

Cranfield University

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Preface

The Quality Assurance Agency for Higher Education (QAA) exists to safeguard the public interest in sound standards of higher education (HE) qualifications and to encourage continuous improvement in the management of the quality of HE.

To do this QAA carries out reviews of individual HE institutions (universities and colleges of HE). In England and Northern Ireland this process is known as institutional audit. QAA operates similar but separate processes in Scotland and Wales.

The purpose of institutional audit

The aims of institutional audit are to meet the public interest in knowing that universities and colleges are:

- providing HE, awards and qualifications of an acceptable quality and an appropriate academic standard, and
- exercising their legal powers to award degrees in a proper manner.

Judgements

Institutional audit results in judgements about the institutions being reviewed. Judgements are made about:

- the confidence that can reasonably be placed in the soundness of the institution's present and likely future management of the quality of its programmes and the academic standards of its awards
- the reliance that can reasonably be placed on the accuracy, integrity, completeness and frankness of the information that the institution publishes, and about the quality of its programmes and the standards of its awards.

These judgements are expressed as either **broad confidence**, **limited confidence** or **no confidence** and are accompanied by examples of good practice and recommendations for improvement.

Nationally agreed standards

Institutional audit uses a set of nationally agreed reference points, known as the 'Academic Infrastructure', to consider an institution's standards and quality. These are published by QAA and consist of:

- *The framework for higher education qualifications in England, Wales and Northern Ireland (FHEQ)*, which include descriptions of different HE qualifications
- *The Code of practice for the assurance of academic quality and standards in higher education*
- subject benchmark statements, which describe the characteristics of degrees in different subjects
- guidelines for preparing programme specifications, which are descriptions of the what is on offer to students in individual programmes of study. They outline the intended knowledge, skills, understanding and attributes of a student completing that programme. They also give details of teaching and assessment methods and link the programme to the FHEQ.

The audit process

Institutional audits are carried out by teams of academics who review the way in which institutions oversee their academic quality and standards. Because they are evaluating their equals, the process is called 'peer review'.

The main elements of institutional audit are:

- a preliminary visit by QAA to the institution nine months before the audit visit
- a self-evaluation document submitted by the institution four months before the audit visit
- a written submission by the student representative body, if they have chosen to do so, four months before the audit visit
- a detailed briefing visit to the institution by the audit team five weeks before the audit visit
- the audit visit, which lasts five days
- the publication of a report on the audit team's judgements and findings 20 weeks after the audit visit.

The evidence for the audit

In order to obtain the evidence for its judgement, the audit team carries out a number of activities, including:

- reviewing the institution's own internal procedures and documents, such as regulations, policy statements, codes of practice, recruitment publications and minutes of relevant meetings, as well as the self-evaluation document itself
- reviewing the written submission from students
- asking questions of relevant staff
- talking to students about their experiences
- exploring how the institution uses the Academic Infrastructure.

The audit team also gathers evidence by focusing on examples of the institution's internal quality assurance processes at work using 'audit trails'. These trails may focus on a particular programme or programmes offered at that institution, when they are known as a 'discipline audit trail'. In addition, the audit team may focus on a particular theme that runs throughout the institution's management of its standards and quality. This is known as a 'thematic enquiry'.

From 2004, institutions will be required to publish information about the quality and standards of their programmes and awards in a format recommended in document 03/51, *Information on quality and standards in higher education: Final guidance*, published by the Higher Education Funding Council for England. The audit team reviews progress towards meeting this requirement.

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Summary

Introduction

A team of auditors from the Quality Assurance Agency for Higher Education (QAA) visited Cranfield University (the University) from 11 to 15 April 2005 to carry out an institutional audit. The purpose of the audit was to provide public information on the quality of the opportunities available to students and on the academic standards of the awards that the University offers.

To arrive at its conclusions the audit team spoke to members of staff throughout the University, to current students, and read a wide range of documents relating to the way the University manages the academic aspects of its provision.

The words 'academic standards' are used to describe the level of achievement that a student has to reach to gain an academic award (for example, a degree). It should be at a similar level across the UK.

Academic quality is a way of describing how well the learning opportunities available to students help them to achieve their award. It is about making sure that appropriate teaching, support, assessment and learning opportunities are provided for them.

In institutional audit, both academic standards and academic quality are reviewed.

Outcome of the audit

As a result of its investigations the audit team's view of the University is that:

- broad confidence can be placed in the soundness of the University's current and likely future management of the quality of its programmes and the academic standards of awards.

Features of good practice

The audit team identified the following areas as being good practice:

- the active engagement of Industrial Advisory Panels in quality management and course development

- the institutional recognition of the value of the periodic review process as an effective quality management tool
- the provision of opportunities for the professional development of academic staff
- the widespread use of the University's research environment and links with industry to enhance the quality of learning opportunities.

Recommendations for action

The audit team also recommends that the University should consider further action in a number of areas to ensure that the academic quality and standards of the awards it offers are maintained. The team advises the University to:

- give greater prominence to the strategic planning of the academic business of the University.

In addition, the University may wish to consider the desirability of enhancing its quality management arrangements by:

- reviewing the University's provision of learning skills support in the context of an increasingly diverse student intake
- testing the security of the present and planned arrangements for academic partnerships leading to the awards of the University against the guidance contained in section 2 (revised in 2004) of the *Code of practice for the assurance of academic quality and standards in higher education*, published by QAA.

Taught programmes leading to the awards of MSc Automotive Product Engineering; MSc Logistics and Supply Chain Management; and MSc Water Management

To arrive at these conclusions, the audit team spoke to staff and students, and was given information about the University as a whole. The team also looked in detail at the programmes listed above to find out how well the University's systems and procedures were

working at programme level. The University provided the team with documents, including student work and, here too, the team spoke to staff and students. As well as supporting the overall confidence statement given above, the team was able to state that the standard of student achievement in these programmes was appropriate to the titles of their awards and their place in *The framework for higher education qualifications in England, Wales and Northern Ireland*. The team considered that the quality of learning opportunities available to students in each of the programmes was suitable for a programme of study leading to the named award.

National reference points

To provide further evidence to support its findings, the audit team also investigated the use made by the University of the Academic Infrastructure which QAA has developed on behalf of the whole of UK higher education. The Academic Infrastructure is a set of nationally agreed reference points that help to define both good practice and academic standards. The audit found that the University was making effective use of the Academic Infrastructure to inform its framework for the management of quality and standards.

The audit found that the University was preparing appropriately for the publication of the teaching quality information that institutions will be required to publish, and which is listed in the Higher Education Funding Council for England's document 03/51, *Information on quality and standards in higher education: Final guidance*.

Main report

Main report

1 An institutional audit of Cranfield University (the University) was undertaken during the period 11 to 15 April 2005. The purpose of the audit was to provide public information on the quality of the University's programmes of study and on the discharge of its responsibility as an awarding body.

2 The audit was carried out using a process developed by the Quality Assurance Agency for Higher Education (QAA) in partnership with the Higher Education Funding Council for England (HEFCE), the Standing Conference of Principals (SCOP) and Universities UK (UUK), and has been endorsed by the Department for Education and Skills. For institutions in England, it replaces the previous processes of continuation audit, undertaken by QAA at the request of UUK and SCOP, and universal subject review, undertaken by QAA on behalf of HEFCE, as part of the latter's statutory responsibility for assessing the quality of education that it funds.

3 The audit checked the effectiveness of the University's procedures for establishing and maintaining the standards of academic awards; for reviewing and enhancing the quality of the programmes of study leading to those awards; for publishing reliable information; and for the discharge of its responsibility as an awarding body. As part of the audit process, according to protocols agreed with HEFCE, SCOP and UUK, the audit included consideration of examples of institutional processes at work at the level of the programme, through three discipline audit trails (DATs), together with examples of those processes operating at the level of the institution as a whole. The scope of the audit encompassed all of the University's provision leading to its awards.

Section 1: Introduction: Cranfield University

The institution and its mission

4 The origins of the University lie in the College of Aeronautics which was founded in 1946. The College became the Cranfield Institute of Technology which was granted university status through a Royal Charter in 1969. The name was changed to Cranfield University in 1993. The University has full degree-awarding powers.

5 The University has grown into a multi-site institution. In 1975 the National College of Agricultural Engineering at Silsoe was amalgamated with the then Cranfield Institute. In 1984 a third campus was added at Shrivenham when Cranfield Institute took over teaching and research at the Royal Military College of Science (RMCS) under contract to the Ministry of Defence. The RMCS became part of the Defence Academy of the UK in 2002. It has recently (2005) been superseded by the Defence College of Management and Technology. Silsoe is some 15 miles from Cranfield while Shrivenham is 68 miles away.

6 The student population of the University in October 2004 was some 3,075. Of these, 2,859 were postgraduates of whom 2,106 were studying for postgraduate taught degrees and 753 were registered for research degrees. Some 40 per cent of postgraduate students were studying part-time. The 216 undergraduate students, all full-time, were based only at the Shrivenham campus. The last intake of undergraduate students took place in October 2003, so from October 2006 the University's student body will be entirely postgraduate. Approximately 18 per cent of all students are from outside the European Union. The student body is predominantly mature with an average age of 33. Men outnumber women by almost four to one.

7 The University comprises five academic schools. Three of these, the School of Engineering (SoE), the School of Industrial and Manufacturing Science (SIMS) and the School of

Management (SoM) are located on the Cranfield campus. The activities at Silsoe form one School called Cranfield University at Silsoe, and activities at Shrivenham form the fifth School known as the College of Defence Technology or Cranfield University at Shrivenham. In addition, there are two University-wide structures: the Cranfield College of Aeronautics (CCoA) and the Cranfield Postgraduate Medical School (CPMS). Schools are further subdivided into units which reflect academic interests, and are complemented by support departments which operate at school or campus level.

8 The academic school structure maps onto a faculty structure. SoE and SIMS relate to the Faculty of Engineering, Science and Management; SoM to the Faculty of Management and Cranfield University at Shrivenham to the Faculty of Military Science, Technology and Management. At Silsoe, the School's work takes place under the aegis of two faculties, Agricultural Engineering, Food Production and Rural Land Use; and Medicine and Biosciences. The Faculty of Medicine and Biosciences also relates to all work associated with the CPMS, as this includes work undertaken in other schools, not just at Silsoe. Finally, work associated with the other University-wide unit, the CCoA, takes place predominantly in the School of Engineering, and is therefore principally associated with the Faculty of Engineering, Science and Manufacturing.

