



Department of Education,
Training and Youth Affairs

Benchmarking

A manual for Australian Universities

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Higher Education Division

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Preface

The goal of this project has been the development of a robust, well tested benchmarking manual in a common, easy to use format for Australian and other universities.

This document is the outcome of a substantial developmental phase over eighteen months, with a wide range of input. Many universities are finding it useful as a significant self-improvement tool, so the decision has been taken to make it widely available. Subsequent versions, based on more extensive use, will no doubt incorporate additional comparative data and improved definitions, enhancing its usefulness, especially for inter-university use.

The manual has been produced with the help of many people. Thirty-three Australian universities, represented by the Vice-Chancellor, Deputy Vice-Chancellor, Pro Vice-Chancellor or Deputy Principal/Registrar, have participated in the project. Six Working Parties each met three times. There were three Plenary sessions. An earlier draft was discussed in meetings of PVCs Academic and PVCs Research. All or some of the material was workshopped in eleven Australian universities. Discussions were arranged by the Commonwealth Higher Education Management Service (CHEMS) and Cliff Wragg of the CHEMS Benchmarking Club in London with some UK universities and UK funding authority representatives.

More than two hundred individuals have contributed. We especially thank them. Unanimity of views has not always been possible. Judgements about what material to include and how to present it have had to be made by Emeritus Professor Ken McKinnon, Ms Dorothy Davis and Ms Suzanne Walker.

The project has been funded by the Commonwealth Department of Education, Training and Youth Affairs, and by the participating universities.

1. Benchmarking in universities

1.1 Purpose

What is the purpose of this Manual? Who is it for?

It has three potential uses. It provides senior staff with tools to ascertain performance trends in the university and to initiate continuous self-improvement activities. Second, it is sufficiently well developed for use by groups of universities wishing to compare performance on all or some of the areas covered. Third, some of the benchmarks can be used by universities now to ascertain their competitive position relative to others.

The objective of the project has been to identify the most important aspects of contemporary university life in changing times and to find ways of benchmarking them. It assumes excellence and value adding are goals sought by all universities. It assumes also that those aspects of excellence and value adding that can be easily quantified are not the only ones worth taking into account; the drivers of future performance are often qualitative.

The sixty-seven benchmarks included here may still be thought too many for regular use in all universities. Chapter 12 addresses the difficulties and possibilities of using a smaller core sub-set.

1.2 Why benchmark

No single university, however large, can encompass all knowledge. Every university has to make choices. It is demanding to be world class in even a few academic fields.

Each university has to prioritise the use of its resources and use them to best effect. Knowing whether it is succeeding in its aims is another more demanding level of difficulty.

The key consequential question is how university leaders will know where their institutions stand and how they can be improved.

1.3 Why universities are different.

The quality of universities cannot be ascertained by the bottom line measures that apply to commercial firms, or even by the yardsticks that might apply in large governmental organisations.

How do they differ?

The term, *university*, embraces a broad collection of institutions around the world. In Australia the common features are that they are all internally self-governing, including establishing the standards of graduating students.

They are all non-profit institutions, governed by state or federal legislation. They all teach at the tertiary level, undertake at least some research, and provide services to the community. Within that broad commonality, however, constrained by their history and funding sources, they have adopted widely diversified missions.

They do not seek simply to communicate a standard body of knowledge in each course. The knowledge conveyed in courses at the tertiary level is of a different type. The courses and the teaching are informed by the latest research, which often challenges or even overturns previously accepted knowledge. The 'knowledge' is leading edge—provisional. Students are expected to learn to create their own intellectual maps and to search out information for themselves.

They enrol as students and staff seek employment in universities for a variety of reasons, including intellectual curiosity and a search for truth. Some students, but certainly not all, seek a vocational qualification as a primary objective.

University commitment to research varies. Some are research intensive: others are not. Some emphasise individual research activity while others seek to create teams in pursuit of pre-eminence in a limited number of research fields. Some concentrate on basic research through maximising Australian Research Council and National Health and Medical Research Council grants, while others concentrate on applied research and source most of their research funds from industry.

Some management thinking urges on universities the desirability of commercial approaches to management. That type of thinking suggests that a first step should be the declaration by the university governing body of a clear mission and strategic directions and its imposition on the university. The processes within the university would then be confined to working out the programme details to realise the mission.

It would be grossly over-optimistic to think such a process would work. Furthermore the suggestion misunderstands the nature of a university. Most academics regard themselves as partners rather than employees. They hold fiercely to their independence and right to be involved in major decisions. They believe in collegiality; they can be led but not coerced. Good university leadership, therefore, has to bring together the aspirations and thinking of the whole university community.

It is in the nature of the quest for new knowledge that no external authority can say with certainty that the approaches chosen by particular individuals or a particular university are irrefutably wrong.

In most aspects universities are thus to be measured by criteria other than profit or return on assets.

Nevertheless, benchmarking is as essential in universities as it is in other spheres. They need reference points for good practice and for ways of improving their functioning.

1.4 Good universities

Australian universities have not been at all keen on the university league tables purporting to show rankings of excellence published by media, such as those published by *The Times* in the UK, or *Asiaweek* in the Asia-Pacific area (Appendix 1 lists the methodology used). They feel that the diversity of missions and their different locations and ages make comparisons and league tables invidious and unfair.

While accepting that there is a good basis for those objections, equally invidious is the counter-approach of self-identified sub-groups of universities directly or indirectly claiming merit by association. This Manual is based on the belief that the best way to counter poorly informed assessments of quality of the kind that come with either approach is to identify measures that will give a valid and balanced picture of the parameters that distinguish good universities.

The notion of balance in the phrase ‘valid and balanced’ requires elaboration. Quality, for instance, is not a static, uni-dimensional phenomenon. Reputations lag. There are always universities living on past glories unsupported by current performance, and universities, particularly young universities, whose performance is well ahead of their current standing.

They are, moreover, complex institutions. To keep relevant they must respond successfully to the massive changes now challenging them. Benchmarking thus needs not only to identify successes to date but also vital signs of adaptation to the future. A university’s dynamism is as important as its current achievements, indeed probably a better guide to its future performance. The best universities are those that combine high achievements with extensive evidence of dynamism and rapid rates of adaptation to new challenges.

But how are the latter features best measured? If it is true that an institution cannot be sure that it is changing in particular dimensions unless it can measure that change, identification of appropriate performance measures (metrics) becomes of crucial importance.

All too often outputs (or outcomes) measuring the success of past activities have been the only performance measures used. While such *lagging* indicators provide useful information there is also a need for *leading* indicators, that is, measures of the drivers of future performance, and *learning* indicators, measures of the rate of change of performance. There are valid ways of measuring dynamism and innovation. As change must be in particular directions if it is to be effective, there needs to be direct links between all performance measures and the strategic plan of the organisation.

A conceptually relevant approach incorporating the above thinking that has been found effective in commercial and industrial companies is the *Balanced Scorecard* approach of Kaplan and Norton¹ and the consulting firm of Arthur D. Little Inc. This approach can be used either in the translation of vision and strategy into key objectives and associated benchmarks, or, alternatively, in monitoring how well particular performance outcomes, performance drivers, and rates of change are helping the organisation to achieve its strategic objectives.

¹ Kaplan R S, Norton O P (1996) *The Balanced Scorecard*. Boston: Harvard Business School Press.

The fully developed matrix of benchmarks is intended to provide executive staff with comparative data of past success, the information needed for improvement, and a realistic appreciation of how well the organisation is moving towards its goals. In the process it should also help clarify distinctions between what are simply measurable outputs and important outcomes. A diagrammatic representation of the matrix of measurements used in the balanced scorecard approach is shown below.

	Lagging (outcomes)	Leading (performance drivers)	Learning (rate of change)
Financial			
Customer/Student			
Internal Process			
People/Culture			

This approach applied to universities, for the *financial* perspective will ask what financial outcomes are required to achieve success. As there are several stakeholders; funding bodies, the public, and the university community, success will be measured via several financial aspects. The *customer* perspective will consider how the organisation should appear to the customers (students) to be considered successful. The customer perspective is primarily of concern to students and those who help them make decisions. The *internal business process* perspective will look at what products and services need to be developed and delivered to achieve the customer goals. In universities this perspective will ask for course development processes and benchmarks that demonstrate efficiency and excellence. The *people/culture* perspective will address the nature of the organisational culture required to deliver the products and services of the university.

For greatest effect in managing performance, a suite of cross supporting metrics directly linked to the strategy of the university, addressing past performance, the drivers of the future and rates of improvement will be required. The optimal suite will have aspects unique to a particular university, given the diversity of strategies, state of development and mix of activities that characterise Australian institutions. Particular benchmarks can certainly be used to benchmark the performance of universities with other universities. Indeed this is a primary purpose of this manual. While such comparisons are part of any good internal management system, this Version 2 Manual is not at the stage where it could be used to derive a 'league table' or in the allocation of resources across the sector.

Clearly a balanced approach is needed in the benchmarking of universities, which is the reason is permeates subsequent chapters. The focus it puts on the signs of dynamism and rates of adaptation is important. These features are of special importance in all universities in the current period of rapid change, especially because of the long lead times for the production of some types of graduates and some types of research outcomes.

The balanced scorecard is not, however, a complete answer. One shortcoming is that the matrix illustrated above relates to profit making enterprises emphasising profit, whereas universities have multiple and often ambiguous goals, differentially

valued by the many constituencies within them. That complexity has to be kept in mind. It is not possible or desirable to fit every desirable benchmark uniquely within each cell of the matrix.

Chapter 12 addresses in more detail possible vital signs of the health of universities. It explores both the fit between the benchmarks in the Manual and the Balanced Scorecard concept, and the question of whether universities could sensibly use a smaller core set of the benchmarks for rapid checks of the vital signs.

In summary, this Version 2 Manual makes a considerable effort to incorporate benchmarking metrics using the lagging, leading and learning framework. From the benchmarks included here a suite of benchmarks can be identified that will both suit the circumstances of any particular university, and allow it to assess objectively its achievements and its progress.

2. Approaches to benchmarking

While the evolution of imperial and metric systems of measuring gradually standardised benchmarks in many spheres, in universities clear definitions of what is worth measuring and standard measures of achievement of desired outcomes have proved particularly problematic.

This chapter summarises the approaches taken to some of the key issues inherent in benchmarking within and between universities.

2.1 Types of benchmarks

Two kinds of benchmarks can be readily distinguished—**criterion reference and quantitative**.

The **criterion reference** approach simply defines the attributes of good practice in a functional area. A university wishing to benchmark its success in that area will assess whether it has achieved the criteria. In the financial area, for example, a university's liquidity ratio ought to be positive. If it meets that criterion the university is meeting the benchmark. The benchmark could be simply a checklist of essential attributes constituting good practice. A large number of universities may achieve good practice on this type of benchmark. But levels falling short of good practice, ie, missing or sub-standard attributes may also be distinguishable, signalling the need for improvement. There are several such benchmarks in this Manual.

Quantitative benchmarks, on the other hand, inevitably distinguish normative and competitive levels of achievement. These distinguish where practice is quantifiably different in some institutions. Often the differences will signal good practice; sometimes the differences, such as the proportion of postgraduate students within the total enrolment, will be as much matters of choice and policy as good practice.

Both approaches to the formulation of benchmarks are important.

2.2 Issues

Process v outcomes Often educational institutions prefer to concentrate on evaluation of processes in preference to outcomes. This manual adopts the position that *outcomes* matter. Outcomes can, of course, be rates of change and identifiable stages of qualitative improvement as much as numerical scores. Benchmarking of processes is the focus only when direct measurement of outcomes is not possible, or not yet possible, or when such benchmarks provide guidance for improvement.

Good or best practice? The formulation chosen for this manual is 'good practice' because of the sensitivities of those who claim that best practice is impossible to identify. In most instances, the highest level of practice identified in the benchmark will be current best practice among Australian universities.

Continuous improvement Universities, more even than most enterprises, are assumed to be committed to continuous improvement of courses, research outcomes and organisational frameworks. Benchmarks requirements ought to test that commitment.

Countable v functional The number of books in a library is not as important as the library's ability to provide, in a timely way, information needed by university members. Electronic and other means of flexible delivery have already made traditional staff-student ratios a poor benchmark for either resources or quality. The challenge has been to make progress on identifying and formulating benchmarks that measure functional effectiveness rather than simple countables.

Adjusting for inequalities Because of the diversity of size, age and other defining features of universities, the manual seeks to define benchmarks that reduce the effects of size, age, geography, or superior funding. The benchmarks are often described in proportions, times, and ratios which are comparable. For instance, the total research funding attracted by a large institution is less telling than its funding in proportion to its total staff.

Multi-campus universities Many universities are now multi-campus institutions. Diversity within such institutions is beginning to emerge as an issue for two reasons, one, that campuses within such institutions are at different stages of development and maturity, and two, that differentiated functions may be planned, such as a research intensive campus and other teaching-only campuses. The choice of the benchmarks to be used should reflect these realities. A single campus or the whole university may be benchmarked. But any published benchmarking data should make clear whether the benchmarks apply to a single campus or to the whole university, especially for comparative purposes. Consistency of use is the main requirement.

University, faculty or school/department use Many of the benchmarks in the Manual have application at any of the University, Faculty or School levels. For areas like teaching, learning, progression, or research, comparisons are often most apt at the Faculty or School level, where there is more assurance of commonality.

Calibration The constant search in universities is for excellence, for higher standards. Standards will change, hopefully upwards, as a consequence of deeper insights and better measuring tools; or, where the measures are indirect, better definitions. It is basic to this manual that readers remain aware that there will be a need for re-calibration of the benchmarks from time to time as data definitions and data collections improve.

Face validity The development of benchmarks involves making judgements about what matters and how it is to be measured. The rationale for each benchmark and the objectivity required of ratings should, however, have face validity. They should be convincing to readers. Each Chapter therefore starts with a brief review of the reason for the importance of the area in assessing the functioning of a university. The rationale for each individual benchmark is included as part of the explication of that benchmark.

Organisation of the manual A recurring problem has been the grouping of the material. Should the progress of international students be a subset of student progress or of the internationalisation section? Is student choice best grouped as evidence of competitiveness (that is, External Impact) or of course quality? There is

no definitive answer. The organising principle has been to concentrate on major functional areas.

Expert judgement As in other benchmarking, the best information about what to measure and how to measure it (whether quantitative or qualitative) is likely to come from the involvement of experts. For this reason, as noted in the Preface, the benchmarks have been developed with the involvement of the most senior staff in thirty-three of the thirty-six public universities in Australia, over two hundred people (Vice-Chancellors, Deputy Vice-Chancellors, Pro Vice-Chancellors and Deputy Principals/Registrars). Participants are listed in Appendix 2.

Since the benchmarks are primarily intended as a means of self-improvement, senior academic and administrative staff will most often use the benchmarks internally. For broader comparative purposes more objectivity might be needed. In the past peers from other universities were often invited to be involved. As often as possible, disinterested external experts should be used as moderators or check assessors. The essence is to banish complacency and achieve objectivity.

Manageable numbers The heavy workload of university leaders has been kept constantly in mind. How many benchmarks can reasonably be monitored regularly? The original goal was 20-30 in total. Participants in this project did not feel the number could be reduced below the sixty-seven included in this Manual. An effort has been made to reflect upon the original goal in the core set advanced in Chapter 12. Users must make their own choices about the number of benchmarks required to meet their needs.

2.3 Data and assessment

Quality of data Each benchmark lists currently available data sources. Sometimes indications of the type of data needed are all that is possible.

There are three types of data problems.

- 1) Data may not be comparable because of different reporting conventions among States. Even financial data, while accurate and complete to the satisfaction of each State Government Auditor General, follows different accounting conventions across State jurisdictions, which, in turn, prevents fully comparable pictures of financial health.
- 2) Instruments that will produce comparable data are lacking. For instance, most universities survey student opinion in various ways: a few also survey staff attitudes. Although there are sometimes common questions, universities until now have preferred to stress their diversity rather than their commonality. The benefits of common comparable data are such that efforts to improve existing instruments and expand the pool of common data would be fruitful.
- 3) While the quality of most statistical data about Australian universities is good, there is distrust among universities, centring on what some claim to be room to fudge the data while staying within the definitions. Further work on better definitions, allowing less room for doubt about the accuracy of data, is necessary.

Improving the data The problems can be tackled piecemeal and slowly, as in the past, by working parties established either by DETYA or by the AVCC, to come up with proposals for improved particular data sets or establish new ones. The inter-connection problems are not tackled that way and, in any case, the proposed resolutions to the problems are not always accepted.

Settlement depends upon someone having the authority to settle contentious questions of the kind that arise when a particular definition will financially advantage one university and disadvantage another. It is understood that the AVCC is at present developing a model for quality assurance using an external audit body.

The only real remedy for the deficiencies outlined is the establishment of a permanent body with the function of defining relevant categories of data, of collecting and appropriately interpreting that data, and ultimately of ensuring its proper use. It would need to be independent of both government and the universities, but having the trust of both. It matters less who pays for it than that it is governed and operated in ways that all interested parties accept.

Other countries with the same traditions of internal autonomy as Australia have moved to establish *Academic Audit* or *Quality Assurance Agencies* (the UK information can be found at www.niss.ac.uk/education/qaa/, the NZ information is at www.aau.ac.nz/, and information about the USA is at www.chea.org/). For Australia an *Academic Audit Agency* (or *Higher Education Audit Agency* or similar name) would offer advantages. An Agency could be established with either or both of two roles: one, the collection, interpretation and publication of statistics, and the other the guidance and organisation of academic assessments.

In various parts of this Manual there are further references to data deficiencies, which will indicate the data range it is envisaged that an Audit Agency would cover. The issues are definitional and interpretative.

Academic quality assurance aspects would be a sensible area of responsibility for an Audit Agency. Reference has already been made to the necessarily diverse approaches to teaching and learning characteristic of universities. There are significant weaknesses in the current academic review processes. As the chapter on learning and teaching argues, these are nevertheless valuable processes. The need then is to ensure that they are rigorous, systematic, objective, informed and effective in ensuring the highest quality teaching and learning. An Academic Audit Agency at the very least should have oversight and compliance responsibility for ensuring such processes occur in appropriate ways.

It is not the place nor function of this document to canvass the structure and cost of an Agency in detail. The problems noted throughout the text, however, emphasise the need for an appropriate agency.

Political use of benchmark data Reliable data has perfectly legitimate public and political uses. Too often in the past, however, tentative or unreliable data has been used to justify changes, whether to organisation, policies or funding. Unproven data, collected for other purposes, has been occasionally used as a scourge when politicians want to make ideological points.

Misuse of that kind can only be tackled as a political problem. The remedy lies in the production of reliable data as suggested in the next section.

2.4 Importance of information technology

In modern universities information technology and telecommunications (IT & T) considerations are so pervasive that it is not possible to consider them as a coherent, separate set of benchmarks. The adequacy of computing hardware and software services and telecommunications services and the competitiveness of either students or staff or both are at stake in almost every area of university life. Accordingly, many of the benchmarks in the Manual have an IT component.

Most importantly there is a need for strategic information planning so that the IT and T needs of all units, including the needs for renewal, are integrated. The three most important IT & T topics and the benchmarks that most specifically relate to them are:

- 1) IT & T infrastructure (Benchmark 5.14)
- 2) Management systems information technology (Benchmarks 3.6 and 3.9)
- 3) Information technology in learning and teaching and research (Benchmarks 9.2 and 9.3).

3. Governance, planning and management

The broad topic of leadership, governance, planning and management reflects the emphasis in a modern university of making best use of resources. Leadership is essential. Resources have to be ever more thinly spread as a consequence of the pressures on governments to expand the higher education sector without being able to find the levels of resources per student that universities have formerly enjoyed. Learning and teaching material may be delivered more cheaply if new methods (eg, Internet) are properly used. Research outcomes may be increased by reorganisation. New legislation for the environment (employment, health, safety, etc.) alters planning parameters. For all of these reasons, benchmarks that cover governance, leadership, planning, and management are crucial.

3.1 Governance and leadership

The effectiveness of the mode of operation of the university's governing body (University Council, University Senate), including consideration of its own functioning and the leadership of the Vice-Chancellor are conveniently combined in a key benchmark.

In Australia the composition of the membership and the powers of the governing body are matters determined by the State legislation under which the university operates. There have been suggestions (eg, the Hoare Report) that governing bodies should be smaller and operate more like the boards of public companies, that they should be less collegial and more corporate. The proponents believe that such changes would make them more efficient and accountable. Others are equally adamant that changes would be for the worse, even, in the minds of some, destroying some of the essential features of universities. All are of the view, however, that governing bodies should govern (but not manage) the university effectively.

The Vice-Chancellor and senior executive staff inevitably have the key leadership and management roles. The Vice-Chancellor in particular must take the lead in coordinating internal proposals into an overall proposal for the way forward and in convincing the governing body of the appropriateness of the directions, the efficiency of implementation plans and the suitability of reporting and accountability arrangements.

The benchmark, **Benchmark 3.1: Governance and leadership** monitors good practice in the harmonisation of governance and management, the effectiveness of the governing body in reviewing its own operations, the setting of a framework for leadership and reporting, and achieving a high level of confidence and efficiency. The benchmark is about the systems and arrangements for governance and leadership rather than actual levels of the performance of individuals.

3.2 Planning

University Planning It would be a considerable exception for a modern university (or faculty, school or department) not to have a published statement of its mission, values and goals, together with at least a general statement or an outline of the plans it has for reaching those objectives.

The question is, however, how useful are those documents? What are the essentials of good planning?

These are especially important questions in times, as now, of considerable volatility in the funding environment.

Planning is a dynamic rather than a static process. It is not a one-time exercise setting out an unchanging map of activities for three to five years ahead. It requires regularity of attention. Given the volatility of the environment, part of the planning capability of a university should involve risk assessment and capacity for rapid, flexible adjustment, and even recovery, in adverse circumstances. That said, the need for good planning in times of uncertainty and reduced resources is more acute than in times of plenty, especially in universities wanting to do more than simply survive. Hence the second benchmark, **Benchmark 3.2: University-wide planning.**

The primary requirement is that the plan or plans (the university plan and subordinate academic and administrative unit plans should be closely integrated) should give *clearly defined guidance on university directions.*

Evidence of leadership by the Vice-Chancellor in the formulation and oversight of the university's mission and the related plans, and governing body endorsement of those aspirations is important in building confidence in the commitment of the university to those plans. Equally important is evidence of involvement of staff in the relevant areas and *ownership* or at least acceptance of the plans by the university community.

Any current plan, as a consequence of this bringing together of bottom-up and top-down initiatives, should *clearly articulate the university's focus, the scope of its activities, its values.* It should involve the harnessing of academic, staffing, student, financial, and capital management plans to the overall objectives of the university.

Planning is ineffective when it relies on undefined terms. It should have a high degree of objectively verifiable specificity about programs and targets, eschewing generalist words like *improve* or *increase*. These give guidance to middle level academic managers and leverage to executive staff in bringing about essential change.

An area of frequent omission in university planning processes, in the current state of the art, is a lack of connections between the plans and the university's resource allocation processes. The annual budget frequently appears at a different time, in a context where existing costs take first priority and alternative initiatives struggle for a share of what is left over. Alternatively, adjustments forced by resource shortages result in cuts in academic activities of long term importance. Genuine planning will *match resource allocation priorities to the key directions and targets* of the university.

Many plans fall down through failure during the planning process to *assign accountable senior staff* to the programs and initiatives envisaged by the plan. The

assignments, to be effective, should have associated time-lines for the achievement of the specified goals.

Finally, the test of planning, irrespective of whether the goals chosen were exactly right, is the degree to which there has been success in implementation. Part of the test is the degree to which there have been milestone checks and sufficiently frequent re-direction of effort to give the university the best possible chance of reaching the goals.

Any checklist would require of university planning:

- clear articulation;
- capacity for flexible adjustment;
- acceptance by the University community;
- closely linked planning and resource allocation;
- assignment of implementation responsibilities; and
- milestone checks: re-direction of effort.

Change & innovation Planned strategic innovation has become especially important because of the massive changes in the environment in which universities work, not just changes in funding sources and volume, but also technology, in the organisation of society, and in expectations of universities. The knowledge economy emphasises the potential economic effects of knowledge workers and research discoveries, putting a premium on organisational change and improvement to bring about more successful generation of new knowledge. The belief is that the climate and internal arrangements of universities can be made more conducive to innovation. In the sense used in this document, innovation refers to larger scale strategic changes in the formal organisational features of the university. It can be changes in the methods of working of staff, in curricula, in approaches to teaching or research, in the delivery of learning, in relations with the external community, or in other important areas of the life of the university. Higher rates of innovation can be brought about either by a higher proportion of staff involving themselves in innovation or by systematic organisational support for innovation of the kind that changes structures, frameworks and resource arrangements.

The essence is the engineering of higher levels of performance through planned innovation in teaching, in research or in the way the university organises itself. The benchmark, **Benchmark 3.3: Strategic change initiatives**, takes stock of the level of strategic innovation within the university.

Equity Planning Fundamentally, the criterion against which groups within the population are singled out to be the recipient of higher education equity attention is the degree to which members of that group are shown not to be sharing in the benefits of higher education equally with other groups in the community. A national framework for higher education equity planning, reporting and evaluation was established by *A Fair Chance For All* (DEET, 1990) and reviewed and updated in the report *Equality, Diversity and Excellence: Advancing the National Higher Education Framework* (NBEET/HEC, 1996). Currently the characteristics of the groups are: low socioeconomic background; rural and isolated; non-English speaking background; people with a disability; indigenous people; and women in areas of study in which they remain significantly under-represented. Access, participation,

apparent retention and success are reported in annual statistics against nationally agreed performance indicators.

Definition of the characteristics that identify the various groups of students (eg, Aboriginal and Torres Strait Islander identity) is not the key issue, because criteria for determining eligibility for inclusion have been defined nationally. Although it is widely accepted that some of these definitions could be improved, there are also benefits from maintaining consistency in terms of longitudinal trends and analysis.

The raw numbers are certainly useful for year-on-year comparisons of institutional progress. Relative success is, however, best measured by comparing the access, participation, retention and success rates of the equity student groups with the proportion of each in the regional population and their retention and success rates with the equivalent rates for all students. For instance, the enrolment of more indigenous students in Northern Territory University than in James Cook University in Northern Queensland may not necessarily be a relatively better effort. The relative size of the populations of the drawing areas of both universities has to be taken into account.

A consideration of fundamental importance is the extent to which major institutions in a society create, contribute to and perpetuate inequalities between various groups and among their members. On the other hand they may have the effect of removing the causes of inequalities and of redressing their impact, particularly in terms of major life success determinants. The commitment of higher education institutions is evident in the degree to which the functioning of the institution has the promotion of equity woven into such matters as organisation, curriculum content and courses, delivery modes, teaching methodologies, staff profiles, administrative processes, cultural values and inter-agency collaboration.

The benchmark, **Benchmark 3.4: Equity planning**, is essentially framed in terms of the adequacy of the institution's approach to equity issues, as measured by executive attention, teaching and learning policies and the allied systems, including promotion of staff. It seeks equity strategies that address all core aspects of the university's activities. It expects a systematic and analytical approach to equity planning, strategies, and review (a scholarly approach reflecting good management practices rather than exhortation, conversion and *good works*), and which in the case of best practice will be fully integrated into other processes for quality assurance and enhancement. It also expects that ongoing evaluation of the outcomes of equity strategies will be built into the university's equity plans, and that further action to address shortcomings as they progressively become apparent will be a feature of the university's response to the challenges.

3.3 Management

Management is benchmarked with reference to three key areas.

The first is the need for comprehensive and effective systems, with appropriate formal links throughout the university (up and down), to ensure that decisions are made and implemented efficiently, in ways consistent with the organisational intentions. Insight into the efficiency of staff work and associated movement of decisions and communication of information within the University come from two

vantage points; how well the formal structural arrangements work, and how successful the university is in getting information to those who need it.

The core of power distribution is the system of formal financial, personnel and other delegations from the governing body and the recording and implementation, through efficient staff work, of those decisions throughout the university. Benchmarking should test the comprehensiveness, recency and successful implementation of the system of delegated authority by assessing the degree to which delegations exist, and are known and relied upon by affected staff.

Benchmark 3.5: Clearly defined lines of responsibility & decision making

measures the degree to which within the university there are clearly defined responsibilities. Clear lines of responsibility are codified through the formal processes of setting and, from time to time, changing the pattern of delegations, not only in financial and personnel areas, but also in all other areas where power is delegated. Complementary documentation should cover policies, such as Codes of Obligations and Rights, the principles of target setting and performance reviews, and charters and service standards for individual units. The benchmark should also assess the extent to which there are gaps or duplication in the material which is intended to explain to staff and students how the university works and their rights and responsibilities. The benchmark also assesses the degree to which staff feel they can act with confidence that the system works.

The management of the university can only be efficient if the core business systems meet its needs. **Benchmark 3.6: Core business systems**, addresses this aspect of the university. The core systems need to be able to enrol students successfully, to record their progress, to graduate them, to make payments promptly, and to account for revenue and expenditure. They also need to yield, automatically, analytic and trend data (ie, management information) in an integrated way, as required. The need for efficiency also implies that they should be regularly and systematically upgraded.

The core business systems of the university should be capable of yielding data that enables systematic risk assessment. The concept of risk, originally applied mostly to financial transactions, is now seen to be useful across a wide spectrum of activities. Risk management is based on systematic assessments of the risks encountered in daily operations. Management is forced to decide whether those risks ought to be accepted as part of the university's normal functioning or whether multi-skilling, partnerships, insurance, better supervision or some other of the multiple options for reducing or managing risk, ought to be adopted. **Benchmark 3.7: Risk management** covers this area.

There is constant need to maximise resources for academic programs and to minimise unnecessary administrative expense, that is, **Benchmark 3.8: Teaching and research expenditure ratio**. The macro issue is the proportion of total expenditure devoted to teaching and research, and the proportion spent on administrative functions. Keeping the cost of these service functions to the lowest amount commensurate with the functions undertaken is always a priority issue.

Detailed administrative processes, unlike academic activities, are often identical with the same processes in private enterprise. There are standard benchmarks of efficiency applicable to these processes. While there have to be some modifications to suit the peculiarities of universities, across-the-board comparisons should be utilised to the maximum extent.

A current problem in arriving at macro ratios and ensuring they are comparable across universities arises from a lack of commonality in categorising expense. The differences are substantial, as macro as whether the cost of Deans of Faculties and their support staffs should be included as part of the administrative costs, and as micro as the proper allocation of stationary and transport costs. The development of standard definitions, categories and collection arrangements are important needs to which reference has already been made in Chapter 2.

Another benchmark in this group, **Benchmark 3.9: Corporate information systems**, covers the need for an integrated corporate information system and for an operational plan to realise the system. It envisages the need for comprehensively maintained web sites, for an information and knowledge systems manager, for regular testing of the efficiency of services, and for assessing the level of user satisfaction.

3.4 Organisational climate

Benchmark 3.10: Organisational climate is concerned with the university's capacity to manage change by continuing to maintain a high level of confidence and a sense of job worth and job satisfaction among its staff. In times of massive change this is a tricky and sensitive task, but crucial to maximising the success of the university.

Organisational climate depends partly on levels of trust, partly upon the presence of two-way communication between the executive and staff and students, and partly on the effectiveness of that communication and the reliability of follow-up action. The benchmark assesses the organisational climate, including staff attitudes, staff confidence, the comprehensiveness of communication flows and the recency and accessibility of disseminated information. The touchstones are the regularity of executive communication, the checking of staff opinion and needs.

Benchmark: 3.1

Area : **Governance**

Element : **Governance and leadership**

Type : **Leading**

Benchmark rationale : High quality governance will only come about if governing Councils/Senates and Vice-Chancellors perform their roles with skill and efficiency. The distinction between governance and management needs to be established. The leadership and reporting responsibilities of the Vice-Chancellor need to be defined. Committee arrangements and delegated authorities should be regularly reviewed and amended. Accountability for the leadership and stewardship of the university by both the governing body and the Vice-Chancellor is essential.

Sources of data : Council/Senate records: University Annual Report.

Good practice :

<p>Good practice requires a self regarding and accountable governing body, in particular a governing body that:</p> <ul style="list-style-type: none"> • Establishes a clear vision and goals for the university • Ensures that university planning and implementation is consonant with those goals • Distinguishes between its governance role and the responsibilities of management • Maintains appropriate conventions and relationships with the Academic Board/Senate • Establishes the leadership, management, and accountability responsibilities of the Vice-Chancellor • Unequivocally supports management staff as they implement Council policies and decisions • Regularly reviews the responsibilities and efficiency of functioning of the committee system • Annually at least reviews and amends formal financial, personnel and other delegations of responsibility • Inducts new members of the governing body into their duties carefully • Reviews and reports publicly on its own efficiency and effectiveness <p>Good practice also requires:</p> <ul style="list-style-type: none"> • Well-defined Vice-Chancellor's responsibilities • A leadership system providing direction, commitment, consistency of purpose, integrity, coaching, performance assessment

Levels :

1	2	3	4	5
<p>Council/Senate receive and approve mission and goals without serious involvement. Council/Senate receives plans and implementation proposals without debate.</p> <p>Committee system and delegations seldom or never reviewed.</p> <p>Own effectiveness not reviewed.</p> <p>Leadership and management responsibilities of Vice-Chancellor assumed, without success criteria.</p>		<p>Council/Senate participate in the development and approval of mission and goals. C/S maintains a general overview of planning and implementation processes, but does not have accountability systems.</p> <p>Ad hoc reviews of particular committees and/or delegations.</p> <p>Own effectiveness not reviewed.</p> <p>Leadership and management responsibilities of the Vice-Chancellor assumed without particular definition or requirements.</p>		<p>Council/Senate participate in the development of and approves the mission and goals. Council/Senate ensures that planning and implementation are congruent and accountable.</p> <p>Regularly reviews the committee system and delegations.</p> <p>Reviews the effectiveness of its own functioning</p> <p>Performance criteria, goals and methods of appraisal of the Vice-Chancellor defined in writing.</p>

Self assessment :

Check assessment :

Benchmark: 3.2

Area: : Planning

Element: : University-wide planning

Type : Leading

Benchmark rationale : The impossibility of a single university being world class in all areas of knowledge, the volatility of the planning and financial environments, and the need for a university to set for itself its main directions of effort, and define the student body it intends to serve, generates the need for planning. The need is equally relevant for faculties and units within the university.

