecard is used with the same four categories, community links are established albeit with a different community, and so on. The main difference is the way in which the financial management occurs because the campus is a joint venture. Curtin Sarawak has its own student services, and there is not much interaction between the support areas in Perth and Sarawak (although it occurs when necessary, for example a librarian from Perth training Sarawak staff). Provision of course materials from overseas to Curtin Sarawak is not always easy, and a good deal of administrative effort goes into monitoring the arrival of materials, and contacting the off-shore program manager when necessary. However, the process appears to succeed in its objectives. The research program and workload management systems are just being developed, but again it appears that the Curtin framework can be adapted.

The approach to quality mirrors that of Curtin's other off-shore operations, except that admissions are handled locally, according to the University-wide guidelines. There is local marking of assignments plus optional moderation. Curtin Sarawak wishes to increase the amount of moderation carried out. Examinations are organised from Perth, and there is a high level of interaction between academic staff through visits from Perth. In 2002, there will be about 100 one-week visits by unit controllers from Perth. There is a staff development program, with regular workshops on topics such as assessment or teaching methods, sometimes including videoconference links with Perth. At present, Curtin Sarawak does not benefit from the Curtin teaching awards.

Visits by staff from Curtin Sarawak to Perth are less frequent and appear to be more ad hoc than visits the other way. It would be useful to increase the frequency and structure of such visits to maintain a consistent culture across the two institutions. This is particularly relevant since, as Curtin Sarawak matures, an evolution is occurring from the QA processes used by Curtin with partners towards a co-responsibility for the QA. The panel considers this a desirable development. Comparison between Sarawak and Perth student performance would be an appropriate tool in Curtin's attention to standards (section 3.4).

Students appear satisfied with their experience. Each student is assigned a mentor. Students observe no systematic difference in the ability and knowledge between the Perth and local staff, although Curtin's own surveys have identified some matters for attention. There are student evaluations of teaching, and students believe they have observed beneficial consequences of the evaluations. They have well-appreciated industry placements and/or case studies using local examples, and they observe graduates getting jobs very quickly.

5.4 Other International Matters

5.4.1 Curtin International College

Curtin International College (CIC) is run by the Institutes of Business and Technology group, using (almost entirely) lecturers from Curtin staff and offering Curtin awards. The certificate awards are externally accredited, while the diploma and advanced diploma parallel similar units in Curtin degree programs. Entry to the diploma is slightly lower than university entry (eg in Western Australian terms a score of 70 instead of 75), Nonetheless, about 95% of diploma graduates go straight into the second year of degree programs at Curtin. This amount of improvement in student attainment is said to be due to focused teaching (students know which program in Curtin they wish to aim for), reasonably small study groups, and commonly spreading the study over more than two semesters.

The first comparative results between the Curtin semester one performance of ex-CIC students and other students were published just at the time of the Audit Visit. They showed no material differences in performance between the two groups.

5.4.2 Support for International Students On-Shore

International students coming to Perth are well advised before arrival about the different services available, and where to go for help. The same information is then provided again after arrival.

The International Office evaluates its services and the emerging needs of international students through surveys and focus groups. It also has representatives on the student advisory committee. One recent example of action on feedback was to increase the emphasis on the needs of postgraduate students. Another issue being raised both with the IO and with the panel is the desire for more student advisors.

In 2002, various allegations about ‘soft-marking’ in the higher education sector were reported in the media. Some of these related to specific universities, and some were generic. Curtin responded actively to these allegations in a number of ways. Specifically, examination results from 1999 and 2000 were collated by funding type to investigate any systematic differences in Curtin’s outcomes. These figures show very little difference in pass rates between domestic and international students in Australia. (See also section 3.4 on standards.)

6. COMMUNITY AND CULTURE

6.1 Community

Curtin has links with industry and the professions through external membership of Curtin advisory committees and statutory boards, staff membership of external commissions, co-hosting of events, joint and contract research, professional accreditation, and so on. Such links are also mentioned in strategic plans and in the new specifications for academic study leave. There is scope for improving the promotion criteria in this respect, and for ensuring that industry input is fed into courses.