9 The University has a number of distinctive features. It is a specialist, research-intensive institution which focuses on applied research in engineering, science and management. Much of this work is undertaken in collaboration with business and industry. The University also operates at the academic-military interface through its Shrivenham campus. Shrivenham is staffed both by civilians employed by the University and military staff whose input to University programmes is significant in postgraduate teaching of defence technology. The University's contract with the Ministry of Defence ends in 2006, and the University was engaged in tendering for its renewal at the time of the audit visit.

10 The mission of the University is, 'to transform world class science, technology and management expertise into viable, practical, environmentally desirable solutions that enhance economic development and the quality of life'. The aim of the University, set out in the Corporate Plan, is 'to be a leading national, European and international institution for the generation, dissemination and application of knowledge in selected areas of engineering, applied science, manufacturing, management and medicine to both the civil and the defence sectors'.

Collaborative provision

11 Thirty postgraduate students are registered on degrees at partner military institutions:

- MSc Defence Geographic Information (seven students) Royal School of Military Survey, Hermitage
- PgDip/MSc Information Systems (15 students) Information Division, Shrivenham
- MSc Military Construction Engineering (eight students) Royal School of Military Engineering, Chatham.

12 The University has a number of collaborative partnership arrangements with overseas institutions. In line with the University's move to becoming a solely postgraduate institution, its undergraduate validated provision - the BA (Hons) Design (27 students) at Swindon College - is being transferred to the University of Bath at the end of 2005.

Background information

13 Published information available for this audit included:

- the report (July 2001) of QAA's quality audit of the University which took place in November 2000
- reports of subject reviews conducted by HEFCE and QAA
- information published on the University's website and the Teaching Quality Information (TQI) website.

14 The University provided the audit team with:

- an institutional self-evaluation document (SED)
- discipline self-evaluation documents (DSEDs) for the three areas selected for DATs
- an evidence base drawn from internal documentation.

15 Professional, statutory and regulatory body (PSRB) reports were made available within the supporting information provided for the main audit and the relevant DATs. The audit team was afforded access to the University's intranet both on and off-site. The team appreciated the unrestricted access it was given to these sources of information. The team also had access to a developmental engagement report produced by QAA in 2003 that was confidential to the University and to HEFCE.

The audit process

16 A preliminary meeting was held at the University in July 2004. After this meeting QAA confirmed that three DATs would be conducted. Following the receipt of the institutional SED in December 2004, the audit team selected DATs for taught programmes leading to the awards of:

- MSc Automotive Product Engineering
- MSc Logistics and Supply Chain Management
- MSc Water Management.

17 At the preliminary meeting, the students of the University were invited, through the officers of the Cranfield Students' Association (CSA), to submit a separate document expressing views on the student experience at the University, and identifying any matters of concern or commendation with respect to the quality of programmes (degree schemes) and the academic standards of awards. They were also invited to give their views on the level of representation afforded to them, and on the extent to which their views were noted and acted upon. QAA received a students' written submission (SWS) in December 2004. The SWS

was written by officers of the CSA based on the findings of the annual student survey conducted by the CSA at Cranfield which was partially replicated at Silsoe. More than 20 per cent of the student body at Cranfield and Silsoe campuses participated in the survey. This data was supplemented by views from a focus group. The CSA indicated that it had shared the contents of the SWS with staff of the University and did not require the audit team to treat the document as confidential. The team is grateful to the students of the University for preparing this helpful document.

18 The audit team undertook a briefing visit to the University on 10 and 11 March 2005. The purpose of the visit was to explore with the Vice-Chancellor, senior members of staff and student representatives, matters relating to the management of quality and standards raised by the SED and the SWS. At the close of the briefing visit a programme of meetings for the audit visit was developed by the team and agreed with the University. The audit visit took place from 11 to 15 April 2005. During the visit further meetings were held with staff and students of the University at both a central level and in relation to the selected DATs.

19 The audit team comprised Professor D W Heeley, Dr K King, Professor D Morton and Dr C A Vielba, auditors, and Ms E J Turner, audit secretary. The audit was coordinated for QAA by Dr D J Buckingham, Assistant Director.

Developments since the previous academic quality audit

20 The July 2001 report of the QAA quality audit of November 2000 commended a number of aspects of the University's provision including the separation of business and academic management, externality, the management of collaborative provision, internal communications and the seeking of student feedback as well as the quality of learning resources and teaching initiatives.

21 The report identified eight recommendations, of which all but one have been addressed by the University in the intervening period (see below,

paragraph 45). Steps have been taken to develop further University-wide quality assurance systems and to strengthen the role of the Registry; briefings have been introduced to improve the communication of quality assurance matters to staff; a Learning and Teaching Information Committee has been established to address the need for an enhanced forum for information systems strategy; consideration of teaching excellence has been incorporated into promotion processes; and new guidelines have been issued for the preparation of student handbooks.

22 Two recommendations have been partially addressed. Information flows between faculties and central committees have been improved through revised agendas and routing of minutes, but lack of resource has delayed the provision of on-line access to committee papers. Staffing problems have also delayed the University's response to the recommendation that external examiners' reports are reviewed across the University and compared over time. The recommendation that external academic input should be mandatory in proposals for new courses and programme review, has not been accepted in respect of new course proposals (see below, paragraph 46).

23 Since the November 2000 quality audit there has been some structural change in the engineering area, with the SoE being created by merging two former schools. There has also been some restructuring of committees in relation to teaching and staff and a restructuring of the senior management team. The SED listed a number of academic policy developments that represent further developments to the thrust of change established in 2000. A major change has been the planned withdrawal from undergraduate provision.

24 A number of re-accreditations by PSRBs have taken place since 2000. For example, the British Psychological Society re-accredited courses in 2004 subject to minor recommendations on learning resources. The European Quality Improvement System re-accredited the SoM in the same year.

25 The audit team noted that the University had endeavoured to address most of the

specific recommendations made at the last audit and subsequent external reviews thoroughly and in a timely way. Central to the University's response have been the efforts made to strengthen its University-level quality assurance function in the context of a highly devolved operating structure. The staffing difficulties that have slowed progress in some cases now appear to have been resolved.

Section 2: The audit investigations: institutional processes

The institution's view as expressed in the SED

26 The SED explained that the University 'retains a traditional approach' to defining and maintaining academic standards. The University's approach is also influenced by the specialist nature of the institution and its history, which the University believes has generated a culture that combines creativity and entrepreneurialism in order to sustain its teaching and research in a competitive marketplace. The University gives prominence to the commitment of its staff in assuring the quality and standards of its provision through taking personal pride in their work.

27 To achieve its aims the University has adopted a highly devolved approach to academic management within a framework of laws, codes of practice and guidelines designed to promote consistency and equity across the institution. A particular feature of the University's approach to managing quality and standards is 'the separation of responsibility for quality assurance policies and procedures...from the management and oversight of the University's business interests'. This separation of responsibilities gives rise to a system of parallel structures: on the one hand the University has a system of schools which manage staff and resources and determine the mix of activities that are pursued; on the other hand there is a system of committees culminating in Senate which are responsible for the regulation of teaching and quality assurance matters. The two

strands of management intersect at the centre through the office of the Vice-Chancellor and the newly constituted Executive, as well as interacting at lower levels in the management of both quality and standards. The audit team was interested to explore the impact and effectiveness of the approach taken by the University.

The institution's framework for managing quality and standards, including collaborative provision

28 The Senate is the 'principal academic body of the University', and therefore has overarching responsibility for the management of the quality and standards of the awards made in the University's name. Two subcommittees of Senate, the Teaching Committee (TC) and the Senior Appointments Committee (SAC), play a central role in quality assurance and enhancement. The TC in particular is the main route by which Senate has an oversight of quality and standards issues. The SED explained that the Committee is chaired by the Pro-Vice-Chancellor who 'has overall responsibility for all aspects of quality assurance and enhancement in relation to learning and teaching'. The SED stated that 'the primary function of the Teaching Committee is to set and maintain comparable academic standards across the University through the development of appropriate quality assurance policies...'. This role of TC is seen as of particular importance in the context of the University's highly devolved approach to the management of its academic function.

29 The business of SAC is primarily concerned with staff appointment and promotion, as well as with general issues concerned with academic staff recruitment. The Committee is chaired by the Vice-Chancellor. The SED explained that the role of the Committee has been enhanced since the 2000 quality audit in relation to its responsibility for staff development.

30 Below the level of Senate, the audit team found the managerial framework relevant to quality and standards less easy to describe. Parts of the University's structure exist for largely historical reasons, and are a consequence of the mergers and collaborative

partnerships with the campuses at Silsoe and Shrivenham respectively. Each of the five academic schools is led by an appointed head of school, who bears the responsibility for the teaching and research programmes within their school, the academic and professional development of disciplines represented therein, and for allocating appropriate financial and staff resources to support these activities. The head of school therefore also has an overarching responsibility for the quality and standards of the programmes offered by their school.

31 Academic matters, and in particular those that relate to quality assurance, such as course approval, monitoring and review, fall within the remit of the faculty structure that operates in parallel with, but independently from the schools. Each of the five faculties is chaired by a dean, appointed from among the senior staff, with a normal period of tenure of three years. There is a single faculty operating at the Shrivenham campus, one at the Silsoe campus, two at the Cranfield campus, while the Faculty of Medicine and Biosciences exercises its responsibility for the cognate area across all three campuses. Academic staff within a school are members of one or more faculties. Each faculty has a faculty board that reports to TC, thus providing the link between programme-level activity within each school and the Senate.