Sources of data: : University Plans, Minutes of University Executive, University Academic Board, University Council/Senate meetings. Planning implementation policy/framework.

Good practice :

A succinct and clear statement of what the university is seeking to achieve, short and long term (Vision; Mission; Goals; Objectives). Its strategies should demonstrably have taken into account the environmental and contextual variables of the university and particular faculties (eg, through formal risk management analysis, including staffing). It should have been developed with the understanding and involvement of the university community and have been made widely available.

Evidence that the Council/Senate, staff at all levels accept and are actively striving to implement key aspects of the plan. Evidence of consultation with students.

There is a demonstrable readiness to review, adapt and modify plans as required. The methods and timing of reviews are specified.

Key goals and targets integrate plans of organisational unit, are set out publicly, in objectively verifiable ways, with time milestones and resource allocations specified. Where applicable, key goals are related to international standards.

Resource allocation is explicitly and transparently linked to the targets in the plan.

Individuals are allocated responsibilities and time lines for implementation of the plan and held accountable for performance.

Implementation is monitored through the University reporting system. Adjustments are made to the planning, improvement strategies generated and further implementation arranged in the light of progress or the lack of it.

Levels :

1	2	3	4	5
Statements are unclear, are understood by only a small proportion of staff and take into account few contextual variables. General goals and directions are set out publicly, but typically contain generalisations like 'improve', or 'increase', which do not allow objective verification of attainment, and which prevent the plan being used as an improvement tool. Plan developed by management in isolation. Rubber-stamped by committees. Implementation not followed through. Usefulness of planning not clear.		Planning is clear, developed with the cooperation and understanding of more than half of staff and takes into account most contextual variables. A mixture of quantitative and non-specific goals, or targets expressed in terms, which do not allow objectively verifiable checking of attainment. Plan developed by executive management with limited university community involvement. Plan presented to Academic Board and passed by Council/Senate with short debate. Resource allocation not explicitly and consistently linked. Some evidence of implementation strategies and monitoring as required. Planning apparently adds value and aids attainment of university key performance targets.		Planning is clear, developed with the cooperation and understanding of the great majority of staff. Explicitly takes into account contextual variables. A mixture of qualitative and quantitative goals and targets expressed in terms that allow objectively verifiable checking of attainment wherever possible. Plan developed co-operatively by University executive and community. Key goals integrate organisational unit plans. Key goals and processes have been debated and accepted by Academic Board and Council/Senate. Resource allocation explicitly and consistently linked. Strong evidence of implementation and monitoring arrangements. Evidence of corrective action. Planning demonstrably adds value as evidenced by year-on-year progress towards the university's key performance targets.

Self assessment :

Check assessment :

Benchmark: 3.3

Area : **Planning**

Element : **Strategic change initiatives**

Type : **Learning**

Benchmark rationale : The increasing velocity of change demands answering responses from universities. The benchmark tests the identification of need to make changes and the response of the university to those needs. The changes should be systematic in the sense that they affect at least a major unit (faculty/division) or the whole university, and transforming in the sense that there is evidence of demonstrably novel, not easily abandoned changes

Sources of data : Annual reports, final reports of projects, and demonstrably different whole-of-institution practices.

Good practice :

Levels of strategic innovation are measured by the evidence of pro-active, permanent, systematic changes in the organisation, teaching or research approach of the university rather than episodic, individual initiatives that may neither last nor spread. Good practice requires that strategic innovations meet four criteria: that they stem from the mission and goals of the university, that they have demonstrably wide support, that they are structural, and that the changes are embedded in the organisation and functioning of the university. Change initiatives may be in course structures and arrangements, in teaching practices, in research organisation and management, in relations with professions and the community, in strategic alliances, in overseas links or in the organisation of the university itself. They are innovations for this university, not necessarily completely novel elsewhere.

Levels :

1	2	3	4	5
Indifference to innovation. No evidence of strategic innovation. Laissez faire attitude to innovation. Individual innovation attempts without evident organisational support. Resource allocation & staff rewards for innovation not evident.		Leadership policies mainly supportive of innovation. Evidence of at least one strategic and significant innovation involving major changes in the university over the last three years. A fairly positive attitude to innovation. Evidence of some individual innovation attempts (CAUT grants, industry courses, research initiatives etc) Resource allocation & staff rewards not consistently supportive of innovation.		Leadership supportive of innovation. Evidence of two or more documented, strategic and significant innovations, involving major changes in the university over the last three years; or Evidence of widespread & increasing levels of individual staff innovation. A positive climate for innovation. Resource allocation & staff rewards supportive of innovation..

Self assessment :

Check assessment :

Benchmark: 3.4

Area : **Planning**

Element : **Equity planning**

Type : **Leading**

Benchmark rationale: : Equity planning and implementation is an integral part of institutional activity to ensure quality assurance and enhancement.

Sources of data : University Equity and Quality Assurance plans. (See Benchmark 6.9 for Equity Quantitative Success)

Good practice :

There is a systematic approach to the achievement of equity for students, as demonstrated by the presence of all the following indicators:

1. Equity planning is embedded within the university's strategic planning and quality assurance activities.
2. Responsibility for equity outcomes rests with all heads of academic and administrative units and is considered within performance management processes.
3. Ongoing evaluation of the outcomes of equity strategies and remedial action are built into equity plans.
4. Annual and longitudinal equity data analyses are undertaken at the institution, course and discipline level.
5. Strategic institutional equity priorities are identified on the basis of 'triangulated'¹ equity data and national priorities.
6. Equity strategies address all core² aspects of the institution's activities.
7. Equity strategies are both long and short term, ie they target both the underlying, ongoing and more fundamental causes of educational inequity as well as redressing its symptoms.

Items are 'partially met' if there are (say) ten corporate equity strategies and evaluation is built into 5 or 6 of them. Or if there are equity strategies, which target 4 of the 7 areas, identified as pivotal. Or if 5 or 6 of the, say, 10 corporate equity strategies include both short term strategies (targeting symptoms of inequality) and long term strategies (targeting causes of inequality)

Levels :

1	2	3	4	5
1-3 of the above indicators are partially met, and there is some evidence of attempts to meet 4-7. Note 1 p29.		The first 3 of the above indicators are completely met and 4-7 incompletely but to a large extent. Note 2 p 29.		All of the above indicators are met.

Self assessment :

Check assessment :

¹ Triangulated for the State, the higher education sector nationally and selected comparable institutions.

² To include at least the areas identified in 1-5

Benchmark: 3.5

Area: : Management

Element: : Clearly defined lines of responsibility & decision-making

Type : Leading

Benchmark rationale: : Management efficiency depends upon the degree to which management arrangements are linked to the university's aspirations and how systematic and transparent the decision pathways are, and how well they work. This benchmark also measures the degree to which there are simplified non-time-wasting committee arrangements, which nevertheless maintain collegiality.

Sources of data: : Documented internal delegations and agency statements; staff roles and responsibilities documentation; documentation of appointments and transfers of responsibility; policy manuals; codes of obligations and rights; documentation of student rights and obligations; documentation of performance review systems; charter and service agreements for service units; efficiency of reporting and consequential action; web-site/s and reports of action.

Good practice :

Comprehensive financial, personnel and other delegations and policies reviewed annually. Roles of committees and individual managers distinguished. An effective system of public notification together with effective advice of duties and support for staff members taking up new responsibilities (including membership of committees. Documentation of staff roles and responsibilities. Explicit individual staff and students codes of obligations and rights. Regular individual target setting and performance reviews linked to rewards. Charters and service standards for service units. Evidence that the system works and wide knowledge of it. Absence of gaps or duplication.

Levels :

1	2	3	4	5
Financial and personnel delegations neither comprehensive nor reviewed regularly. Roles of committees and committee members not clear. Responsibilities of office holders not explicit, nor communicated widely. No specific performance reviews. Staff and student obligations and rights not widely understood. Opaque system. Some bypassing of system and duplication.		A system of financial and personnel and other delegations, reviewed occasionally. Roles of committees and individual managers not clearly distinguished. Responsibilities of office holders formalised but not communicated widely. Infrequent or non-comprehensive Performance Reviews not linked to rewards. Obligations and rights of individuals not understood by all. Systems gaps and/or duplication functionally.		Comprehensive financial, personnel and other delegations and policies reviewed regularly. Evidence of knowledge of the system. Roles of committees simplified and clearly defined. Separation of committee policy role and responsibility of individual managers. Effective promulgation of formal duties and change of officers arrangements. Explicit staff and student codes of obligations and rights. Regular staff members' target setting and performance reviews linked to rewards. Evidence of the effectiveness of the system in action

Self assessment :

Check assessment :

Benchmark: 3.6

Area: : Management

Element: : Core business systems (See also Benchmark 7.1)

Type : Lagging

Benchmark rationale: : The acid test of core business systems is their capacity not only efficiently to enrol, graduate, pay, account for revenue, pay bills, monitor research outcomes and manage documents, but also to yield all required analytic and trend data, ie, management information, in an integrated way and as required. Efficiency also requires that they are systematically and regularly upgraded and that they involve strategic risk management.

Sources of data: : Evidence of modern systems which achieve integration of demographic, student, staff, and physical (buildings and equipment) data; annual reports; efficiency of responses to demands.

Good practice :

Financial, student, personnel and physical assets systems which are economical, efficient, accurate and integrated. Research and other monitoring systems that meet needs. Systems that produce data both regularly and on demand, at aggregate and unit levels, and which enable cost analysis and benchmarking of performance (eg, time and cost of dealing with queries, activity based software). Evidence of an effective risk management strategy.

Levels :

1	2	3	4	5
Financial, student personnel, physical assets, research and other systems which are unreliable or opaque. Poorly performing personnel systems. Annual Reports containing less than standard financial, staff and student data that falls short of audit requirements.		Financial, student, personnel, physical assets, research and other systems that are efficient and labour saving Systems that provide data on demand, data in which people have confidence at unit level.		Financial, student, personnel, physical assets, research and other systems that are economical, efficient, accurate enough to meet the university's needs. Systems that produce data, including trends, both on demand and regularly, at aggregate and unit levels; data that enables cost analysis and benchmarking of performance (eg, time and cost of dealing with queries).

Self assessment :

Check assessment :

Benchmark: 3.7

Area : Management

Element : Risk management

Type : Leading

Benchmark rationale : Universities face a variety of risks from external and internal sources that must be identified and managed. Risk management derives directly from the objectives of the organisation, and assessment of the financial, operational, systems and compliance risks that are involved in pursuit of the objectives. Some need to be eliminated, others insured and others managed internally.

Sources of data : University Risk Management Assessment and Reports.

Good practice :

The university has a formal risk assessment procedure, probably conducted through the internal audit unit, reporting to the Audit Committee of Council. The Risk Assessment reports the levels of risk associated with each activity and the desirable course of action to contain, eliminate, insure or manage the risk. The Risk Assessment is repeated regularly to update the risk profile of the university and assess whether any different action is required to manage risks better. The risk profile covers not only financial risks but also risks of non-attainment of particular objectives and of compliance with legislative requirements. The effectiveness of action to overcome or minimise the risks is also monitored.

Levels :

1	2	3	4	5
<p>No formal risk assessment is undertaken.</p> <p>Risks are identified and managed only as they come to notice. Action is ad hoc and not systematic. The full array of risks is neither known nor managed explicitly.</p>		<p>Formal risk assessment is related to the strategic plan, but confined to financial areas and to the internal audit committee. Other risk areas are identified and managed only as they come to notice.</p> <p>Deliberate action to decrease, accept or manage other than financial risks is not systematic. Irregular follow up and re-assessment of risks.</p>		<p>Formal risk assessments, related to the strategic plan, and covering all key areas of the university are conducted regularly. Deliberate action is taken to decrease, accept or manage all risks is taken. Risk outcomes are reported regularly, followed by fresh assessments and revised action</p>

Self assessment :

Check assessment :

Benchmark: 3.8

Area: : **Management**

Element: : **Teaching and research expenditure ratio**

Type : **Lagging**

Benchmark rationale : The higher the proportion of the total annual budget that can be spent on the core functions of teaching and research the better the university is pursuing its mission. In general terms, the proportion of the budget spent on other functions including administration, facilities and services, should be the minimum that is adequate for the tasks to be done.

Sources of data: : University financial management information systems.

Good practice :

Good practice is to continually monitor and review the ratios, demonstrating the steps that have been taken to maximise resources allocated to teaching and research.

For administrative costs the goal should be a ratio at the lower end of the scale, which for central administration in devolved universities, is likely to be in the range 9 and 10 per cent of the operating funds of the university.

Overall administrative costs, that is, the proportion of the overall university budget taken up by administrative costs, including the costs of any out-sourced functions (eg payroll), that is, central administration plus the administrative costs within units with devolved responsibilities, should not exceed 18-20 per cent.

Levels :

1	2	3	4	5
Minimal engagement in activities designed to maximise expenditure on teaching and research functions. Central Administration in devolved universities; 15% or more. Total administrative costs; > 22 per cent.		Occasional activities designed to maximise expenditure on teaching and research functions. Central Administration costs in devolved universities in the range 12 – 13%. Total administrative costs 19-21 per cent.		Regular and systematic activities designed to maximise expenditure on teaching and research functions. Central administrative costs in devolved universities in the range 9–10%. Total administrative costs of 18 per cent or less.

Self assessment :

Check assessment :

Benchmark: 3.9

Area : Management

Element : Corporate information systems

Type : Leading

Benchmark rationale : The management of a university is highly dependent on the capability of the corporate information systems associated with administrative functions including student services, financial management, human resources, physical facilities, research, fund-raising and the library. The effectiveness of these systems is essential for the smooth day-to-day operations of the institution, for the provision of information to enable decision-making and for the satisfaction of the auditing and accounting requirements of external regulatory bodies.

Sources of data : University Management Information System

Good practice :

Senior members of the university community should have access to corporate information systems that are appropriate to their needs. Systems should be easy to use, reliable, intuitive and responsive to the changing requirements of the university and its stakeholders. The databases accessed by these systems must be complete and current, and satisfy stakeholder needs. 'Transaction costs' should be appropriate to the strategic and operational goals of the organisation.

Levels :

1	2	3	4	5
<p>Corporate systems operate independently with few commonalities.</p> <p>Online access to corporate information restricted to operational staff.</p> <p>Staffed client support services available during normal business hours supplemented by non-interactive public web site available.</p> <p>Business plan provides for information systems to be developed, implemented and supported in association with the clients / stakeholders.</p> <p>Infrastructure and services evaluated against stakeholder needs and satisfaction.</p> <p>The existence and use of institutional metrics to measure information systems utility.</p> <p>No testing of user satisfaction.</p>		<p>Most corporate systems integrated.</p> <p>Online access to corporate information provided to all staff appropriate to their duties.</p> <p>Staffed client support services supplemented by web site with minimal interactive capability.</p> <p>Information Management Plan aligned with the institution's strategic and operational business plans and developed in partnership with clients / stakeholders.</p> <p>Evaluation of infrastructure and services integral to management processes and utilises institution-based metrics.</p> <p>An information systems development, implementation and support methodology in place. The existence and measurement of institutional metrics to measure information systems utility.</p> <p>Irregular testing of user satisfaction.</p>		<p>Institutional decision-making supported by integrated corporate information systems.</p> <p>A fully interactive web site provides all authorised stakeholders with access to relevant corporate information</p> <p>24 hour customer support available through mix of facilities including call centres, interactive web sites</p> <p>Information and Knowledge Management Plan is integrated with the institution's strategic and operational business plans and is developed through wide stakeholder involvement.</p> <p>Infrastructure and services evaluated using mix of external and internal benchmarks and metrics.</p> <p>An information systems development, implementation and support methodology in place. The existence and measurement of institutional metrics to measure information systems utility.</p> <p>Regular testing of user satisfaction.</p>

Self assessment :

Check assessment :

Benchmark: 3.10

Area: : **Management**

Element: : **Organisational climate**

Type : **Leading**

Benchmark rationale: : Continuing change is making great demands on both staff (academic and general) and management. Successful change management requires effective internal communication, together with management efficiency and responsiveness. Organisational climate reflects the degree to which staff feel they are valued, are encouraged to take initiatives and have scope to realise their own career goals. Responsive and persuasive communications, which reach all appropriate persons, are essential, whether via forums, printed material, e-mail, web sites, or face-to-face.

Sources of data: : Surveys of staff and student awareness and opinions. Statistics of e-mail access and web site comprehensiveness, accuracy and recency.

Good practice :

Good practice is a systematic approach to developing a positive organisational climate as demonstrated by the presence of the following:
 organisational climate surveys are conducted regularly and indicated improvements enacted;
 two-way consultative communication systems exist that are aligned with the university mission;
 staff have access to flexible work organisation arrangements;
 leadership development is actively pursued and staff at all levels are encouraged to participate;
 ongoing evaluation of the outcomes of systems for empowering and valuing staff is undertaken;
 staff recognition and reward systems are aligned with the university mission.
 The crucial aspects of good practice are evidence of trust achieved through two way communication and willingness to consider staff views, together with honest, constructive responses and clear evidence of follow-through on commitments.
 Regular university executive communications of developments and needs. Regular checking and responses to staff and student opinion and needs (questionnaires and focus groups). A significant proportion of positive staff attitudes. 100 per cent staff access to e-mail facilities (both on-campus and remotely), web sites and university publications. Good student access to web sites. Comprehensive and up to date web provision of Council and relevant committee papers/decisions, policies and statistical information.

Levels :

1	2	3	4	5
Some university executive communications. Over 50 per cent staff access to e-mail and web sites. Web sites up-dated irregularly and not reliably comprehensive. Poor staff attitudes and low job satisfaction. Low levels of trust.		Regular university executive communications. Occasional checking of staff and student needs and access to communication. Over 70 per cent staff access to e-mail, web sites and university publications. Reasonable student web site access. Some provision on web sites of Council and committee papers, decisions and statistical information. At least half of staff report positive attitudes and job satisfaction. Some cynicism about follow-through on commitments.		Regular university executive communication of developments and needs. Regular checking of staff and student needs and access to information (questionnaires and focus groups). Regular opportunities for staff and students to communicate with executive staff. 100 per cent staff access to e-mail facilities, up-to-date web sites and university publications. Good student access to web sites. Comprehensive and prompt web provision of Council and relevant committee policies/decisions and statistical information. Majority of staff report positive attitudes and job satisfaction. Trusted follow-through on commitments

Self assessment :

Check assessment :

Notes and interpretation: Chapter 3

Governance, planning and management

Benchmark 3.1: Governance and leadership

Governance in this benchmark covers the functioning of the Council/Senate itself in all of its aspects. Leadership covers the governing body, the Vice-Chancellor and the senior executive staff in developing clear directions, values and a positive organisational climate.

Benchmark 3.2: University-wide planning

The phrase *succinct and clear* is best interpreted as requiring that the vision and mission do not exceed one or two sentences and that the summarised goals and objectives should not exceed two pages. Overall the university's planning document statement should not be longer than 30-40 pages, and be written in language that is clear to a lay person.

Benchmark 3.3: Strategic change initiatives

Innovation in this benchmark has the meaning of a non-trivial innovation that is new for this university, whether or not it has been tried in another university. The main performance issues here are systemisation and rate of innovation.

Benchmark 3.4: Equity planning

Equity activities need to be strategic, that is, part of the mainstream planning of the university.

Note 1: There is *some evidence of an attempt* to meet items if, for example, student equity data is available at one or two levels (institutional or course or discipline) and if processes are under way to collect it at the other level(s). Alternatively, there is *some evidence of attempt* if some comparative equity data is used to inform the development of equity strategies but this is not thorough or rigorous in terms of 'triangulated' best practice.

Note 2: Items are met *to a large extent* if the institution has (say) 4 key strategic planning documents and quality assurances activities encompassing (say) 6 functional areas, and there is evidence of attention to corporate equity priorities within 3 of the 4 documents and across 5 of the 6 functional areas. Or, if there are (say) 'x' heads of schools and 'y' managers/directors of administrative and service units, and there is evidence of active responsibility for equity priorities in the performance review processes for 'x minus 2 or 3' and 'y minus 1 or 2'.

Benchmark 3.5: Clearly defined lines of responsibility and decision-making

In most universities some, but not all, areas of management are well defined. The test is whether they are sufficiently comprehensive and up-to-date.

Benchmark 3.6: Core business systems

This benchmark should be pursued in tandem with Benchmark 7.1.

Benchmark 3.7: Risk management

The spectrum of risk management pursued should extend well beyond financial and operational efficiencies.

Benchmark 3.8: Teaching and research expenditure proportions

Administrative functions are organised differently in different institutions; the differences must be taken into account in any institutional comparisons (currently the data is not reliable).

The proportions of the total budget spent on teaching, research and administration are matters of great interest in all universities. While it is difficult to reach agreed definitions of what should be included because of different degrees and types of devolution among universities, the importance of the effort outweighs the definitional problems. Three aspects are benchmarked; teaching and research proportions of the budget, and central and total administrative costs.

Benchmark 3.10: Organisational climate

Feelings of job satisfaction and good communication are difficult to establish or maintain. The perennial quest is for an organisational climate as supportive as possible of the directions and aspirations of the organisation. The likelihood of significant differences between employer and employee perceptions of what is important was established in a study published by *Rydges* in February 1978.

Employee Ranking	Items being Rated	Supervisor Ranking
1	Appreciation of work well done	8
2	Feeling of being 'in on things'	10
3	Sympathetic help on personal problems	9
4	Job security	2
5	Good wages	1
6	Interesting work	5
7	Promotion and growth in company	3
8	Personal loyalty to employees	6
9	Good working conditions	4
10	Tactful disciplining	7

4. External impact

Fundamentally the impact of a university is determined by the degree to which it achieves and communicates the quality of its standards, its competitiveness, the quality and importance of its research and the range and quality of its community service. To the degree that it is recognised for these aspects it will have a high reputation and receive adequate recognition for this among stakeholders such as prospective students, parents, employers locally and nationally, and local and national media.

The benchmarks in this chapter are included on the premise that reputation is at least partially manageable. Some universities are better than others in projecting their strengths.

The four aspects of external impact that are benchmarked are reputation, competitiveness, academic staff strength, and community service. International links, as assessed in Benchmark 10.7 constitute another aspect of reputation that needs to be taken into account with the four canvassed here.

Reputation is crucial, whether for attracting and holding students or staff, securing endowment, attracting research funds or marshalling community support. Competitiveness is a second measure of how well the university is being received among prospective students and in the community; student choice, either year-on-year or inter-university comparative data, benchmarks this aspect. The reality and perceptions of academic staff strength constitute a third measure. Community service taps other dimensions.

4.1 Reputation

Reputation is an elusive area to benchmark with any precision. The difficulty of pinning down any data or hard information must be offset by the need for a benchmark, given the importance of the area. Despite the difficulties and, inevitably, some lack of precision in making assessments, reputation is both assessable and manageable.

It has to be admitted that a university may have a local reputation that is different from its national/international reputation. The challenge is to turn a good local reputation into national standing.

Reputational data is often scarce thin and inferential. The unevenness of services reporting and analysing the volume and tone of public comment or public opinion polls, is a particular difficulty. But the effort to assemble relevant data is worth making.

A good reputation is not a happenstance outcome, the result of sheer luck, or even an inevitable outcome of excellence. It is certainly not simply image making irrespective of substance. It is at least in part dependent on a clear understanding of the need for attention to this area, skilled use of the available communication channels, and good management.

The ubiquity of the media, particularly the role of analysts and interpreters in informing the media and acting as intermediaries in forming public perceptions, is an important consideration. Universities are subject to the same demands for transparency and openness, the same need to communicate successfully to the public what they are doing academically and how well they are doing it. Moreover, the pressures on universities to explain and justify their use of government funds can only increase as governments emphasise student choice and informed consumers.

Although its significance cannot be minimised, national and international reputation is even more difficult to benchmark than local reputation. International media rankings, such as the rankings in *Asiaweek*, are making a significant impact on the reputation of individual universities. They do not yet do justice to the real strength, especially in research, of Australia's universities (the benchmarks used by some of the media are included as Appendix 1). The best response, which universities seeking international standing should make, is to direct more effort toward making their real strengths better known and to achieving reform of the benchmarks.

Potential academic reputation checkpoints include:

- volume and ratio of positive to negative media comment;
- industry and employer views;
- graduate/alumni evaluations;
- crisis response capability and effectiveness;
- external media (eg, *Asiaweek*) and guide book (eg, *Good Universities Guide*); and
- growth of private inputs.

The benchmark included, **Benchmark 4.1: Reputation**, is acknowledged to be a first pass that may be improved as experience in identifying the most relevant factors grows.

4.2 Competitiveness

Most universities already watch closely their competitiveness as measured in the first choice applications to University Admission Centres. Students do too. There is also a great deal of anecdotal evidence confirming that students are attracted to courses with a high reputation, as measured by their attractiveness to high-scoring school leavers and the median entry scores. There seems to be well-developed informal student networking that communicates perceptions of the quality of courses. Even though the accuracy of the cut-offs for entry to particular courses is suspect because of some manipulation of first and second round admission, entry scores have an important public impact. The age of particular universities, the ease of transport access, and the paucity of reliable information about individual courses may also affect the data, but competitiveness is not a feature of university life that can be ignored.

Some argue that the competitiveness of a university can only be assessed in the context of that institution's particular circumstances rather than its proportion of first choice applicants. That point is debatable but there is little doubt that applications trend data is one of the most watched of the benchmarks within universities. A downward trend is one of the most telling early warning signs that a course, a department, a campus, or a whole university has problems that need attention.

There are various ways of measuring the trends. The preference here is for three sub-indicators, namely, share of state admission centre first preferences as a proportion of total first preferences, share of the top 5 per cent of admission centre commencing students, and median admission centre entry score. The benchmark is, **Benchmark 4.2: Competitiveness.**

4.3 Academic staff qualifications

A university where the proportion of staff with doctoral qualifications is seriously below the levels of other universities in the country has a problem in achieving the academic reputation it may deserve. Many universities do not like to be compared in this way. Arguments swirl about the relevance of doctorates to good teaching (Benchmark 6.3: Scholarly Teaching also bears on this issue) as distinct from their assumed relevance to research. The development of professional doctorates in several discipline fields in Australia in recent years adds to the complications.

Nevertheless, the academic world does put store on the proportion of staff in a university with earned doctorates involving a substantial thesis. Research intensive universities put particular store on the proportion with earned PhDs. This benchmark, **Benchmark 4.3: Academic staff qualifications**, is furthermore one that is used in the USA, Canada and the UK, which means that it can be used as an international comparator.

4.4 Community service

Universities concern themselves with community service in a variety of ways. Sometimes this takes the form of individuals participating in community organisations or public commentary on facets of community life. Sometimes it takes the form of clinics and services (eg, clinical psychology units, law or advocacy services) with free or subsidised access.

Until recently few universities had developed a formal strategy of community service as a means of enhancing their external impact. Those few often had a commitment to a specific objective, such as the development of a science park, assistance with telecommunications access, or the maintenance of a city theatre group, rather than a community service strategy for the whole university.

Given that public universities almost always have community service as a third major role (along with teaching and research), the first benchmark in this area monitors the extent to which the university takes a strategic view of this obligation and implements courses of action that will get the best results for effort expended.

The overall impact of a university in a community can be assessed. An appropriate benchmark for community service is the community rating of the importance of the university's contribution to the community (**Benchmark 4.4: Strategic community service**).

The second sense of community service that is of importance is the degree to which the university sets an example of acceptance of community citizens' obligations. Universities are often in a favoured position in the community, in terms of exemptions from planning, environmental impact, and other laws applying in the wider community. They should nevertheless be exemplary institutions in meeting those standards. Hence the **Benchmark 4.5: Exemplary community practices**, which measures this impact.

Benchmark: 4.1

Area : External impact

Element : Reputation

Type : Learning

Benchmark rationale : Reputation is crucial for attracting and holding students and staff, securing endowment, attracting research funds and marshalling community support. It has both a local dimension and a national/international dimension. It should arise naturally from successful implementation of the university mission, but the university's reputation also has an independent dimension. The crucial need is to monitor the trends.

Sources of data: : Meaningful comparisons over time of volume and ratio of positive to negative press comment; rankings and ratings by external agencies; employer surveys; ANOP/Gallup type polls; quality of staff; number of members of Academies/Royal Societies; Nobel Prizes won; research fame; Rhodes scholars; and distinguished alumni.

Good practice :

Effective management of external impact requires attention to all possible tools, including positive projection of the university, management of press comment, favourable employer attitudes, strong alumni support, successful crisis management and good relationships with the general public.

Local High standing as reflected in the media. Consistent, effective communication with the media within an explicit plan, measured by trend data confirming regular and consistently positive media projection. VC, executive staff and key professors sought after as authoritative public commentators. Good projection of senior staff accomplishments. Evidence of vigorous alumni support. Employer respect both for graduates and the university generally. Trend and comparative data which supports all of these judgements.

National/International High university standing in media, polls, and other public rankings (eg, *The Times*, *Asiaweek*). Recognition and standing among national universities.

Levels :

1	2	3	4	5
<p>Little impact. Unorganised press releases. Reasonable publicity brochures and Annual Report. Little or no contact with employers or alumni.</p>		<p><i>Local.</i> Reasonable media comment (except for crises). Positive attitudes of schools.. Few staff authoritative public commentators. Alumni and employer support equivocal.</p> <p><i>National/International.</i> Limited range of contact. Limited standing. Little or no mention in international rankings.</p>		<p><i>Local.</i> Data confirming regular and consistently positive media projection. High standing in opinion polls. Other evidence of positive standing. Effective crisis management. Good projection of staff accomplishments. Strong alumni & employer support. Positive trend data.</p> <p><i>National/International.</i> Standing among international universities. International rankings. Graduates accepted in best international universities.</p>

Self assessment :

Check assessment :

Benchmark: 4.2

Area : External impact

Element : Competitiveness

Type : Lagging & learning

Benchmark rationale : Universities need to know how competitively they attract students, in particular trends over time. Three methods of assessing competitiveness are readily available; one measures a university's first choice applications as a proportion of total first choice applications; the second its proportion of the top 5 per cent of admission centre applicants, and the third the median entry score of commencing students.

Sources of data : University Admission Centre Data; preferences and enrolments.

Good practice :

Good practice is to monitor regularly either or both of year-on-year trend and comparative data of the proportion of admission centre students first choices, proportions of top five per cent of applicants and median entry scores. Improving trends both for the university as a whole and for most undergraduate degree courses on a three year rolling basis is good practice. On a comparative basis a good outcome is to be in the top half of universities in the State for the first choices of school leavers, for eighty per cent of undergraduate degree courses, and to be the equivalent university of choice for mature age and TAFE articulation applicants.

Levels :

1	2	3	4	5
<p>Declining trends of school leaver and mature age entry choices.</p> <p>In the bottom half of universities for proportion of first choices and for median entry scores for eighty per cent of courses.</p>		<p>Steady or mixed trends with some improving and some declining.</p> <p>Comparatively the proportion of first choices is neither very good nor very bad. Some courses are in the top half of universities in the State and some in the lower half.</p>		<p>Steady or improving trends in school leaver (and mature age) entrant choices for proportions of all first choices, for proportion of top five percent of students and for median entry scores.</p> <p>In the top half of universities in the State for all first choices and the median entry scores for eighty per cent of courses.</p>

Self assessment :

Check assessment :

Benchmark: 4.3

Area : External Impact

Element : Academic staff qualifications

Type : Lagging

Benchmark rationale : The proportion of academic staff with earned doctorates (either PhD or professional doctorates), in which over half of the doctoral requirements are for an original thesis, is an important indicator of overall staff strength. For research intensive universities the proportion of staff with research PhDs is the relevant indicator.

Sources of data : University statistics. DETYA staff collection (from the year 2000).

Good practice :

Good practice is for the proportion of academic staff with earned doctorates to be equivalent to international proportions. The number of junior staff in process but not yet having completed their doctorates always reduces the proportion. At present best practice is for over 60% of a university's staff to have as their highest qualification an earned doctorate (or a PhD in research intensive universities).

Levels :

1	2	3	4	5
At least 30 per cent of staff have earned doctorates.		The proportion of staff with earned doctorates comprising more than half thesis requirements is between 40 per cent and 50 per cent.		The proportion of staff with earned doctorates comprising more than half thesis requirements exceeds 60 per cent. For research intensive universities the proportion of staff with PhDs exceeds 60 per cent.