Curtin is developing and enhancing its links with the community, and there is much goodwill towards Curtin in the community. It would be in Curtin's interests to investigate ways of exploiting this further, and extending its industry linkages. The panel noted the enthusiasm of community representatives invited to meet the panel, and considers that the extent and impact of Curtin's community activities are not fully reflected in the Portfolio. Curtin's role in the community and openness to community initiatives are commended.

Curtin carries out an annual survey of local public opinion, asking questions such as 'which university comes to mind first?' and 'which is the best university?' Curtin is pleased to observe that it is getting closer to UWA on these indicators. (The reputation of CBS seems to be a significant factor in this, which suggests possible strategies for improvement.) However, Curtin will need to be careful to continue to differentiate itself. Higher levels of recognition of Curtin should be achieved on the basis of its desired characteristics, not by making itself indistinguishable from UWA. That this is a danger is suggested by the increasingly frequent use by the public of common descriptors for the two universities.

6.2 Culture

Curtin has a Director of Equity, Ethics and Social Justice (EESJ), a position which makes a visible commitment to the values of HE. The audit panel explored the ways in which Curtin implements and monitors its EESJ objectives. There is a set of guiding ethical principles, and students and staff are expected to conduct themselves according to these guidelines. Relevant issues are raised in the regular Academic Senate Forums and presented in staff workshops. Staff and student surveys are used, including course experience surveys.

The University Secretary has recently carried out a 'climate survey' of the complaints received in the last four or five years, to reveal where the complaints are and what they are about. Curtin reports an increase of grievances in the last year. This may be a good sign (in that people are becoming more aware of issues and/or more willing to raise them), not necessarily that there are more problems. The feedback obtained from analysis of grievances is reported to management

and staff. Some issues are identified for immediate attention, while others are fed into the planning cycle. Since this process is new, the panel is unable to comment on its effectiveness.

The panel discussed with staff how the Mission references to the values of social justice and cultural diversity are manifest in the curriculum and teaching. Deliberate choices are made in relation to staff appointed and research undertaken. A number of examples were presented, such as the many staff from abroad who bring different perspectives, class projects that draw on the experiences of the large number of students from different backgrounds, history lessons on various religions, lectures on ethics in the School of Computing, good coverage of ethics in the Nursing courses, and ethical requirements for accreditation in Engineering. Curtin is currently attempting to move from having pockets of good practice to having a systematic approach across the whole University.

6.3 Indigenous Affairs

The Centre for Aboriginal Studies (CAS) has a broad portfolio, aiming to increase the number of indigenous students, the extent of indigenous studies, the employment of aboriginal people, and the amount of appropriate research (either alone or in partnerships). All this requires work both within Curtin and in the community. Curtin has the highest university enrolment of indigenous students nationally, and is generally running at or above the WA and Australian ratios on the indicators of Access, Participation, Success and Retention. Most of Curtin's aboriginal staff are academic staff. Formal interaction with the aboriginal community is through an advisory committee. CAS sits within the Division of Humanities, and it is represented at PMC by the ED of Humanities.

All of this is monitored and overseen by the Aboriginal Education Policy Implementation Committee (AEPIC), which develops an Aboriginal Education Plan and reports through the VC to the academic senate. AEPIC was established in the late 1990s and meets quarterly. All the divisions are represented on it. AEPIC helps with cross-cultural awareness within Curtin, and encourages the development of aboriginal subjects. It has just signed a MOU with Health Sciences on this. At present, most students graduate without serious engagement in the study of indigenous culture, but plans are in hand for a compulsory unit in Humanities for 2004. E&S is introducing a first year elective that may subsequently become compulsory; and it is intended to have the other divisions included by 2008.

Overall, Curtin is paying a great deal of attention to indigenous matters, which seems to be bearing fruit.