32 The University operates a budgetary model that devolves resource management to schools, enabling heads of school to make decisions on academic appointments on the basis of the business case for an academic programme. Central facilities, such as the Library and Information Services, are funded by a system of 'taxation' on the school budget. The SED explained that the recently formed Executive group brings together the five heads of school, the Deputy Vice-Chancellor and the Director of Finance, with the Vice-Chancellor as Chair. Therefore the schools, through their heads of school and operating very much on a business footing, can be seen as the main framework within which academic programmes are developed and delivered. The separation of resource management (school) from quality

management (faculty) caused the audit team to question how potentially conflicting requirements would be resolved. The remit of the deans allows them to 'express their concern' to the head of school and ultimately to the Vice-Chancellor. The team considered that the lack of formality of this arrangement had the potential for putting uncertainty into the long-term development of the learning infrastructure and therefore of the strategic planning of the academic portfolio.

33 In discussion with the audit team, senior staff emphasised that postgraduate teaching and research training were just two elements of a broader business model operating within schools, which variously encompassed fundamental and applied research, consultancy, industrial collaborations, and programmes of continuing professional development. The key responsibility of the head of school is therefore one of ensuring the broad health of the school as a business enterprise.

34 There is an interlocking system of school committees and the relevant faculty boards. Schools are organised at discipline level into various named departments, institutes, or communities of interest. It appeared to the audit team that the different nomenclature was a consequence of permitting schools, under the devolved managerial system, to devise and develop their own structures that they considered to be suitable for the programmes that they delivered. Discussions with deans and senior staff reinforced this interpretation, with staff expressing the view that this was a strength of the devolved model of academic management. Most, but not all, schools have a subcommittee with oversight of the postgraduate teaching programme, and a subcommittee with responsibility for research degree students. These subcommittees provide the reporting route to the faculty boards, and thence to Senate. Faculties generally have subcommittees that mirror the taught and research programme structure of the schools, and the Faculty of Military Science, Technology and Management at the Shrivenham campus has an additional subcommittee with oversight of the final stages

of undergraduate provision. Faculty boards can have a large membership, for example, up to 60 members in the case of the Faculty of Engineering, Science and Manufacturing. Nevertheless, from faculty board documents the team saw considerable evidence that faculty boards are effective in their role, with appropriate and close scrutiny of course proposals, annual and periodic monitoring reports, notwithstanding the challenging volume of business to be conducted at board meetings.

35 The report of the 2000 quality audit recommended that the University give consideration to improving the reciprocal flow of information between the faculty boards and TC through formal, rather than informal methods. Steps have been taken to implement this recommendation by putting in place standing items on the faculty board agenda for the dean to report on the deliberations of the latest TC, and a standing item on the agenda of TC to allow deans to report on issues and actions of relevance to TC arising at faculty board level.

36 Day-to-day management of taught postgraduate programmes is the responsibility of course directors, who are appointed to lead individual courses. The course director system is also used in the case of programmes delivered in partnership with other institutions, both in the UK and overseas. Heads of school are responsible for making appointments to the position of course director, these appointments often being long-term and bearing substantial responsibility, such as having control of a devolved budget. The audit team heard that the position was one that was respected and valued across the institution, with considerable room for individual initiative and the exercise of academic leadership. Meetings with representative course directors confirmed to the team the view expressed in the SED, that there was a strong sense of ownership of the programmes for which they were responsible and a good awareness of the issues and regulations relevant to the maintenance of quality and standards. Course directors are ex officio members of their faculty board. It was evident to the team from meetings with staff at all levels, that the role of course

director was pivotal in assuring the quality of programmes and in supporting the student learning experience. While their importance is recognised throughout the institution, the team noted, however, that there was no formal remit for this crucial role, nor recognised criteria for their appointment.

37 The audit team learnt that the role of TC had been considerably strengthened over the past few years, and that it was the main locus of debate on academic matters. Part of the remit of TC is 'to establish comparability in the setting of academic standards throughout the University and consistency in the application of those standards by Faculty Boards to individual programmes of study'. The key method by which this is achieved is the Senate Codes of Practice (CoPs) and accompanying guidelines that are approved by Senate to supplement and operationalise the University's regulations. The Senate CoPs and guidelines fall within the remit of the Registry. The CoPs are available to all staff through the University's intranet, with print copies being provided to all course directors.

38 Assessment strategies for taught postgraduate provision are matters for course teams to develop under the guidance of the course director. The relevant University guidelines give explicit guidance on the conduct of examinations, the expected structure, standard and content of theses, and a number of other matters germane to the quality of assessment. Discussions with course directors, and evidence from the DATs, confirmed to the audit team that course directors are assiduous in their application of the guidelines. Taught programmes employ a wide range of often innovative assessment methods that are linked to the intended learning outcomes.

39 An important aspect of the remit of TC is to 'promote good practice and encourage innovation in teaching and learning', a role that was emphasised to the audit team in discussions with senior staff and members of the Committee. The Committee had taken a proactive role in the development of a master's-level descriptor (see below, paragraph 45), and in initiating a review

of research degree completion rates and implementing a number of proposals arising from this analysis in order to improve timely thesis submissions. Despite these initiatives, the team formed the view that the agenda of the TC was burdened with a substantial body of essentially routine matters at the potential expense of its role in developing policy. Within the University's highly devolved approach to quality management, it was unclear to the team where debate about portfolio planning and strategic oversight of quality matters took place. The team would advise the University to consider more closely the strategic remits of the TC and Senate, and to make their role in the development of policy and strategy more visible.

40 Notwithstanding the complexity of the interlocking school and faculty structures, the audit team formed the view that the arrangements for quality management at the level of the individual course and within the faculties were secure and effective. This was particularly the case at the level of course director with the opportunity for the postholder to provide robust academic leadership. It was less clear to the team that the operation of TC as the guardian of quality and academic standards could be sustained in its present form if the academic business of the University were to expand in the future into more challenging areas such as an increased level of international collaborations, or the implementation of a substantial portfolio of distance-learning provision.

The institution's intentions for the enhancement of quality and standards

41 The University has embedded a strategy for quality enhancement within its broader Learning and Teaching Strategy, 2002-2005, and has identified a number of areas with 'scope for improvement'. These were set out in the SED, and included:

- improving the collation and use of information at a university-wide level
- improving the dissemination of good practice in course delivery and quality assurance

- developing further links with national teaching and learning networks
- increasing generic support for staff development in teaching and learning.

42 The SED also identified a number of projects which, having reached pilot stage, were to be developed further. These include:

- personal development planning (PDP) for both taught and research students
- peer review of teaching
- recognition of teaching excellence in promotion.

43 The SED noted that the University intended to continue to develop a number of aspects of provision where enhancement initiatives had already been taken, including:

- enhanced training for postgraduate research degree students in order to address the targets suggested by funding bodies such as the Research Councils, taking note of the guidance offered by the 2004 revision of the section of the *Code of practice for the assurance of academic quality and standards in higher education (Code of practice)* relating to postgraduate research degree programmes, published by QAA
- enhancement of e-learning through the development of managed and virtual learning environments (VLEs) and related staff development.

44 The audit team considered that considerable progress had been made in addressing the matters identified within the strategy, and that the University had identified appropriate areas for further development. The team would encourage the University to give particular emphasis to the dimensions of its enhancement strategy that relate to improving the way in which information about quality and academic standards is communicated throughout the institution, and to increasing the awareness of staff of debate and development in respect of quality in teaching and learning in the wider higher education (HE) sector.

Internal approval, monitoring and review processes

Approval

45 Proposals for new courses are initiated within schools at departmental level. After discussion within the school to test the academic and business case for the proposed new course, formal application is made to the relevant faculty board, and the SED confirmed that faculty boards played a 'key role' in the process of course approval. The submission is required to be drawn up according to a Senate-approved template to comply with the appropriate CoP. The audit team was interested to note that the University had, in 2001, developed an 'M-level' generic course descriptor that took into account *The framework for higher education qualifications in England, Wales and Northern Ireland* (FHEQ). The SED explained that this descriptor has 'become an integral part of the University's course approval and periodic review processes'. Once the faculty board is satisfied that the proposal meets all of the formal requirements, it forwards the proposal for University-level scrutiny by TC. The SED described the scrutiny process, which involves a lead scrutineer acting on behalf of TC to discuss the proposal with the course committee. Documentation made available to the team revealed that the scrutiny process at both faculty and University levels was both detailed and incisive, supporting the confidence expressed in the SED regarding the rigour of the approval process overall.

46 External participation in the course approval process is an area where the University has not accepted the recommendation made in the report of the 2000 quality audit report that external academic input should be mandatory in proposals for new courses. The matter of external academic input to new programmes was raised again in the developmental engagement that took place in 2003, and was again rejected by the University. The SED explained that the University continued not to 'formally require the participation in the course development process of anyone external to the University', arguing that

external participation 'could in fact in some cases be positively deleterious through the possible loss of competitive advantage in the development of new ideas'. The SED cited a case to illustrate this view. It noted, on the other hand, that 'it remains open to schools to seek external academic input' if this would not compromise the business case, and cited other examples where external input was, in fact, sought during the development phase of a new course proposal.

47 Notwithstanding the principles expressed in the SED, the audit team learnt from its discussions with course directors and teaching staff that, in practice, the process of course development usually involved considerable external input, albeit of a more informal nature. Prospective course teams normally seek the advice of academic colleagues in the sector in order to calibrate the standards and curriculum content of a proposed new course. The University requires each course to establish an Industrial Advisory Panel of industry representatives to advise on course matters, and there are normally consultations with relevant industrial specialists and members of Industrial Advisory Panels in order to test the relevance of the proposed course, and the potential employability of the prospective graduates. The team formed the view that the active role of the Industrial Advisory Panels in course development represented an aspect of good practice.

48 An unusual feature of the course approval process is that it is possible for a faculty board to promote its proposal for a new course directly to the Senate, thus bypassing the phase of scrutiny by TC. The SED stated that 'in practice, no course proposals have been submitted to Senate in recent years without Teaching Committee support'. The audit team learnt from its study of the available documentation that this was not strictly the case. A proposal for a new course had been produced by one of the schools that had 'raised serious concerns' when discussed at TC. The proposed course was of a highly specialised nature, and the matter was eventually resolved at the Senate with special arrangements being made for its delivery and assessment. While the issues regarding this instance might be

considered to be unusual, the team formed the view that this was an illustration of the tensions that can arise when the business and resource imperatives are separated from the academic management of quality because of the underlying management structures. The University may wish to give consideration to the status and role of the TC and its relationship to the Senate in matters relating to quality and strategy.