Self assessment :.....

Check assessment :

Benchmark: 4.4

Area : External impact

Element : Strategic community service

Type : Leading

Benchmark rationale : Community Service is considered to be an integral part of the work of universities across all levels. A strategic approach to community service that defines the communities the university serves and the actions the university is taking to serve those communities will strengthen external impact.

Sources of data : University Plans —Strategic Plan, Community Service Plan, Organisational Unit Plans; Community Activities Register, and Annual Report section on Community Service.

Good practice :

Existence of a Community Service Policy and a Plan which provides a clear link to the goals and objectives of the most recent University Strategic Plan, and procedures for their implementation, monitoring and improvement (eg, through external referencing and independent, client-based feedback).
 Clear evidence in organisational unit plans that community service is an important aspect of the learning and research functions of each area, and that these services make use of specific academic abilities of the staff involved. The university has well-developed formal mechanisms to monitor performance in the communities in which its services are directed. Evidence that the university shares facilities with the local and regional community. A pro-active approach to Community Service is demonstrated and the work recognised (eg, as a criterion for promotion) and rewarded.
 The University centrally assesses its community service contribution and is able to calculate the funds spent on these activities and has data with which to assess the impact of effort expended in any given year.

Levels :

1	2	3	4	5
<p>Planning and only embryonic objectives, strategies, targets, procedures or monitoring of activities.</p> <p>A Community Service Policy with few or no links to the goals and objectives of university.</p> <p>No unit plans.</p> <p>No formal mechanisms to monitor performance in the communities.</p> <p>Scant evidence that the university shares facilities with the local and other groups. An ad hoc approach.</p> <p>No university level assessment of efficacy or record of funds spent annually.</p> <p>Not recognised as a criterion for promotion or otherwise rewarded.</p>	<p>A pro-active approach to community service work.</p> <p>A Community Service Policy linked to goals and objectives of university planning, incorporating objectives, strategies and quantitative targets and processes for monitoring and improvement.</p> <p>Most organisational unit plans demonstrate that community service is an integral aspect of the learning and research.</p> <p>Mechanisms to monitor performance in the communities lack completeness and precision.</p> <p>Evidence that the university shares facilities with the local and other groups.</p> <p>Some attention to the effectiveness of community service work.</p> <p>Community service work taken into account for promotion but not otherwise rewarded.</p>	<p>A pro-active approach to community service work.</p> <p>A Community Service Policy linked to the university's strategic planning, incorporating objectives, strategies, quantitative targets and processes for monitoring and improvement.</p> <p>All organisational unit plans demonstrate that community service is an integral aspect of the learning and research functions.</p> <p>Formal mechanisms exist to measure performance.</p> <p>Evidence of sharing of facilities with local and other groups.</p> <p>University level review of resources used and the effectiveness of community service initiatives; evidence of planned improvements. Community service work recognised (eg, as a criterion for promotion) and rewarded.</p>	<p>A pro-active approach to community service work.</p> <p>A Community Service Policy linked to the university's strategic planning, incorporating objectives, strategies, quantitative targets and processes for monitoring and improvement.</p> <p>All organisational unit plans demonstrate that community service is an integral aspect of the learning and research functions.</p> <p>Formal mechanisms exist to measure performance.</p> <p>Evidence of sharing of facilities with local and other groups.</p> <p>University level review of resources used and the effectiveness of community service initiatives; evidence of planned improvements. Community service work recognised (eg, as a criterion for promotion) and rewarded.</p>	<p>A pro-active approach to community service work.</p> <p>A Community Service Policy linked to the university's strategic planning, incorporating objectives, strategies, quantitative targets and processes for monitoring and improvement.</p> <p>All organisational unit plans demonstrate that community service is an integral aspect of the learning and research functions.</p> <p>Formal mechanisms exist to measure performance.</p> <p>Evidence of sharing of facilities with local and other groups.</p> <p>University level review of resources used and the effectiveness of community service initiatives; evidence of planned improvements. Community service work recognised (eg, as a criterion for promotion) and rewarded.</p>

Self assessment :

Check assessment :

Benchmark: 4.5

Area : External impact

Element : Exemplary community practices

Type : Leading

Benchmark rationale : Like other organisations, universities have an obligation to ensure optimal social and environmental practices with respect to those inside the organisation, to local communities and to the physical environment. The environmental practices evident in the daily operation and maintenance of the university are inevitably part of its external impact.

Sources of data: : University Plans and Policies; University Annual Reports.

Good practice :

<p>A commitment to act responsibly and ethically in all its activities evidenced through the following policies being in place and fully implemented with associated goals, strategies, targets, historical outcomes, review mechanisms, and resource allocations:</p> <ul style="list-style-type: none"> • Commitment to appropriate Codes of Practice (research ethics, legal, building, heritage and others). • Sustainable environment policy (waste reduction targets, asbestos removal targets, etc). • Health promotion and safety policy (OHS rates, community use of sports facilities, health and fitness promotion, etc). • Sustainable economic development policy (graduate employment, collaborative research with industry, work placements, etc). • Multicultural and internationalisation policy (evidence of multicultural nature of library holdings, Indigenous input into courses, exchange students, etc). • Learning communities and arts policy (library access to community, community arts events held at or sponsored by the university, staff development programs, etc). • Public affairs policy (reference groups involving community representatives, achieving effective relationships with councils, police and emergency services).
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Levels

1	2	3	4	5
1 or 2 of the good practice policies with associated goals, strategies, review mechanisms, resource allocations. Incomplete implementation.		Approximately half of the good practice policies, with associated goals, strategies, review mechanisms, resource allocations. Full implementation still under development:		Full exemplary implementation of good practice in all policies.

Self assessment :

Check assessment :

Notes and interpretation: Chapter 4

External impact

Benchmark 4.1: Reputation

It is more important to make honest assessments of local and national/international reputation accepting that judgement is involved, than to complain that the indicators are subjective and prone to error. Good management can bring about improvement only if the original assessment is not overrated.

Benchmark 4.2: Competitiveness

This is not a 'value added' type benchmark. Value added is assessed more directly in the Learning and Teaching chapter. Who seeks entry to the university is a reflection of its reputation. While there are variations in entry levels (assuming all types of applicants are ranked in some valid way) among courses, the overall level of choices among high level students measures the general attractiveness/reputation of the university.

Where possible the levels of attraction of mature age, ex TAFE and part time applicants, who comprise a substantial proportion of entering students, should be taken into account by the standard means admission centres use for comparison.

DETYA's definition of *new school leavers* is: undergraduate commencing students direct-from-school and one-year-deferrers who have not previously commenced and/or completed a higher education course. Direct-from-school students are those who completed secondary education at school or TAFE in the year immediately prior to commencing their undergraduate course. One-year-deferrers are those who were enrolled in year 12 at school or TAFE two years prior to commencing their undergraduate course.

Benchmark 4.3: Academic staff qualifications

The benchmark is framed in an awareness that some universities would prefer a staff benchmark based on a 'fitness for purpose' profile. Apart from the difficulties of defining sufficiently sharp descriptors, such a benchmark would miss the fact that universities are judged on the basis outlined in this benchmark. A university may choose to use other staff quality criteria, but in so doing undeniably lifts the hurdles for itself in establishing an international reputation.

Benchmark 4.4: Strategic community service

There is a need for each university to define the communities it intends to serve (always including the community within which the university is located) and the means by which this will be done. Formal mechanisms to measure service, including approaches by community groups, community awards and internal recognition and prizes for staff and students.

Benchmark 4.5: Exemplary Community Practices

The emphasis is on being a model of institutional citizenship.

5. Finance and physical infrastructure

5.1 Financial ratios

Financial management in universities now requires the degree of attention that a private enterprise company has to give to this function. It requires a comprehensive financial strategy with targets for income from a diversity of sources, management of expenditure patterns, expenditure controls, management of debts and investments, requirements for liquid reserves, and risk management. External audits need to be supplemented by a strong internal audit function. Universities need benchmarks which give Vice-Chancellors confidence that the university's financial management is prudent.

A difficulty in setting benchmarks in the financial area is the lack of commonality of definitions and the different treatment of items in terms of financial reporting. The proposal sent by the working party to DETYA asking that there should be government sponsored action to achieve greater reliability and compatibility of data requires early attention. It should be a review of the currency of financial statement instructions/format and compliance issues, with the aim being to achieve commonality of approach and accounting standards and great consistency in the interpretation of definition.

Benchmarks Six quantitative benchmarks, based on percentages, have been identified for the benchmarking of Financial Management:

- Benchmark 5.1: Operating result;
- Benchmark 5.2: Diversity of revenue;
- Benchmark 5.3: Liquidity;
- Benchmark 5.4: External debt;
- Benchmark 5.5: Quick ratio; and
- Benchmark 5.6: Academic salaries expenditure trends.

Checklist of processes and procedures In addition, a checklist of essential processes and procedures for good financial management has been developed. Without these in place, universities will find it difficult to achieve or maintain good performance on the benchmarks. A university should have in place:

- a transparent indicative triennial budget linked to the strategic plan;
- explicit identification of any cross-subsidisation;
- capital investment/infrastructure plans;
- costing mechanisms;
- risk analysis/management;

- audit plans;
- delegation and other financial controls;
- streamlined electronic financial systems; and
- staff training programs in finance and business skills.

Data trends Interpretation of the financial data provided by universities can only be done with care (Chapter 2.3). While the benchmarks, for simplicity, ask for current annual data, trends over time are crucial in making judgments about performance. One-off payments, which skew the annual financial results, should not be allowed to obscure the real position. Three-year data would be preferred and might be built into benchmarks at a later date.

5.2 Commercialisation

Universities are looking to diversify their sources of income, principally undertaking some or all of commercial R&D, consulting, attracting fee-paying students and developing a range of student-related and other commercial services. There is wide variation between universities in the degree to which the activities are linked to the university's academic objectives, are costed accurately, and make a cash or other contribution to the university, or, on the other hand, are kept separate from mainline university teaching and research.

Consulting policies Apart from the financial aspects, universities need clear consultancy policies, which define the time allocation that academic staff can make and/or the personal income that is permissible and the ways of recompensing academic units for staff time devoted to consultant or commercial activities.

Separation of academic and commercial activities Universities that have not separated commercial or even quasi-commercial activities from academic activities are doing themselves a severe disservice. Everything that is not a mainstream subject/course, the expenses for which are not covered by government grants or normal student tuition fees should be treated as commercial. This is not to say that a university should refrain from initiating an income earning activity in an academic department. Where universities allow that, however, the degree to which the activity is expected to be self-supporting or earn a profit, and the time allowed for the activity to become self-supporting, should be established at the outset.

In any case, the recent introduction of Goods and Services Taxes on non-mainstream academic activities has made the identification of commercial and quasi-commercial activities a necessity if universities are not to put their general tax-free status at risk. Separate identification and accounting for such activities has been made an essential requirement.

Few such initiatives in the past have had even rudimentary business plans. Many academics have used staff time and university resources greater in value in such activities than is received in revenue, although that equation has not always been obvious because the revenue has been in cash and the outgoings hidden in the form of salary and on-costs.

Two groups of commercial activities can be defined:

Developmental activities—which require time, patience, incentives, exit strategies, expectations of longer term returns to stakeholders:

- research and development companies (technology transfer);
- projects; and
- offshore operations.

Mature activities—which provide a return on equity and/or benefits in terms of reputation:

- full-fee students;
- business operations including halls of residence, child care, medical, printery, catering;
- consultancies;
- concessions/franchises; and
- continuing education/training.

Ultimately both groups of activities should provide the desired return on investment unless there is an explicit, transparent cross-subsidisation included in the University's strategic plan, which specifies the non-financial returns or benefits such as reputation, status, or student service.

At a minimum the university should have the following in place for its commercialisation activities:

- clearly defined and monitored academic consultancy policies;
- sound intellectual property policy;
- commercial management plan linked to the university's strategic plan;
- a transparent budget, identifying cross-subsidised activities;
- clear processes for:
 - business planning (including market assessment) and costing (including overheads)
 - risk assessment, including cash flow analysis, sensitivity analysis
 - containment of litigation
 - project tracking, monitoring
 - partnership agreements; and
- exit strategies including dispute resolution and termination.

Commercialisation should be viewed as a subset of Financial Management and undertaken with the businesslike approach applicable in the financial management area. The first five of the Financial Management benchmarks are equally applicable to commercialisation. These are:

- operating Result;
- diversity of Revenue;
- liquidity;
- external debt; and
- quick ratio.

In addition, it is important that financial returns to the university from commercial activities be identified.

An appropriate additional indicator to the considerations discussed above is

Benchmark 5.7: Commercialisation: Net return on equity.

5.3 Physical assets and space utilisation

In the last few years government capital funding policy has changed from project grants available to a few institutions to a capital ‘roll-in’ which provides some capital every year for every institution. The revised policy also allows institutions to use the funding for capital expenditure of their choice. There has always been a need for strategic management of the substantial capital assets of universities.

The capital roll-in, the changing needs of disciplines, and new teaching delivery methods have moreover brought old norms of space provision and efficiency of usage into question. For instance, there is a need to consider the trade-off between extra buildings and additional communications technology, before additional capital investment is considered. Additional considerations are the intensity (efficiency) of usage of teaching, laboratory and office space.

Despite the functional diversity of the typical facilities management organisation, institutions can and should embrace a strategic benchmarked approach to asset management. Although several additional performance indicators (Key Performance Indicators) are already available to Facilities Managers, in this Manual a choice has been made of a relatively small number of strategic quantitative benchmarks supported by a checklist of qualitative measures.

5.3.1 Physical assets

The first test for identifying good practice in the management of physical assets is the extent to which an institution has identified, developed and implemented key policies and processes. The key qualitative indicator of good practice is the presence and application of an institutional **Strategic Asset Management Plan**.

All facilities within the institution should be managed within a quality assurance framework with a strong focus on customer satisfaction.

A strategic asset management plan, as defined above, comprises a number of supporting plans. These include, but are not necessarily limited to:

- a capital development plan;
- facilities management plans, including:
 - property and security;
 - cleaning and waste removal;
 - environmental management;
 - minor works, alterations and additions;
 - management of utilities;
- maintenance plans:
 - preventive maintenance;
 - corrective maintenance;
 - deferred and backlog maintenance;
 - condition assessments/comprehensive facilities audits; and
- disposal and adaptation plans.

The first physical assets benchmark is **Benchmark 5.8: Strategic asset management**.

In addition to this benchmark, two quantitative benchmarks, **Benchmark 5.9: Recurrent maintenance funding**, and **Benchmark 5.10: Facilities maintenance backlog**, are important in the assessment and management of physical assets.

5.3.2 Space Utilisation

In 1998, the university sector in Australia owned and operated almost nine million square metres of built assets with a current replacement value of over \$16 billion. The effective and efficient use of these valuable assets has become one of the hottest issues in the sector in recent years (although DETYA collection of this information was dropped in the early nineties). The Australasian Association of Higher Education Facilities Officers (AAPPA) has developed space and planning guidelines, space norms and indicative space utilisation rates for higher education institutions.

The key to good practice is incorporated in **Benchmark 5.11: Space management**. The space management plan comprises a number of sub-parts. These include:

An accurate and well managed database, including information on:

- types of space, tenancy of space and space facilities;
- electronic mapping of all university space with links to the facilities management operational database;

- capacity to measure space utilisation;
- a system of space allocation using software programs.

A quantitative benchmark, **Benchmark 5.12: Central teaching space usage and efficiency** is recommended for space management. Initially the benchmark is limited to measuring space utilisation, using as measures hours booked against hours available and the number of seats used against room capacity. Space should include all centrally controlled teaching spaces with a seating capacity of fifty seats or more and, where appropriate, include laboratory space. Future enhancements would include:

- the inclusion of faculty controlled teaching spaces;
- the inclusion of other spaces (eg libraries, computer laboratories, offices, research areas and the like);
- additional efficiency measures including
- hours booked against hours used; and
- measures to achieve economical use of space, such as charging out.

5.4 Equipment

Large specialist equipment represents a major capital investment by most institutions. The efficient and effective use of such equipment is essential. The principles of intra- and inter-departmental, institutional and organisational use of capital-intensive equipment wherever possible, should be encouraged to maximise use and hence return on investments and/or to defer large capital purchases.

Some qualitative indicators in this area might include:

- an institutional equipment policy;
- a requirement to provide a detailed feasibility and cost proposal or business plan for all major equipment acquisitions;
- optimal use and replacement rates, maintenance agreements and other operational issues;
- examples of cooperative and/or collaborative purchases and/or use of expensive equipment;
- benchmarks or records which measure how efficiently equipment is being used; and
- examples of non-asset solutions to equipment needs (eg leasing, renting, cost sharing).

Given the wide range of equipment types, technology life cycles, obsolescence, research relevance, etc, it is almost impossible to establish quantitative indicators of best practice relating to particular pieces of large equipment. However, maximising utilisation rates and returns on investments in all types of equipment is a key to good practice, as indicated in **Benchmark 5.13: Large equipment utilisation**.

5.5 Information technology and telecommunications infrastructure

Information Technology and Telecommunications (IT & T) are integral to the operations of a modern international university. For a university to be world class its IT & T policies and infrastructure must at the very least sustain that status and, where possible, confer a competitive advantage.

Secondly, the specifics are measured against two sets of indicators, of which the first comprise the overall provisions made, against a checklist of the following requirements:

an information technology and telecommunications agenda linked to the university's covering policy and infrastructure, designed to give it some form of competitive advantage;

- a budget matching the agenda;
- agreed levels of performance for corporate applications and the deskto;
- guaranteed infrastructure performance for core activities;
- universal student and staff service provision;
- cost competitiveness and value for money;
- performance-based accountability;
- equitable outcomes for all students and staff; and
- demonstrable enhancement of communication with stakeholders.

The Information Technology Policies and Infrastructure of a particular university are measured in terms of the volume, power and modernity of its physical stock of centrally organised and maintained computers, physical in-ground/in-buildings networks and routers. They are also measured in terms of the software it can make available to the university community, its support and assistance arrangements, and the expertise of its IT staff. Cost effectiveness is important. Information Technology is a big user of resources. A university without good infrastructure is at a disadvantage to other universities. **Benchmark 5.14: IT & T infrastructure** measures the quality and service levels of the institution's IT infrastructure.

Benchmark: 5.1

Area: : Finance

Element: : Operating result

Type : Lagging

Benchmark rationale : The overall financial performance of an organisation is captured in the final operating outcome, specifically whether it achieved a surplus or a deficit over a defined period. In the case of universities, this is the calendar year, though with the move to triennial budgeting it might be more appropriate to look at financial performance over a rolling three-year period. For simplicity, the indicator is the year's operating result (surplus/deficit)—which needs to be based on a common definition that requires further work.

Source of data : Universities' audited annual financial statements.

Good practice :

The essence of good practice is to have a reasonable safety margin, defined as an annual cash result covering all income and expenditure (including capital) that is always positive other than in exceptional years, the rationale for which is noted in annual accounts. The cash result should be about 5% (lower is usually risky; higher is inefficient use of cash).
Similarly, the annual accrual result should be positive (net of depreciation on buildings).

Levels :

1	2	3	4	5
Unacceptable risks. Inconsistent and unplanned results including occasional negative outcomes.		Annual results with acceptable degrees of risk. Cash surplus usually positive, unless planned to be negative for an unusual short-term reason.		Positive annual results which minimise university exposure to financial risk. The university should always balance and have some cash surplus, usually in the 3-5% range (greater than 5% not good practice) unless there is a planned reason to be different, and then only for an exceptional year.

Self assessment :.....

Check assessment :

Benchmark: 5.2

Area: : Finance
Element: : Diversity of revenue
Type : Lagging

Benchmark rationale : Universities reduce their financial risks by diversifying their sources of revenue (consistent with their mission), especially between government and non-government revenue sources. Universities with a greater diversity of revenue have more opportunity to plan and realise their own futures than if they are totally reliant on the DETYA operating grant. Universities should budget non-DETYA revenue streams in sufficient detail to assess the risks (e.g., international student fees, domestic fees, contract research and consultancy earnings). Risk and sensitivity analysis is desirable. The recommended indicators for diversity of revenue are: a) the level of non-DETYA operating grant revenue measured as a percentage of total revenue, and b) the number, range and extent of non-DETYA funding sources.

Source of data : University Annual Financial Report.

Good practice :

Universities should reduce financial risks from reduction or failure of an income source by having three or four major income sources with none below 5% for any one source and preferably all above 15% (to spread risks).
 Reliance on DETYA operating grant revenue should be decreasing, preferably not much more than 50 per cent (abnormal or one-off special income payments should be excluded from the calculation).
 In seeking to diversify, universities need to ensure that all overheads are recovered; the contribution made by each to central overheads should be shown in accordance with the requirements of Australian Accounting Standard 16.

Levels :

1	2	3	4	5
Any one source of income above 65% of total income. Two primary funding sources (operating grants and HECS) contributing more than 75%.		The university should have more than one substantial income source, with income from DETYA less than 75% of operating revenue.		The university should have three or four income sources, none of which is below 5%; preferably all should be above 15%. Reliance on DETYA operating revenue should be reducing, preferably not much more than 50%. Abnormal or one-off special payments to be excluded from the calculation.

Self assessment :

Check assessment :

Benchmark: 5.3

Area: : Finance

Element: : Liquidity

Type : Lagging

Benchmark rationale : Universities should maintain a liquid position so as to be able to meet their short-term financial obligations, as is the normal commercial practice. The current ratio (current assets divided by current liabilities) is recommended as the indicator of liquidity. In measuring current ratios research income paid in advance which has to be expended on set projects should not be included. Readily convertible financial instruments can be counted as current. Too high a ratio is a sign of under-utilisation of cash; too low a ratio jeopardises the financial health of the university.

Source of data : DETYA Selected Higher Education Financial Statistics

Good practice :

Good practice is a current ratio of more than 1.5 to less than 3.0. Less than 1.5 provides a margin too low to provide safety and results in an overly tight cash flow. Too high a ratio (over 3.0) indicates surplus funds for which some use should be found, either in expanding the range of university activities or in longer-term investments with reasonable yields. Commitments (eg, for tied research grants, scholarship funds) which are held in current assets should be taken into account, that is, deducted before deriving the ratio.

Levels :

1	2	3	4	5
A current ratio of < 1.0 or > 3.0		A current ratio of 1.0 – 1.5		A current ratio of > 2.0 to <3.0

Self assessment :.....

Check assessment :

Benchmark: 5.4

Area : Finance

Element : External debt

Type : Lagging

Benchmark rationale : Universities take on debt as a strategic financing strategy to fund new projects; however, excessive debt is a problem for any organisation. It is essential that loans be used to generate revenue and/or that the debt can be repaid from known sources of revenue.

The indicator is the ratio of annual principal and interest repayments to annual total revenue.

Source of data : University Annual Financial Report

Good practice :

The ratio of annual principal and interest repayments to annual total revenue should be less than 5%. There should be provision for the debt to be repaid within a given time frame (with the prevailing interest rates being a major consideration in debt servicing and debt planning).

Levels :

1	2	3	4	5
Ratio of > 10%		Ratio of 5 – 10%		Ratio of < 5%

Self assessment :

Check assessment :

Benchmark: 5.5

Area : Finance

Element : Quick ratio

Type : Leading

Benchmark rationale : While not all universities will wish or be able to accumulate significant levels of liquid reserves, it is desirable to maintain some level of liquid reserves for the purpose of financial flexibility, and in order to meet commitments as they fall due.

The recommended indicator is liquid reserves (cash or cash substitute) as a percentage of current liabilities.

Source of data : University Annual Financial Report

Good practice :

A positive percentage is an indicator of good practice. Universities need to examine the level of uncommitted funds (after regular outgoings such as salaries and the debtors turnover rate are taken into account) which they have available. A rule of thumb might be that liquid reserves (less commitments such as scholarships, tied research grants) should be a minimum of 6 fortnightly total salary and on-cost commitments.

Levels :

1	2	3	4	5
Figure for liquid reserves as a percentage of current liabilities is negative.		Figure for liquid reserves is almost always positive.		Figure for liquid reserves as a percentage of current liabilities is substantially positive.

Self assessment :

Check assessment :

Benchmark: 5.6

Area : Finance

Element : Academic salaries expenditure trends

Type : Learning

Benchmark rationale : If staff salaries require too high a percentage of expenditure from the budgets of academic organisational units, those units have less flexibility and less ability to meet other essential needs. Their capacity to reach their goals is severely constrained. Salaries expenditure as a percentage of academic unit income will generally be higher in faculties that do not require high expenditure on equipment and facilities. The indicators of health for academic organisational units are the proportion of salaries to total income and the trends in those proportions.

The university level indicators are total salary cost (including salary-related costs such as superannuation) as a percentage of total income, with the appropriate benchmark dependent on institutional profile, and the trends.

At the university level account needs to be taken of the salary component of any outsourcing.

Source of data : University Annual Financial Report; DETYA Staff Data Collection.

Good practice :

<p>Total salaries as a percentage of total revenue: <i>At the university level:</i></p> <ul style="list-style-type: none"> • between 50% and 70% <p><i>At the sub-institutional level:</i></p> <ul style="list-style-type: none"> • Arts and similar disciplines: 80% or lower • Engineering, Science, Medicine: 70% or lower <p>The trends should be toward these proportions.</p>

Levels :

1	2	3	4	5
<p>Total salaries as a percentage of total revenue: At the university level greater than 70 per cent. At the sub-institutional level Arts: more than 80 per cent. Engineering, Science, Medicine: more than 70 per cent. Trends in the wrong direction.</p>		<p>Total salaries as a percentage of total revenue: At the university level 60 per cent to 70 per cent. Static trends.</p>		<p>Total salaries as a percentage of total revenue: At the university level: 50 to 60 per cent. At the sub-institutional level- Arts 70 – 80 per cent. Engineering, Science, Medicine: 60 – 70 per cent. Where the measures are not in this range, the trends should be toward this range.</p>

Self assessment :

Check assessment :

Benchmark: 5.7

Area : Commercialisation

Element : Commercialisation: Net return on equity

Type : Lagging

Benchmark rationale : Net return on equity provides a measure of financial sustainability of the university's commercial activities. In the business environment, a return on investment or turnover is expected to be positive and at a rate which warrants the investment and effort in the activities. As in business, cross-subsidisation may be undertaken for strategic reasons for limited periods, but only if transparent and a clear, measurable benefit-cost ratio.

Source of data : University Annual Financial Report.

Good practice :

Good practice is to observe the requirements of Benchmarks 5.1 – 5.6 for fiscal prudence and, in addition, to plan for and obtain a return on investment at or above current cash management rates. Good practice does not exclude the possibility of some deliberate decisions to subsidise a unit or accept break-even results (e.g., child-care), but all costs should be taken into account. Explicit decisions should be made about all non-mainstream academic activities (and any off-shore academic activities) that generate or should generate revenue.

Levels :

1	2	3	4	5
Return on investment from commercial activities is less than can be earned through cash management investment, unless the return achieved is consistent with the university's strategic plan (for example, an explicit decision to subsidise student residences). The university has no processes or policies to effectively govern commercial activities.		Return on investment trend is moving positively in the direction of rates equal to or higher than cash management rates. The university has policies to identify and govern all commercial and semi-commercial activities.		Return on investment from commercial activities at rates equal to or higher than current cash management rates. The university has effective processes to identify and govern all commercial activities.

Self assessment :

Check assessment :

Benchmark: 5.8

Area : Physical assets

Element: : Strategic asset management

Type : Lagging

Benchmark rationale : There is need for strategic management of the substantial capital assets of universities. The need is for a strategic asset management plan.

Sources of data : Data collected by the Australasian Association of Higher Education Facilities Officers (AAPPA).

Good practice :

Each university should have a strategic asset management plan which is well documented, implemented and reviewed and has wide institutional support. The strategic asset management plan should cover capital development; facilities management (including property and security, cleaning and waste removal; environmental management, minor works and management of utilities), maintenance plans (preventative, corrective, backlog and facilities audits), and disposal/adaptation plans.

Levels :

1	2	3	4	5
Plans are at minimal stage of development.		Plans exist but require further refinement. Not fully endorsed by institution.		Comprehensive plan, fully documented and implemented and regularly reviewed. Plan has institutional support.

Self assessment :

Check assessment :

Benchmark: 5.9

Area : Physical assets

Element : Recurrent maintenance funding

Type : Lagging

Benchmark rationale : This benchmark measures how well an institution is funding its maintenance operation. Measured as a percentage of the asset replacement value of the institution the benchmark is an indicator of how well an institution is able to maintain its assets.

Sources of data : *Benchmark Survey Reports*. Australasian Association of Higher Education Facilities Officers (AAPPA).

Good practice :

Good practice is for the institution to invest sufficiently in maintenance to secure maximum durability and use of assets over their lifecycle. Funding should be such as to keep all capital assets in good repair and avoid a backlog.

Levels

1	2	3	4	5
Significant deterioration of assets. Notable backlog of maintenance. Funding less than 0.75% asset replacement value.		Non optimal funding of maintenance but meeting statutory requirements for condition of buildings. Funding in the range 1.0% - 1.24% asset replacement value.		Maximum durability and use of investments in assets. Maintenance funding greater than 1.5% of asset replacement value.

Self assessment :

Check assessment :

Benchmark: 5.10

Area : Physical assets

Element : Facilities maintenance backlog

Type : Lagging

Benchmark rationale : This benchmark measures how well an institution is addressing and managing its deferred and backlog maintenance.

Sources of data : *Benchmark Survey Reports*. Australasian Association of Higher Education facilities Officers (AAPPA).

Good practice :

The Facilities Condition Index used in Australian universities is a good indicator of the condition of an institution's built assets at a point in time. Good practice is to reduce the expense of remedying the backlog of maintenance of facilities to less than 3.0% of the Asset Replacement Value of those facilities (that is, improve the Facilities Conditions Index score to greater than 0.97 of the asset replacement value). Levels

Levels: :

1	2	3	4	5
The expense involved in remedying the backlog of maintenance needs is unacceptably high, being greater than 15 per cent of the asset replacement value of university facilities.		The expense involved in remedying the backlog of maintenance is manageable, being between 3.0 per cent and 10 per cent of the asset replacement value of university facilities.		Good practice is to achieve a situation where the expense involved in remedying the backlog of maintenance is less than 1.0 per cent of the asset replacement value of university facilities.

Self assessment :

Check assessment :

Benchmark: 5.11

Area : Space utilisation

Element : Space management

Type : Leading

Benchmark rationale : Space and planning guidelines are essential for the effective and efficient use of capital assets

Sources of data : Australasian Association of Higher Education Facilities Officers Space Planning Guidelines; Society for College and University Planning data.

Good practice :

Universities should have a space management plan which provides for: an accurate and well-managed data base of space; electronic mapping of space linked to facilities management; space norms used to quantify space requirements; and a system for measuring space utilisation rates and allocating space based on timetabling software programs.

Levels :

1	2	3	4	5
Limited data base. No comprehensive systems for electronic mapping of space or timetabling software.		Data base of space exists but limited systems for measurement and allocation.		Data base supported by systems for measuring space utilisation and allocating space based on software programs.

Self assessment :.....

Check assessment :

Benchmark: 5.12

Area : Space utilisation

Element : Central teaching space usage and effectiveness

Type : Leading & learning

Benchmark Rationale : This benchmark measures how effectively and efficiently an institution is using its existing teaching space. It also monitors institutional efforts to change behaviour towards more economical use of space.

Sources of Data : AAPPA, Space Planning Guidelines, September 1998: Society for College and University Planning publications.

Good Practice :

Good practice is first evaluated in terms of the percentage of available hours rooms are used. Measurement is made in terms of hours used against standard hours available and assumes an availability of some 70 hours per week. Universities employing good practice are implementing schemes encouraging economical use of space. . Secondly, effectiveness measures actual students/staff using the space available (for example, 50 students in a 200-seat lecture theatre is a utilisation rate of 25%).

It is not practicable to use all rooms at optimal efficiency, but even measures of hours booked against hours used, and of students/staff use to space capacity, would show over booking and resulting under utilisation in many universities. The higher the ratio of hours used to hours available and of student use to space capacity, the greater the economies in the use of the institution's capital and the greater its overall efficiency. The ratings use a combined percentage figure from both measures.

Levels :

1	2	3	4	5
<p><30 per cent.</p> <p>Space under-utilisation identified as a problem, but no systematic action to optimise use.</p> <p>Trends are not monitored or are in a negative direction.</p>		<p>45 – 60 per cent.</p> <p>Surveys of use of space have been undertaken and administrative measures to increase the efficiency of use of space are being implemented.</p> <p>Annual trends are toward improved efficiency.</p>		<p>75 per cent or more.</p> <p>A high utilisation rate has been achieved and there is little scope to increase the intensity of usage within the existing facilities.</p>

Self assessment :

Check assessment :

Benchmark: 5.13

Area : Equipment
Element : Large equipment utilisation
Type : Lagging

Benchmark rationale : Although it is not possible to specify desirable investment and write-off rates for large equipment, universities often run into large equipment difficulties by trying to support and renew too many under-utilised expensive instruments. Achieving high utilisation rates at least means that the equipment is being used efficiently. The benchmark requires that the university should have a high utilisation rate (which could also be obtained by sub-leasing time at commercial rates to industry users).