Commendation 10. AUQA commends Curtin on its thorough and effective attention to indigenous matters.

7. SUPPORTING STRUCTURES

7.1 Support Services

The panel talked to personnel from a range of support services and to their users. The services included the library, IMS, information services, staff services, the International Office, student services, Learning Support Centre (LSC), Learning Support Network (LSN), Student Progress Committee and property services. Overall, the panel was satisfied with the client orientation of the various services and their various ways of elucidating and addressing the needs of users. Methods used by most of the services include surveys, focus groups, advisory committees, and feedback gained simply in the course of operations. It was noteworthy that focus groups have revealed issues that were not reported in surveys. Some services have formal accreditation by national or international bodies in their field. Some of the services also work with their counterparts in other institutions, formally and informally, for comparisons of performance.

7.2 Library

The audit panel received generally positive feedback on the Library, including the benefits of the library staff posted into divisions. The Library runs client satisfaction surveys biannually, as well as having a suggestion box. The input is acted on if possible, fed into the planning process if appropriate, and recorded in a database. This allows identification of frequently occurring issues and timely action on them. At present, provision in some subject areas is inadequate, and the forward plan is to move towards on-line resources, using an increasing fraction of the budget for the purpose. The advisory committee will advise on the selection of resources to place on-line.

7.3 Information Services

The Information Management Services presented some good evidence of success, and planned actions on feedback data, including the recent re-modelling of the Curtin website in response to criticism. Information Services gathers information from a range of sources, including discussions with executive deans, helpdesk queries, focus groups and surveys. For example, a student forum last year raised a problem about the availability of computers, printers etc. This was put to the Advisory Committee which commissioned a comprehensive student survey. It emerged that although there was a desire for more resources, the main issue was the times of access. The computer labs are now open 20 hours per day, and provide 750,000 computer hours annually. It is intended to carry out a follow-up survey to check the effects of these changes. Computer resources vary between schools, and student concerns still exist over the hours of internet access.

7.4 Learning Support

The Learning Support Centre (LSC) was set up 18 months ago, to support international students only, principally with English language support. This, however, is a need for many students of non-English speaking backgrounds, and this year LSC was successful in obtaining an equity grant to expand its services to all students. Experience shows that this is likely to provide further benefits to the international students as they have greater contact with local students. Experience elsewhere indicates that such support can then usefully be further generalised to cover other study skills. Given Curtin's expressed attention to generic attributes, it should consider supporting and developing LSC in this direction.

As the LSC is so new, it is difficult for the panel to form a view on its effectiveness. It noted however that the approach being taken appears appropriate. LSC has an informative website, gives presentations on orientation day, and provides flyers in the international office. A brochure has been produced for staff members describing the LSC services and how students might use them.

As part of the LSN, LSC is also involved with staff development, and can therefore give student feedback to staff. The aim is in fact to reduce the number of students who need the service, and to this end, they encourage staff to intervene when student problems are identified.

7.5 Student Progress Committee

The Student Progress Committee, chaired by the SDVC or nominee, has student and staff representatives from each division, and members of the Student Guild. It deals with matters that affect students in their progress through the university, from orientation to graduation. It is particularly concerned with the school to university transition, which means that it has a major concern with orientation. With the move from a 14-week to a 12-week semester (planned for transition in 2003 and full implementation in 2004) it is intended to extend orientation from a day to a week. The Student Guild is also concerned that curriculum revision be fully considered in the change in semester length, and is using the SPC as a forum for voicing this concern. More generally, the SPC looks at policies and considers their effects on students. Issues can be referred to other bodies as necessary. This seems an effective means for giving the student body a significant influence on matters that affect them.

7.6 Student Charter

A Student Charter was developed jointly by Curtin and the Student Guild, and is currently being reviewed. Its role and use needs consideration, as students are unaware of it. If it is to be useful, it must be embedded in other policies.