49 With the exception of the possibility that a faculty board might present a proposal directly to the Senate, the overall approach to programme approval was considered by the audit team to be rigorous and probing. In the examples seen by the team, the process took into account the guidance offered by the appropriate sections of the *Code of practice*, published by QAA, through the use of the Senate CoPs and guidelines. The team was satisfied that, in practice, there was normally appropriate external consultation with external academics, industrial partners, and practitioners.

Annual monitoring

50 It is an institutional requirement, specified in the Senate CoPs, that all programmes, including those involving collaborations and partnerships with other institutions, submit annual monitoring reports to the relevant faculty board. These reports are prepared by course directors, and include consideration of student feedback, responses and action plans arising from the comments of external examiners and data regarding student progression and performance. The minutes of faculty boards confirmed to the audit team that these reports were considered closely at faculty level. The team formed the view that communication routes between faculty board and course directors were short and efficient. There was evidence of quality loops being closed, and of a commitment on the part of course directors to use the annual reporting system to enhance the quality of learning opportunities for students. The view of the team was that the mechanism for annual oversight of programmes at faculty level was well designed, taken seriously, and operating in an effective manner.

51 The SED acknowledged that oversight at institutional level of the outcomes of annual review had 'worked less well in the past two to three years', and noted that 'high priority' was being given to ensuring appropriate onward reporting and timely follow-up action. The audit team would encourage the University to take this opportunity to consider ways in which good practice identified in the annual reports of course directors at faculty level, can be noted at institutional level to facilitate dissemination of good practice across the faculties.

Periodic review

52 All courses are subject to a formal review at intervals of no more than five years. Newly introduced courses are reviewed after three years, and special reviews can be implemented should the available information, such as external examiners' reports, indicate that additional or timely scrutiny would be advantageous. The process is governed by a Senate CoP which outlines the documentation required and lays out the detailed timetable and structure of the review event. The audit team noted that TC, on behalf of Senate, prepares occasional papers that usefully draw together common themes that arise from the periodic review process.

53 The audit team noted that the institutional approach to periodic review allowed for considerable flexibility. In areas where there was the potential for a challenge to quality and standards, such as in collaborative partnerships, the periodic review was applied with greater frequency (see below, paragraph 109). A particular example of the ability of the periodic review to be applied flexibly was the oversight of the undergraduate provision at the Shrivenham campus, which is in the last two years of operation, and where the periodic review method is being applied annually. The minutes of the review panels indicated to the team that the process was being applied rigorously with very detailed scrutiny across a broad range, and that emphasis was being placed on maintaining the quality of the student learning experience.

54 The SED expressed the view that the 'overall approach taken to quality assurance facilitates the University's academic business'.

From its analysis of the University's mechanisms and approach to annual monitoring and periodic review the audit team would support this view, and would highlight the flexible and intelligent application of the periodic review method in particular as an aspect of good practice.

External participation in internal review processes

55 External participation is a feature of periodic review, with the SED emphasising that the panels have two external members, one an appropriately qualified and experienced academic, and the second being an 'industrial/practitioner advisor'. The relevant Senate CoP notes that the industrial or practitioner adviser would usually be drawn from the Industrial Advisory Panel for the course, underpinning the broad strategic emphasis, expressed in the Learning and Teaching Strategy, 2002-2005, of the University maintaining a portfolio of courses that maintain 'the key principles of relevance and excellence'. The audit team noted that the reports of periodic reviews are presented to meetings of the relevant Industrial Advisory Panels as an item for discussion, and it considered that this engagement of the expertise available, through the members Industrial Advisory Panels, made a significant contribution to overall quality enhancement.

External examiners and their reports

56 The University, in its SED, stated that external examiners play a key role in assuring the academic standards of its awards. Their role is governed by the Senate CoPs on Examining for Taught Courses and Postgraduate Training and Research and the University's examination conventions. Changes to the external examiners' annual report form were delayed until the requirements of TQI were known in more detail, and an amended version was approved by Senate in October 2004.

57 The SED outlined the principal roles of an external examiner. These include participation in the assessment process and commenting and giving advice on course content, balance and structure on degree schemes and on

assessment processes. The audit team examined external examiners' reports and confirmed that they were required to comment specifically on the conduct of the assessment processes and academic standards of the award.

58 On appointment, external examiners receive an extensive package of information from the Registry. The University relies on staff in schools, particularly the course director or course chairman to brief the examiners in more detail. A review of the CoP on Examining for Taught Courses took place in 2003-04 in which the briefing of external examiners was considered. While the University found no evidence to indicate any concerns regarding induction at the subject level, it was proposed that there might be merit in developing and piloting a more formal University-led induction. A pilot programme was planned for December 2004, but did not run due to a poor take up by external examiners. The University plans a further attempt to introduce the programme in October 2005. The audit team saw documentation for this programme, and found the programme to be wide-ranging and comprehensive, including a subject level element. It was too early in the development of the induction programme for the team to form a view on its effectiveness, but the team considered that it was a useful initiative and would encourage the University to continue its development.

59 External examiners for taught degree programmes are appointed by faculty boards under delegated powers from the Senate, and may be from outside the HE sector, provided that each course normally has at least one external examiner from within HE. Overall, in 2003-04 about 20 per cent of external examiners had a commercial or industrial background. The audit team examined the University regulations regarding appointment of external examiners for taught master's programmes and found they were consistent with the appropriate section of the *Code of practice*.

60 External examiners' reports are submitted to the Vice-Chancellor through the Academic Registrar and Secretary. The Vice-Chancellor responds directly to each external examiner to acknowledge receipt of their report and draw

their attention to any action he initiates as a result of their comments. The reports also go to the appropriate head of school, course director/chairman and dean of faculty for consideration. External examiners' reports and action taken are also a key element of the annual course review process, and reports covering an extended period of time are considered during periodic course review. The audit team examined annual and periodic course reports in the DATs, together with faculty board minutes and other evidence submitted by the University, and was able to confirm that clear and robust mechanisms exist for the consideration and response to external examiners' reports at course, faculty and University level.

61 The SED expressed confidence that issues arising from external examiners' reports are recognised and acted upon. The report of the 2000 quality audit advised the University to consider 'implementing a formal procedure to ensure that cross-University and cross-year issues from external examiners' reports are identified, recorded and reported to the Teaching committee or to Senate', and the University accepts that there 'would be merit in establishing a more concentrated process for the collective reviewing of reports across schools and from year to year'. While progress in this has been limited due to resourcing and continuity difficulties, the University believes that recent changes to the responsibilities of key staff within Academic Registry should allow progress to be made. The audit team noted that the University had allocated specific responsibility for this task within the Senate CoP, and saw evidence of this occurring in the latest TC minutes, with a report from the Quality Assurance Officer identifying cross-University and cross-year issues arising from external examiners' reports.

62 From its study of the relevant CoPs, the University's examination conventions, external examiners' reports and minutes of meetings relating to them, the audit team formed the view that the University has appropriate mechanisms in place to consider and respond to external examiners' reports, at course, faculty and University level, which are effective and contribute

significantly to the security of the academic standards of its awards. External examiners' reports are generally complimentary and, where issues are raised, appropriate action is taken. Very recent developments enable an institutional-level overview to be taken, although it is too early to determine how, or how effectively, the University will act upon this information.

External reference points

63 The SED outlined the University's engagement with a range of external reference points. It identified both formally expressed reference points such as the Academic Infrastructure and less formal reference points such as companies and other organisations outwith the University who interact with staff, ongoing contact between the University and its alumni and PSRB engagements.

64 The SED explained that the Senate CoPs are under constant review in line with changes in internal policies, and are regularly updated to take into account changes in the Academic Infrastructure. It is the responsibility of TC to consider the alignment of the Senate CoPs and guidelines with the Academic Infrastructure, and to recommend amendments to the University's own CoPs or guidelines where appropriate. It is through the mechanism of the Senate CoPs that the University expects its staff to be familiar with the external framework, although during 2002-03 the University did raise awareness of the Academic Infrastructure with staff through a series of presentations and the addition of appropriate external links to the University's intranet.

65 The audit team examined the Senate CoPs and other regulatory documents and minutes of meetings of TC, and was able to confirm that the University had engaged with the *Code of practice* in relation to its own policies and procedures. The University's documentation included a listing of the dates on which TC had considered individual sections of the *Code*, and the action that was taken. The team's meetings with staff generally supported the claims made in the SED that the Senate CoPs were an 'illustration of the University's commitment to self-scrutiny and quality enhancement, and the

continuous development of quality assurance procedures'. The team noted, however, that TC had dismissed the section of the *Code* on placement learning as 'not applicable', although a number of master's students conduct their projects in industry away from the University. The University may wish to reconsider the applicability of this section of the *Code*.

66 While there was evidence of internal debate about elements of particular sections of the *Code of practice*, for example, in respect of the revised section on postgraduate research programmes, the audit team saw little evidence of the University's engagement with the consultation processes by which the sector develops the components of the Academic Infrastructure. The team formed the view that the University would benefit from greater interaction with the wider HE academic sector which is engaged in similar debates, for example, in relation to the potential effects of the Bologna Declaration on taught postgraduate courses.

67 In respect of the FHEQ, the SED explained that reference was made to the FHEQ in drawing up the M-level descriptors for application across the University, and for the current development of D-level descriptors. From its study of the M-level descriptor in the context of relevant minutes of TC, the audit team was able to endorse the statement in the SED that the FHEQ had been used as a reference point. Recent course approval documents showed clear evidence of the adoption of the M-level descriptors at course level.

68 The University has adopted a programme specification template, supported by guidelines, which aligns with QAA guidance on programme specifications. Programme specifications were approved by faculty boards for all programmes by the end of 2003-04. The audit team examined a number of programme specifications, including some for collaborative provision, all of which complied with the University template. The team was also able to determine that ownership of the documents resided with the course director, and that there was a clear mechanism in place for the amendment of the documents, through annual

and periodic course review with approval by faculty board. The report of the developmental engagement recommended that the University 'consider how programme specifications may most usefully be communicated to students and external examiners'. While there is currently no electronic database of programme specifications, the team learnt that the University intends to develop one for use within an internal quality website linked to a public portal and to the Higher Education Research Opportunities in the UK (HERO) website for TQI.