Sources of data : University space and equipment inventories, selecting for large equipment (eg over \$100,000) usage records.

Good practice :

Purchase and replacement of large capital-intensive equipment can rarely be justified unless there is joint cooperative use by several academic units (or by joint commercially viable university-industry usage) to achieve high usage rates. Rates should be based on a yearly usage of at least ten hours per day, for five or more days per week, for at least forty weeks per year. Good practice will be usage rates of seventy-five per cent or better of that availability.

Levels :

1	2	3	4	5
Usage below 30%.		Usage between 45%and 59%.		Usage of 75% or greater.

Self assessment :

Check assessment :

Benchmark: 5.14

Area : IT infrastructure
Element : IT & T infrastructure
Type : Leading

Benchmark Rationale : Information Technology and Telecommunications are integral to the operation of a modern international university. For a university to be world-class its IT & T must at least sustain that status. Access to efficient, networked computing facilities, including access to university-wide information services (e.g., University web sites), and to the Internet, are aspects of the reasonable infrastructure expectations of staff members and students. The efficiency of those services is best measured in terms of availability and reliability. Complementary staff competencies are required for the services to be efficient.

Sources of Data : Availability and reliability logs maintained by the Information Services Unit(s).

Good Practice :

All staff will have access to networked workstations and to the training appropriate and necessary to make effective use of those services. Universal student training and competency levels required for graduation built into the curriculum. Network availability and reliability matches industry best practice. Levels

Levels :

1	2	3	4	5
<p>IT & T agenda not fully worked out.</p> <p>Resource allocations <i>ad hoc</i>. 60% all staff and research students have access to the network from their work areas Network arrangements provide only minimal research assistance.</p> <p>All students have teaching laboratory access to the network.</p> <p>Minimal provision of access to the network from off-campus.</p> <p>Network access is available 90% of the time.</p> <p>Re-engineering, and disaster management and recovery planning rudimentary.</p> <p>60% of staff and students have the skills training/knowledge appropriate to their use of the network.</p> <p>Student acquisition of skills and training largely on own initiative.</p> <p>No planned programme for development of staff skills and knowledge.</p>		<p>80% of staff and research students have dedicated access to the university's network from their work areas.</p> <p>An IT & T agenda comparable to other universities.</p> <p>Substantial resources allocation.</p> <p>Network arrangements improve access to research information.</p> <p>All students have access to network from teaching and general-access laboratories.</p> <p>All staff and 50% of students have off-site access to the network.</p> <p>Network access is available 95% of the time.</p> <p>Effective planning, re-engineering, and disaster management and recovery practices.</p> <p>80% staff and 70% of students possess the skills/knowledge appropriate to their use of the network.</p> <p>Staff training and development programme identifies skills required by staff members.</p> <p>Range of training and awareness opportunities provided to students.</p> <p>Annual evaluation of staff performance includes identifying training requirements.</p>		<p>An IT & T agenda to give the university competitive advantage.</p> <p>Resources match the IT & T agenda.</p> <p>All staff and research students have dedicated access to the university's network from their work areas.</p> <p>Network arrangements increasingly facilitate research outcomes.</p> <p>All students have access to the network from teaching and general access laboratories.</p> <p>All staff and students have off-site access to the network (whether or not they use it).</p> <p>Network access is available 99% of the time through effective planning, re-engineering, and disaster management and recovery practices.</p> <p>All staff and students possess the skills/knowledge appropriate to their use of the network.</p> <p>Staff training and development programme identifies skills required and ensures acquisition by appropriate staff members.</p> <p>Student skills training incorporated in the curriculum.</p> <p>Regular evaluation of staff performance and training requirements.</p>

Self assessment :

Check assessment :

Notes and interpretation: Chapter 5

Finance and physical infrastructure

Benchmark 5.2: Diversity of revenue

It is recognised that the capacity of institutions to diversify income sources differs according to location (urban/rural) and age. Nevertheless, increasingly, the vulnerability of institutions, or, conversely, their capacity to plot their own course and withstand downturns in any one source, including government grants, depends upon diverse revenue sources.

Benchmark 5.4: External debt

Low interest rate State Treasury loans are attractive sources of debt, but do not invalidate the benchmark that repayment obligations should not exceed 5 % of annual revenue in other than in exceptional circumstances. If loans are to be used for activities that generate a high return quickly a short-term debt above the ratio may be justified but where the returns are slow or uncertain there is no justification for exceeding the ratio. Loan gearing to pay recurrent costs such as salary increases is never justified.

Benchmark 5.6: Academic salaries expenditure

Outsourcing and consultancies may need to be taken into account in arriving at this ratio. There is a need to strive for sufficient staff flexibility (combination of continuing, short-term part time and casual staff) to be able to counter unforeseeable income variations.

Benchmark 5.7: Commercialisation: Net return on equity

The benchmark requirements of good practice are difficult to meet because of the continuing grey areas within universities. Certainly everything that is not a mainstream subject/course, the expenses for which are not directly covered by the operating grant, should be treated as commercial. All Centres, contract courses, international students, fee-for-service activities, etc. should be commercial. The operative rule, if in doubt, is to categorise the activity as commercial and test its financial viability. There are obviously as yet unspecified issues of start-up investment periods before returns are generated, return expected over what period, maximum reasonable risks etc. and therefore definitional issues to be solved. Basically the benchmark is intended to test how well identified commercial activities are, how planned is their development, and would the developments satisfy normal criteria in the commercial world.

Some universities say they are not seeking a commercial return on some activities (such as particular services for students). The benchmark envisages that at a minimum the costs are known and covered by revenue.

Benchmark 5.8: Strategic asset management

A way of coming to grips with strategic asset management is to give equal weights to each of the capital development, facilities management and maintenance aspects and a much smaller weight to disposal/adaptation. Good practice on a 20/20/20/5 = 65 basis would be a combined score of 50+.

Benchmark 5.10: Facilities condition index

The Facilities Condition Index (FCI) is derived as follows: $FCI = [1 - (\text{Total Backlog Maintenance}/\text{Institutional Asset Replacement Value})]$ or $[1 - \text{BM}/\text{ARV}]$.

Benchmark 5.13: Large equipment utilisation

The base rate for the category is \$100,000. Specific hours for the use of large equipment are admittedly new to universities. Responses have suggested that some large equipment cannot be utilised for the hours specified, but commercially, the rates of use specified would be relatively low usage.

Benchmark 5.14: IT & T infrastructure

Costs are not as relevant, even in a small university, as standards and reliability.

6. Learning and teaching

The educational strength of a university can only be monitored using multiple avenues, including assessment of its planning for learning and teaching, the learning environment provided for students, teaching quality, quality assurance measures, and student outcomes, including student progress, satisfaction, and employability. Benchmarks that monitor current dynamism and improvement (Leading and Learning) are even more important in these aspects of university life than benchmarks that reflect past achievements (Lagging).

No area of university life is more difficult to benchmark. It is characteristic of universities that the courses and the approach to teaching them are not standard. Courses, even professional courses leading to registration, are rarely readily or directly comparable. There will always be diversity. Quality and standards have to be benchmarked in ways other than common nationwide examinations.

Nevertheless, benchmarking is essential because everyone associated with universities has a major stake in educational quality. Students and their parents seek information about the university's reputation, competitiveness, entry requirements, course content, teaching quality, and graduation standards. Internally, the university itself needs to know the academic quality of its curricula, how well organised and up to date the courses are, how rigorous and systematic the teaching is, and whether the arrangements for tutorials, assignments, marking and other details are appropriate.

The practice in Australian universities has been to assess these matters via formal academic reviews of the activities of Schools and Departments. Academic Review Committees, most often including peer professionals from other institutions or the private sector, are given terms of reference that allow them to examine the gamut of learning and teaching matters within that unit. Academic Review Committees begin with self-appraisal submissions from the academic unit under review, but go on to interview staff, sit in on lectures, discuss teaching with students, review the standards of assignments and tests, and audit completed assignments and examinations scripts.

External professional bodies responsible for admission of professionals to practice, such as medicine, dentistry, engineering and some others, assess quality matters in a similar way. They require accreditation of the courses at regular intervals, usually five or ten years. When required an external team is established by the professional body. Details of organisation, curriculum and teaching materials are submitted in advance to the visiting team, which then, via on-site visits, assesses the claims for accreditation.

While the internal review system has led to reviews that are invariably undertaken with seriousness of purpose and are often extremely valuable, the academic review system as currently practised in Australian universities has several serious flaws. It is rarely as systematic or rigorous as the reviews undertaken by professional bodies. There are problems of identification of external experts to serve on committees. The reviews are not necessarily related to each other or to the objectives of the

institution. They do not cover the overall institutional approach to learning and teaching.

The current system is in fact limited and too soft. Unless supplemented in ways that make benchmarking more systematic and rigorous there will not be sufficient scrutiny of teaching and learning to have assurance of quality. Several benchmarks are needed, commencing with the effectiveness of the arrangements for learning and teaching effectiveness.

6.1 Learning and teaching plan

A Learning and Teaching Plan (LTP) is an essential framework, if only because the universe of possibilities of courses that might be offered, and the means of offering those courses, are certainly wider than the resources available to any university. Priorities and strategies are inescapable in order to match the university's objectives, in particular the objective of quality learning outcomes.

As resources have tightened in recent years institutions can no longer simply consider possible new courses for addition to existing degree schedules. New courses are rarely possible except at the expense of one or more existing courses. The academic profile of the university should be the outcome of conscious, strategic choices. The need is not so much for extensive documentation (although good documentation does assist communication across the university) as for clarity of goals, processes and desired outcomes.

The LTP should specify the intended effect of academic profile on the university's capacity in the equity area and the response the university intends to challenging mode-of-delivery dilemmas. Many of the latter are likely to involve difficult and costly changes in university organisation and/or academic work practices. The LTP should demonstrably realise the objectives of university planning.

So the first benchmark is **Benchmark 6.1: Learning and teaching plan**.

6.2 Course establishment processes

The quality of the learning environment depends upon the quality of curriculum development, institutional accreditation processes, the access and support facilities available to students, and the quality of teaching. This should be the specific area of responsibility of the Academic Board/Senate. It should initiate and maintain responsibility for policies and implementation processes that lead to regular, demonstrable improvements in learning outcomes.

From the perspective of students, good curriculum practice requires intelligible and reliable course descriptions, knowledge of course requirements, clarity about standards, the amount of work required, and the outcomes sought. Accessible course descriptions are fundamental. Other matters, such as prompt and helpful assessment of assignments, fairness of marking, the availability of coaching in learning skills, and applicability of the skills acquired to the employment world are also matters of concern to students.

Curriculum quality depends also upon internal accreditation processes and time frames that are rigorous enough to ensure high quality outcomes.

More broadly, the breadth of scholarship and research of those contributing to the curriculum and the regularity of up-dating of courses, the structuring of offerings to meet the needs of learners and the utilisation of modern flexible delivery methods determine the outcomes for students.

A leading benchmark thus involves qualitative assessment of the learning environment for students, **Benchmark 6.2: Course establishment processes.** The presence and effectiveness of processes covering assessment of immediate and on-going demand for courses, the development and renewal of courses, quality assurance and the replacement of out-of-date subjects/courses are important considerations. So too are delivery methods, methods of assessment of knowledge and skills, and the quality of the results achieved.

The benchmark requires that universities should have a strong concern for quality assurance, including regular reporting of academic unit measures taken to improve the quality of their subjects and courses. The expectation is that there will be a careful matching of the characteristics of their students with the curriculum profile, organisational practices, delivery methods, learning support and library, AV, and IT support of the university, with sufficient resources devoted to all essential aspects to make possible the planned outcomes.

6.3 Teaching quality

Good teaching is fundamental. The first benchmark sets the university the task of monitoring the scholarliness of the teaching undertaken by its staff, Benchmark 6.3: Scholarly Teaching. It envisages that a national protocol of good practice will be developed and widely used. A staff member would be expected to maintain a portfolio of evidence, regularly updated, about his/her teaching and the degree it meets the standards of the protocol.

At present no national instruments exist to evaluate the quality of university teaching. There are useful staff appraisal instruments in several universities. These have had a significantly beneficial effect on teaching in those institutions. A university should ensure:

- a scholarly approach embracing well chosen, modern content;
- clear goals;
- adequate preparation;
- appropriate methods ;
- significant impact;
- effective presentation; and
- a reflective critique.

The second benchmark, **Benchmark 6.4: Teaching environment**, envisages that the university will have in place organisational arrangements to ensure the best possible teaching. These include

- induction of new teaching staff;
- matching of staff workloads with their experience;
- a system of supervision;
- appraisal of teaching effectiveness;
- mentoring; and
- development opportunities.

6.4 Quality assurance

Until there is an external quality assurance agency of the type canvassed in Chapter 2, internal benchmarks of quality are essential. The current academic review processes, for instance, are too useful to abandon, but they do need to be made comprehensive and systematic, and they need to be conducted in accordance with international best practice.

Currently schedules and timetables for academic reviews are often subject to slippage, postponement or even cancellation, often for trivial reasons. External members of review panels are not screened for objectivity and judgement. The review reports are not always made public. Some universities only have reviews of courses whereas reviews of academic organisational units and groups are also necessary. Appropriate processes within universities, to determine whether the recommendations of the reviews should be implemented, and then to ensure that they have been implemented, with the intended outcome, are often lacking or, at least, not systematic.

More rigorous academic review processes constitute one of two key ways to assess learning and teaching quality, both retrospectively and prospectively. Given the diversity that characterises university teaching a revised form of the current academic review system, one at least supervised by an external agency, could be made into a quality assurance system able to cope with that diversity and yet demanding enough to build and retain public confidence.

The benchmark, **Benchmark 6.5: Effective academic review processes**, envisages rigorous, systematic, review processes central to quality assurance and to the overall functioning of the university. There is good reason for universities to encourage the development of a more rigorous process.

Another key quality benchmark is necessary, that is, a regular, forcing test of *fitness of courses*. University courses are designed to achieve particular outcomes that demand mastery of content and acquisition of skills but are always broader than that. Many universities have defined the attributes their graduates should exhibit. Some even claim, without the basis of the claim being clear, that their graduates have those attributes, or that the university teaches in ways that enable their graduates to develop them.

Benchmarking against the desired attributes is an important way of measuring fitness for purpose. Typically the desired attributes range across such matters as, written and oral communication skills, enquiry and research, critical thought and analysis, problem solving, teamwork, numeracy, information literacy, effective use of technology, independence, life-long learning skills, and ethical values.

Frequently rhetoric is stronger than reality, in that little is done to match the curriculum, learning environment and teaching to the goals. More often universities make serious efforts to incorporate learning experiences that bring about those desired outcomes but do not test success across the full range. A fundamental aspect of quality assurance is therefore to ask how close is the fit between what the university says are the attributes of its graduates and actual course outcomes, including how the university knows. The benchmark is **Benchmark 6.6: Fitness of courses**.

6.5 Student outcomes

There are five valid student outcome measures, student progress, equity group outcomes, student satisfaction and employability.

Student Progress Benchmarks relating to student progress provide significant information about the university, in terms both of how well it cares for students and how efficiently it manages the teaching programme. In principle universities should only enrol those students it considers have the capacity to complete the courses of their choice. They should ensure that students are well enough prepared to complete courses successfully by guiding under-prepared students to preparatory courses. When they do enrol students they should support them sufficiently to maximise the chances of success.

It is clear that some enthusiastic, properly prepared students do in fact fall by the wayside whether through immaturity, lack of resources, poor teaching, inability to cope with the workload or the standards required, or other reasons. It is equally clear that universities should not counter such wastage by lowering standards, simply to achieve higher student success ratios. Thus a perfect pass rate is not possible. Nevertheless, the ratio of successful subject passes to subjects attempted is an essential benchmark of the success of the university's targeting of enrolments, of the support it provides to students and of the response to its teaching approach.

Part-time and distance education students, who can only take one or two subjects per semester or year, are more likely than full-time students to drop out or postpone studies. The reasons are easy to understand. They are more often mature students with family, business or community responsibilities, which intervene and cause them to interrupt their studies.

Other impediments to high progress and retention rates may come about because of the characteristics of the student drawing area within which the university operates. Universities enrolling significant numbers of equity group students or mature age second chance students claim they have difficulty achieving desirable rates of student progress and retention than those enrolling students who were uniformly high achievers at school. It is, however, reasonable in principle to expect that students will or should complete those individual academic units (subjects) for

which they have enrolled, if well enough counselled and having planned their other commitments to make this possible.

Progression ratios should be built up through aggregation of individual unit enrolments. Student load (measured in Equivalent Full Time Student Units—EFTSU) is generated by the value of each unit as a proportion of a year's work (typically each unit is worth only six or eight credit points towards a full year load of twenty-four credit points). Rules for the conversion of the sum of these into equivalent full-time student load already exist (in the reporting of statistics to DETYA). The ratio achieved, by comparison of the proportion of student load achieving a passing (or better) result to the total enrolled subject load, provides the means to achieve the objective of comparative data.

Ratios may be collated for the university as a whole, by individual Faculty or School, or for course completions. DETYA already collects and publishes both crude and adjusted data. The benchmark for the university as a whole, **Benchmark 6.7: Student progress ratio**, is a good overall indicator of learning and teaching effectiveness.

The university may, however, be achieving a high percentage progression, which does not adequately reveal that the progress rates for students from equity groups is low enough to demand special attention, or that international students have different progress ratios. The sub-ratios in this benchmark monitor the progress of those groups against the rate for students not in those groups.

Retention Year-on-year retention of students particularly from first to second year, is regarded by many universities as a diagnostic benchmark of considerable importance. Although year-on-year retention is subject to the effects of the same student progress variables, such as proportions of full and part-time enrolments, university location, proportions of equity students, etc., those variables are sufficiently constant influences within a particular university to make year-on-year trends of great significance. A subject or course that shows a significant upward or downward trend of retention of students from first to second year is illustrating whether the course is being well received. Many university administrators believe student retention trends, especially the rate of change, provide the best early warning of something important happening that may need attention. Accordingly **Benchmark 6.8: First to second year retention trends** has been included.

Completions No benchmark of course completion rates has been included in the Manual. It is not really possible to benchmark course completion rates in Australia because they are too affected by significant and varying proportions of part-time students. Universities usually have very significant, but not equal, proportions of mature and part-time students. Such students are affected more by family and job responsibilities than school leavers. They may defer studies for one or more years and progress at apparently slow rates, while nevertheless succeeding in those subjects for which they enrol (which is monitored by the student progress benchmark above). Even students direct from school are hard to track because they may be affected by study allowance conditions such as the minimum number of subjects for which they may be enrolled before becoming eligible or losing eligibility.

Measurement of years or semesters taken to completion may therefore give a false picture of the efficiency of use of a university's resources. Further comment on the

problems of defining completion rates can be found in *Performance Indicators in Higher Education* (R D Linke Ed. Canberra, Aus Gov Publishing Service, 1991, pp70-81).

Equity The highlighting of equity matters in DETYA Educational Profiles, and annual reporting by institutions against numerical equity indicators as part of the profile processes, means that the numerical aspects of equity issues are not hard to track. There is already a good institutional and national database. Longer term, more fundamental monitoring of outcomes, however, requires attention to a number of key matters. The success of a university in responding to equity issues is best benchmarked in two ways. The first, the extent to which equity planning, activity, monitoring and review are an integral part of other quality assurance and enhancement processes within the institution, was taken up in Benchmark 3.4 in Chapter 3. Second, quantitative performance indicators of student outcomes, that is, access, participation, apparent retention and success are monitored via **Benchmark 6.9: Equity quantitative success.**

Student Satisfaction From the point of view of students as consumers it is desirable to measure the quality of their academic experience, both directly and indirectly. The most direct way is to measure their perceptions of their learning experiences.

The best current data, on the research undertaken so far, seems to be the Course Experience Questionnaire (CEQ). The benchmark, **Benchmark 6.10: Student satisfaction** monitors student ratings of their experience of teaching, goals and standards, assessment practices, workload, generic skills and overall satisfaction, as measured by the CEQ. While there are many challenges to the usefulness of this information, there is an established correlation between its results and other data about teaching quality. Moreover, it has been in existence sufficiently long enough to provide comparative within-institution data and between-institution data. It is most usefully used at the discipline level in inter-university comparisons.

It is a shortcoming of the CEQ data that it surveys graduates after they have left the university, with consequential delays in its collection and publication and only partial returns. The data is not as current as many institutions need in times of rapid change in student preferences. One means of overcoming that problem, which some institutions already use, is to administer the CEQ instrument with current students, and use the outcomes for internal management purposes.

Employability The Graduate Careers Council of Australia (GCCA) annually surveys the destinations of students in May of the year following their graduation. This gives a measure of those in employment, the proportion unemployed, and those in further study. The raw figures for a university can be misleading because those universities that have a large proportion of part-time students, of whom many are in steady employment when they enrol, are likely to have favourable figures for that reason alone. Regional universities, located in areas of structurally high unemployment, are likely to have unfavourable figures compared to metropolitan universities.

On the other hand, employment rates are important because the aspiration of all universities is to provide relevant courses of sufficiently high standard as to give students entrée to employment. The important issue here is the employment rates of Australian students, not because the employment rate of international students is unimportant, but rather that international data for other countries is not yet

consistently reliable. It is only possible to assess accurately the employability of Australian graduates.

As many graduates cannot readily relocate, some adjustment of the raw figures to take in regional employment prospects is desirable. A simple adjustment to the GCCA figures, that is, recording of the employment rates as a ratio of the employment rates for the region provides a more accurate benchmark of the employability of graduates, that is, **Benchmark 6.11: Employability of Australian graduates.**

Benchmark: 6.1

Area : Learning and teaching

Element : Learning and teaching plan

Type : Leading

Benchmark rationale : A strategic approach, matching the academic profile of course offerings to university objectives, available resources, the nature of the student population, the preferred means of delivery and other issues is essential.

Sources of data : University Learning and Teaching Plan

Good practice :

Good practice should take into account the learning and teaching objectives of the university and the characteristics of its student body. Its strategies should take into account the current and likely changes in the environment for learning and teaching including resources available, changes in technology and means of delivery of learning materials, and its teaching force. Evidence of Academic Board involvement and general staff understanding of and support for the plan is essential. The planning should encompass key goals and targets including market assessments of the need, curriculum development, input from professions, learning environments, teaching arrangements, quality assurance and expected outcomes. Methods of resource allocation should be explicitly linked. The plan should also define individual responsibilities, reporting systems and improvement strategies.

The good practice criteria are thoroughness, expertise, effective use of resources, and organisational and implementation arrangements that will make the plan work.

Levels :

1	2	3	4	5
No explicit Learning and Teaching Plan. Courses come for approval to the Academic Board without prior scrutiny or having to demonstrate fit with university objectives. No linking of proposals to resources or an overall university plan for delivery of courses. No implementation arrangements specified		A Learning and Teaching Plan that sets out strategies for market research, curriculum development, accreditation processes, learning delivery arrangements, learning and other support for courses. A plan that only generally relates to resources and implementation arrangements.		A Learning and Teaching Plan that sets out strategies for market research, curriculum development, accreditation processes, learning delivery arrangements, learning and other support for courses. A plan that links resources, defines individual responsibilities, implementation arrangements and approaches to continuous improvement.

Self assessment :

Check assessment :

Benchmark: 6.2

Area : Learning environment

Element : Course establishment processes

Type : Leading

Benchmark rationale : To achieve consistently optimal learning environments, with high standards and encouragement of students, the university needs to ensure that all courses meet the course profile criteria of its strategic plan, and other curriculum and learning environment policies.

Sources of data : Curriculum and course development and accreditation policies

Good practice :

The requirements for good practice are that

- the university’s curriculum policies should set out how the need for courses is to be established and the connections with university objectives
- subject descriptions should set out learning objectives directly linked to assessment tasks, be intelligible to students, and clearly provide all essential information, such as course work requirements, marking arrangements, modes of teaching and expected standards
- the learning environment including access to library, audio-visual and IT support is specified and assured
- proposals for courses are scrutinised by peers in the developmental stages
- external and/or community representatives are involved in course development and appraisal (eg through Visiting or Advisory Committees)
- the Academic Board/Senate has adequate quality control arrangements for deciding and approving the quality of course proposals
- courses are not approved that exceed the teaching capacity and expertise of the academic unit
- there is regular appraisal and reporting, including student appraisal of subjects and courses, and requirements for improvement processes based on those reports
- there is demonstrable consistency of standards

The essence of good practice is that there is in place a comprehensive, tough minded, efficient system, supported by empirical data and annual feedback to ensure constant scrutiny and improvement of courses.

Levels :

1	2	3	4	5
<p>Courses stem from local initiative without a requirement for meeting other objectives.</p> <p>Course descriptions are incomplete in some respect or not fully intelligible to students.</p> <p>Learning environment taken for granted and not systematically supportive of courses.</p> <p>Course developments without outside inputs. Perfunctory Academic Board scrutiny.</p> <p>The main appraisal and reporting processes, including the standards achieved, are reviewed at long intervals only through five year or longer Academic Review processes.</p>		<p>Explicit relation of most courses to university objectives. Reasonable but not comprehensive course information for students.</p> <p>Partial, general assurance of learning environment and support arrangements.</p> <p>Course development mostly internal with little or no quality control processes by the Academic Board. Academic Board approval required.</p> <p>The main appraisal and reporting processes, including standards achieved, are reviewed at long intervals only through the five yearly Academic Review processes.</p>		<p>Explicit relation of every course to university objectives. Clear, comprehensive intelligible course information for students.</p> <p>The learning environment, course delivery, and support arrangements are specified and assured.</p> <p>Course development involves external peer and industry input and defined. Academic Board approval and/or re-submission requirements.</p> <p>Regular annual or at most biennial appraisal, reporting of outcomes and improvement processes.</p> <p>Demonstrable consistency of standards is established.</p>

Self assessment :

Check assessment :

Benchmark: 6.3

Area : Teaching quality

Element : Scholarly teaching

Type : Learning

Benchmark rationale : Good teaching depends on the extent to which staff adopt and are rewarded for a scholarly approach to their teaching. Although a formal index with national acceptability is not yet available, it is possible and desirable to seek to benchmark the proportion of staff engaged in scholarly teaching, if only through indirect means.

Sources of data: : Collation of organisational unit data into institutional data, eventually utilising a national framework which defines the criteria for inclusion in a scholarly portfolio (many of the elements already exist in the promotion criteria of various institutions, but common requirements will need to be developed). Promotion and reward systems for staff.

Good practice :

The preferred benchmark criterion is that staff within academic organisational units should develop and maintain peer-reviewed scholarly portfolios. Good practice is for portfolios to address and include evidence about those aspects that are common to most forms of scholarship. That is, the portfolio should establish that the staff member has clear goals, is up-to-date in the discipline, uses recent research in teaching, engages in adequate preparation, uses appropriate methods, engages learners, achieves significant impact (student and peer evaluation), uses effective presentation, and engages in reflective practice.

A lesser demonstration of some aspects of a scholarly approach would be by:

- being accredited as a university teacher through a national or international body (such as the Staff and Educational Development Association in the UK)
- satisfactory completion of an approved higher education teaching course
- receipt of a national or institutional teaching award or national teaching development project
- publication of scholarly refereed articles on teaching and learning.

Good practice links scholarly teaching directly to promotion criteria and other rewards.
Good practice is defined as the demonstration of a scholarly approach to teaching by 90% of academic staff.

Levels :

1	2	3	4	5
<p>The institution has very little or no peer or student review of teaching.</p> <p>50 per cent of the staff demonstrate a scholarly approach.</p> <p>Promotion and reward practices have no obvious link to effective, scholarly teaching.</p>		<p>The institution has peer and/or student review of teaching in at least 50 per cent of academic units.</p> <p>70 per cent of the staff demonstrate a scholarly approach.</p> <p>Promotion and reward practices have some link to effective, scholarly teaching.</p>		<p>The institution has regular peer and/or student review of teaching in 90 per cent of academic units.</p> <p>More than 90 per cent of the staff demonstrate a scholarly approach.</p> <p>Promotion and reward practices are linked to the most effective, scholarly teaching.</p>

Self assessment :

Check assessment :

Benchmark: 6.4

Area : Teaching quality

Element : Teaching environment

Type : Learning

Benchmark rationale : The best teaching is engendered where staff are expert, enthusiastic, skilled, and well supported. The environment that will bring about the best teaching conditions can be specified; there should be evidence of movement toward those goals.

Sources of data : University documentation of arrangements for teaching support.

Good practice :

<p>An optimal teaching environment is characterised by-</p> <ul style="list-style-type: none"> • provision of induction and start-up help for new staff • modelling and dissemination of examples of good teaching practice (including using exemplary teachers, workshops, visiting scholars, self assessment videos) • regular evaluation of teaching (students and peers) of all subjects • regular staff skills audit and counselling by supervisors (all staff) • opportunities for staff development, both pedagogical and personal (including mentoring) • appropriate working conditions, including reasonable lighting, visibility, acoustics and useable modern technology • reasonable and fair teaching loads, matching course offerings to available staff and work loads to staff experience • recognition and celebration of the skills of improvers and outstanding teachers • financial/promotional rewards for exemplary teaching <p>Trends towards these goals are monitored and action taken to make achievement more likely.</p>
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Levels :

1	2	3	4	5
<p>New staff mostly carry full teaching loads. Little variation in teaching loads among staff of an academic unit. Course offerings and available staff way out of balance.</p> <p>No teaching evaluation. No identification and assistance or weeding out of poor teachers. Limited staff development opportunities.</p> <p>Teaching conditions and technology good only in recently constructed buildings.</p> <p>Occasional non-systematic recognition of exemplary teaching.</p> <p>No monitoring of trends.</p>		<p>Some recognition of the needs of new staff. Some adjustment of workloads within academic units. Course offerings and available staff not in good balance.</p> <p>Intermittent and non-comprehensive teaching evaluation. Some staff development opportunities.</p> <p>Attention to upgrading and innovative teaching spaces but progress limited to 25 per cent of spaces or less.</p> <p>Systematic recognition of exemplary teaching but limited promotion opportunities for teaching only.</p> <p>Monitoring of trends but no evidence of systematic action to achieve better performance levels..</p>		<p>An induction system for new staff, matching of workloads to experience and a balance between course offerings and staff availability.</p> <p>Regular staff evaluation and counselling. Extensive staff development opportunities.</p> <p>University attention to teaching conditions and provision of innovative arrangements; over half of teaching spaces fully equipped with technology.</p> <p>Systematic recognition, celebration and rewards, including promotion, for exemplary teaching.</p> <p>Systematic monitoring of trends and evidence of action to lift performance levels.</p>

Self assessment :

Check assessment :

Benchmark: 6.5

Area : **Quality assurance**

Element : **Effective academic review processes**

Type : **Learning**

Benchmark Rationale : The nature, comprehensiveness and, ultimately, the effectiveness of academic review processes, conducted by expert peers, is one good guide to the academic quality of departments/degree courses and to the quality of student learning experiences. The extent to which there is a comprehensive rigorous university-wide system of reviews of all academic and other units is the key aspect of this benchmark.

Sources of Data : University Academic Boards (Senates) Academic Review processes.

Good Practice :

The focus of this area is the course of study (qualification). Good practice is demonstrable evidence that the university, without exception, regularly reviews units, in ways that take its goals and values into account, and uses the results of the reviews to improve practice. Levels of practice are based on the extent of achievement of a checklist extended from the AVCC document on Guidelines for Effective University Teaching (ACN 008 502 930) April 1993. Good practice also demonstrates rigorous processes, involving external experts chosen for their independence and expertise, and adequate follow-up. Those universities reaching best practice regularly review degree programs (every five years or more often) addressing all of the following elements:

the content is intellectually challenging
learning experiences are stimulating

- the content forms a coherent intellectual map of the area
- the content is being taught at an appropriate level
- the content is meeting the needs of students, employers, the professions and the community
- the teaching methods to be applied are made explicit
- the delivery methods (lecture, tutorials, print materials, on-line delivery, etc) are appropriate
- teaching is informed by personal research
- the course has clear and appropriate aims and objectives
- the aims and objectives are made known to students
- the assessment practices and criteria reflect the aims and objectives
- the assessment practices and criteria are made known to students
- failure rates/attrition rates for the course are analysed (cross link to equity)
- workloads match the time and type of study
- appropriate use is made of the results of the review.

Levels :

1	2	3	4	5
The Review involves fewer than half of the above elements		The Review involves the final element and more than eight of the other elements.		The Review involves all fifteen elements of good practice.

Self assessment :

Check assessment :

Benchmark: 6.6

Area : Quality assurance

Element : Fitness of courses

Type : Learning

Benchmark rationale : Benchmarking the quality of courses and their outcomes against the desired characteristics of graduates, as determined by a particular university, tests how well each course is achieving what it has set out to do, that is, the fitness of its courses.

Sources of data : The benchmark relies on data from other benchmarks (eg, 4.2 Competitiveness; 6.7 Student Progress; and 6.10 Student Satisfaction), plus student assessments of teaching, employer surveys.