APPENDIX A

CURTIN UNIVERSITY OF TECHNOLOGY

Curtin University of Technology's origins lie in the Perth Technical College, which opened in 1900. Relocated to the Bentley site in 1966, it became the Western Australian Institute of Technology (WAIT). At the end of two decades of expansion and mergers with three other institutions, WAIT was the first of the Australian institutes of technology to obtain university status. Curtin is a member of the Australian Technology Network, a coalition of five former institutes of technology in five states which share a history of working with industry and business. Since it became a university in 1987, Curtin has sought to emphasise international, cross-cultural and indigenous perspectives, within a tradition of innovation, with the aim of responding effectively to the needs around it.

The Curtin community comprises six campuses. Curtin's main campus at Bentley is six kilometres from the CBD of Perth. The Graduate School of Business is situated in Perth's business precinct. Curtin has three campuses outside Perth supporting Curtin's involvement with Western Australia's main export industries. A large regional campus operates in Kalgoorlie, 590 kilometres east of Perth, in the heart of the State's mining area. Rural campuses at Muresk (100 kilometres east of Perth) and the southern port of Esperance (720 kilometres south-east of Perth) service agriculture and aquaculture. In keeping with its international orientation, Curtin opened an offshore campus, at Miri in Sarawak in 1999. This was the first foreign university in East Malaysia.

Curtin offers more than 850 undergraduate and postgraduate courses organised through six academic divisions: Curtin Business School, Engineering and Science, Health Sciences, Humanities, Resources and Environment, and Curtin Sarawak. The Centre for Aboriginal Studies offers bridging courses for indigenous students

As well as traditional face-to-face learning, Curtin offers a range of mixed-mode study options: distance education; the Open Learning Agency, which offers a variety of study modes and pathways to university; enrolments in units that are wholly or partly WebCT-based; and combinations of some of these. In its commitment to equity of access to the learning environment, Curtin is oriented towards a flexible, learner-centred environment.

The Office of Research and Development coordinates research activity across the divisions. Curtin's approach to research emphasises the finding of solutions to real-life problems, focusing on the outcomes and impact of research on society. Curtin has established productive partnerships with industry, government and community groups.

A pioneer of Australia's international student recruitment in the mid-1980s, Curtin recognised that an outward focus was the key to internationalising education systems for the global knowledge economy of the 21st century. Now, nearly 35% of Curtin's student body – approximately 11,000 – are international students, half of them studying in their own countries. Curtin is WA's major provider of international education services and has the third highest number of international students of Australian universities.

The University is named after John Curtin, a former Prime Minister of Australia.

APPENDIX B

THE OBJECTS OF AUQA

1. Arrange and manage a system of periodic audits of QA arrangements relating to the activities of Australian universities, other self-accrediting institutions (SAIs) and state and territory HE accreditation bodies.
2. Monitor, review, analyse and provide public reports on QA arrangements in SAIs, and on processes and procedures of state and territory accreditation authorities, and on the impact of those processes on quality of programs.
3. Report on the criteria for the accreditation of new universities and non-university HE courses as a result of information obtained during the audit of institutions and state and territory accreditation processes.
4. Report on the relative standards of the Australian HE system and its QA processes, including their international standing, as a result of information obtained during the audit process.

APPENDIX C

THE AUDIT PANEL

Emeritus Professor Mairéad Browne, Higher Education Consultant, Sydney

Professor Gareth Jones, Head, Department of Anatomy and Structural Biology,
University of Otago, Dunedin, New Zealand

Professor Andrew Lister, Executive Dean, Faculty of Engineering, Physical Sciences &
Architecture, University of Queensland, Brisbane (Panel Chair)

Professor Leo West, Higher Education Consultant, Melbourne

Dr David Woodhouse, Executive Director, AUQA, Melbourne

Observer:

Ms Elizabeth Tchacos, Assistant Secretary, Quality Information & Equity Branch, Higher
Education Group, Department of Education Science & Training, Canberra