69 Subject benchmark statements have generally been of less assistance to the University than other aspects of the Academic Infrastructure, as, with the exception of the limited number of programmes currently being taught-out at Shrivvenham, the University's portfolio is exclusively postgraduate, and the benchmarking exercise has yet to be completed at this level of award. However, they have been applied to the limited undergraduate provision and to reflect on levels of prior achievement to be expected of recently graduated students entering postgraduate studies. The audit team was able to confirm that the master's-level *Subject benchmark statement* for general business and management had been used in the relevant programmes within the University.

Programme-level review and accreditation by external agencies

70 Accreditation by a PSRB is a feature of many of the courses offered at the University. From the audit team's discussions with staff it emerged that, in general, the initiative to seek accreditation rests largely with the relevant course director, with whom the accreditation reports remain. In the period since the 2000 quality audit there has been a number of PSRB reviews. All of these were broadly positive, and their reports received detailed scrutiny by the TC. Senior staff were frank in their discussions with the team in recognising that benefits could accrue from a central review of PSRB reports, and that a more strategic institutional-level approach to the use made of the outcomes of accreditation reports would

benefit the University as a whole. The team would concur with this analysis.

Student representation at operational and institutional level

71 The SED explained that students are represented on the University's principal quality management bodies, such as the Council, the Senate, TC and faculty boards. They are represented at school level through a variety of means ranging from course-specific focus groups to formal consultative committees, including membership of student appeals committees. At a local level student representatives are identified for each taught course with student members, drawn from both taught courses and research students, to sit on the Faculty Board. The SED expressed the view that student opinion was appropriately sought and considered through both formal and informal mechanisms, and that there was appropriate communication between University staff and the student body.

72 The report of the 2000 quality audit noted that the University experienced difficulty securing sufficient student participation, perhaps in part due to the intensive nature of the programmes of study. The report acknowledged, however, that the audit team found no evidence that the students believed themselves not to be properly represented in the University's decision-making process. The SWS emphasised that achieving a good level of course representation is an area of challenge given that the intensive courses give little time for successful recruitment, training and effective participation of the course representatives. It commented that the system for course representation 'is patchy and slow to implement, with no central training or information gathering'. The SWS acknowledged the University's attempts to ensure consultation and representation, and confirmed that the senior management team had been proactive and welcoming in accommodating student representation.

73 While acknowledging the difficulties, the University believes that the mechanism and the process of student representation is appropriate. Students who met the audit team agreed with

this view in respect of representation at local level, but were less certain about representation at institutional level. Officers of the CSA who discussed these matters with the team also recognised the difficulty of communicating with the body of students at local level.

74 Mixed views were expressed by students about the effectiveness of the procedures for representation at research student level. There appeared to be diversity of practice across the three campuses, with some examples of good practice. The SWS described the recently formed Research Students Committee (RSC) as a good example of the CSA and the University working together 'to improve the support and representation provided to our diverse population of research students'. The audit team formed the view that the RSC was developing well in terms of its effectiveness in representing the interests of students across all three campuses.

Feedback from students, graduates and employers

75 The University clearly values feedback from its students and has extensive mechanisms in place to gather their views. The report of the 2000 quality audit commended the University for 'its exemplary embedding of well-constructed questionnaires and their carefully analysed findings into the evaluative aspects of its quality strategies and processes; in particular, its effective use of an exit questionnaire for all students, seeking their views on the institution'. It judged the exit questionnaire, now known as the 'student satisfaction survey', to be excellent in its design, simplicity and comprehensiveness. The current audit team was able to confirm that the process was still very effective. Links with former students are strong at school and departmental level where contact is fostered through subject-specific associations. HEFCE agreed that the University need not participate in the national student survey on the basis that it has a relatively small number of undergraduate students, and many of the undergraduates that it does have are military personnel who are not able to participate.

76 Industrial Advisory Panels were seen by the audit team to be a particularly effective method of securing feedback from students and other stakeholders. Panels meet staff and students independently, and the team formed the view that they can make a significant contribution to course delivery and curriculum design, particularly in ensuring the relevance of courses to industrial needs. The SED stated that it is a University requirement that there should be an Industrial Advisory Panel associated with all taught courses, and this gives rise to consistently strong links with employers. It went on to say, however, that where a department has chosen not to establish an Industrial Advisory Panel 'the reasons for not doing so and the mechanisms for nonetheless ensuring the relevance and currency of the course are explained and justified during the course periodic review process'. Given the significant merits of establishing an Industrial Advisory Panel, the University will no doubt wish to exercise caution in accepting reasons for not establishing such a Panel.

77 At course level, student evaluation is obtained through end-of-module questionnaires or, often more appropriately in view of the small cohorts and maturity of the students, through feedback meetings. At campus level, surveys of library and computing provision are undertaken to seek the views of students on the adequacy of provision. At institutional level, while the student satisfaction survey continues to provide useful information, the audit team saw little evidence of mechanisms in place to ensure dissemination across schools of good practice emerging from course and campus-level evaluation and feedback. The CSA at the Cranfield campus undertakes its own student survey annually, and make the results available to the University. Students who met the team were generally satisfied with the arrangements for collecting feedback at course and institutional level.

Progression and completion statistics

78 The SED included comprehensive student data as at November 2004, categorised by campus, mode of study, gender, level of study and domicile. It stated that Higher Education

Statistics Agency statistics indicated 95 per cent of graduates were in relevant employment or further study. The SED did not otherwise comment on the University's approach to the use of such data for academic planning at course or institutional level.

79 The audit team was informed that annual course review of taught programmes is initiated by the Registry providing course data. The data set, which usually extends over a period of some five to six years, includes admissions, progression and completion statistics, and is forwarded to the relevant course director. The data set, which contains an analysis of application-to-registration conversion rates, is included within the report to the relevant faculty board. Periodic reviews also use a similar set of student data. The team found that effective consideration was given to such data at course level, and noted a clear example in one of the DATs where changes in programme delivery were being considered to meet the changing intake profile evidenced by the data set.

80 From its study of faculty board papers, the audit team found that timely consideration is given to data, prepared by the Registry, on admissions, progression/transfer, deferral and completion of research students. Since the 2000 quality audit, the University has established a working party to review the time taken for PhD students to complete. The outcomes of these deliberations have resulted in amendments to the Senate CoP relating to postgraduate research students.

81 In respect of collaborative provision, the audit team was informed that the partner institution is responsible for holding accurate statistical data for students, with minimal admissions data being held by the University. On completion, all student transcript data is transferred to the University's database to enable students to graduate with a Cranfield award. The team heard of plans to integrate the two student databases currently held at the Cranfield and Shrivenham campuses, to enable complete University data reports to be generated.

82 The audit team formed the view that student data is being used effectively in the course-level monitoring of quality and standards,

but found little evidence of such data being used on a routine basis at institutional level to support quality management in general or admissions policy in particular. The team would encourage the University to consider mechanisms by which progression and completion data can be used more effectively to inform strategic academic planning at institutional level.

Assurance of the quality of teaching staff, appointment, appraisal and reward

83 Staff appointments are predominantly based on resource decisions taken within the business framework at the school level. The SED noted that the University aims to appoint staff who are 'expert both in an academic discipline and in an industrial/commercial sector', with this expertise often accompanied by practical experience in the relevant industrial or commercial area. The SAC has broad oversight of the appointments process, and plays an active role in appointments to promoted positions (particularly to a Chair). Appointment panels are supported in their duties by the Professional Development Group (PDG) in the Department of Human Resources which provides training for panel members, and which is active in promoting best practice in the appointment process. Newly appointed lecturing staff must serve a period of probation, and are required to attend the course leading to the award of the Post-graduate Certificate in Learning, Teaching and Assessment in Higher Education (PgCert LTAHE) (see below, paragraph 88). There is a university-wide system of mentoring for new appointees. The University has a well-developed system of annual appraisal, one output of which is the identification of staff development requirements.

84 Recent developments have included the revision of the criteria for promotion to reader, senior lecturer and professor. Such promotions now incorporate a criterion-based approach, with a facility to accept variation in the relative contributions to teaching, pedagogical development, research excellence and institutional and sector wide academic citizenship. Discussions with departmental heads,

heads of school and staff from a range of levels of seniority, indicated to the audit team that these criteria were well understood and were considered to be appropriate. Departmental heads in particular are proactive in discussing promotion issues with the staff for whom they were responsible, as part of a broad approach to staff development. The team was interested to learn that there had been a number of recent promotions that had been predominantly based on recognition of excellence in teaching or pedagogical developments, and that it was possible (although it had yet to happen) that promotion for excellence in teaching could extend to professorial level.

85 The audit team noted that there was some variation in practice about rewarding staff for the burden of responsibility. Some schools have implemented a system of financial reward based upon the concept of 'additional posts' which enable the head of school to implement what is, in effect, a salary increment, while other heads of school and heads of departments were adamantly against this practice. The University will wish to consider whether there would be benefit in achieving equity by adopting a common approach across the institution. Overall, it was evident to the team that the system of appraisal and its links to promotion and staff development, was being implemented effectively, and that its value was recognised by staff at all levels.

Assurance of the quality of teaching through staff support and development

86 The SED described a number of steps that the University has taken since the 2000 quality audit to develop significantly its approach to staff development. The University had itself recognised in the Analytical Account that it prepared for that audit, that the then mainly school-based approach to staff development could be enhanced substantially by a university-wide, centrally-organised provision. As a consequence of this internal review, a Professional Development Group PDG was formed, and a Head of Professional Development appointed. The Head of Professional

Development reports to the Director of Human Resources, and this link is the primary mechanism by which the professional development needs that are identified during the annual appraisals are fed into the development and differentiation of the professional development programme. The PDG now has six staff, and has overall responsibility for preparing and delivering a broad ranging portfolio of professional development courses, workshops and seminars with an emphasis on teaching, learning and related matters. The portfolio is described in detail in a publication that is made available to all teaching and research staff.