Good practice :

The fitness of courses to achieve the characteristics desired of graduates of that university depends upon six factors:

- turning each of the desired attributes into operational requirements (mastery of content and professional skills outcomes are easier than attributes such as communication ability, leadership, ethical standards);
- incorporation of operational requirements into courses;
- successful teaching to those criteria;
- the tightness of fit between course requirements and the desired characteristics;
- evidence of continuous improvement, based on specific appraisals of the desired outcomes;
- evidence of value adding, that is, that graduates do acquire and are aware that they have the target; knowledge, skills and attitudes, that they realise how to apply these to best effect, and that they desire to continue increasing them.

Good practice will monitor how much value adding for students is occurring, that is, how well the teaching approach is geared to the preparation of the learners, engages them in learning and achieves high standard outcomes

Good practice also requires that a feedback cycle, integrating evidence from graduates and employers, ensures that the fit between the course and the desired attributes is constantly getting closer.

Levels :

1	2	3	4	5
<p>The attributes desired of graduates are not defined.</p> <p>Course objectives are defined separately for each course and may bear no resemblance to the desired attributes of graduates.</p> <p>There is no feedback cycle.</p> <p>Modification of course proceeds on traditional discipline criteria. Evaluation of outcomes by graduates and employers not undertaken.</p>		<p>The attributes desired of graduates are defined. There are substantial attempts to incorporate the attributes into the courses, but teaching to those outcomes is not specific. There is no feedback cycle. Modification of courses proceeds on more traditional discipline criteria.</p> <p>Some evaluation of outcomes by graduates, and employers.</p>		<p>The attributes desired of graduates are defined. There are universal on-going attempts to incorporate the attributes into the courses in all units and to teach for those outcomes.</p> <p>There is an integrated feedback cycle where the outcomes of courses, evaluated by peers, graduates and employers, are mapped to the desired attributes.</p> <p>Actual outcomes lead to modification of courses, teaching and learning arrangements, or, conversely, the attributes are modified.</p>

Self assessment :

Check assessment :

Benchmark: 6.7

Area: : Student progress

Element: : Student progress ratio

Type : Lagging

Benchmark rationale : Students take different workloads according to personal circumstances, so the benchmark is based on success ratios in the actual subjects students take, where the expected crude rate of progress takes into account the composition of the student body. While the proportion of equity students does affect progress rates, basically universities should enrol for degree work only those students they think likely to succeed, diverting others to pre-admission preparation classes. Low subject by subject success rates among enrolled students indicate learning problems, personal problems or teaching problems, but certainly represent lower than optimal learning outcomes and less than efficient use of resources.

Two sub-ratios, equity groups and international students' progress, should be assessed within this benchmark to ensure that overall university or faculty progression ratios are not concealing unsatisfactory equity group or international student outcomes.

Sources of data : Third submission load file (DETYA student data collections)

Good practice :

The sum of the individual student enrolments, in the total of subjects on offer, constitutes the denominator of the general ratio. The sum of the students receiving a passing grade or better, in the total of the subjects on offer, constitutes the numerator. Students take different workloads according to whether they are working part-time, their learning capacity and their personal circumstances. Counselling and other advice should improve the match between aspirations and capacity. Good practice therefore incorporates the differing study loads individuals undertake, that is, that it is a good efficiency guide.

For equity groups the numerator and the denominator are confined to equity groups and international students respectively. The resulting ratios are compared to the progress ratios of students excluding equity groups or international students as appropriate. Progress ratios should be the same as for the overall student group.

Good practice is for a university to seek a 95% success ratio. Any Australian university with a success ratio of less than 70% has a problem of multiple dimensions and a need to demonstrate action to remedy the deficiencies.

Levels :

1	2	3	4	5
Less than 70 per cent success rate. Equity groups progress ratio substantially less than all students ratio. International students ratio substantially less than all students ratio.		Between 75 and 85 per cent success rate. Equity groups ratio within 2-3 per cent of all students ratio. International students progress ratio within 2-3 per cent of all students ratio.		Over 95 per cent success rate. Equity groups progress ratio equivalent to all students ratio. International students progress ratio equivalent to all students ratio.

Self assessment :

Check assessment :

Benchmark: 6.8

Area : Learning and teaching

Element : First to second year retention trends

Type : Learning

Benchmark rationale : Within a university the year-on-year retention trends, particularly from first to second year, for particular subjects and courses provide sensitive leading information on how well students are receiving those courses. Sometimes the information reveals particularly good teaching, sometimes increasing popularity of that course: at other times declining retention trends reveal problems that need attention. Inter-university comparisons will only be possible if there has been normalisation of crude scores, taking into account the composition of the student body, in particular the known lower retention rates (even in the best circumstances) of equity students.

Sources of data : DETYA Student Data collections.

Good practice :

Good practice is to compare, course by course, the trends in retention of first year students into second year and to take action regularly to correct negative trends and/or enhance retention rates. The action may include such measures as improving the teaching, the course, the delivery methods, or the range of support measures for students.

Existing data for both crude and adjusted retention rates show a mean of 78 per cent for institutions² and a range of adjusted retention rates (excluding Batchelor College) of 73 to 89. The trend for any course dipping below the mean for the institution, or more rigorously the national mean, indicates the need for remedial action. The general test of the effectiveness of good practice is evidence of reversal of negative retention trends in a majority of courses where this has occurred.

Levels :

1	2	3	4	5
Retention rates and trends not monitored, only coming to notice in particular courses where the problems cannot be ignored. Action to improve retention trends unsystematic. Little or no evidence of reversal of negative retention trends in particular courses nor improving institutional retention trends.		Identification of courses where the retention rates are below institutional and national averages. Spot efforts, not applicable to all courses, to diagnose the reasons for the most serious declining and below average retention rates. Occasional evidence of reversal of negative trends in particular courses; lack of evidence of improving institutional retention trends.		Identification of courses where the retention rates are below institutional and national averages. Systematic efforts to diagnose the reasons for declining and below average retention rates. Evidence of reversal of negative trends in a majority of courses, with the retention rate in at least fifty per cent of courses reaching or exceeding the national mean.

Self assessment :

Check assessment :

² *Characteristics and Performance of Higher Education Institutions*. Canberra, DETYA, 1998.

Benchmark: 6.9

Area: : Student outcomes

Element: : Equity quantitative success

Type : Lagging

Benchmark rationale: : Statistically derived outcome measures of a university's achievements in terms of equality of educational opportunity and outcomes, for those groups in the Australian community for which this has not been a reality. These measures are important to any assessment of a university's performance in effectively providing for a diverse student population and the extent to which this reflects the full diversity of the community.

Sources of data : University Equity Plans. Third submission student load file (DETYA student data collection).

Good practice :

The university is achieving a ratio of approximately 1 across all relevant national equity groups in terms of access, participation, apparent retention, and success as defined below. Institutional target groups of students and indicators based on good practice analysis, planning, action, and evaluation as identified by Benchmark 3.4.

The national equity groups cover students with identified equity characteristics of: low socioeconomic 15-24 years; low socioeconomic 25 years and above; women in non traditional fields, indigenous; non English speaking background; rural; isolated and students with disabilities.

Indicator	Definition	Reference value
Access	Ratio of proportion of commencing students in the equity student grouping to the proportion of that group in the general state/territory population aged 15-64.	1
Participation	Ratio of proportion of all students in the targeted equity student grouping to the proportion of that group in the general state/territory population aged 15-64.	1
Progress	Ratio of progress rate for equity student grouping to progress rate for all other students	1
Apparent Retention	Ratio of apparent retention rate for equity student grouping to apparent retention rate for all other students	1

Levels :

1	2	3	4	5
<p><i>Equal to or above :</i></p> <p>For the institution's priority equity target groups (identified via the process set out in Benchmark 3.4) a best practice rating is achieved in at least 40 per cent of the indicators.</p> <p>Trend rate is static or falling.</p>		<p><i>Equal to or above:</i></p> <p>For the institution's priority equity target groups (identified via the process set out in Benchmark 3.4) a best practice rating is achieved in at least 60 per cent of indicators.</p> <p>Trend rate is level or positive.</p>		<p><i>Equal to or above:</i></p> <p>For the institution's identified priority equity target groups (as determined by the process set out in Benchmark 3.4) a best practice rating is achieved in 80 per cent of the indicators.</p> <p>Trend rate is positive.</p>

Self assessment :

Check assessment :

Benchmark: 6.10

Area : **Student outcomes**

Element : **Student satisfaction**

Type : **Learning**

Benchmark rationale : The GCCA Course Experience Questionnaire (CEQ) is administered to graduates six months after the completion of their programme of study. Students describe their perceptions of five areas of study and their overall levels of satisfaction with the course. High CEQ scores correlate positively with high quality student learning. Comparisons of the mean scores of universities with the national means over several years are available. The data is best used for year-on-year change within a single university but has relevance as a comparative measure. Of most relevance are comparisons at the course level; data similar to that presented below is available for the development of profiles for each course.

Sources of data : GCCA’s Course Experience Questionnaire data.

Good practice :

The university is achieving mean scores in the top quartile among Australian universities across all fields of study on each of the six scales.
 Inter-university comparisons are most sensibly made across like fields of study and disciplines, or with universities that have broadly comparable profiles.
 Scale scores are given in a range of –100 to +100. The 1998 national scores have been approximately:

	National Average 1998	Highest (3 Year Average)
Good Teaching	18	30
Clear Goals and Standards.....	22	30
Appropriate Assessment	47	50
Appropriate Workload.....	8	20
Generic Skills.....	27	40
Overall Satisfaction	36	50

Good practice requires evidence that the university is striving to improve low scores, and to achieve a profile of CEQ scale scores better than the average of the scale.

Sub-set scores relating to international students are extracted for use in the international programme.

Levels :

1	2	3	4	5
A profile of scores where only some of the fields of study reach the average in most dimensions and few are higher. No evidence of action in response to CEQ scores. No sub-set information extracted for international students.		A profile of scores in most fields of study equal to the average in each dimension, and reaching higher scores in some. Evidence of support and remedial action to improve low scores. Sub-set information extracted for international students and acted upon in the international student programme.		A profile of scores in fields of study at least equal to the average in each dimension and reaching the top quartile in some. Evidence of effective support and remedial action to improve low scores. Sub-set information extracted for international students and acted upon effectively in the international student programme.

Self assessment :

Check assessment :

Benchmark: 6.11

Area : Student outcomes

Element : Employability of Australian graduates

Type : Lagging

Benchmark rationale : Employability reflects in part at least the content, skills and attitudes gained by graduates in their courses. Corrections to raw data to reflect regional unemployment rates, which most powerfully takes in equity groups and other variables, are necessary

Sources of data : GCCA's Graduate Destination Survey data for Australian students.

Good practice :

Australian citizens who graduate from full-time study at the Bachelors' Pass and Bachelors' Honours have to seek work if they do not enrol in full-time post-graduate study. Part-time students may already be in work. While the job market is nominally state-wide and possibly national, it is affected by the regional job market, that is, opportunities within commuting distance of the homes of graduates.

A measure of student outcomes from a particular institution is employability as measured by the GCCA *Graduate Destination Survey*, that is, the proportion of graduates in full-time employment of those who are available for full-time employment, adjusted for regional unemployment rates. The methodology is to determine a *performance rate* by subtracting an *expected rate* from the *crude rate* reported by the GCCA survey. The *expected rate* is the crude rate adjusted by the proportion of people in the area in employment. The *performance rate* will be plus or minus. Good practice is a performance rate of plus 3 or better

Levels :

1	2	3	4	5
A performance rate of -5 or worse.		A performance rate of -2 to 0.		A performance rate of plus 3 or better.

Self assessment :

Check assessment :

Notes and interpretation :Chapter 6

Learning and teaching

Benchmark 6.1: Learning and teaching plan

Planning is expected to go beyond generalisations to the specifics of both targets and rates of progress and the individuals responsible for achieving the targets in each segment of the plan.

Benchmark 6.2: Course establishment processes

Tough-minded assessment of the longer term need for proposed courses, testing processes, rigorous accreditation and continuing improvement of courses ensuring consistently high standards are the key aspects tested in this benchmark.

Benchmark 6.3: Scholarly teaching

Scholarly teaching portfolios already exist in a few universities, but their use is still relatively rare. Recent research by bodies such as the National Board for Professional Teaching Standards in the USA is providing additional evidence of their usefulness in promoting good teaching. Scholarly teaching is expected of both full and part-time teachers.

Benchmark 6.4: Teaching environment

Is the induction system effective? Is there more than token variation in teaching loads? Are the reasons for the variations rational? Do all staff have regular performance appraisal? Counselling? Are staff development opportunities responsive to improvement priorities and to staff demand? What proportion of teaching facilities are modern? What rewards for good teaching are in existence?

Benchmark 6.5: Effective academic review processes

Are all academic organisational units reviewed regularly with the same frequency? Is the review committee demonstrably independent and objective? Does the referral and follow-up surveillance by the Academic Board/Senate work? Are the reviews public? Is the action taken public? Is there follow-up reporting of changes and improvements? Does the Academic Board/Senate report on the review processes to the governing body at least annually?

Benchmark 6.6: Fitness of courses

A benchmark to get more directly at the evidence of learning outcomes from courses in relation to desired attributes. Is there evidence that the university is in fact putting effort into realising its rhetoric?

Benchmark 6.8: First to second year retention trends

The trend rather than the absolute number (which will vary a great deal even within one university) is the significant information. A falling trend signals a problem; the steeper the trend the greater the problem. Conversely a steeply rising trend has to be attended to for other reasons.

Benchmark 6.9: Equity quantitative success

A specific targeting of success ratios for members of equity groups.

Benchmark 6.10: Student satisfaction

While CEQ data are properly applied most often at the individual course level, as means of identifying and improving teaching performance (some universities skilfully link this data with other individual academic unit data to indicate which revised inputs make most difference), it is appropriate to use overall institutional CEQ data as an institutional indicator.

Benchmark 6.11: Employability of Australian graduates

The DETYA study, *The Characteristics and Performance of Higher Education Institutions, 1998*, properly seeks to measure the employability of Australian resident graduates with reference to full time students. It makes adjustments for the mix of equity students, which is partially helpful but not as accurate or as powerful as the regional indicators of employment. If work is not available in an area, graduates whether members of equity groups or not have diminished job prospects. Achieving high rates of employment in those circumstances better reveals the value added job prospects of the courses undertaken by students.

7. Student support

7.1 Student administrative services

While student administration services may be regarded by some as a particular application of core business systems, its importance in most universities is such that the degree to which the services, both human and hardware, are provided at the best possible standards is an important benchmarking issue. The matters are taken up by **Benchmark 7.1: Student administrative services**.

At the detailed efficiency level, the models from comparable service industries strongly suggest that universities would be well advised to regularly monitor how long it takes for prospective students or their parents to get answers that meet the need, that is, to satisfy them. Not only how long it takes for someone to answer the telephone or reply to a mail enquiry (although these are relevant matters), but how long it takes for the whole process of referrals within the university to be brought to a conclusion to the inquirer's satisfaction.

7.2 Student Services

The extent and efficiency of Student Administrative Services, already referred to in Chapter 3, are correlated areas contributing to the overall success of student services. In contrast to those essentially administrative efficiency issues, here the accent is on those services that contribute directly to the educational experience of students. They include facilities such as learning assistance centres, counselling and guidance, and those that add to the breadth of a university education, such as the cafeteria and amenities in the student union.

The degree to which student services are integrated with core academic activities, and the degree to which they are oriented toward anticipating, preventing and educating, rather than responding and fixing problems that could have been avoided, are key issues. They can be tested against the mission statement. Student knowledge of and access to those services is an important test of their usefulness. The benchmark for this area, namely, **Benchmark 7.2: Student services**, assesses the degree to which the services are comprehensive, accessible, and match students' and the university's needs.

Probably the most significant of the benchmarks for student administration is the level of student and academic staff satisfaction, the best measure of the effectiveness of the services. Satisfaction can only be assessed by structured surveys. A limitation is that students may have little experience on which to base comparative judgements and may start with unrealistically high expectations of the services that should be available to them.

Nevertheless where services fall short of student expectations, in the absence of management action to encourage more realistic expectations, or remedial action to supply additional services, universities lose students unnecessarily, fail to achieve optimal success rates, and/or suffer a lower reputation than may be deserved. Similarly academic staff rely heavily on the effectiveness of student services for class lists, information about the status of students and other information relevant to successful teaching. **Benchmark 7.3: Effectiveness of services** assesses the effectiveness of use of student services.

Benchmark: 7.1

Area : Student services

Element : Student administrative services (See also Benchmark 3.6)

Type : Lagging

Benchmark rationale: Every university needs efficient core student administrative services covering enquiries, admission, progression, fees and other dues, graduation, and scholarships which are oriented to student service and which are efficient and economical.

Sources of data : The data will come from test audits of the speed, accuracy and comprehensiveness of responses to personal, telephone and written enquiries, and of the reporting of data needed for student administration and reporting purposes. Surveys of student opinions of student administrative service attitudes and responsiveness.

Good practice :

Administrative staff service attitudes and competencies, characterised by speedy, accurate and complete answers to enquiries, both external and internal, and further follow-up which ensures complete enquirer satisfaction, whether from potential students or relatives, current students, past students, or staff members. Sufficiently efficient processes at enrolment, graduation and other peak times to avoid long queues and delays. Student services linked efficiently to financial services for prompt acknowledgement of payment of fees, billing etc.

Prompt provision within the university of class lists, room allocations, examination requirements and other student data ensuring efficient student administration.

Sufficiently modern hardware and software to provide immediate on-demand responses about individual students and groups of students to those who need to know (that is, for students themselves, course co-ordinators, heads of departments and university executives).

Good practice will also provide automatic computerised student data reports and flagging of problems regarded by the university as important (e.g., overdue payments, particular student success records, students not meeting progression requirements, classes not meeting minimum enrolment requirements, mismatches of room allocation and class sizes, etc.).

Levels :

1	2	3	4	5
Unfavourable student opinion of services. Limited unresponsive services. Limited function hardware. Slow non-comprehensive services. No benchmarks. Spasmodic monitoring without comparisons. Occasional adjustments but not systematic.		Equivocal student opinion of services. Waiting times. No systematic monitoring or follow-up of service levels. Limited hardware functionality. Limited benchmarks. Regular monitoring and regular adjustments.		High student opinion of services. Low waiting times. Systematic tracking and follow-up of enquirers. Full service computers with modem availability. Comprehensive benchmarks of the quality of services. Use of objective standards for monitoring all key services.

Self assessment :

Check assessment :

Benchmark: 7.2

Area: : Student services

Element: : Student services

Type : Leading

Benchmark rationale: : The learning assistance, counselling and student amenity services provided need to be comprehensive enough and sufficiently well oriented to the needs to enable the university to retain the students it wants and realise its teaching and learning objectives. They are of limited value if many potential users remain ignorant of them. It is important to know what proportion of staff and students are actually aware of and use what is provided – preferably in comparison with levels of knowledge of similar functions elsewhere.

Sources of data : University public documents, listing the University’s mission, programs and services; documents reporting the efficiency (e.g., turn-around times) of those services. Client student and staff comment through questionnaires, focus groups, structured telephone interviews, etc.

Good practice :

Good practice will provide student support services which are sufficiently comprehensive and flexible to match closely the student needs implicit in the university’s particular mission, values, and strategic plan. Expectations of support services should be set and levels of success monitored annually. Services should be well integrated with core teaching and learning functions, educative and preventative rather than deficit model remedies (particularly in counselling and health services). They should be linked to transparent processes for student feedback and arrangements for frequent adjustments. Students and staff should know what administrative and support services are available and how these are to be accessed. It is too much to expect that all students and staff will know, but the extent to which there are gaps, the smaller the proportion of the community that do know, the less excellent the service is. For instance, if there is a learning support centre, it is important that students are aware of it and the services it offers, including access rights. Staff need to know how the centre’s services can be utilised to dovetail with their courses and/or prevent learning problems arising.

Levels :

1	2	3	4	5
A range of services not explicitly linked or adjusted. Less than fifty per cent of students aware of what is on offer.		Performance expectations linked to University objectives and mostly met. Between sixty and seventy per cent of students aware of what is on offer. Over fifty per cent use and value services. Some evidence of checking of new needs and adjustments to meet them.		Performance expectations of the University met. Over 80 per cent of students aware of what is on offer. 60 per cent of students use and value services. Evidence of responsive adjustments to emerging needs.

Note: Students to be aware of the range rather than be able to list services separately.

Self assessment :.....

Check assessment :

Benchmark: 7.3

Area : Student services

Element : Effectiveness of services

Type : Learning

Benchmark rationale : The extent to which students and staff (where appropriate) actually use the services available should be monitored annually, as well as the level of satisfaction. The balance of use should always be in the direction of preventative services over remedial services (tested by trend data). The most appropriate indicator of effectiveness of functions is a high level of satisfaction with the quality of service.

Sources of data : A variety of means of tapping student and staff opinion.

Good practice :

There is a good match between the services available and their use; modifications being made where under or over-use patterns occur. The optimal outcome is that students rate their use of the services as highly satisfactory. Academic staff in academic units should feel that student services support students well. The best student outcome is that over 90% of students rate their satisfaction levels at 4 or 5 on a five-point scale. A minimal expectation is that at least 50% rate their satisfaction at 3 or better on a five-point scale. Staff perceptions should be reflected in action taken to achieve coordination of teaching and use of services. Staff perceptions of the quality of services should be as positive as students' perceptions. Sub-set scores for international students are extracted for use in the international programme.

Levels :

1	2	3	4	5
<p>There is a poor match between services and usage (usage less than 50 per cent of availability). Service availability not responsive to demand. 50% or fewer students rate their level of satisfaction at 3 or more on a five point scale. No sub-set extracted for international students.</p>		<p>There is a reasonable match between services and usage (usage 50-70 per cent of availability). Services are often modified in response to need. Between 60 and 80 per cent students rate their satisfaction level at 4 or 5 on a five-point scale. Staff perceptions are between sixty and eighty per cent positive. Sub-set extracted for international students and 60 - 80 per cent rate their satisfaction level at 4 or 5 on a five-point scale.</p>		<p>There is a good match between services and usage (usage at least 80 per cent of availability) . Services are modified in response to need. Over 90 per cent of students rate their satisfaction level at 4 or 5 on a five-point scale. Staff perceptions are ninety per cent positive Sub-set extracted for international students and over 90 per cent rate their satisfaction levels at 4 or 5 on a five-point scale.</p>

Self assessment :

Check assessment :

Notes and interpretation: Chapter 7

Student support

General

There is need for an instrument, or part of a larger student attitudes instrument, to cover the data required for Benchmarks 7.1, 7.2, and 7.3.

Benchmark 7.1: Student administrative services

The acid test of student administration policies and procedures is the thoroughness of provision, their currency, and ease of access for students. Services standards need to be audited. They should as far as possible match service standards in other service industries such as hotels, insurance, transport and computer companies. Australian Quality Council standards should be used wherever possible.

The benchmark represents the aggregated rating of many functional components, that may be assessed separately but which together give a measure of the effectiveness of administrative services for students. They components include; - enquiries (prospective students); admission; orientation; enrolment; examinations; graduation; timetabling (class); timetabling (examinations); course information; appeals; technology; service; class lists; tutorial allocation; and student rules.

The expectation is that a university will have instituted a system of regular checking of: a) the efficacy of responses to telephone enquiries; b) the waiting times for students at the enquiries desk; c) the completeness and currency of information available for students on the web site; d) the proportion of same-day answers for e-mail enquiries; e) the extent to which there is processing of enrolment, student progress enquiries and graduation information on-line; f) overall processing times for student enrolments; and g) other such processes.

Further work is necessary to set the levels more explicitly, perhaps for sub-sets of similar universities, for example;

- **Enquiries** prospective students receive requested information within 48 hours.
- **Admission** postgraduate offers made promptly, eg, within two weeks of lodging of complete application.
- **Orientation** ninety per cent of students have attended an orientation session, received an ID card and obtained computing access before Week 1.
- **Enrolment** ninety five per cent of continuing students are able to enrol using information provided
- **Timetable** lecture timetables available in Week 11 of the preceding semester.

Trend data should be built up over time, with improvement targets, until comparative data is available.

Benchmark 7.2: Student services

The tests are awareness and use of the services on offer.

Benchmark 7.3: Effectiveness of services

The test is how well student opinion and feedback result in more effective services.

8. Research

Benchmarking of research in universities has had close attention for nearly a decade. The indicators used have been potent in establishing the amount within the annual Operating Grant from government to universities known as the Research Quantum. Naturally universities have responded by endeavouring to push their scores higher. Assumed benefits relate to improvements in Research Management Planning, the organisation of research, and research outcomes. A clear benefit has been an improvement in the quality of data collected, although most recently removal of publications as a component of the Research Quantum calculation may have the unintended effect of devaluing key outcomes.

Nevertheless, the research benchmarks in current use can be improved. The principal possible improvements are twofold. One, the benchmarks presented in this chapter within the lagging, leading and learning framework, provide universities with better tools to examine the trends and dynamics at work. Second, they are cast on a proportionate basis so that they are comparable from university to university without the single variable of size cloaking trends and accomplishments.

8.1 Research context

Green paper The most recent reforms of higher education research funding were initiated in June 1999 (*New Knowledge, New Opportunities*. Commonwealth of Australia, June 1999). While there were difficulties with particular formulae there was general support for the changes. The changes were intended to both increase the freedom of universities to allocate their research fund entitlements internally and increase the emphasis on research training, in particular, research student completions. Grant allocation criteria halved the former double weighting of National Competitive Grants, proportionately increasing the influence of industry research grants on institutional research allocations.

Did these shifts in emphases, which occurred mid way through the drafting of this Manual, invalidate the benchmarks in this chapter?

The answer is no.

Because they focus on proportions of involvement and outcomes relative to size rather than absolute size they will provide valid comparative research performance information.

Data Two specific data problems could not be avoided on the way to compilation of the benchmarks in this chapter. One is the question of how to count students or staff in relation to research training or performance—in short, what the appropriate denominator for comparisons should be. In the early drafts, Full-time Equivalent Research Staff (FTER) was used, but that proved contentious. Some argued that the full-time equivalent should be arrived at by counting on the basis of every full-time teacher/researcher utilising thirty per cent of normal work time for research and full-time research staff as 100 per cent.

Others argued that the total should be the sum of self-identified proportions of time devoted to research submitted by each staff member.

The solution most likely to avoid biasing the data is to use EFTSU where students are concerned and full-time equivalent (FTE) Teaching & Research and Research Only and functions as defined by DETYA—Staff Element 412) where proportions of staff are concerned. A numerator can thus be identified with fewest distortions of the data, allowing comparably accurate proportions. It is important that this definition is used consistently by everybody using the research benchmarks.

The second data problem has been the reliability of university returns summarising output data such as publications. Regrettably publications were dropped as an outcomes measure, in part because of assumed unreliability, just at the time the unreliability of data problem had practically been overcome by auditing activities. One of the benchmarks in this chapter focuses on publications, defined on the basis of the former broad 22 categories, because of their importance as measures of research outcomes. Research grant income is not an adequate surrogate for research accomplishment.

Diversity The research expectations of large, mature, research universities, with infrastructure accumulated over many years, will be different from those of smaller, recently established universities in the early stages of a struggle to achieve research intensity.

The degree of research involvement and the manner of researching vary considerably from discipline to discipline. In this chapter the intent has been to draft benchmarks that will assist research performance management whether used at faculty and discipline level, or at institutional level, in large or small universities.

Proportions The benchmarks correct for size by measuring percentages and proportions, particularly of staff engaged in research within the university.

IT infrastructure Many of those making input have pointed to the importance of information technology infrastructure in successfully implementing research plans, particularly high performance computing. The adequacy of the provisions for IT infrastructure are specifically benchmarked at 5.14.

8.2 Research and research training plan

The first benchmarks are concerned with planning/policy/implementation processes. They address the deliberateness and effectiveness of research and research training planning, the first being **Benchmark 8.1: Research and research training planning**. Universities may take differing views about the relative benefits of fostering research effort through individuals or through research teams concentrating on particular areas. In either case the belief is that research effort and research training outcomes can be enhanced by deliberate planning, careful alignment of resource allocation in accordance with strategic plans and successful implementation.

8.3 Staff participation in research

Staff participation aspects comprise the second set of benchmarks. Participation is best measured proportionate to total numbers of staff. The benchmarks envisage measuring participation in terms of the proportion of active research staff holding external grants by field of research. They also envisage measuring the proportion of staff publishing within defined periods (probably the last three years), editing journals, successfully supervising higher degree students, and being involved in international research collaboration arrangements.

- **Benchmark 8.2: Proportion of academic staff holding NCG, OPS, or industry research grants.**
- **Benchmark 8.3: Proportion of staff with direct involvement.**

8.4 Research student experience

The experience of higher degree research students is to be measured by two benchmarks. The expectations students may have of research supervision are usually set out formally in Codes of Supervision, now widely adopted in universities. What matters is the coverage of the code and the evident success in its implementation. Part of this benchmark is the extent to which research students have satisfactory experiences in relation to the provision of the necessary facilities for research. Codes of minimum expectations for particular disciplines are not yet available. It is envisaged that student experience and satisfaction will be benchmarked by implementation of a Postgraduate Research Experience Questionnaire (PREQ) now in trial use, **Benchmark 8.4: Research students' experiences.**

One other student experience benchmark is proposed. The ratio of completions to enrolments and the times taken give an accurate picture of the way in which students have reacted to the totality of the supervision and research infrastructure of the university. The Green Paper gives prominence to this measure, although suggesting completion times not in accord with experience in universities. The benchmark uses current best practice. Completion rates and times are measured by **Benchmark 8.5: Research higher degree completion rates and times.**

8.5 Research outcomes

The fourth set of benchmarks relates to research success, the first of which is success in national competitive grants, other government research grant income, and income for research from industry in proportion to Full-Time Equivalent Staff Members. The benchmark is, **Benchmark 8.6: Research income trends.**

Similarly, on the output side, there are two other obvious outcome benchmarks, the first of which is the percentage relationship between research higher degree completions and the number of full time equivalent staff, **Benchmark 8.7: Research higher degree completions per FTE academic staff.** The second is

the ratio of weighted publications to the number of full-time equivalent staff,
Benchmark 8.8: Weighted research publications per FTE academic staff.

8.6 Research Impact

Finally, there is the difficult question of the degree to which the research effort of the university is known and respected within the university and among relevant industries, the broader public, and internationally. This is an important aspect not easily measured. A possible approach, not at present undertaken, is by survey of relevant populations by Gallup, ANOP or others. At present the ways of assessing impact are necessarily fairly crude, through identifiable changes in public or industry activities, and through the traditional avenues of citations or patents and licences. Despite the difficulties and the admittedly rough cut a benchmark assessment can provide, the area is important enough to propose a benchmark on research impact, **Benchmark 8.9: Impact of research.**

Benchmark: 8.1

Area : Research planning
Element: : Research & research training planning
Type : Leading

Benchmark rationale: : All universities should have Research and Research Training Management Plans, RRTMPs, which show how the university’s research goals, strategies and concentration of effort will fit the institution’s characteristics and help realise its broader objectives. RRTMPs should specify the research and research training directions to be pursued, the outcomes sought and the strategies for achieving these. They should allocate the resources of various kinds (money, equipment, information technology, infrastructure and space) in ways that will achieve the desired outcomes.

Sources of data : University Research and Research Training Management Plans. Financial and Publications Research Data collections; scholarships data held by institutions.

Good practice :

RRTMPs link and unify Research Operational Unit plans. The RRTMP is closely linked to the university’s Strategic Plan, provides a clear statement of research goals, and outlines strategies and proposed concentrations of effort to achieve the goals. It sets specific performance targets, is clearly communicated to staff, is accepted by most staff, fosters an appropriate research culture within the university, is implemented in ways consistent with the RRTMP goals, identifies the true costs of research, and is regularly reviewed and adjusted in relation to outcomes.

Resource allocation is consistent with the RRTMP and based on quality reviews. It is transparent, in terms of the proportion of the operating grant spent on research, the ratio of internal funds to external grants allocated to research, and the proportion of operating grants to be spent on research at university, faculty and school/department levels.

Research training provisions include monitoring (both in-progress and upon exit) of student-supervisor relationships, provision of resources in essential facilities, development of a research culture, role and status of supervisor, examination processes, student progress and completion rates, induction and familiarisation, generic skills development, and scholarship and financial support.

Levels :

1	2	3	4	5
<p>A RRTMP which exhibits some of the key criteria including regular review of targets (but not systematic integration and review of Organisational Unit targets) and means of implementation.</p> <p>Resource allocation generally aligned with RRTMP.</p> <p>In the lowest quartile for research training, including dollars per EFTSU, scholarship support, staff experience and access to facilities.</p>		<p>A RRTMP which exhibits most of the key criteria, including regular review and adjustment of targets (including integration and regular review of Organisational Unit targets) and means of implementation.</p> <p>Resource allocation is aligned with RRTMP and has most of the other good practice attributes.</p> <p>In the second or third quartile for research training, including dollars per EFTSU, scholarship support, staff experience and access to facilities.</p>		<p>A RRTMP which exhibits the key criteria, including specifically provision for regular review and adjustment of targets (including integration and regular review of Organisational Unit targets) and means of implementation.</p> <p>Resource allocation is based on quality reviews and consistent with RRTMP, including transparency of proportions and ratios.</p> <p>In the top quartile for research training, including dollars per EFTSU, scholarship support, staff experience and access to facilities.</p>

Self assessment :

Check assessment :

Benchmark: 8.2

Area : Staff participation in research

Element : Proportion of academic staff holding NCG³, OPS, or industry research grants

Type : Leading

Benchmark rationale : The proportion of Teaching & Research and Research Only staff generating research income, (reported in the most recent Composite Index categories of National Competitive Grants, Other Public Sector Funds, or Industry Research Funds), provides a broad measure of the university's success in attracting external research funding from public sector and industry sources. The proportion winning nationally competitive grants is a particular measure of the quality of basic research. The benchmark may be expressed as an overall proportion of all Teaching & Research and Research Only staff with full or part time research status, by three separate sub indices, or as proportions of staff involved in research within each academic organisational unit in which the university is active.