87 The University has formed a Staff Development Sub-committee of SAC to provide central oversight of the operation of the PDG. Staff development is therefore now a core part of institutional-level activity, with executive responsibility lying with the Vice-Chancellor and Deputy Vice-Chancellor. The Staff Development Sub-committee reports to both SAC and TC.

88 A key role of the PDG is the delivery of the course leading to the PgCertLTAHE. The course, which has been accredited by the Higher Education Academy, is mandatory for all probationary staff with limited or no experience of teaching in HE. The audit team found the course to be ambitious in scope, with most of the assessment being based on the development of a professional practice portfolio. The SED noted that an 'executive' version of the PgCertLTAHE had been developed which is intended for experienced staff (both new appointments and existing senior staff) who feel that they could benefit from formal exposure to recent pedagogical and theoretical developments in HE.

89 The audit team's meetings with staff at all levels supported the confidence that the University has in its arrangements for professional development. The courses and workshops available were valued highly by all staff. The enthusiasm and professionalism of the PDG staff were widely praised, confirming the impression gained by the team from its discussions with the PDG staff themselves. Senior staff who met the team were complimentary about the value of the

PgCertLTAHE for all appointees, and recognised the value of the 'executive' course for enhancing their own professionalism. The team learnt that many staff had attended a number of courses on their own initiative, not simply because a 'need' had been identified through their annual appraisal. Heads of school appeared to the team to be content with the funding mechanism, recognising staff development as a core component of their budgetary model. Overall, the team viewed the arrangements for professional development as forming a significant contribution to the enhancement of support for learning. The range of opportunities available to staff, and the universal recognition of their value reflect good professional practice.

Assurance of the quality of teaching delivered through distributed and distance methods

90 The SED explained that the University has taken 'a cautious approach to pure distance learning', on the premise that 'even where distance learning took place there would remain a requirement for all students to spend some time on one of the University's campuses'. Instead, the University has focused its efforts in this area on e-learning support for students based on campus, and has, since 1996, run an annual e-learning seminar with internal and external contributors in the interest of promoting e-learning initiatives and disseminating good practice. The audit team noted that there were elements of the PgCertLTAHE that focused on the use of VLEs, in support of the development of this aspect of practice as part of the University's Teaching and Learning Strategy. Additional 'VLE roadshows' have been held at the Silsoe and Shrivvenham campuses to provide wider opportunities for sharing expertise in the use of VLEs to provide e-learning support for students. The University is making use of HEFCE Teaching Quality Enhancement funding to support these initiatives.

91 The University has approved in principle the outline of a Modular Masters Programme that 'will make extensive use of distance-learning'. The SED explained that this will be facilitated by the

growing experience and expertise in the development of VLE-supported learning for on-campus programmes. The SED also explained that the University has entered into a partnership with the Open University so that it might benefit from the Open University's extensive experience of distance learning. The University recognises that the development of the Modular Masters Programme will change the context for its distance-learning activities, and intends to review its distance learning policy in the current academic year. The University's cautious approach to distance learning, its careful development of the internal use of VLE's and its partnership with the Open University in respect of the proposed Modular Masters Programme gave the audit team confidence in the future effectiveness of the University's approach to assuring the quality of teaching delivered through distributed and distance methods.

Learning support resources

92 The SED explained that the University's 'mission and programmes for learning, teaching and research' are supported by its Library and Information Services (LIS). LIS are supported through two libraries on Cranfield campus, one on the Silsoe campus and one at Shrivvenham. The work of LIS is monitored and guided by the Information Strategy Committee and the Learning, Teaching and Information Committee. The SED drew attention to a recent measure of the quality of the services illustrated by a LibQUAL+ international user survey, in which Cranfield LIS was ranked first in each of the four core dimensions of performance when compared with UK academic libraries taking part in the survey. The 2000 quality audit report noted that the services had been commended in Teaching Quality Assessment and subject review reports.

93 The SWS reported that the most recent CSA survey had produced 'a glowing return' on the library services on Cranfield and Silsoe campuses, with the helpfulness of library staff having particular mention. Computer services were also rated quite highly, although some problems were identified with the availability of licences for specialised high-demand software.

While central library and information technology (IT) facilities were confirmed by students who met the audit team to be good, the team learnt of variations in the quality of IT provision locally and across the three campuses.

94 The audit team noted many examples of effective use of the University's research environment and links with industry to enhance the quality of learning opportunities for its students. There is, however, a perception among some students that priority of resources was given to students on contract research and consultancy work. The team also heard of problems associated with the time taken for some jobs connected with project or research work to be manufactured, which students who raised these matters with the team perceived to have an adverse effect on completion rates. The team was not in a position to evaluate these perceptions in more detail, but would encourage the University to give them further consideration in the interest of ensuring equity of the treatment of students who need to make use of specialised resources.

95 The audit team learnt of some other issues, particularly in relation to research students, regarding entitlement to work space and computing facilities. Although there are University guidelines on these, there was evidence of non-compliance at a local level. Again, students who met the team felt that this could have a significant effect on completion rates in some cases. Overall, it appeared to the team that the University does not have a culture of sharing resources across schools, and that this can lead in practice to variation in the quality of learning resources available to students. The team found a lack of central control over the allocation of resources to support learning, and was left with the impression that most decisions on learning resource allocation were made at a local level. It questioned to what extent the devolved management structure was impeding resource sharing in the absence of an institutional overview of equitable allocation of available resource. The team was told that the forum for discussion of resource allocation was the Executive, but there did not seem to the team

to be a process or mechanism of exercising control centrally to ensure the most efficient use of available facilities. The team would encourage the University to consider how it might take a more central strategic approach to achieving greater equity and consistency in the allocation of resources to support learning.

Academic guidance, support and supervision

96 The University recognises that the provision of high-quality arrangements to support learning of all students is critical to its success, and it considers that the range of specialist support available in academic departments is consistent with its mission to continually develop and enhance these facilities. It has a range of mechanisms for the academic support and guidance of students from induction, through the duration of their studies and preparation for employment. The SED confirmed that all schools have induction programmes aiming to introduce students to course directors, academic staff and learning support facilities associated with their course of study. Course directors (or equivalent post holders) have the prime responsibility to provide academic guidance, support and supervision in the case of taught course students. The SWS reported that in its most recent survey the academic support from administrative and technical staff was generally rated as 'good' or 'excellent'.

97 The SWS highlighted problems in previous years, with lateness and poor quality of feedback on assessed work in the taught programmes that continue to register as a concern with students in the most recent survey. It made the important point that for many of the international students, prompt and constructive feedback would be their first indicator of what was expected of work at UK master's level, and late or poor quality feedback was not helpful to them. Students who met the audit team in the DATs confirmed that feedback on assessed work was in a number of cases poor. The University, in its SED, recognised weaknesses in feedback on assessed work as a concern to students on taught courses, and although it is

'confident that delays in the provision of feedback occur in only a minority of cases', it has taken steps to raise the importance of this issue with staff and academic managers. The team was not convinced that a rating of 'poor' for standard and promptness on such feedback from 23 per cent of Cranfield respondents and 37 per cent of Silsoe respondents in the most recent CSA survey should be considered 'a minority of cases', and would encourage the University to take more robust action to ensure that feedback on assessed work is timely and constructive.

98 Research supervisors specifically have the role of academic adviser in the case of research students, and an explicit statement on the role of a supervisor is contained in a Senate CoP. In addition, all research students are appointed an independent second supervisor to whom they may turn if there are aspects of their research which they feel unable to discuss with their supervisor, or if their working relationship with their supervisor should become ineffective. The SWS acknowledged that sometimes staff 'struggle to make time available for their students', and that it is a 'supervisor-dependent problem'. The audit team heard from staff and students of some past criticisms of the quality of research supervision, but was assured that these should not recur following the introduction of a second supervisor as observer of the quality of supervision and, if needed, as mediator.

99 The provision of support to research students was acknowledged by the University to be an issue worthy of special investigation, and a report on this was prepared for the Heads of School Committee in 2003. This investigation was coupled with a specific review of research degree completion rates. The University had for some time had concerns about this matter, being aware of the recent prominence given to submission targets by the Research Councils. The review report acknowledged that induction arrangements and generic research training were variable in terms of its provision across schools and that there was a need for a more unified approach. The report also referred to the provision of facilities for research students and drew up a policy ensuring a base level of provision

for all research students in terms of workspace, computing facilities and other general resources. The audit team found from meetings with research students that in some cases this base level of facility had not yet been achieved for some students in the early stages of their programme of study. The team noted, however, that improvements were ongoing, and considered that the University was making a serious attempt to fulfil its obligations in these matters.

100 The audit team was interested to explore the support and guidance available to all students in matters of study skills, particularly for students returning from industry and commerce to master's-level studies, and in health and safety training, particularly for students pursuing careers in manufacturing industries. The team found that study skills training was not centrally available but could be provided locally at departmental level. It learnt, however, of a University working group looking at drawing together examples of good practice in matters of study skills. In the context of an increasingly diverse student intake, the team would encourage the University to pursue the establishment of central guidance, if not central provision, of opportunities for students who wish to develop or revive the skills needed for intensive postgraduate study. Language provision for overseas students is provided centrally but normally at an additional cost to the students.

101 Health and safety training was identified to the audit team as being variable in quality across the institution. While it was compulsory in some areas, students who met the team claimed it was not always enforced. The recent appointment of a University Health and Safety Officer and the establishment of a central health and safety committee appeared to the team to be a positive step in addressing these issues.

Personal support and guidance

102 The SED stated that personal support arrangements are provided partly in parallel with academic support and guidance, in that course directors and supervisors offer general support and advice as well as academic advice. It went on to explain that the approach to

personal support varies between schools, with some also allocating personal tutors to students on taught programmes, and MBA students being allocated to learning team tutors.

103 Central support in the areas of welfare, careers advice, counselling and medical services is available to students on each of the University's campuses. The SED drew attention to the University's arrangements in support of students with disabilities and special needs, and noted the appointment of a Disability and Learning Support Officer (DLSO), complemented by learning support officers in the schools. The SWS commented that the support offered by the DLSO 'has made a tangible difference to the quality of student life' by creating a focal point for students with disabilities where previously, help for those students was fragmented and variable.