Sources of data : DETYA staff collection file and Composite Index data collection.

Good practice :

The proportion is arrived at by comparing the number of grantees with current grants with the total number of FTE Teaching & Research and Research Only staff (as defined in DETYA staff collection documentation) in the university. The proportion of academic staff holding external grants in a given year will vary across the broad Academic Organisational Units. Overall, good practice is for 25 or more per cent of eligible staff to be holders of current grant awards.
A smoother basis of assessment would be the proportion holding grants measured on a rolling three year basis.

Levels :

1	2	3	4	5
Less than five per cent of FTE Teaching & Research and Research Only staff current holders of an NCG, OPS, or Industry Grant.		Between fifteen and twenty per cent of FTE Teaching & Research and Research Only staff current holders of an NCG, OPS or Industry Grant.		Twenty-five per cent of FTE Teaching & Research and Research Only staff current holders of a NCG, an OPS or an Industry Grant. Assessed on both a one year and rolling three-year basis. Individual proportions Biological Sc ?% Physical Sc ?% Humanities ?%, Etc.

Self assessment :

Check assessment :

³ National Competitive Grants are research grants from a nationally approved list of grant schemes.

Benchmark: 8.3

Area : Staff participation in research

Element : Proportion of academic⁴ staff with direct involvement

Type : Leading

Benchmark rationale : The number of Teaching & Research and Research Only staff who have (1) authored a publication during the year, solely or jointly, (2) engaged in research supervision, (3) are members of learned academies or editorial boards, or (4) have participated in an international research collaboration, are all partial measures of staff research productivity. The proportion is expressed as a percentage of FTE Teaching & Research and Research Only staff, for the university as a whole, and/or by Academic Organisational Unit across all staff and AOU's

Sources of data : The current Composite Index excludes many forms of 'publication', including creative works, patents, designs etc which should properly be included. All 22 categories of the previous Composite Index should be included. The university should declare what it recognises as publications for this purpose.

Good practice :

Staff classified as Teaching & Research and Research Only staff (in DETYA staff collection documentation) are expected to engage in research. Many do not or cannot because of other heavy commitments. It is reasonable to expect that a half or more of such staff in a mature university will be active, particularly in publishing or in research supervision in ways *that the university recognises* (which will be broader than the Composite Index used in calculating the Research Quantum).
The proportion publishing or being involved in research supervision in a particular year will vary across the broad fields of research.

Levels :

1	2	3	4	5
Less than a quarter of eligible staff publish, or are involved in research supervision, or in other ways recognised by the university in the last year.		Thirty to fifty percent publish, or are involved in research supervision, or in other ways recognised by the university in the last year.		Over half of the FTE Teaching & Research and Research Only staff of the university have scholarly or research publications, or been involved in research supervision or other involvement in ways the university recognises, in the last year. Publishing rates:- Physical Sciences ?% Biological Sciences ?% Humanities.....?% Etc.

Self assessment :

Check assessment :

⁴ Teaching & Research and Research Only staff.

Benchmark: 8.4

Area : Research student

Element : Research students' experience

Type : Learning

Benchmark rationale : The ratings given by postgraduate students in response to questionnaires (the proposed Post Graduate Research Experience or an alternative) while enrolled and upon exit will measure the quality of research training in academic organisational units, and eventually, in the institution as a whole as a whole. These will include student experience in the provision of research facilities (access to computing, library facilities, personal study and working equipment, laboratory facilities, and special research equipment) and research supervision in relation to defined standards of adequacy for that discipline.

Sources of data : Outcomes of research student questionnaires (the Postgraduate Research Experience Questionnaire or an alternative). Questionnaire information gained from all students enrolled (even if they have dropped out) and upon exit. It is important to have high response rates.

Good practice :

Finalisation of comparable good practice is dependent on the outcome of the PREQ Trial Questionnaires or the development of an alternative. Information covers originally enrolled and exit research students. Assuming common format questionnaires are conducted across all universities, good practice will be performance relative to other universities undertaking research training in a given field, and include student experience of research facilities in relation to defined standards of adequacy. In the meantime, good practice is defined as a high level of postgraduate research students' satisfaction with the availability and suitability of facilities and services and the quality of research supervision.

Levels :

1	2	3	4	5
<p>Less than seventy per cent of originally enrolled and completed research students rate access to equipment & services, suitability of equipment & services, quantity of research supervision, and effectiveness of research supervision satisfactory or better on a five point scale.</p> <p>No evidence of systematic action to achieve optimal research environment for students</p>		<p>Eighty per cent of originally enrolled and completed research students rate access to equipment & services, suitability of equipment & services, quantity of research supervision and effectiveness of research supervision satisfactory or better on a five point scale.</p> <p>Evidence of university action to achieve optimal research environment for students is spotty and inconsistent.</p>		<p>Ninety per cent of originally enrolled and completed research students rate access to equipment & services, suitability of equipment & services, quantity of research supervision, and effectiveness of research supervision satisfactory or better on a five point scale.</p> <p>Evidence of regular university action to achieve optimal research environment for students.</p>

Self assessment :

Check assessment :

Benchmark: 8.5

Area : Research student experience

Element : Research higher degree completion rates and times

Type : Lagging

Benchmark rationale : The research higher degree completion rate is a useful measure of the quality of research supervision, the quality of research training infrastructure and the competence of the research training management. The measure is the number of higher degree completions in a given year in a broad field of research as a proportion of all who originally enrolled (ie, including the number of terminations without completion in the same year). The average completion time, and the percentage of full-time enrolments exceeding the standard completion time for which stipend scholarships are available is a further efficiency of research training measure. Separate rates for Master and PhD degrees are required (with adjustments for transferees from Masters to PhD programs).

Sources of data : Research and Student Administration Offices data, plus data from the DETYA student collection.

Good practice :

Good Practice will be (i) completion and (ii) completion times close to the average in the same broad field of research for institutions with similar research and research training missions. It is important that the rate of completions excludes terminations without completion upgrades from Master by Research to PhD degrees and also transfers from one institution to another. Completion times are affected by discontinuous enrolments especially by part-time research students, so good practice is mean completion times of four semesters for masters students and eight semesters for PhD students net of any semester gaps for which a student was not enrolled.

Levels :

1	2	3	4	5
Most students (ie, more than sixty per cent) take more than five enrolled semesters for Masters candidates and more than ten enrolled semesters for PhD candidates.		Fifty per cent or more of research students complete within five enrolled semesters for Masters candidates and nine enrolled semesters for PhD candidates.		Seventy per cent or more of research students complete within four enrolled semesters for Masters candidates and eight enrolled semesters for PhD candidates.

Self assessment :

Check assessment :

Benchmark: 8.6

Area : Research

Element : Research income trends

Type : Learning

Benchmark rationale : The value of Nationally Competitive Grants, Other Public Sector, and Industry Related Grants, both separately and as a total sum for the whole university, divided by the FTE of academic staff is a useful measure of research intensity. The calculation should also be done to obtain measures of research intensity for each Academic Organisational Unit Group. Nationally competitive grants emphasise performance in peer review processes and basic research. OPS grants emphasise public usefulness. Industry related grants emphasise industrially useful research. Each has a place, the emphasis varying according to the mission of the university. Collectively they measure the university’s research intensity.

Sources of data : Composite Index data collection and the DETYA staff collection.

Good practice :

The ratio of research grant funding to FTE Teaching & Research and Research Only staff, whether for each of the grant sources or combined, is a measure of research intensity of a university. The totals may be affected by whether there is a medical school, the degree of concentration on the biological and physical sciences, the volume of industry in the area, or the commitment of the university to humanities and social science research. Good practice is to compare trends in the dollars per FTE staff member in a particular university, both year-on-year and with the same figures in a similar university. More sensitive analyses are obtained by comparing the ratios for particular broad

Levels :

1	2	3	4	5
Declining year-on-year trends in amounts and success rates for each category. Performance poorer than peer universities. No evidence of positive outcomes from training and coaching initiatives.		Static year-on-year trends in amounts and success rates for each category. Performance equivalent to peer universities. Evidence of outcomes from training and coaching initiatives.		Increasing year-on-year trends in amounts and success rates for each category. Performance superior to peer universities. Evidence of positive outcomes from training and coaching initiatives.

Self assessment :

Check assessment :

Benchmark: 8.7

Area : Research outcomes
Element : Research higher degree completions per FTE academic⁵ staff
Type : Lagging

Benchmark rationale : The number of research higher degree completions in each academic organisational unit divided by the FTE of Teaching & Research and Research Only staff in that AOU is an indicator of the productivity of academic staff in research training

Sources of data : Postgraduate completions file and FT/FFT staff file (DETYA data collections).

Good Practice :

Good practice in research training in each AOU group should be judged relative to the research intensity in that AOU group. This is because good research training could only take place in an environment with an adequate level of research intensity. High levels of research degree completions per FTE of Teaching & Research and Research Only staff in an AOU group, without a corresponding high level of research activity measured by the winning of external income and the production of publications, is not necessarily good practice. On the other hand, if an area that has high levels of research income and publications per FTE of Teaching & Research and Research Only staff is not maintaining a corresponding level of higher degree research completions then that too is less than good practice.

Levels * :

1	2	3	4	5

Note: * Data not yet available.

Self Self assessment :

Check assessment :

⁵ Teaching & Research and Research Only staff.

Benchmark: 8.8

Area : **Research outcomes**

Element : **Weighted research publications per FTE academic staff**

Type : **Lagging**

Benchmark rationale : Publications are the most easily measured output of academic research. Weighted research publications (including designs, compositions, etc) per FTE academic staff partially measure the intensity of research activity in a given AOU. The measure is the total value of Composite Index weighted research publications in a given AOU divided by the FTE academic staff in that broad field of research, and the ratio across all broad fields of research.

The rate of citations in the *Science Citations Index* in proportion to staff is another partial index of the quality of research.

Sources of data : The former composite index of 22 categories including performance and exhibitions. *Science Citations Index* data.

Good practice :

Good practice in the publications performance of academic staff will vary among broad fields of research. The benchmarks for each broad field of research will be established by a consideration of the performance of other institutions with similar missions.

Levels :

1	2	3	4	5
The rate per FTE staff member for the whole university does not exceed 0.25 averaged over the last three years. Discipline rates Physical Sciences < 0.25 Biological Sciences <0.25 Humanities <0.25		The rate per FTE staff member for the whole university exceeds 0.35 averaged over the last three years. Discipline rates Physical Sciences 0.4 Biological Sciences 0.4 Humanities 0.3		The rate per FTE staff member for the whole university exceeds 0.5 averaged over the last three years. Discipline rates Physical sciences 0.6 Biological Sciences 0.6 Humanities 0.4

Self assessment :

Check assessment :

Benchmark: 8.9

Area : Research impact

Element : Impact of research

Type : Learning

Benchmark rationale : It is important to try to measure *impact* of research, in addition to *output*, such as papers in journals. This measure is concerned with the beneficial effect of university research in commerce, industry and the community. It is also concerned with evidence of the overall return on investment in research. For pure research it can be partially accessed through citation data. For applied research it may be partially accessed through patent and licence data (although that is often commercial in confidence). There is potentially a long time lag in assembling relevant data so the benchmark is intrinsically at best an approximation despite the importance of such assessments.

Sources of data : From institutional and/or discipline studies

Good practice :

Good practice is for the institution to monitor impact as an integrated part of research performance assessment. It should rate its performance on the basis of evidence of international impact, changes in government policy or practice, measurable impact on the balance sheet of an enterprise, significant change in cultural or community well-being, or the opening up of a completely new avenue of research, as well as the more familiar citation, patents and licence data.

The assessment is based on the work in any of these fields being of seminal and durable impact; good practice is for a university to have several peak quality impact research areas. Examples might include discovery of high temperature superconductors, IVF, new cure for disease, innovative change in processing technology or product line leading to a measurable change in the corporate bottom line. Or it might be change in government policy relating to e-commerce regulation or land rights, solution of Fermat's last theorem, or a new form of artistic expression subsequently adopted by a school of followers.

Levels :

1	2	3	4	5
<p>Research adding to body of knowledge and results used by others though without necessarily directly solving any significant problem; creative works acknowledged as meritorious but not nationally.</p> <p>Little or no evidence of research being taken up by end-users.</p> <p>Low overall citation rates.</p> <p>No public display of results outside institution.</p>		<p>Three or more research outcomes over the last three years that have had definable impacts on those disciplines or end users.</p> <p>The outcomes are measurable in terms of definable advances in the knowledge-base of the disciplines (ie breakthroughs in understanding, not just additions to data), incremental improvements in competitive advantage, profitability in some aspect of a company's operation, social or government change both at local levels and more broadly.</p> <p>Significant overall formal citation rates and use of research outcomes in industry and business.</p> <p>Creative works often displayed in state exhibitions and sometimes internationally.</p> <p>The tests are the strength of the cause-effect relationships and the magnitude and breadth of the impacts.</p> <p>Some evidence of increasing public respect for the university's research results.</p>		<p>At least five research outcomes over the last three years that have had a major national/international impact.</p> <p>The evidence comes in several forms. It might be the opening up of a completely new avenue of research in research disciplines, eg, work widely cited and/or regarded as seminal for next decade.</p> <p>It might be major changes in government practice, policy or regulation; or significant changes in cultural or community well-being. It might be conversion of basic research findings into new products, processes or services that are having measurable positive impacts nationally and internationally on industrial and commercial enterprises.</p> <p>It might be creative works of international repute.</p> <p>The tests are the strength of the cause effect relationships, and the magnitude and breadth of the impacts.</p> <p>Accompanying evidence of increasing public respect for the university's research results is an important accompanying indicator.</p>

Self assessment :

Check assessment :

Notes and interpretation: Chapter 8

Research

Definitions

For the purposes of this chapter, in the absence of agreed definitions, some interim definitions that will bring about like-with-like comparisons are needed. Specific interim definitions are included in relevant benchmarks

- **Academic staff**
Staff who have Teaching & Research and Research only functions (DETYA Staff Element 412).
- **AOU group**
Statistics to be collected by Academic Organisational Unit group rather than discipline-specific. The AOU grouping is derived by a calculation involving comparison of the student load file and staff file as defined in DETYA student collection documents Appendix D, classification of organisational unit groups.
- **Grantees**
Not just the first named Chief or Principal Investigator, but those who have specific commitments to the project as part of the application and approval.
- **Industry grants**
An industry research grant is defined as a grant involving empirical investigation and collection of data not otherwise available. It does not include a consultancy using the investigators existing knowledge and skills, or interpretation of existing data.
- **Publication**
A publication that would have qualified in one of the original 22 categories Composite Index is counted for the purposes of these benchmarks.

Benchmark 8.1 Research and research training planning

Research planning should cover all campuses of a university, but there is no requirement of good practice that requires that all campuses have the same degree of research intensity. A university could have one research intensive campus and all of the others concentrating on teaching.

On an interim basis, use direct costs without inclusion of overheads.

- *Dollars per HDR EFTSU support* should include PCs, e-mail, consumables, travel, conferences, photocopying etc, but not space and similar infrastructure.
- *HDR supported by industry links or placements* should include all students supported (ie stipend support) by industry sourced funding. This source of funding includes public sector support.

- *Proportion of academic staff with HDR supervision experience* should include all who have previously supervised a student to a successful conclusion plus those without that experience who are considered by the institution to have had sufficient specific training.
- *Proportion of HDR students with access to shared office space* can best be ascertained by polling full time HDR students.

Benchmark 8.2: Proportion of academic staff holding NCG, OPS or industry research grants

The benchmark should be assessed on both an annual basis and on the basis of three year rolling statistics.

Both the Chief Investigator and any Associate Investigators making an accountable contribution count for the total staff.

The *grants threshold* is needed so that inconsequential amounts do not skew the statistics; it has been set at \$1,000 so as to be reasonable but not exclude humanities scholars.

Benchmark 8.3: Proportion of academic staff with direct involvement

Staff is defined as the FTE staff complement reported in DETYA statistical returns.

Staff engaged in research supervision includes both Principal Supervisor and Associate Supervisor where both have been formally appointed as supervisors.

Participation in research collaboration envisages inclusion only of projects which are institutionally recognised and sufficiently strong to result in research outcomes such as publications, licences etc.

Benchmark 8.4 Research students' experience

It is important to survey students who have withdrawn as well as those who complete. The draft PREQ is controversial and may be superseded by either a revised draft or an alternative instrument.

Benchmark 8.5: Research higher degree completion rates and times

Existing good practice HDR completion rates are included in the benchmark although they are longer than the indicative times contained in the government's July 1999 Green Paper, because they are also pretty much in accord with UK good practice.

Benchmarks 8.6 – 8.8

Grants, Research Higher Degree Completions and Weighted Publications as a proportion of FTE academic staff provide comparative measures of performance.

Benchmark 8.9: Research impact

There will always be problems of measuring impact. It is essential to approach this benchmark with some degree of scepticism and check for *real* evidence. Tendencies to overrating should be checked by peer review.

9. Library and information services

The nature of library and information services has changed and is in process of changing further. Previously used benchmarks of library and information services may now be misleading or insufficient.

As noted in Chapter 2.4 information technology and telecommunications are so pervasively transforming the tasks of those associated with information storage, manipulation, retrieval and dissemination that new organisational frameworks are evolving. Universities are experimenting with new groupings, sometimes appointing Pro-Vice-Chancellors, Information Services, in charge of all previous library and IT functions, sometimes using other organisational frameworks.

Within libraries roles are changing with many more staff taking on the role of guides to information sources, whether print or electronic. Computing and networking staff are increasingly taking on roles which require them to interact with people as well as equipment. The emphasis is on the provision of services attuned to the needs of the university community and ensuring that those services remain relevant.

As more universities take on flexible delivery of courses the framework is changing further. Teams, involving academic content specialists, instructional designers and library and IT staff, are coming together in new combinations. There is already some discernible consequential effect on traditional approaches to learning and teaching.

All of which means that the number of monographs and serials, the number of seats available for students, the number of photocopiers, the number of personal computers, and the proportion of the university budget allocated to information services may no longer be effective ways of addressing the question of how well students and staff are gaining access to the information they need for study or research. Instead the focus must be on the contribution made by library and information services to the quality, the timeliness, and the cost effectiveness of the provision and retrieval of the most relevant teaching and research information.

More detailed second order benchmarks, of the kind encapsulated in the international standard ISO 11620 and those of the International Federation of Library Associations and Institutions, will also be needed but they are not the focus of this Manual.

9.1 Library and information planning

Each university seeks to meet the particular needs of its community by providing a mix of library and information services. The nature of these services will be determined by the university's strategic objectives and by the priorities and resources that they are assigned. The essence of effective provision is strategic planning. Efficient use of resources and the quality of contributions to realisation of the university's objectives depend upon that planning. The essence of effective

provision includes the combination of planning, efficient use of resources and regular evaluation of activities. Library and information services should be closely linked to the university's strategic plan so that they assist in the realisation of the university's objectives.

The first benchmark, **Benchmark 9.1: Effectiveness of information planning processes**, addresses the best use of resources through effective planning. The expectation is that there will be a published plan, that it will be closely aligned with the university's strategic plan, and that the allocation of resources inherent in the plans will demonstrate the closeness of the relationship.

9.2 Contributions to key objectives

Next, two similar benchmarks seek to assess the contribution library and information services make to the quality of each of research, students' educational experience and corporate information systems.

The first of these, **Benchmark 9.2: Contribution to teaching and learning**, recognises the need to provide core services required by students irrespective of their mode of learning.

The second, **Benchmark 9.3: Provision of support for research**, takes into account the need for researchers to have access to bibliographic services and resources irrespective of whether they are held locally or at another library or are available on-demand via the Internet. Good practice expectations are that there will be defined policies and practices for determining what resources are needed. The benchmark does not foresee that universities will always have in-house all resources needed for researchers, but it does include the expectation that the library and information services will have mechanisms in place to seek out and retrieve the required information. It expects that the library and information service will provide a range of support and training services for researchers, have awareness of major research programs and have appropriately trained staff. The expectations of the university include provision of dedicated computer and network access facilities both from work areas and from off-campus locations.

The need for an integrated corporate management information system, for an effective operational plan to realise the system, for a comprehensively maintained interactive web site, for an information and knowledge systems manager, for systematised regular testing of the efficiency of services, and for assessing the level of user satisfaction is addressed in Chapter 3. It is included as part of the broader management need as Benchmark 3.9 although much of the work load will fall on the specialised library and information systems staff.

9.3 Collaborative alliances

Limitations on resources significantly restrict the availability of library and information technology services. There are benefits to be gained by library and information services working toward national agreements licences and other collaborative arrangements, which will maximise the purchasing power and leverage

of individual universities. **Benchmark 9.4: Effectiveness of collaborative alliances**, monitors the achievements of the university in using its limited resources to best effect through taking all possible advantage of working in collaboration in a cost-effective way with others.

Benchmark: 9.1

Area : Library and information services planning

Element : Effectiveness of information planning processes

Type : Leading

Benchmark rationale : Effective planning processes are essential to the achievement of the mission, vision and goals of any organisation and to its future viability. As central facilities and services of the university, it is essential that libraries and information services have formal planning processes which reflect those of the institution. Their goals and objectives should contribute to the achievement of the university's mission.

Sources of data : University, Library and Information Services Plans

Good practice :

The achievement of good practice requires the library or information service to:

- clearly articulate and publish its organisational vision, goals and objectives;
- align its goals and objectives with those of the university
- allocate resources on the basis of planning priorities
- cost and evaluate activities
- monitor performance against objectives, client needs and cost-benefit to identify improvements
- involve staff and clients in the planning and evaluation of all services and activities
- maintain effective links with the academic community
- undertake calculated risk and innovation

Levels :

1	2	3	4	5
Basic planning processes with minimal articulation of objectives Objectives not linked to university plan Resource allocation not related to planning processes; Clients peripheral to planning and evaluation; Services & activities not costed systematically; Evaluation of activities sporadic Process innovation not undertaken routinely.		Objectives articulated but planning not integrated with management processes Objectives generally reflect university strategies Resource allocation generally based on planning priorities; Clients feedback mechanisms utilised; Some services and activities costed & monitored; Key performance indicators used to evaluate core activities Process innovation generally used for key activities.		Planning integral to management process with objectives clearly articulated and published Objectives closely correlated with appropriate university goals and objectives; Resource allocation based on organisational priorities; Client and stakeholder participation in planning & evaluation to develop effective partnerships & support; Majority of services and activities costed and monitored regularly ; Key performance indicators used to evaluate all significant activities Consistent implementation of process innovation.

Self assessment :

Check assessment :

Benchmark 9.2

Area : Contribution to key objectives

Element : Contributions to teaching and learning

Type : Lagging

Benchmark rationale : Libraries and information services contribute to teaching and learning programs by providing a range of services, resources and facilities which support the teaching process and facilitate independent learning.

Sources of data : Data collected within the University

Good practice :

The provision of an environment which encourages and facilitates learning involves a mix of factors including availability of materials cited on course reading lists, provision of help-desk facilities, and the provision of services and facilities so that students are not disadvantaged by their choice of learning mode or location. The relationship with academic staff includes the involvement of library and information services staff in the development of the curriculum to ensure appropriate information resource support including the teaching of information and computer literacy skills.

As part of the learning environment, staff and students expect access to computing facilities, including access to university-wide information services (e.g., University web sites), and to the Internet. The effectiveness of those services is measured in terms of availability, reliability, security, response times and degree of standardisation.

Levels :

1	2	3	4	5
<p>Items cited on course reading lists available and accessible to meet more than half of student demand.</p> <p>student acquisition of information and computer literacy skills largely on own initiative.</p> <p>Library and information services available up to 60 hours per week during semester.</p> <p>Limited flexible access to services and facilities.</p> <p>Face-to-face user assistance is available from qualified staff at least 8 hours per day during normal business hours.</p> <p>Assistance available to remote users during operating hours.</p> <p>Access to computing facilities is limited to teaching laboratories.</p>		<p>Items cited on course readings lists available and accessible to meet most student demand.</p> <p>Formal information and computer literacy tuition available to most students.</p> <p>Library and information services available up to 70 hours per week during semester.</p> <p>Range of provisions for flexible access to services.</p> <p>Face-to-face user assistance is available from qualified staff throughout most university operating hours.</p> <p>Assistance available to remote users during operating hours, with the capacity to log out of hours calls for response.</p> <p>Student access to computing and network facilities from teaching and general-access laboratories as well as limited off-campus access.</p>		<p>Items cited on course reading lists available and accessible to meet more than 90% demand.</p> <p>information and computer literacy incorporated in the curriculum.</p> <p>Library and information services available more than 80 hours per week during semester.</p> <p>Extensive flexible access to services and facilities.</p> <p>Face-to-face user assistance is available from qualified staff throughout all university operating hours.</p> <p>Remote user assistance is available, with the capacity to log out of hours calls and guaranteed response within a 24 hour period.</p> <p>Wide range of computing and network facilities available for both on-campus and off-campus use.</p>

Self assessment :

Check assessment :

Benchmark 9.3

Area : Contribution to key objectives

Element : Provision of support for research

Type : Leading and lagging

Benchmark rationale : Excellence in research is a primary goal of the majority of universities and an increasing proportion of institutional income is derived from research projects or is allocated on the basis of research achievement. Institutions devote a sizable proportion of their income to the research-related services, resources and facilities provide by libraries and information services. Effective deployment of this infrastructure is essential to the achievement of institutional objectives.

Sources of data :

Good practice :

Universities are expected to provide a wide range of library and information services to support research activities. Although it may not be possible to provide every resource desired by researchers, good practice requires the provision of an information infrastructure necessary to undertake research sanctioned by the institution. This infrastructure includes access to computing equipment (including high performance computer skills), communication networks and to publications in their disciplines as well as information and computer literacy skills. Access may include a mix of mechanisms, the costs of which may be met entirely or in part from university funds or may be paid by the individual. The effectiveness of services is measured in a number of ways including availability, reliability, security, response times and degree of standardisation.

Levels :

1	2	3	4	5
<p>Collections and services developed without reference to research priorities or needs of individual researchers</p> <p>Limited access to facilities and resources not owned by the institution</p> <p>No training or support for researchers limited to conventional reference/help desk facilities</p> <p>Staff and research students have access to appropriate computing and network facilities from their work areas</p> <ul style="list-style-type: none"> • acquisition of information and computer literacy skills and training largely through individual initiative 		<p>No explicit policies: collections and services developed largely in response to the needs of individual researchers</p> <p>Access to resources and services irrespective of their location through a range of mechanisms</p> <p>Limited range of training and other support facilities provided specifically for researchers</p> <p>Staff and research students have access to appropriate computing and network facilities from their work areas and from off-campus locations.</p> <p>Appropriate opportunities for researchers to enhance information and computer literacy skills.</p>		<p>Policies and procedures implemented for determining research resources acquired, access mechanisms and service effectiveness.</p> <p>Extensive access to resources and services irrespective of the location of the user or the resources.</p> <p>Extensive range of training and support available to enable researchers to maximise their use of library and information services.</p> <p>Staff and research students have dedicated access to appropriate computing and network facilities from their work areas and from off-campus locations.</p> <p>Structured programme identifies skills required and ensures acquisition of appropriate skills.</p>

Self assessment :

Check assessment :

Benchmark 9.4

Area : Collaborative alliances
Element : Effectiveness of collaborative alliances
Type : Leading

Benchmark rationale : As no university can expect to possess all of the resources required by its community, sharing access to specific facilities enables universities to improve the range of services available in a manner which is more cost-effective than achievable by unilateral action. Collaboration may involve a range of activities including joint use of facilities and resources, adoption of recognised standards, exchange of staff or information, and consortium purchasing. Through collaboration institutions can increase their individual and joint competitive edge.

Sources of data :

Good Practice :

Collaboration should not reduce the competitive advantage of institutions but should provide those elements of the infrastructure that cannot be cost-effectively provided by other means. Arrangements should be based on a business plan that clearly identifies all costs, benefits and obligations. Collaborative arrangements should be linked to the strategic objectives of the university and enhance its ability to achieve:

- best practice in service delivery
- demonstrable operating economies
- innovation
- increased competitive advantage

Levels :

1	2	3	4	5
Minimal reciprocal use arrangements. Minimal alliances for facilities development. Infrequent use of consortium purchasing. Staff/knowledge exchanges occur rarely. Maintains non-standard applications. Alliances not subject to strategic or business analysis.		Reciprocal use agreements mainly local institution to institution. Participates in planned collaborative facility development with a limited number of partners. Participates in a wide range of appropriate consortium arrangements. Staff/knowledge exchanges occur on an ad hoc basis. Incorporates implementation of standards in planning process. Most alliances are subject to strategic/business analysis and performance review.		Maintains reciprocal use agreements with a range of organisations to achieve best practice. Planning and resource allocation maximize agreements with other institutions for the collaborative development of facilities/services. Actively promotes appropriate consortium purchasing, factors into resource allocation and seeks opportunities. Supports a regular and planned strategic exchange of staff/knowledge with other institutions. Supports the development and application of national and international standards. All alliances subject to strategic/business analysis and to performance review.

Self assessment :

Check assessment :

Notes and interpretation: Chapter 9

Library and information services

Benchmark 9.1: Effectiveness of planning processes

The general criteria for good planning also apply to this benchmark. Key performance indicators should be quantitatively specified. Performance, good or bad, should lead to re-evaluations of targets and to innovations and improvements.

Benchmark 9.2: Contributions to teaching and learning

This benchmark is to be considered in conjunction with those in chapter 6. Together they monitor the quality of students' learning environment including the level of provision of services. Specified library opening hours are considered the minimum for each level of practice even in small universities and those with a high proportion of distance education students.

Benchmark 9.3: Provision of support for research

This benchmark is to be considered in conjunction with those in Chapter 8. The benchmark requires testing of the level of access, training and support for information services devoted to research, including whether high performance computing facilities are available to those who need them.

Benchmark 9.4: Effectiveness of collaborative alliances

Benchmarks how active information services within the university are working with other institutions and consortia (other universities and community libraries, computer resources etc) to increase the reach and richness of available information resources and their cost-effectiveness. The test is the initiatives taken to achieve outcomes that are greater than the individual contributions.

10. Internationalisation

As in many other areas of university life, the internationalisation of a university can be consciously strategic or a matter of no concern to management. For internationalisation benchmarks the presumption is that most (Australian) universities are deliberately increasing the range of activities that will contribute to a culture of internationalisation, although they are not necessarily doing this in the same way or to the same extent.

The benchmarks therefore monitor the extent to which the strategies, activities and, particularly, outcomes, are likely to assist in the internationalisation of a university and the way in which these activities are helpfully linked to other aspects of its functioning.

10.1 Internationalisation strategy

The first benchmark addresses the extent to which there is a strategic plan guiding and energising the international activities. Basically, good practice mirrors the points involved in good planning at the university-wide level with a special internationalisation orientation.

International activities should be linked through the strategic plan. International activities include the international student programme; the internationalisation of teaching, learning and research; international student support services; international consultancies and training; and distance and offshore programs.

Good practice involves fostering a campus culture of internationalisation. To realise that objective a university needs to bring together many aspects of internationalisation. It needs to encourage the university community to have tolerant attitudes supportive of diversity. Internationalisation of teaching, learning and research are key aspects, along with the international student programme. An internationalised university will also be providing an appropriate level of support mechanisms for international students, mechanisms that accommodate different learning styles and education and cultural backgrounds.

For some universities internationalisation involves offshore delivery of courses. There are now several modes including traditional and electronic distance education techniques, offshore campuses (jointly or wholly owned) and cooperative alliances. Offshore arrangements entail special challenges, including adaptation to local custom, securing local esteem, successful communication about purposes and ethical advertising. Quality assurance, financial transparency and risk analysis are all crucial elements. The essential features are not readily benchmarked at present, although the GATE 13 principles governing the quality of offshore delivery may be relevant.

International consultancies and training programs, too, may be part of the process of internationalisation. They provide international access to Australian courses and

expertise not otherwise available and excellent opportunities for staff development. Again these are not at present easily benchmarked.

The links a university has with universities outside Australia should be integral to a university's internationalisation strategy.

The **Benchmark 10.1: Internationalisation strategy** establishes good practice in respect of strategic planning and integration of all aspects of internationalisation.

10.2 Culture of internationalisation

The degree to which there has been success in fostering a culture of internationalisation is an important benchmark in its own right. The extent to which a university encourages and is perceived to have a tolerant culture, supportive of diversity can be measured, including recognition of the value of such diversity within the university, the use of diverse student experience as a resource (in the classroom and as part wider campus activities), and the level of interaction between local and international students and the wider community. Other measurable aspects relate to the level of university support mechanisms. Surveys of both domestic and international students are appropriate means of assessing how well the university is perceived to provide for these dimensions. **Benchmark 10.2: Culture of internationalisation** sets out good practice essentials.

10.3 Balanced onshore international student programme

A balanced onshore international student enrolment programme is a key element in internationalisation. The factors to be taken into account include appropriate proportions of international students in the student population and their spread across faculties/fields of study, country of origin and levels of study. Measures of different aspects of balance in the international student programme together provide a matrix of good practice. **Benchmark 10.3: Balanced onshore international student programme** covers the needs.

10.4 Financing internationalisation

Most Australian universities have an established basis for the financing of international student recruitment and provision of support services. Increasingly, the volume of funding required for an effective and economical international programme is usefully defined with reference to the volume of international student fees generated by the university. Too small a proportion will result in the programme being under-financed, with no scope for exploration of new opportunities and with insufficient orientation and on-going support services; too much will result in waste or unproductive efforts. Good practice within the range of costs presently the norm in Australia is benchmarked in **Benchmark 10.4: Financing of the international student programme**

10.5 Students' exposure to international experience

Measures of the actual exposure of the university to international influences are essential if the university is to know how well its objectives are being reached. One universal objective is for Australian students to have an international outlook and, to the extent possible, international experience during their studies. The latter is hard to achieve as only a small proportion have the funds or access to other financing that will make such exposure possible. The greater the numbers, the more likely the rest of the student population will be exposed to an international orientation.

The strongest influence will come from such initiatives as internationalisation of curricula with processes in place to encourage staff to expand international perspectives, and, through joint and double degrees, to have one part at least of students' study programs deliberately internationally oriented. The number of students able to study overseas, and the array of explicitly international curriculum offerings, considered in conjunction with the proportion of academic staff with international affiliation, give the best guide to a university's commitment to the internationalisation of its programs. **Benchmark 10.5: Students' exposure to international experience** thus provides the guide to good practice.

10.6 Management of offshore delivery

Universities undertaking offshore delivery of courses, whether via traditional or electronic distance education techniques or offshore campuses, jointly or wholly owned, face special challenges. Issues include the degree of adaptation to local cultures, achievement of local esteem, local legal requirements, selection of appropriate partners, management of the partnership relationships, financial transparency and quality assurance. One quality test is whether students who enrol and succeed under those conditions will have full credit and/or be automatically enrolled without loss of standing at the home campus. The GATE 13 principles governing offshore delivery provide one type of guide on quality issues. The scope, strength and geographic spread of such programs are other issues universities need to consider in assessing risks. These issues are brought together in **Benchmark 10.6: Management of offshore delivery**.

10.7 Overseas links and activity

The collaboration links a university has with universities outside Australia contribute to a university's internationalisation. All universities have some formal links with other universities, so the existence of such links without an active implementation programme would only be a pointer to external reputation. It is the extent to which those links are strategic and active (measured by contacts over the most recent twelve-month period) and result in internationalisation trends in the university that is the basis of the benchmark.

At the good practice end of the spectrum there will be a range of active links covering staff and student exchanges, curriculum and course collaboration, joint

research from which publications have resulted and other joint activities which contribute to the strategic positioning of the partners. Good practice is to have several multi-strand active partnerships across several geographic areas. The extent to which these contribute to the university's internationalisation aspirations and its broader objectives is monitored through **Benchmark 10.7: Overseas links and activity**.

Benchmark 10.1

Area : Internationalisation and international operations

Element : Internationalisation strategy

Type : Leading

Benchmark rationale : The internationalisation of a university depends to a significant degree on the successful implementation of conscious, ethical strategies developed by the senior executive leadership of the university. A significant degree of internationalisation will not be achieved if individual initiatives are not directed to agreed outcomes and objectives.

Sources of Data : Internationalisation plans and strategies of individual universities.

Good Practice :

The university has an international policy document linked to the university's strategic plan and backed up by country plans, which include both business and academic components. The plan covers the fostering of a culture supportive of internationalisation, diversity and difference, with structures in place to promote inter-cultural understanding. It also covers international student recruitment; internationalisation of teaching and learning; strategic alliances with offshore institutions or partners; student support services; offshore delivery; and consultancies and training in accordance with the AVCC Code of Ethics. The planned international activities are developed and implemented by different units within the university in ways which contribute to agreed outcomes and objectives, maximising the potential for links between different initiatives and the identification of new opportunities.

The senior executive leadership of the university maintains a clear policy and ensures that there is coordination between the different units and individuals contributing to the internationalisation objectives.

Levels :

1	2	3	4	5
<p>Ad hoc internationalisation initiatives and enrolment of international students by individual units without coordination of central international office.</p> <p>No detailed university policies at country plan level. No linking of offshore and on-campus initiatives.</p> <p>Absence of policies/practices which encourage tolerance and diversity.</p>		<p>Generally positive stance towards internationalisation throughout university. Initiatives to foster internationalisation and to increase the range of activity; considerable implementation without there being a strategic, long term approach or evidence that the initiatives are mutually reinforcing.</p> <p>Country plans are not comprehensive although all are within the AVCC Code of Ethics.</p> <p>Some evidence of linking of offshore and onshore activities.</p> <p>Policies to encourage diversity and cross-cultural understanding but no mechanisms for implementation, eg through staff development.</p>		<p>Explicit, dynamic internationalisation policies with a senior officer (eg, DVC/PVC) responsible for implementation.</p> <p>Country plans for international activities including both academic and business objectives; staff and student exchange; curriculum development; student recruitment; offshore delivery within the AVCC Code of Ethics.</p> <p>Strategies to link offshore and onshore activities.</p> <p>Well-developed initiatives and policies fostering an international culture and cross cultural understanding.</p>

Self assessment :

Check assessment :

Benchmark: 10.2

Area: : Internationalisation and international operations

Element: : Culture of internationalisation

Type : Leading

Benchmark rationale : Internationalisation implies a welcoming and supportive culture. The test is that there is in fact a tolerant culture that recognises diversity and that there are structures in place, including cross-cultural training for both staff and students to promote intercultural understanding

Source of data : University mission statements; documentation on international student support programs; documentation on cross-cultural training programs for staff and students; universities' own assessments of "culture". Surveys of international and domestic students

Good practice :

Opportunities are provided for interaction in the classroom, on-campus and in the community between local and international students. Appropriate support services for international students are required under the AVCC's Code of Ethical Practice. A culture of internationalisation perceived as such by international and local students and evidenced by explicit and documented processes which:

- promote intercultural understanding, through, for example, training programs for staff and students on cross cultural communications;
- ensure a tolerant culture and acknowledge and build on the diversity of students' backgrounds and experiences;
- encourage the use of international students as a resource in the teaching/learning environment, especially at postgraduate level;
- result in interaction between local and international students in the classroom and on campus generally;
- develop programs to support interaction between international students and local/regional communities;
- provide comprehensive, well resourced support services for international students which encourage self-sufficiency and independence.

Levels :

1	2	3	4	5
<p>No documentation which encourages a tolerant and diverse culture in the university.</p> <p>No programmed activities to encourage a culture of internationalisation and no recording or evaluation of such activities.</p> <p>Students do not perceive the university as having a culture of internationalisation.</p>		<p>Some of the processes necessary to achieve a culture of internationalisation and intercultural understanding are being implemented, although not always with recording and evaluation of specific activity indicators.</p> <p>Students are equivocal about whether the university has a culture of internationalisation and is tolerant and welcoming of diversity.</p>		<p>All processes necessary to achieve a culture of internationalisation and intercultural understanding are being implemented with recording and evaluation of specific activity performance indicators.</p> <p>Students perceive that the university has a culture of internationalisation; is tolerant and welcoming of diversity.</p>

Self assessment :

Check assessment :

Benchmark: 10.3.

Area : Internationalisation and international operations

Element : Balanced onshore international student programme

Type : Lagging & learning

Benchmark rationale : An institutional student programme is most effective if it brings together international students from many countries, enrolled in a diversity of fields of study and with a mix of undergraduate and postgraduates including research students. The benchmark is a composite index:

Sub-index of performance	Score 1	Score 2	Score 3
1. Percentage of on-campus international students	< 8%	8% - 15%	15 per cent or more.
2. Spread of international students across fields of study and across campuses	International students bunched in few fields of study; and unevenly spread across campuses.	Moderate spread of international students across institution; and across campuses (Max of 20%; minimum 5% for 50% of fields of study)	High spread of international students across institution; and across campuses. (Max of 40%; minimum 10% for 80% of fields of study).
3. Range of source countries/regions: SE Asia, N.Asia, S.Asia, N.America, S.America, Europe, E.Europe, Africa, Gulf,,Oceania	Small number of regions: 80% of international students come from fewer than 3 regions.	80% of international students from 3 or 4 regions.	Medium number of regions: 80% of international students from 5 - 6 regions.
4. Postgraduate research mix	International postgraduate students comprise less than 10% of postgraduate research numbers.	International postgraduate research students comprise between 10% and 20% of total research numbers.	International postgraduate research students comprise more than 20% of total research numbers.

Sources of data : Enrolment file (DETYA student data collection); Planning and Statistics offices in individual universities.

Good practice :

A spread of international students across levels and fields of study, and campuses, and from a range of countries, is educationally and financially preferable to a risky concentration on one country, one level and/or few fields of study. There should be substantial opportunities for Australian students to meet and work with a variety of international students. Moreover, a university's international student fee income is vulnerable if source regions are limited to two or three - political, economic or social problems could cause the market to dry up, although care must be taken to ensure the marketing effort is focused rather than dispersed. A balanced onshore international student programme meets Good Practice guidelines when it has:

- an international student population of around 15–20%
- a high spread of international students across fields of study, with maximum of 40% and a minimum of 10% for 80% of fields of study
- a high spread of international students across campuses in multi-campus institutions
- a medium range of source regions sending international students
- more than 20% of total research student numbers

Total Score of 10–12 on the matrix.

Levels :

1	2	3	4	5
Matrix score < 4		Matrix score of 6 - 7		Matrix score > 9

Self assessment :

Check assessment :

Benchmark: 10.4

Area : Internationalisation and international operations

Element : Financing of the international student programme

Type : Lagging

Benchmark rationale : University income from international students is an important diversification of revenue resources. Universities should show both international revenue and expenditure in their budgets. While there are differences in the ways universities organise their international student service functions, especially in regard to admissions and counselling services, the costs of core functions should be able to be disaggregated.

Sources of data : University Annual Report and resource allocation (budget) reports.

Good practice :

Costs for different activities are benchmarked with reference to the percentage of the total international student-tuition fees that is allocated to the administration of the international student programme. This will cover the costs of the international office (including all marketing and promotion costs and commissions); faculty staff where international student functions are decentralised; and admissions staff and student support staff where these are mainstreamed; and scholarships.

Funds for marketing and recruitment are consistent with the university's international strategy.

The full income from international student fees is reflected in transparent university distribution models. Surpluses are used to benefit all students.

The level of funding available covers the developmental aspects of the university's international activities as well as marketing operations.

The AVCC's Code of Ethics is strictly adhered to.

Levels :

1	2	3	4	5
Too little funding (less than 10% of international student fees) or over-generous funding (20%) allocated for activities related to international students.		12 –14% of international student fee income allocated for activities related to international students.		17–20% of international student fee income allocated for activities related to international students.

Self assessment :

Check assessment :

Benchmark: 10.5

Area : Internationalisation and international operations

Element : Students' exposure to international experience

Type : Lagging and learning

Benchmark rationale : Exposure of students to international experience is a key strategy in equipping graduates for work in international or multi cultural settings. Exposure can be through components of study or research undertaken overseas, through access to internationalised curricula, or through academic staff with relevant international experience, and visiting lecturers and researchers working on campus in Australia.

Sources of data : Enrolment file (DETYA student data collection) & International Offices.

Good practice :

<p>1. Exposure to study abroad At least 5% of the completing undergraduate cohort will undertake some component of their study abroad through such activity as exchange programs, work or clinical attachments and study tours. Around 3% of completing research students undertake a component of their research abroad. Percentages should be increasing each year.</p> <p>2. Internationalised Curriculum Processes in place to ensure all students have access to internationally relevant programs of study:</p> <ul style="list-style-type: none"> • All professional programs enable professional registration in at least two countries. • A formal mechanism at faculty/departmental level to develop and monitor internationally relevant curricula for all courses. • Appointment and promotion criteria for academic staff require that teaching should include international perspectives. • Curriculum review occurs with partner institutions on a regular basis. • Staff with relevant international experience. • OSP/sabbatical leave applications required to demonstrate the relevance of their programs; follow-up of implementation. • Financial support programs for staff to develop international experience and curricula <p>3. Staff and Student International contact. 25% of academic staff will have had recent research, teaching or practice supervision experience, with a duration of more than four weeks, in an overseas country within the last three years. 25% of home campus students will have had substantial interaction (in excess of five hours of contact) with international visiting academics.</p>

Levels :

1	2	3	4	5
<p>Study Abroad Undergraduate Cohort Studying Abroad <1% and not showing an increasing trend. No research Students Studying Abroad and no improvement trend. No strategies in place to monitor or enhance Study Abroad.</p>	<p>Undergraduate Cohort Studying Abroad 2% and not showing an increasing trend. Research Students Studying Abroad <1% and not increasing. Monitoring and strategies in place.</p>	<p>Undergraduate Cohort Studying Abroad approximately 3% and stable. Research Students Studying Abroad < 2% and stable. Monitoring and strategies in place.</p>	<p>Undergraduate Cohort Studying Abroad 4% and increasing. Research Students Studying Abroad 2-3% and increasing. Monitoring and strategies in place.</p>	<p>Undergraduate Cohort Studying Abroad 5%+ and increasing. Research Students Studying Abroad > 3% and increasing. Monitoring and strategies in place.</p>
<p>International Curriculum Minimal processes in place.</p>	2 of listed processes.	3 of listed processes in place.	4 of listed processes in place.	5 or 6 of listed good practice processes in place.
<p>International Staff Contact Internationally Experienced Staff <10%. International Visiting Academic Exposure <5%.</p>	<p>Internationally Experienced Staff 10 – 15% International Visiting Academic Exposure <10%.</p>	<p>Internationally Experienced Staff 15 – 25%. International Visiting Academic Exposure 10 - 20%.</p>	<p>Internationally Experienced Staff 25 – 30%. International Visiting Academic Exposure < 25%.</p>	<p>Internationally Experienced Staff >30%. International Visiting Academic Exposure >25%.</p>

Self assessment : (Aggregate of three Benchmarks where best practice is in the range 10–15

Check assessment :

Benchmark: 10.6

Area : Internationalisation and international operations

Element : Management of offshore delivery

Type : Lagging

Benchmark rationale : Universities that offer off-shore (i.e., international) programs, either through distance education mode or through offshore campuses, face the same challenges of management as any multinational organisation in coping with different cultural expectations, legal requirements, market opportunities, financial issues including currency fluctuations, quality assurance and communications problems.

Sources of data : University Annual Reports and published financial data; reports from partner organisations.

Good practice :

- Offshore operations to be based on clear strategic and operational objectives. For offshore campuses, selection of appropriate partners and the management of partnership relationships are crucial to the success of the ventures. Transparent financing and returns (including reputational) on the investment of time, energy and money should be apparent over time.
- Policies, procedures and systems in place that ensure the selection of suitable partners for offshore campuses, and assure academic quality, operational efficiencies, financial success and strategic relevance. Suitable support arrangements for distance education students offshore.
- Quality assurance and accreditation measures which assure the university and clients of the integrity of both campus and distance education programs offshore.
- Programs are consistent with the university's strategies and linked to on-shore programs and practices.
- Financial safeguards including risk analysis and hedging of funds are set up.
- Financial investment and returns and strategic value are transparent.

Levels :

1	2	3	4	5
Programs are in accordance with in-country regulations and laws. Approval of programs at executive level of the University. Programs are in accordance with AVCC Code of Practice.		Programs linked to university strategy. Appropriate business and academic planning processes in place. Quality assurance procedures in place. Regular internal academic and financial review of success of programme. Awareness of academic, legal, financial and other risk factors. Risk analysis built into planning.		Programs an integrated aspect of university strategy. Academic and financial planning and implementation practices in accordance with best practice in other areas of university life. External accreditation and quality assurance measures in place. Procedures in place for selection of suitable partners. Management of partnership and distance education support relationships. Risk analysis built into the planning.

Self assessment :

Check assessment :

Benchmark: 10.7

Area : Internationalisation and international operations

Element : Overseas links and activity

Type : Lagging

Benchmark rationale : Strategic, active collaborative programs and links through formal co-operative agreements with institutions overseas can assist to internationalise teaching, scholarship and research through staff and student exchange and research collaboration. Agreements can be bilateral or multilateral. They can also be uni-dimensional or multi-dimensional, depending on their stage of development and the institution’s objectives. The aim over time, however, should be multi-dimensional strategic links of mutual benefit to the partners.

Sources of data : AVCC and DETYA compendia of international links.

Good practice :

Formal university-wide agreements should have a strategic relevance to the university both in terms of partner institutions (e.g., research collaboration, staff and student exchange, benchmarking), and country (e.g. priority international student market – developing or mature). Good practice is generally for like-with-like standing of partner institutions (other than for other strategic reasons connected with the international programme). The number of agreements should be consistent with the university’s ability to service the agreements effectively. All agreements should be active, with bilateral visits between the partners annually. Most agreements should be multi-dimensional (e.g. encompassing student and staff exchange, study abroad, research collaboration, benchmarking). Uni-dimensional partnerships have clearly defined strategic intent. Agreements, including those purely for exchange or at unit level with limited objectives, should have a good geographic spread taking into account world regions and countries.

Levels :

1	2	3	4	5
<p>Agreements with mostly institutions of little standing in few countries; uni-dimensional. Minimal number of agreements.</p> <p>60% of agreements active.</p> <p>Little or no evidence of staff or student inter-institutional awareness or collaboration.</p> <p>60% of partners and countries strategically selected.</p> <p>Only 1 type of activity within the agreement.</p> <p>Agreements in 3 world region.</p>		<p>A mixture of agreements, some with institutions of high standing, some with institutions of lower standing, in relatively few countries and not often multi-dimensional. Capacity to increase number of agreements.</p> <p>80 per cent of agreements active.</p> <p>Increased staff and student awareness of the institution’s international standing.</p> <p>80 per cent of partners and countries strategically selected.</p> <p>Two types of activity within the agreements.</p> <p>Agreements in five world regions.</p>		<p>Multi-dimensional agreements with institutions of high standing in several countries and some with institutions of high standing. Significant but manageable number of agreements. Partners and countries strategically selected ⁽¹⁾.</p> <p>100%per cent of agreements active</p> <p>Evidence of genuine links in the form of research output, increased awareness among staff and students of the institution’s international standing.</p> <p>At least four types of activities within each agreement ⁽²⁾.</p> <p>Agreements in seven or more world regions⁽³⁾.</p>

(1) Consistent with university’s ability to service agreements effectively

(2) Types of Activities. Staff exchange, student exchange, research collaboration, study abroad, other activities

(3) SE Asia, N.Asia, S.Asia, N.America, S.America, Europe, E.Europe, Africa, Gulf, Oceania, North America,

Self assessment :

Check assessment :

Notes and interpretation: Chapter 10

Internationalisation

Benchmark 10.1: Internationalisation strategy

The test is the comprehensiveness of the strategy, that it is being implemented, that individuals have defined responsibilities and that there is measurable progress towards the targets.

Benchmark 10.2: Culture of internationalisation

Survey data from both domestic and international students is envisaged.

Benchmark 10.3: Balanced onshore international student programme

- **On-campus in Australia students:**
The student is studying at an Australian campus of the university at census date; counted by 'heads' not EFTSU
 - **International students:**
Students who are not Australian citizens, New Zealand citizens or Australian permanent residents.
 - **Head:**
not EFTSU; include on-campus in Australia students only, including exchange, study abroad; do not include TAFE, Foundation or ELICOS students.
 - **Level:**
Postgraduate research students: PhDs and Masters by Research..
-

Benchmark 10.4: Financing of the international student programme

The benchmark includes the cost of recruitment (eg, agents fees, marketing abroad, international publications, exhibitions, and staff travel and sustenance) and servicing international students to the point of entry into the normal services of the university. It does not include student administration costs. It does not include learning support services even if these are organisationally the responsibility of the International Office.

Definition of activities related to international students:

Income:

- Total fees received from international students including any commissions that are deducted before fees are received.
-

Expenditure:

- International office total costs—including marketing and promotion; commissions; admissions; student support and counselling, housing, study abroad and exchange.
- Faculty, ELICOS and Foundation staff with specific responsibility (other than teaching) for international students including marketing and the provision of advisory and support services.
- Allocation of costs of admissions and support services functions where these are not part of the International Office.

Benchmark 10.5: Students' exposure to international experience

Study abroad:

- Includes: outgoing international exchanges and study abroad; industry; business; clinical work placements and internships; international study tours or study programs; joint degree or diploma programs; research overseas as part of Australian postgraduate programs. The measure is the percentage of completing undergraduates; people not EFTSU, including part time students.
- Strategies to monitor/enhance Study Abroad include a Study Abroad/Exchange office or staff; promotion activities; scholarships; maintenance of data.

Internationally experienced staff:

- Includes significant experience abroad including teaching sabbaticals; teaching in offshore programs; research projects with international partners; active role in International Associations.

Benchmark 10.6: Management of offshore delivery

Offshore means programs that are delivered internationally. They can be delivered through different modes including: twinning programs, distance learning programs, franchised programmes, offshore campuses, joint award programs, delivery in cyberspace.

External accreditation such that successful students from offshore programs are granted full credit and parity of esteem.

Benchmark 10.7: Overseas links & activity

The extent to which those links are strategic, result in genuine collaboration, and are active (measured by contacts over the most recent twelve-month period) is the basis of the benchmark.

- **Active agreement**
An active agreement is one that has more than one bilateral exchange, involving the movement of staff or students between the linked institutions, in more than one type of activity, annually. Where active agreements are not

multi-dimensional they should be sufficiently substantial to comprise a strong enduring partnership lasting over several years.

11. Staff

The general goal of all universities is, of course, to recruit the best possible staff within the salary scales they are able to offer. They hope to attract and keep staff who will realise the excellence of teaching, research and community service objectives of the university, and to provide those staff members with satisfying and professionally rewarding careers. Because some universities are clearly better than others in attracting, holding and maintaining morale among staff, and consequently in achieving the best possible outcomes, universities need to benchmark those aspects of human resources that contribute to success.

Staffing considerations in a university are in several respects similar to those in any other complex organisation of professionals. There are now commercial human resources programs that will allow benchmarking of some basic staffing issues, such as turnover, cost of recruitment, staff development time costs. New versions of the software available to universities, such as Peoplesoft and Concept, are claimed to have the capacity to produce the data to benchmark these necessary but second order matters.

University leaders are interested in specific HR matters to the extent that they throw light on strategic issues such as the degree to which HR policies are contributing to university objectives, the new and remedial initiatives that are needed and the quality and development of the workforce. Four key benchmarks are needed for those purposes.

11.1 Strategic human resource planning

The most important of the strategic issues is the need to consciously plan and develop all aspects of human resource planning in ways that assist in realising the university's overall objectives.

The suitability of a university's staffing profile, (ie, the mix of ages, gender, cultural diversity, qualifications, classification levels) is important to its long-term success. Any university with a profile seriously skewed in a particular dimension is handicapping itself in its search for excellence. The absence of new, younger staff may handicap the search for new ideas; a staffing profile top heavy with senior staff might mean that fewer staff can be hired within the funds available (with the effect of decreasing course variety or student contact with staff). A lack of gender balance, especially among senior staff, may handicap the balanced development of courses.

Although there is no perfect staff profile that all universities should seek to achieve, staffing patterns cannot be ignored. Given that resource cuts are hurting all Australian universities, there are strong distorting forces shaping staffing away from the most appropriate pattern. These factors simply underline the need for planning and for monitoring carefully the success of HR policies.

The first benchmark is thus **Benchmark 11.1: Strategic human resource planning**. It envisages that from the Vice-Chancellor down there will be clear and

unambiguous messages about the university's human resources policies and goals and the intended means of achieving them. It also envisages that there will be systematic collection and analysis of relevant data relating to human resources. All components, such as recruitment, retention, remuneration, working conditions, succession and staff development should be integrated into human resource planning, supported by regular evaluation and modification of plans in line with the data analysis.

11.2 Management of workforce

A specific aspect of the human resources function that needs detailed management in a university is the workforce profile. Resource shortages in recent years have highlighted the problems that arise in a university that has gender imbalances, too high a proportion of the more highly ranked and paid senior staff, too high a proportion of permanent or tenured staff, low representation of equity groups, or other imbalances. The exact proportions that best suit each university depends on its mission, its history and its location. Too often an unsuitable profile is taken as immutable. Problems are blamed on the perceived rigidities of the industrial system governing employment in Australia rather than management inaction. Insufficient managerial effort is invested to bring about desirable changes.

As with other aspects of university leadership, foresight and skilful management, while not necessarily overcoming all difficulties, will maximise the capacity of the university to shape its own future. Skilled management will also result in the best possible preparation for unforeseeable contingencies. The benchmark, **Benchmark 11.2: Management of workforce**, covers these aspects.

11.3 Workforce diversity

In the Australian context, representative workforce diversity is an important goal. In a diverse immigrant society with a minority indigenous population, equality of opportunity cannot be assumed as an automatic outcome of normal staffing procedures. Affirmative action (in terms of additional training and special opportunities to gain relevant experience rather than preferment irrespective of merit) may be necessary. Achievement of the goals of workforce diversity is an important area to be benchmarked.

Workplace diversity is not a simple issue as universities are normally committed to recruiting the best available academic staff internationally. International academic staff recruitment is one avenue of reaching desirable work force diversity.

In addition, locally, there are social justice and sound business reasons for actively seeking, training, employing, developing and retaining staff from those groups within the population under-represented in the workforce. In that respect, the goal should be a range of experience and perspective among staff representative of the diversity of the population in the State.

Benchmark 11.3: Workforce diversity, monitors success in tackling these issues in individual universities.

11.4 Career development

In meeting the goal of excellence to which all universities aspire, the development of their key resource, their staff, is a major issue. Provisions made for the support for new staff, staff appraisal, feedback, encouragement and opportunities for all staff to improve, is an especially relevant benchmarking issue. Staff appreciate but make uneven use of professional development units, which themselves are of uneven quality. General staff supervision policies and feedback from their implementation are not likely to be sufficient to achieve the best possible contribution from staff. Opportunities for staff members with particular developmental needs, which are not all academic in nature, may be missing.

The best response is a university-wide scheme that monitors the performance of all staff employed by the university, in relation to their own goals and the tasks set for them by their supervisors from the time they join the university until they leave.

The term career development does not carry any particular baggage, and certainly does not imply a limited scheme or a scheme of a particular kind. For instance, a career development scheme is not simply a schedule of courses staff may subscribe to in preparation for promotion. A career development plan is not restricted either to general or to academic staff but includes all. Nor is it another name for the professional development unit's programme.

Career Development is simply a term chosen for a university-wide scheme that systematically tracks and provides regular opportunities for self-appraisal, institutional feedback, and counselling by supervisors about work performance and personal goals for all staff members throughout their employment. It steers people in directions that maximise job satisfaction and, importantly, maximise benefits for the university.

Good practice universities, benchmarked through **Benchmark 11.4: Career development/staff effectiveness** will be those with explicit career development arrangements which apply to all staff from commencement of their employment until separation or retirement, in ways which assist in their development and make best use of their talents.

Benchmark: 11.1

Area : Staff

Element : Strategic human resource planning

Type : Leading

Benchmark rationale : Universities benefit from strategies that link human resource goals to overall university strategic planning. Plans for the desired organisational culture, and policies for recruitment, retention, performance management, career development, promotion, reward, tenure, occupational health and safety, and industrial instruments (e.g., Enterprise Bargaining, Australian Workplace Agreements and Awards) are all linked. The aim is to realise university and staffing objectives in a manner that operates effectively and efficiently within the constraints and opportunities of labour and industrial law (including Workplace Relations, Occupational Health and Safety and anti-discrimination legislation).

Sources of data : University planning and HR documents.

Good practice :

Good practice entails a conscious linking and integration of the human resource policies and practices to achieve integration and consistency between recruitment, retention, career development, performance management, promotion, leave, grievance, salary and rewards, occupational health and safety to achieve the desired organisational culture. Industrial instruments should be consistent with these policies and practices and the university's key goals.

Levels :

1	2	3	4	5
HR policies unchanged for long periods. Policies separately developed without apparent relation to each other. Policy formation and bargaining not undertaken as co-ordinated activities. Excessive time taken over bargaining and conditions setting. Increasing staff turnover, insurance and other HR costs. Poor industrial relations.		Good individual policies, some integrated, others not. Links between policies and bargaining not clear. Some reduction in time spent in bargaining and setting of staff conditions. Reasonable compliance with moderate incidence of litigation or legal expense. Static trends for costs of staff turnover, insurance and other HR costs. Industrial relations sometimes disruptive.		Comprehensive policies and procedures, linking all aspects of HR with industrial instruments and the university's key goals. Reduced time spent on bargaining and setting of staff conditions. High levels of compliance. Low incidence of litigation, legal expense, and case work. Reducing trend in expenses associated with staff turnover, insurance and other HR costs. High levels of industrial harmony.

Self assessment :

Check assessment :

Benchmark 11.2

Area : Staff

Element : Management of workforce

Type : Leading

Benchmark rationale : Universities fundamentally rely on capable staff (teaching, research and general) for their achievements. It is essential to manage the staff profile, to respond effectively to changing institutional priorities and changes in the skills base required. Universities need to continuously update their desired staff profiles (their expectations for the age mix, gender, cultural diversity, qualifications, experience, recruitment, retention, turnover, retirement strategies, classification levels and balance of academic and general staff).

Sources of data : Individual university staff profiles

Good practice :

Good practice requires matching the staff profile and skills base to the goals of units, and, on an integrated basis, the university's current and future mission, in terms of age, gender, experience, rank, research aspirations etc. The test of this benchmark is the existence of explicit management strategies, appropriate staff information systems, and successful realisation of the strategies adopted.

Good practice requires that there are documented targets and programs (including policies on recruitment, retention, tenure, and promotion), regular review and management actions to achieve the university's goals. It may not be possible to achieve exact ratios because staff are hired for long periods and may depart unexpectedly, but a university should be within a few percentage points of the targets it has set for itself. The wider the under-achievement or the over-representation of particular categories of staff, the lower the overall achievements of the university.

Levels :

1	2	3	4	5
Lack of policies or requirements for compliance to reach profile goals. Only reaching to plus or minus 40% of goals.		Some appropriate policies to manage towards a profile, but a soft approach to management allowing non-compliance by units. Only reaching to plus or minus 25% of goals.		Appropriate policies and fully developed profile goals. Achievement of staff profile in all respects within plus or minus 5%.

Self assessment :

Check assessment :

Benchmark: 11.3

Area : Staff
Element : Workforce diversity
Type : Lagging

Benchmark rationale : Universities will only achieve workforce diversity by systematically planning and developing programs to achieve that goal. One goal is to recruit and retain the best available staff internationally, irrespective of nationality. A second is to develop recruitment and other staffing policies progressively to achieve a workforce representative of the experience and perspectives of groups making up the population of the State in which the university is located⁶. It should include women; Aboriginal and Torres Strait Islander people, people from non-English speaking background, and people with disabilities, in proportion to their representation in the community.

Sources of data : DETYA staff collection data and Australian Bureau of Statistics (population data for the State).

Good practice :

Good practice requires a systematic approach to the achievement of workforce diversity, as demonstrated by:

- embedding planning within the university’s strategic human resource quality assurance planning (including policies on non-sexist language, women on committees, selection training, anti-racism etc.);
- executive staff communicating clear and unambiguous messages about the importance of workforce diversity;
- holding heads of academic and administrative units responsible as part of performance management;
- undertaking annual and longitudinal analyses of workforce diversity;
- ensuring that mono- cultural views (Anglo) do not dominate selection practices;
- people with a disability, women in leadership;
- ensuring ongoing evaluation of the outcomes of workforce diversity strategies and programs.

A diverse workforce reflects the full diversity of the wider community. The ratio of representation should approach 1.0 for women; Indigenous and non-English speaking staff in proportion to their representation in the population. In the case of senior staff (Associate Professor and above, and HEW 10 and above), in proportion to their representation in the university.

Levels :

1	2	3	4	5
Goal of workforce diversity. Planning lacks explicitness and implementation is not systematic. Achievement of less than 60 per cent of proportional representation overall and less than 30 per cent for senior staff.		General planning but not explicitly linked to targets or realised in programs. Achievement of 70 per cent to 80 per cent of proportional representation overall and between 40 and 60 per cent for senior staff.		Compliance with best practice planning parameters. Achievement of at least 80 per cent of proportional representation of targets overall, and 70 per cent for senior staff.

Self assessment :

Check assessment :

⁶ The composition of the population in the state in which the university is located is the reference population.

Benchmark: 11.4

Area : Staff
Element : Career development/staff effectiveness
Type : Leading

Benchmark Rationale : Institutional performance is dependent upon staff effectiveness. Therefore, the development of the capacity of staff to achieve both their professional goals and to contribute to the mission of the university is critical. Career Development management (sometimes called Professional Development) provides a comprehensive framework within which staff and their supervisors can effectively plan, monitor and evaluate staff effectiveness and development.