104 The SED identified the provision of careers advice as a particularly strong feature, and drew attention to the development of the careers service since the 2000 quality audit through increased collaboration across the campuses. The audit team noted that the work of the careers service is complemented by the strong links with industry at course level, and formed the view that the University has effective mechanisms to ensure that students have the opportunity to be well informed about employment opportunities relating to their course of study.

105 The University has recognised the value of PDP for students, and instituted a pilot exercise at the Silsoe campus in 2002-03 (see below, paragraph 151). An amended version of the PDP programme was trialled, again at Silsoe campus, in 2003-04, and the outcomes of that exercise have led to proposals for University-wide implementation of a PDP programme for taught postgraduate students in 2005-06. The SED reported that PDP for research students will be addressed as part of other developments in research training, but noted that this work was in an early stage. The University acknowledges that, by the nature of its academic portfolio, its students are likely to be particularly focused on their specialist interests, but it recognises the importance of offering opportunities for the

wide development of PDP and related generic skills. The audit team considered that the University was taking an appropriate and careful approach to this area of personal development.

106 Students who met the audit team confirmed that personal support arrangements as described in the SED worked effectively both at course and central level. The SWS did not comment directly on matters of personal support, but it did summarise students' views of their experience at the University, as expressed in the most recent CSA survey. It reported that about 70 per cent of respondents to the survey from the Cranfield campus 'would recommend Cranfield based on their academic experiences', while respondents from the Silsoe campus found their academic experience 'exceeded expectations and rated it very highly'.

Collaborative provision

107 The SED identified a limited number of validated collaborative programmes (see above, paragraphs 11 and 12). The audit team identified two further programmes which the University's taxonomy did not categorise as 'collaborative' but which would come within QAA's definition of collaborative provision. These are the MSc in Computational and Software Techniques in Engineering delivered by Cranfield University staff in ESTIA, France, and the MBA programme delivered by Centre d'Etudes Supérieure du Management, Ecole Supérieure de Commerce, Lyon. Students on the MBA programme at either collaborating institution who had completed either half or three-quarters of their programme at their home institution, could complete their studies at the collaborating institution and be awarded an MBA from each institution.

108 The audit team was informed of developments to introduce an MSc in Gas Turbine Technology with Nanyang Technological University of Singapore, with 50 per cent of the teaching delivered by Cranfield staff in Nanyang and the remainder by Nanyang staff. This programme has been approved by Senate and will be recruiting in 2006-07. From its study of faculty board papers, the team was able to identify other

collaborative provision being considered for the future, including a double degree arrangement for the award of PhD with Nagaoka University of Technology in Japan and an EU Erasmus Mundus funded Spacemaster programme with institutions in Sweden and Wurzburg.

109 Collaborative provision is covered by a Senate CoP which enables collaboration with partner institutions or companies. The CoP describes three categories of collaborative provision: full Cranfield course delivered off-campus; externally-validated course; and franchised course. It also indicates that some collaborative provision may involve a combination of these. The approval procedures described in the CoP include an assessment of the partner institution and the programme to be delivered (for externally validated courses only) by a Committee of Senate following a visit to the institution. Other course arrangements (not externally validated) are considered through the normal course approval procedures for a programme delivered on-campus. Periodic review procedures for collaborative courses are the same as those applied to on-campus courses except that the interval of review is every three years.

110 The audit team examined a range of relevant documentation and met staff with responsibility for collaborative programmes. It explored, in particular, the relevant Senate CoP and faculty and Senate papers from which it was able to confirm that the procedures for approval, validation and review followed the Senate CoP. The robustness of the approval procedure was evidenced by the significant debate that had taken place at the faculty board and the Senate regarding a particular proposed collaboration. The Senate CoP makes reference to the Council of Validating Universities and the appropriate section of the *Code of practice*. Nonetheless, the team would encourage the University to test the security of the present and planned arrangements for academic partnerships leading to its awards against the guidance contained in 2004 revision of the *Code Section 2: Collaborative provision and flexible and distributed learning (including e-learning)*.

111 The model Memorandum of Understanding, for which there is a template in the Senate CoP, indicates that the collaborating institution 'shall seek to ensure that key lecturing staff concerned with validated course are granted recognised teacher status by Cranfield'.

112 The SED did not express a view on how well the University believed the procedures for the assurance of quality and standards in collaborative provision were working, except for a reference to procedures having 'worked well' for the undergraduate programmes being withdrawn. The report of the 2000 quality audit commended the way in which collaborative provision was managed and, in particular, the process for academic liaison with collaborative partners, through the role of the liaison officer. The current audit team, through its study of relevant papers and its discussions with staff, was able to confirm the good working relationship between Shrivenham staff and those of the military colleges in collaborative arrangements, particularly in relation to assessment and administration.

113 In its Strategic Plan 2004/05 - 2007/08, the University 'sees formal collaborative agreements with Universities, Higher Education Institutions and Research Institutes worldwide as vital to the achievement of its aim and delivery of its mission', and lists within its international strategy the intention to 'develop alliances with other institutions worldwide to deliver more effectively both the lifelong learning and research strategies'. The audit team found, however, no reference to an institutional policy for the strategic development of collaborative activity, each case being considered individually. The team heard that the University's approach was to proceed with caution, with collaborative partners being selected carefully to ensure they were of a similar standard to the University's own expectations. In the absence of a systematic institutional-level overview of quality and academic standards in collaborative provision, the team had some concerns about the ability of the University to be confident that significant matters relating to its legal responsibilities towards students on

collaborative programmes, and the provision of appropriate learning resources and Academic Infrastructure, are fully addressed in each collaborative arrangement. If the statements relating to collaborative agreements and alliances in the Strategic Plan are an expression of intent to expand the extent and range of collaborative taught programmes, the University would be advised to consider establishing an institutional policy to guide the strategic planning of that aspect of its academic portfolio.

Section 3: The audit investigations: discipline audit trails

Discipline audit trails

MSc Automotive Product Engineering

114 The scope of the DAT comprised one postgraduate MSc programme in Automotive Product Engineering offered by the Department of Automotive, Mechanical & Structures Engineering located within the School of Engineering. This one-year programme is currently delivered in full-time mode only.

115 The most recent periodic review had taken place in March 2003. The report of this review, including an account of actions arising from it, was included within the DSED for the DAT. The course is accredited by the Institution of Mechanical Engineers as a matching section (SARTOR 3) for achieving CEng status.

116 QAA subject benchmark statements are not specifically relevant at master's level in Engineering. During the audit team's meeting with staff, it was confirmed that the course was aligned with the University's M-level descriptor that had been derived from the FHEQ, and that it complied with the University's own CoPs. Staff confirmed the use of the M-level descriptor in developing assessment strategies.

117 The curriculum and general health of the course is formally reviewed twice per year through the Industrial Advisory Committee, which has representation from industry. The Committee also meets staff and students

annually, and appeared to the audit team to have a significant influence on matters relating to curriculum relevance, curriculum delivery, modes of assessment, staffing and student recruitment. Although the Industrial Advisory Committee gives detailed consideration to external examiners' reports and to student feedback, there was no comment on these matters within the annual course report presented within the DSED.

118 The course is formally reviewed through the annual course review process, which seemed to the audit team to work well at local level through effective interaction with the Faculty Board. The review includes an analysis of the previous year's action plan and an action plan for the forthcoming year. Data on progression and completion is considered within the annual course report, including trend analysis over a six-year period. Specific analysis of the recruitment and progression trend was not considered within the course review, but the team noted from the data presented that the average age on entry to the course was becoming lower and that there was an increasing reliance on EU students.

119 External examiners' reports seen by the audit team were in most cases very complimentary, with supportive comments about the standards of the programme, its assessment and marking. Copies of the external examiners' reports are first sent to the Vice-Chancellor and then to the Dean of the Faculty before being passed on to the course director for discussion with staff. The course director responds directly to the external examiner. The team found evidence of effective follow up of points raised by the external examiner although it was less clear that external examiners' reports had been fully considered within the process of annual course review.

120 The audit team had the opportunity to examine samples of assessed coursework and examination scripts and dissertations. Assessment is in accordance with the University's own CoP. The team was able to confirm that standard of student achievement was appropriate to the title of the award and its location within the FHEQ.

121 Students who met the audit team confirmed that they were sent handbooks and information about the course prior to joining the University. While it was felt that the handbooks accurately described the course aims and its curriculum and assessment strategy, a number of students expressed disappointment that the facilities and range of staff expertise did not meet the expectations gained from the information provided. In relation to staff expertise, students expressed concern about recent and potential future staff changes within the Department of Automotive, Mechanical & Structures Engineering. They felt that some of the international names of staff which had attracted them to Cranfield would no longer be available to support the programme.

122 Students confirmed that library and IT resources were good, but had a number of complaints about laboratory facilities in automotive technology, reporting that facilities were in many cases out of date and not what had been expected from reading literature prior to joining the course. While the staff acknowledged these criticisms, they considered that the equipment was generally relevant to the material being taught, and confirmed that significant investment was being made to update laboratory facilities. Staff confirmed that learning resources are considered annually by the Industrial Advisory Panel, which takes into consideration feedback given by students.

123 Students on this programme do not have individual personal tutors, but students who met the audit team felt that the staff were very supportive. They expressed the view that the level of support offered by course directors and supervisors was more than adequate to deal with any problems, either personal or academic.

124 A significant issue raised by students who met the audit team was the appropriateness and timeliness of feedback given by staff on assignments, echoing comments made by students more widely in successive CSA surveys (see above, paragraph 97). Students reported that, in many cases, they had to wait beyond the time specified within the University's guidelines, and in a few cases received no feedback at all.

125 Students provide feedback through end-of-module questionnaires and through the Industrial Advisory Panel. Feedback is gathered in relation to pre-course information, curriculum design, teaching, assessment, learning resources, accommodation and social and recreational facilities. Students who met the audit team confirmed that the Department took notice of their views, and that in general problems were solved effectively. There is no formal staff/student liaison committee since all matters relating to student feedback are dealt with by the Industrial Advisory Panel which meets the students each year. This direct engagement between the students and the Panel appeared to the team to work well, and students who met the team felt that through this engagement they were able to play an active role in quality management at the operational level. Overall, the team found that the quality of learning opportunities was suitable for the award of the programme of study leading to the award of MSc in Automotive Product Engineering.