Sources of Data : University policies and reporting procedures, especially those for staff appraisal, counselling, development and monitoring.

Good Practice :

<p>Good practice requires a systematic approach to career development management as demonstrated by the presence of the following:</p> <ol style="list-style-type: none"> 1. relevant policy documents clearly stating the university's commitment to career development; 2. the Vice-Chancellor and other senior managers communicate clear and unambiguous messages about the importance of effective performance management; 3. responsibility for performance management rests with heads of all academic and administrative units; its effective implementation is a key element of their own performance review and development processes with their own supervisors; 4. recruitment is consistent and timely; all new staff undergo a planned induction programme linked to university goals; 5. all staff are involved in at least biennial performance reviews with their supervisor that are linked to university goals; 6. all staff maintain a development portfolio in conjunction with their supervisor that includes a performance development plan and a career development plan, both of which are linked to university goals; 7. under-performance is managed; 8. promotion criteria are explicit, linked to performance and university goals, and implemented consistently; 9. regular evaluation of the outcomes of performance planning and remedial action where there are deficiencies.

Levels :

1	2	3	4	5
<p>No commitment to career development.</p> <p>Staff development priorities do not reflect key goals and strategies.</p> <p>Evaluation of training programs does not clearly demonstrate that knowledge and skills are applied in the workplace.</p> <p>Staff skill levels not explicitly matched with organisational needs and priorities.</p> <p>No evidence of a performance management system.</p> <p>Staff safety and wellbeing and compliance with OH&S codes and standards is reasonably evident but not formally evaluated</p> <p>Staff Perceptions Survey is not administered.</p>		<p>Documented policy commitment to career development is lacking or inadequate.</p> <p>The majority of staff development priorities reflect key goals and strategies.</p> <p>Regular evaluation of training programs demonstrates that most knowledge and skills are applied in the workplace.</p> <p>Majority of staff skill levels match organisational needs and priorities.</p> <p>Most staff participate in a performance management system which facilitates the development of personal objectives linked to organisational goals and which provides feedback on achievement.</p> <p>Staff safety and wellbeing is evidenced by a range of measures and significant compliance with OH&S codes and standards.</p> <p>Staff Perceptions Survey is administered regularly and indicates high to very high satisfaction levels.</p>		<p>Full commitment to and achievement of the criteria of career development.</p> <p>Staff development priorities reflect key goals and strategies of the university.</p> <p>Regular evaluation of training programs demonstrates that knowledge and skills are regularly applied in the workplace.</p> <p>Staff skill levels match organisational needs and priorities.</p> <p>All staff participate in a performance management system which facilitates the development of personal objectives linked to organisational goals and which provides feedback on achievement.</p> <p>Staff safety and wellbeing is evidenced by a range of measures and full compliance with OH&S codes and standards.</p> <p>Staff Perceptions Survey is regularly administered, analysed and actioned and indicates very high satisfaction levels.</p>

Self assessment :

Check assessment :

Notes and interpretation: Chapter 11

Staff

Benchmark 11.1: Strategic human resource planning

The benchmark applies whether the university is devolved or operates on a centralised basis. If devolved, academic and general units will need to plan the staffing that can reach university goals. Any mismatch of the breadth of knowledge, skills or experience needed will diminish the chances of achieving the goals. Management of staff is, of course, both shaped and constrained by the university's conditions of service. The benchmark is designed to ask the university to assess how successful it has been in reaching its staffing goals.

Benchmark 11.2: Management of workforce

The benchmark is not about managing via last resort measures such as redundancy. It is about optimising the staffing of each unit in accordance with university criteria and goals.

Benchmark 11.3 Workforce diversity

Provides the data and attention to special groups that attain the broader goals of other benchmarks.

Benchmark 11.4: Career development/staff effectiveness

There is potential for the name to be misunderstood. Career Development, in the sense used here, envisages both individuals and the institution being actively involved in managing career paths. The benchmark is not intended simply to test how well the university prepares people for promotion, much less guaranteeing that promotion will occur. It does require a broader test of the institution actions towards the provision of satisfying careers, including such things as lateral career opportunities, access to internal and external training and development programs, leadership developmental programs, encouragement and access to higher qualifications, implementation of family friendly policies and work place flexibility.

It should test also that there are regular one-to-one responsive discussions (mentoring) annually between supervisor and supervised, for both academic and general staff, covering recognition of achievement, feedback on performance, diagnosis of future needs and planning for the future. And that there is as much attention paid to personal and leadership skills as to academic knowledge. Above all, it implies that there will be on going cumulative tracking.

12. Vital signs

12.1 Introduction

It is now appropriate to return to consideration of the uses of this manual as a tool in the governance and management of universities. How well do the benchmarks assess and report upon the vital signs?

Three considerations bear on that question. The first concerns balance, in effect responding to the Chapter 1 question of whether a balanced scorecard can be realised. Second, the possible uses and shortcomings of a core set of benchmarks (vital signs), are discussed. Finally, practical aspects of the use of the manual are canvassed.

12.2 The balance

Chapter 1 took the view that benchmarks of the drivers of development and the rates of change are as important, in knowing the state of the university and in diagnosing areas needing attention, as quantitative measures of past achievements. For that reason, in earlier chapters each benchmark was labelled *lagging, leading or learning*.

Obviously some could have been put into a different category or could straddle more than one of those categories, depending upon the relative emphasis given to measuring achievements versus trends. If the rate of change, as well as the quantitative achievement, is measured a benchmark can be both lagging and learning.

There are limitations in applying the model, useful as it is to draw attention to the need to look forward as well as to past achievements. For instance, the restriction of four levels, *financial, customer/stakeholder, internal processes, and people/culture*, results in some forced allocations.

For both of these reasons some suspension of disbelief may be appropriate in exploring the question of whether the benchmarks constitute a balanced set. Nevertheless, given its intrinsic importance, the question of balance among our set of benchmarks was further pursued.

The benchmarks were allocated to cells in the matrix as shown in Table 12.1. Obviously, as many leading as lagging indicators have been included. And there are sufficient learning indicators to balance the other assessments. In short, all the cells of the model have some benchmarks and there is a reasonable balance.

The matrix is helpful but not the last word. It does underline the importance of tracking trends and dynamism as well as the more easily quantified aspects of university life but users should be thoughtful in determining their own needs. Table 12.1 should be regarded as illustrative only.

Table 12.1 Balanced scorecard allocation of benchmarks

Perspectives	Lagging	Leading	Learning
Financial	3.6 Core Business Systems 3.8 T & R Expense Ratios 5.1 Operating Result 5.2 Diversity of Revenue 5.3 Liquidity 5.4 External Debt 5.7 Commercialisation: Net Return 5.9 Recurrent Maintenance Funding 10.4 Financing of International Programme	3.7 Risk Management 5.5 Quick Ratio	5.6 Academic Salaries Expend. Trends
Customer/ Stake-holder	6.7 Student Progress Ratio 6.9 Equity Quantitative Success 6.11 Employability of Aust. Graduates 8.5 HDR Completion Rates & Times 8.7 HDR Completions/FTE Staff 9.2 Contributions to T & L. 9.3 Provision of Support for Research 10.3 Balanced Onshore International. Programme. 10.5 Students Exposure to International Experience	3.4 Equity Planning 4.4 Strategic Community Service 4.5 Exemplary Community Practices 6.1 Learning & Teaching Plan 6.2 Course Establishment Processes 7.2 Student Services 10.1 Internationalisation Strategy	4.1 Reputation 4.2 Competitiveness 6.3 Scholarly Teaching 6.4 Teaching Environment 6.8 First to Second Year Retention Trends 6.10 Student Satisfaction 7.3 Effectiveness of Services 8.4 Research Students' Experience 10.5 Students Exposure to Int. Exp. 10.7 Overseas Links & Activity
Internal Processes	5.10 Facilities Maintenance Backlog 5.13 Large Equip Utilisation 7.1 Student Administrative Services 10.6 Management of Offshore Delivery	3.1 Governance & Leadership 3.2 University-wide Planning 3.5 Clearly Defined Lines of Responsibility. 3.9 Corporate Information Systems 5.8 Strategic Asset Management 5.11 Space Management 5.12 Central Teaching Space Usage & Effectiveness 5.14 IT & T Infrastructure 8.1 Research and Research Training 9.1 Effectiveness of Information Planning Processes	6.5 Effective Academic Review Processes 6.6 Fitness of Courses
People/Culture	4.3 Academic Staff Qualifications 8.8 Weighted Research Pubs/FTE Staff 10.7 Overseas Links & Activity 11.3 Workforce Diversity	3.10 Organisational Climate 8.2 Proportion of Staff with Grants 8.3 Prop. of Staff with Direct Involve. 9.4 Effective Collaborative Alliances 10.2 Culture of Internationalisation 11.1 Strategic HR Planning 11.2 Management of Workforce 11.4 Career Development/Staff Effectiveness	3.3 Strategic Change Initiatives 8.6 Research Income Trends 8.9 Impact of Research

12.3 Defining a core set

The second set of considerations has revolved around the question of how many benchmarks are really needed. In the course of the project, participants advanced a variety of views on the aspects of university life that should be benchmarked. The ebb and flow of debate has eliminated some early proposals and included others. The upshot of the debate is the set of sixty-seven benchmarks included in earlier chapters.

Sixty-seven, of course, is a large number to monitor regularly. Is there any alternative?

The original objective was a small number, between 20-30 in total. In considering the possibility of a smaller core set, it is necessary to keep in mind that both administrators and academics have indicated at various times that the sixty-seven included may not be detailed enough for the management of organisational unit performance, particularly identification and implementation of potential improvements.

Specialists have argued that for best management of their areas additional (both more extensive and more detailed) benchmarks will be needed for their purposes. Work is being undertaken (eg libraries) to meet some such needs. Providing they maintain consistency with those included here, we agree that additional specialist benchmarks will be helpful. From that point of view the weight of opinion is against trying to identify a smaller set of key benchmarks.

Against that is the reality that governing bodies and university executives may be deterred by the requirements of monitoring such a large set of benchmarks regularly. What are the pros and cons of identifying a smaller set?

The pros are easily put. A governing body might be very much assisted by having at its disposal regular reports on a well-chosen subset of benchmarks tapping the key performance areas. The cons are that a core set will not give the richness that use of the full set will give; indeed, some will argue, may possibly give a distorted picture of the university. Some Australian universities are also concerned about the possibility of the government adopting such a smaller set and using it for its key performance indicators, perhaps even as a basis for the distribution of resources. We do not advise that kind of use, but are not persuaded that that fear is sufficiently real to lead to the needs of governing bodies being altogether disregarded.

At the last plenary meeting participants in the project did discuss the practicability of a core set of vital signs. While the majority was not disposed even to include an example core set, others believed that as long as governments were warned against shortcuts there would be benefit in discussing a core set of benchmarks.

That issue is therefore addressed in this section. The immediate problem one of how selection of a core set should be done. While the sixty-seven benchmarks may not be equally valuable, how can choices be sensibly made among them?

Since there was no agreement among participants, the project staff undertook the task of choosing the most important twenty-five. Twenty-five is obviously an arbitrary number although it was the smallest number we thought possible without doing violence to the work included in earlier chapters. Choices were based on

what we thought canny Vice-Chancellors would need to know to lead and get the most out of their universities.

The core set chosen, insofar as it has validity, is valid for all types of universities. Diversity of university mission cannot reasonably be advanced as a reason to invalidate the choices. Any judgement about the usefulness of a small set of benchmarks is best made without taking refuge in claims of diversity.

Inclusion of the example core set of benchmarks set out in Section 12.4 has value for another reason. It should refocus the minds of readers on the twin issues of what things matter in universities and how best they can be measured, because the implication of the core set is that some things matter more than others.

12.4 Possible twenty-five core benchmarks

1. (3.1) Governance and Leadership
2. (3.2) University-wide Planning
3. (3.5) Clearly Defined Lines of Responsibility
4. (3.10) Organisational Climate
5. (4.1) Reputation
6. (4.2) Competitiveness
7. (5.1) Operating Result
8. (5.7) Commercialisation: Net Return on Equity
9. (5.8) Strategic Asset Management
10. (5.11) Space Management
11. (5.14) IT & T Infrastructure
12. (6.1) Learning and Teaching Plan
13. (6.6) Fitness of Courses
14. (6.10) Student Satisfaction
15. (6.11) Employability of Australian Graduates
16. (7.1) Student Administrative Services
17. (8.7) Research HD Completions per Academic Staff
18. (8.8) Weighted Research Publications per Academic Staff
19. (8.9) Research Impact
20. (9.2) L & IS: Contribution to Teaching and Learning
21. (9.3) L & IS: Provision of Support for Research
22. (10.2) Culture of Internationalisation
23. (10.3) Balanced Onshore International Student Programme
24. (11.1) Strategic HR Planning
25. (11.4) Career Development/Staff Effectiveness

12.5 Rationale for the core set

The rationale for the inclusion of each benchmark is brief and unvarnished because of the more detailed discussion earlier in the manual. Comments on rationales are included to give brief reasons for choosing some benchmarks over others.

It is easy to underestimate the positive effects of good *governance* and *leadership*. Some claim that universities are impervious to good or bad leadership but the evidence is otherwise. The tests of leadership also come through in other benchmarks, of which the efficacy and pervasiveness of *planning*, and the *clarity of the responsibilities* of individuals and committees and the relationship with the overall structure, are most important. The leadership team, especially the Vice-Chancellor, can make a critical positive difference to the *organisational climate* by consistent purposeful direction-setting, constancy, honesty, mutual trust and commitment, even in bad times.

No Vice-Chancellor or executive team can afford to neglect the *reputation* of the university. Despite the fuzziness of measurement of reputation, there are at least some means of managing it to ensure the best possible standing for the university consistent with the facts. From the point of view of prospective students *competitiveness* is a factor in their choice of university, the best students taking the entry scores required as a proxy for quality. Trends in entry scores comprise a particularly significant leading benchmark of the current competitiveness of a university.

Financially, a positive *operating result* indicates reasonable fiscal prudence. The action taken to ensure that activities not financed by the operating grant (and even some of those, such as bookshops) are treated as *commercial* activities is important. They should generate a *net return on equity*, be governed by business plans, and not subsidised, except openly and for particular short-term purposes.

The costs associated with over-provided and poorly managed physical assets of a university can be a financial strain unless there is a conscious drive to achieve *strategic asset management*.

A key aspect of physical assets is *space management*. And *IT & T infrastructure* is now such a strategically important and expensive item, especially given the rate of obsolescence, that it too is a key finance and physical assets issue.

In the learning and teaching area recent renewal of attention to the achievement of coordinated *learning and teaching plans* is a welcome development, made all the more necessary by the changing structure of knowledge, resource limitations, heterogeneous student bodies and choices in the delivery of teaching and learning. As part of its consideration of how to achieve its objectives, a university needs to keep to the forefront assessment of the *fitness of courses* for their intended ends. This is important because the benchmark covers more than the standards of content knowledge and professional skills of particular courses. It also covers the fitness of courses for fostering the generic attributes of graduates set out in university mission statements.

Student satisfaction is a key aspect to measure in a world where there is competition for students and graduates will either be good word-of-mouth advocates for the university or disparage it. Similarly, for many students the test of their university education is how employable they are. The benchmark concentrates on Australian students for whom there is relevant data.

Treating students as valued members of the university community means the university has to have a concern for a wide range of details of its student *administration services*, not least to ensure that they are service-oriented and meet best practice standards.

In the research area it has been fashionable to trumpet research inputs, grants and contracts, as proxies for quality. More sophisticated approaches will pay attention to *research higher degree completions per academic staff* (ie research masters and PhDs completed) and *weighted research publications per academic staff* because the focus is on the outcomes of research. Benchmarking in proportion to staff employed allows the success rates of each to be compared with any other university and comparisons of the trends over time. The difficult area of *research impact* should not be ignored simply because it is difficult. High impact research outcomes contribute to reputation, attraction of staff and students and further research funds.

Library and information services are most effective when they maximise their *contributions to the quality of learning and teaching* and *contributions to research* rather than benchmarking numbers of volumes, seats per student or other previous measures of adequacy. Services standards in an era of rapidly changing IT capabilities are evolving quickly.

The attention all Australian universities give to the recruitment of international students needs to be supported by concrete actions to *achieve a culture of internationalisation*. Part of that will come if there is a *balanced onshore international students programme*. A balanced programme has another major benefit in managing the risks of downturn and revenue loss.

Enterprise bargaining has made everyone aware of the costs and benefits of *strategic human resource planning*, that is, all aspects of the employment and retention of staff, although the standards of practice within universities varies considerably. Because staff constitutes both the major item of cost and the major resource of universities the implementation of *career development services* is a major factor in job satisfaction and the culture of the university.

There is a mix of leading, lagging and learning benchmarks in this core set, so in that respect it is likely to give a balanced picture of the functioning of the university.

Will information from these twenty-five benchmarks give the leadership team sufficient knowledge about how the university is going, in terms of standards, trends and knowledge of the most important improvement possibilities? The information will not be as rich or precise as that to be gained by using the full set of benchmarks, but if the university does not have the resources to implement the full set it will certainly be better to use a core set than to fail to engage in benchmarking.

On the other hand, crucial diagnostic information is gained from use of the full set. Innovation and improvement will be best encouraged that way.

12.6 Use of the manual

Finally, we turn to some broad questions relating to use of the manual.

12.6.1 Selective use

The question of selective use of particular benchmarks must be addressed. This is a different issue from use of a balanced a core set that was discussed in the previous section. Can a university sensibly cut and paste its own set of benchmarks? Of course. There can be no objection to such use, providing the university is alert to the possibility of gaining incomplete or unbalanced information. In principle, all or a sub-set of benchmarks may be used, depending on the purposes of the university.

It should be noted in this context that the academically related benchmarks have been specifically designed for use at faculty and school levels as well as at university level. Some are most useful for comparative purposes at those levels.

12.6.2 Implementation of benchmarking

Regular benchmarking is best undertaken under the authority of a senior executive, acting with the authority of the Vice-Chancellor and with the support of an appropriate planning unit. A broad spectrum of senior university executive staff should be involved and the results published regularly.

Those working on benchmarking should work in teams with regular briefing sessions. An important function of leaders is to cross-relate information among team members to ensure that diagnoses in each functional area are of greater benefit than the sum of individual benchmark ratings. Often a pre-condition of improvement of a function will be the achievement of a better level of service or provision of a missing service elsewhere in the university.

Self-analysis should extend not only to the level of performance achieved in each benchmark but, crucially, to how the university could improve in that area (improve even on Good Practice).

The use of outside experts for check assessments should be regarded as mandatory: the possibilities of self-delusion are otherwise high.

More effort should go into defining ways to improve performance than into refining performance measurement data. In some areas the level of data is adequate enough to compare broad levels of performance while not being beyond challenge over details. Where those judgements can be made, the broad trends and comparisons are the data that matter.

12.6.3 Format

A deliberate desire to enhance ease of use has been behind the decision to present the benchmarks within a standard one-page format.

- **Area and element**, are essentially identifiers.

- **Type** identifies whether the benchmark is a lagging indicator, that is, essentially a record of past performance (which may, of course, be continuing on into the future), a leading indicator (indicative of the drivers of current and future performance), or learning (indicative of the rate of change).
- **Benchmark rationale** should be an adequate description of why that element is important and what is being assessed.
- **Sources of data** lists existing, known sources of data. It also specifies areas where data availability or suitability is doubtful.
- **Good practice** is intended to be a precise description of good practice in that element. The intention is to define the best observable practices rather than some theoretical ideal. Universities not yet reaching that level of practice will thus know how far there is to go to achieve the quality of the best institutions.
- The **Levels** section asks users to match the practice/performance of their university on the five-point scale, against one of the three descriptions or at an intermediate level. It is intended to help universities realise that even good performance may not be the upper limit, that level five indicates the current best practice.

No university will achieve Level 5 in all dimensions; Level 3 has been cast as a likely level for a majority of universities.
- **Self assessment** is simply a convenient way to record the self assessment made by an institution, faculty or school using that benchmark.
- **Check assessment** is for universities or units that invite independent experts to make an assessment of the functioning of that element of the university. Large discrepancies in the levels each assigns should be cause for concern, indicating that hope may be well ahead of reality.

12.7 Comparisons

It is tempting for a university to claim that it is unique to the point where few or no useful comparisons with other universities are possible. It would not be wise for any university to take refuge in such claims. Students and the public will make comparisons.

In any case, at the very least a university should compare its present functioning on selected benchmarks with the state of the university in the past – that is, establish *trend series*. That would be a highly useful, low-cost approach to self-improvement.

Most usefully, universities with similar characteristics and history can link and undertake comparative benchmarking.

Funding authorities are, in any case, likely to group universities. The November 1998 DETYA document *The Characteristics and Performance of Higher Education Institutions*, pp 23-32, summarises government activity along those lines.

Universities can pre-empt future government activity by undertaking their own benchmarking. In the preparation of this material there were obvious differences among universities on three dimensions. The dimensions were:

- between older and more recently established universities;
- between those with less than and those with more than about 15000 EFTSU;
- between those with medical schools and those without.

On that basis, comparative benchmarking could occur sensibly in six clusters of institutions, as shown below:

	Pre 1989	Post 1989
Under 15000 with Medical School		
Under 15000 without Medical School		
Over 15000 EFTSU with Medical School		
Over 15000 EFTSU no Medical School		

12.8 Concluding comment

Universities have the twin challenges of improving particular below-average elements of their functioning and at the same time of discerning any patterns in the benchmark levels across the chapters that may demand reconsideration of university strategies or significant aspects of management.

These challenges are best met by year-on-year use of the same set of benchmarks. As already noted there is no obligation to use all of the benchmarks included in this draft manual. Universities should choose those that suit their circumstances, remembering that those in this Manual are intended to provide executive level perspectives. Supplementation with more detailed benchmarks if a particular aspect of the university is under close review would be eminently sensible.

Despite the work done to get to this stage, the Manual is nevertheless a contribution to a developing art. Use of this Manual will lead, we hope, to a further version with better descriptions of good practice and with some benchmarks being superseded by better or different ones, and also to evolution of the practice of benchmarking.

Appendix 1

Benchmarks in international league tables

(Prepared by I. Dobson, Monash University)

Over recent years, there has been an increasing tendency for media outlets across the world to develop and publish league tables of universities and other higher education institutions. The league tables are constructed using quantitative performance indicators that cover a range of university activities.

The table below identifies the individual performance indicators used to rank higher education institutions by a selection of media outlets. As can be seen there is some overlap in general terms in relation to the indicators used. For example all tables include measures of student selectivity, academic reputation, teaching and financial resources.

The *Times*, *Financial Times* and *US News & World* utilise methodologies that are more tailored towards the structure and legislative context of their respective countries' higher education systems. For example the *US News* ranks graduate schools separately to the remainder of the college system. The *US News* also ranks graduate schools within discipline areas, does not provide an overall ranking of graduate schools and nor does it appear to have developed overall measures of research output.

Indicator	<i>Asiaweek</i>	<i>The Times</i>	<i>Financial Times</i>	<i>US News & World</i>
Academic Reputation				
• Academic Reputation Survey (assessed by CEOs of institutions)	✓			✓
• Academic Reputation Survey (assessed by employers)				✓ #
• Mean Teaching Quality Assessment subject scores		✓	✓	
Student Selectivity				
• Number of first year students accepted/total applicants	✓		✓	✓
• Enrolees / accepted students	✓			✓
• Students in the top 1% of high school class or 'A' or equivalent in national entrance test	✓			
• First year students in the top 10% of high school class				✓

for Graduate Schools only

(continued)

Indicator	Asiaweek	The Times	Financial Times	US News & World
• Median score of first year students in the national or university entrance exam	✓	✓	✓	✓
• % of overseas students			✓	
Retention				
• Average % of first year students over a 3 year period returning for new academic year				✓
• Average % of graduating class earning degree in 6 years or less				✓
Teaching resources				
• Teachers with graduate degrees	✓			
• Proportion of professors with highest degree in their field				✓
• Median pay	✓			✓
• Per teacher university spending	✓			
• Class size	✓			✓
• Student-teacher ratio	✓	✓	✓	✓
• % of teaching staff full-time				✓
Research				
• Citations per teacher in international academic journals (Journal Citation Index)	✓			
• Published articles per teacher in Asian academic journals	✓			
• Research funding	✓			
• Income for research/FTE			✓	
• Teachers with doctorates	✓			
• Graduate students	✓			
• % postgraduate students (research)			✓	
• % postgraduate students (taught)			✓	
• Average Research Assessment Exercise score per member of staff		✓	✓	
Financial resources				
• Income from industry/FTE			✓	
• Total spending	✓			
• Total spending per student	✓			✓
• Library spending per student	✓	✓	✓	
• Facilities spending		✓		
• Computer expenditure/FTES			✓	

(continued)

Indicator	<i>Asiaweek</i>	<i>The Times</i>	<i>Financial Times</i>	<i>US News & World</i>
• Access to the Internet	✓			
• Access to e-mail	✓			
Alumni satisfaction				
• Average % of alumni donating over a 2 year period				✓
Graduate outcomes				
• Difference between the 6 year actual and predicted graduation rate for the 1991 class				✓
• First degree graduates & leavers taking up employment or further study as a % of those with known destinations		✓	✓	
• First degree qualifiers with >= upper second class honours degrees as a % of all first degree honours graduates		✓	✓	

Appendix 2 Participants

Australian Catholic University	Prof. J. Coll	Pro Vice-Chancellor
Australian National University	Mr B. Arthur	Director, Planning & Policy
	Mr C. Burgess	Pro Vice-Chancellor
	Prof. D. Terrell	Vice-Chancellor
University of Ballarat	Mr R. Hook	Pro Vice-Chancellor
University of Canberra	Mr A. Westerman	Ex. Dir., Corporate Services
Central Queensland University	Prof. K. Window	Vice-President, Admin
Charles Sturt University	Mr B. O'Donnell	Pro Vice-Chancellor
Curtin University of Technology	Prof. C. Liston	Director, Quality & Planning
	Prof. L. Twomey	Vice-Chancellor
Deakin University	Dr M. Stokie	Deputy Vice-President
Edith Cowan University	Prof. E. Harman	Deputy Vice-Chancellor
Flinders University of SA	Prof. I. Chubb	Vice-Chancellor
Griffith University	Prof. W. Lovegrove	Deputy Vice-Chancellor
James Cook University	Prof. B. Moulden	Vice-Chancellor
La Trobe University	Prof. M. Osborne	Vice-Chancellor
	Prof. F. Smith	Deputy Vice-Chancellor
University of Melbourne	Prof K. Lee Dow	Deputy Vice-Chancellor
Monash University	Prof. P. Darvall	Deputy Vice-Chancellor
Murdoch University	Prof. J. Gawthorne	Deputy Vice-Chancellor
University of New England	Mr G. Dennehy	Ex. Dir., Business & Admin.
University of NSW	Prof. C. Fell	Deputy Vice-Chancellor
Prof. J. Morrison	Pro Vice-Chancellor	
University of Newcastle	Prof. B. English	Deputy Vice-Chancellor
Northern Territory University	Prof. R. McKay	Vice-Chancellor
University of Queensland	Prof. J. Hay	Vice-Chancellor
Qld University of Technology	Mr S. Pincus	Corporate Planning Manager
RMIT	Prof. D. Beanland	Vice-Chancellor
University of SA	Prof. E. Ramsay	Pro Vice-Chancellor
Southern Cross University	Prof. B. Conyngham	Vice-Chancellor
University of Southern Qld	Prof. M. McKay	Deputy Vice-Chancellor
	Prof. P. Swannell	Vice-Chancellor
Swinburne Uni. of Technology	Prof. I. Wallace	Vice-Chancellor
University of Sydney	Prof. K. Eltis	Deputy Vice-Chancellor
	Mr J. Shipp	Librarian
University of Tasmania	Prof. R. Lidl	Deputy Vice-Chancellor
University of Technology, Sydney	Prof. R. Kemmis	Deputy Vice-Chancellor
Victoria University of Technology	Prof. J. Ronayne	Vice-Chancellor
University of Western Sydney	Prof. D. Barr	Deputy Vice-Chancellor
University of Wollongong	Prof. C. Ewan	Pro Vice-Chancellor
Australian Vice-Chancellors Committee	Mr C. King	Director, Education Policy
DETYA	Dr T. Karmel	Assistant Secretary

Appendix 3

Steering committee & working parties

Steering committee

Prof. I. Chubb, Flinders University, Convener

Prof. J. Hay, University of Queensland

Dr T. Karmel, Department of Education, Training and Youth Affairs

Prof. K. McKinnon, McKinnon Walker Consultants

Prof. J. Morrison, University of New South Wales

Prof. B. Moulden, James Cook University

Prof. I. Wallace, Swinburne University of Technology

Working parties

Planning, external reputation, management and community service

Prof. D. Terrell, Australian National University, Convener

Mr F. Bannon, Swinburne University

Ms S. Chambers, Deakin University

Ms L. Cooper, University of Technology, Sydney

Prof. P. Darvall, Monash University

Prof. K. Eltis, University of Sydney

Prof. J. Gawthorne, Murdoch University

Prof. C. Liston, Curtin University

Mr D. Porter, University of Queensland

Student progression, student support services, teaching and learning, staff recruitment and development, equity

Prof. E. Ramsay, University of SA, Convener

Prof. B. English, University of Newcastle

Prof. C. Ewan, University of Wollongong

Prof. K. Kennedy, University of Canberra

Prof. K. Lee Dow, University of Melbourne

Prof. D. Maconachie, University of Ballarat

Prof. I. Reid, Curtin University

Prof. P. Swannell, Southern Queensland University

Prof. K. Trigwell, University of Technology, Sydney

Prof. B. van Ernst, Swinburne University

Library and information services

Mr J. Shipp, University of Sydney, Convener

Ms G. Austin, Queensland University of Technology

Mr G. Dengate, Griffith University

Ms H. Hayes, Melbourne University

Ms F. McGregor, University of Wollongong

Mr R. Tan, Deakin University

Prof. R. Stanton, Australian National University

Prof T Adams, Macquarie University

Internationalisation

Prof. M. Osborne, La Trobe University, Convener

Prof. P. Baumgartner, University of Western Sydney

Prof. C. Fell, University of New South Wales

Prof. M. McKay, University of Southern Queensland

Prof. J. Ronayne, Victoria University of Technology

Ms V. Simmons, Swinburne University

Research

Prof. W. Lovegrove, Griffith University, Convener

Mr B. Arthur, Australian National University

Prof. T. Cairney, University of Western Sydney

Prof. I. Davey, University of South Australia

Prof. A. Edwards, Flinders University

Prof. L. Johnson, University of Technology, Sydney

Prof. P. Rossiter, Curtin University

Prof. F. Smith, La Trobe University

Financial management, commercialisation, space and equipment

Mr C. Burgess, Australian National University, Convener

Mr C. Jolly, University of South Australia

Mr G. Dennehy, University of New England

Mr B. Fenn, Queensland University of Technology

Mr B. O'Donnell, Charles Sturt University

Mr A. Westerman, University of Canberra

Mr K. Window, Central Queensland University

Appendix 4

Universities taking part in trials of draft benchmarks

The project team is grateful to the universities that agreed to trial the draft benchmarks. They provided invaluable input to reworking the current draft.

Universities that trialed all or most of the areas

University of Ballarat
Curtin University of Technology
Monash University
The University of Newcastle
Queensland University of Technology
Southern Cross University
Swinburne University of Technology
Victoria University of Technology
University of Western Sydney
Victoria University of Technology

Universities that trialed one area

Edith Cowan University
University of South Australia

Appendix 5

Project team

McKinnon Walker Pty Ltd

Emeritus Professor Ken McKinnon AO

Professor McKinnon is an Executive Director of McKinnon Walker, higher education consultants. He has an earned doctorate from Harvard and four honorary doctorates from other universities. He has been Vice-Chancellor of Wollongong and James Cook Universities and President of the Australian Vice-Chancellors' Committee. Other previous posts include Chairman, Australian Schools Commission; Chairman, Australian National Commission for UNESCO; Chairman, Nuclear Reactor Review; Chairman, Review of Marine Science and Technology; Chairman, Opera in Australia Enquiry; and numerous national and state education reviews. He is currently also Chairman, International Education Media Pty Ltd and Deputy Chairman, IMB Pty Ltd.

Suzanne H Walker

Ms Walker is an Executive Director of McKinnon Walker, higher education consultants. She has studied at Durham, ANU and Wollongong Universities. She has had five years experience in consulting for higher education. Previously she was Principal Policy Officer in the NSW Cabinet Office and, earlier, Senior Research Officer in the NSW Education Department, Policy Officer for the State Board of Education in Victoria, Programme Director in the Australian Schools Commission in Canberra. She has had experience in private industry in metal manufacturing and retail. She currently serves on the Board of the Centre for Legal Education.

IDP Education Australia

Dorothy Davis

Ms Davis is Group General Manager, International Relations and Public Information, IDP Education Australia in Sydney. She has postgraduate qualifications in education. She has worked in higher education institutions in Australia, Papua New Guinea and Singapore. Currently she has responsibility for IDP's Australia-based international student advisory services; research and consultancies; corporate relations; and collaboration with international counterpart organisations. Since joining IDP in 1985, she has been involved in international student policy development; the establishment of IDP's international network of student advisory services; and the development of IDP's research and market intelligence capacity.