MSc in Logistics and Supply Chain Management

126 The DAT in the School of Management related to one degree programme, the MSc in Logistics and Supply Chain Management. The programme is offered in four different versions: full-time, executive part-time, global modular part-time and a block version. The last version was approved recently but has failed to recruit students. The structure and content of the different versions is very similar but not identical.

127 The last periodic review of the programme took place four years ago, and the audit team was therefore provided with a DSED written for the purposes of the audit. In the same year as the periodic review, a review of the curriculum took place and learning outcomes were benchmarked against other programmes offered elsewhere as well as the professional descriptors of the Chartered Institute of Logistics and Transport and the Chartered Institute of Purchasing and Supply, both of whom accredit the programme.

128 The DSED stated that the learning outcomes of the degree are appropriate to the *Subject benchmark statement* for general business and management at master's level. The degree has

been aligned with the University's M-level descriptor which has been informed by the FHEQ. Programme specifications have been prepared for the different versions of the degree using the University's template.

129 Data on recruitment, progression, completion and student characteristics are compiled and presented in the annual monitoring report. This data includes trends over a six-year period. The DSED contained an extensive analysis of student data, and highlighted actions being taken to address problems. As a result of the identification of higher than expected withdrawal rates for part-time students in the annual monitoring report, action took place to identify and assist students at risk.

130 The annual monitoring report is discussed at the Graduate Programmes Committee and then at the Faculty Board. The Graduate Programmes Committee plays a central role in oversight of the MSc programme. It meets monthly and focuses on curriculum development and academic policy. Twice a year the Cranfield Centre for Logistics and Supply Chain Management Advisory Board receives reports on recruitment and student data. The Board advises on strategy and recommends action on matters such as marketing and studentships in the light of the information received.

131 The annual monitoring review contains an evaluation of the extent to which the previous year's action plans have been addressed, an analysis of the year's operations and a plan for future actions. Scrutiny of reports at the level of the school and the faculty not only ensures that the process is undertaken effectively but also that issues are escalated to the appropriate level for action. The annual review process is supplemented by monitoring through quarterly meetings of the Curriculum Committee for each version of the degree, and through the annual joint Teaching Committee for the MSc. The former meetings review the progress of each cohort and consider issues concerning individual modules: the latter reviews issues affecting all versions of the degree. The audit team formed the view that the monitoring and review processes worked well at the local level.

132 The last periodic review of the MSc in Logistics and Supply Chain Management took place in 2000-01, and the next periodic review is scheduled to take place next academic year. The DSED presented evidence that the issues raised in the last periodic review have been addressed.

133 Discussion of external examiners' reports and proposed responses are incorporated into the annual monitoring report. The audit team found evidence of effective follow up on external examiners' comments. For example, one report in 2002 noted the need to re-write the module descriptors. This was done, and in the following year the external examiner commended the course on the presentation of its module descriptors and learning outcomes.

134 Assessment is informed by the University's codes of practice and guidelines, and staff informed the audit team that the M-level descriptor helped them to develop a variety of assessment techniques. Double-marking is used for all dissertations and for all failed assessments plus a sample of others. External examiners confirm that assessment boards are well conducted, fair and effective. A set of generic assessment criteria has been developed to clarify the standards expected of students. Students who met the team confirmed that the feedback received on coursework was generally of good quality, although it was not always as timely as expected.

135 External examiners confirm that students achieve high standards and match the expectations set by the programme specifications. The audit team had the opportunity to examine coursework and examination scripts from a selection of modules as well as a sample of dissertations. The team was able to confirm that standard of student achievement was appropriate to the title of the award and its location within the FHEQ.

136 Handbooks for the degree are prepared using the University's guidelines. The students who met the audit team stated that they received helpful information about the course through their handbook which was given to them both in hard copy and electronic form.

The information they received was in their view accurate and reliable.

137 The subject community has close links with industry, and students benefit from this in several ways. Although teaching methods are frequently traditional, they are seen to be effective in transmitting applied knowledge and business-related skills. Students reported that the standard of teaching they received was very good, and in particular they appreciated the depth of knowledge lecturers possessed in their subject area. Close links with industry also result in a wide choice of industrial projects being available to students when they chose their dissertations, and the supervision of dissertations was rated very highly by students.

138 Library and IT resources are good. Recently, the Supply Chain Knowledge Centre was reorganised and incorporated within the Management Information Resource Centre under the supervision of a dedicated staff member. The change had increased the opening hours for the service. However, because of a failure to communicate the reasoning behind the change and the details of the new service, students perceived the changes as a loss of service and support. Students have access to industry-standard software relevant to logistics and supply chain management. Students on the global part-time modular programme are issued with laptops with a set-up compatible with the University's electronic services. Most lecturers provide notes on the VLE, and students found the on-line portal a useful source of course information.

139 All students have a personal tutor who provides academic and pastoral advice, and academic reviews take place every two months. At the beginning of the programme there is a one-week induction module. Overseas students are recommended to take the English language courses available at Silsoe, and have access to a proof-reading service. Students who met the audit team considered that staff are very supportive, but felt that it would be beneficial to have received more formal advice early on in the programme about matters such as structuring assignments in the style expected of postgraduate academic study.

140 Students are enabled to provide feedback in several ways. Feedback on individual modules is collected at the end of each term through a questionnaire. Feedback is also collected through focus groups and informally during discussions with personal tutors. Students who met the audit team stated that the University took notice of their views and acted promptly and effectively to solve problems that arose wherever possible.

141 The full-time version of the degree has a formal Staff-Student Liaison Committee which meets every two months. Students consider the Committee to be an effective forum for solving problems and providing two-way communication. The part-time versions of the degree do not have formal liaison committees, but given the relatively small size of the cohorts, students felt that they were able to express their views and get problems raised and solved effectively through direct and informal channels. Overall, the audit team found that the quality of learning opportunities was suitable for the programmes of study leading to award of MSc in Logistics and Supply Chain Management.

MSc Water Management

142 The DAT covered the MSc in Water Management which has five options; Advanced Irrigation, Community Water Supply, Environmental Water Management, Water and Society and Water for Sustainable Agricultural Development. The programmes are offered in both full and part-time modes within the Institute of Water and Environment in the Faculty of Agricultural Engineering, Food Production and Rural Land Use based on the Silsoe Campus, and are accredited by the Chartered Institution of Water and Environmental Management (CIWEM). PgDip and PgCert awards are also available, but only three students have received these awards in the last six years. The comprehensive DSED included programme specifications and student profile statistics, and a set of annexes which included the report of the 2002-03 periodic review, external examiners' reports, report of CIWEM accreditation panel, assessment instruments, minutes of student meetings and the personal development planning handbook.

143 The audit team was able to confirm that the programme specifications followed the University template, contained all the essential elements necessary to describe the programme and a credit tariff table with information on contact hours, private study hours, total notional learning hours, assessment method, weighting within the MSc and credits. No subject benchmark statement was appropriate for this master's programme.

144 The audit team saw evidence to confirm that annual and periodic course review followed University procedures. A standard set of admissions, completion and graduation statistics for up to six years is supplied by the Registry to the Course Director for inclusion in the annual course report. Following discussion within the course team, the Course Director submits the annual course report to the Faculty Board for approval. Any changes to the programme will be included in the annual report and an amended programme specification submitted for approval. The last periodic course review was in 2002-03, three years after a major programme change. The team found periodic course review documents to be comprehensive, and was interested to read the Course Director's critique of the position and future development of course.

145 The minutes of the meetings of the Industrial Advisory Board show the Board's close involvement in curriculum development through detailed discussion of modules. The audit team found that the Industrial Advisory Board makes a significant contribution to development of the curriculum and students' learning opportunities.

146 External examiners' reports are considered according to University requirements, with the Course Director responding directly to the external examiner on course-specific issues, following approval by Faculty Board. They are also considered by the Industrial Advisory Board. The reports are attached to the annual course monitoring report and comments on them made in the report by the Course Director. The external examiners' reports seen by the audit team were generally very positive and supportive, with one examiner commenting on the excellent documentation of the response of the teaching team to points raised.

147 The assessment strategy for the programme is based on the three elements of the programme: the taught element assessed using coursework and integrated examinations; a group project assessed by a group report, presentation and oral examination; and a personal research project assessed through a thesis and oral examination. Module assessments are moderated by one member of staff for consistency, compatibility with the learning outcomes and level. Students who met the audit team were positive in their praise for the staff in respect of coursework assessments, which would normally be discussed with them very early in the module, and they were very clear on the requirements for the assessments and the marking criteria.

148 The audit team saw examples of coursework, integrated examinations and projects. Within these assessments there was evidence of moderation of marking and double marking of projects. The coursework assessments and examinations had associated mark schemes or 'model' answers and non-examination assessments had coversheets indicating the specific marking criteria for the assignment. However, these specific marking criteria were different for different assessments and seemed to bare little similarity to the agreed criteria approved by Faculty Board. This point was also made by the external examiners, and although the DSED reported that a staff development session had been delivered to increase understanding of the criteria, the team would encourage the adoption of the approved criteria across the programme. From its study of students' assessed work, the team was able to confirm that standard of student achievement was appropriate to the title of the award and its location within the FHEQ.

149 The audit team examined the course handbook, which included an induction timetable, course timetable, aims and objectives of the course, details of the course team, credit tariffs, programme specifications, module information and a section on academic issues agreed by Faculty Board. Students who met the team felt that the handbook was comprehensive and included all the information needed for the course and their learning needs.

150 Learning resources and support include good library and computing support, with the recent extension of the local network to the student village. During the last academic year the course team has adopted a standard VLE for all modules to provide a 'blended' learning environment. This has received strong support from the students who met the audit team. Practical learning opportunities make use of the extensive research facilities at the Silsoe campus, specifically within the Institute for Water and Environment. Learning support is through the module convenor, option leader, project supervisor and Course Director. Additional support for learning is provided by the campus learning support officer and administrative support from the academic administrator. Students who met the team were complimentary about the learning resources and the support from staff, particularly their accessibility and speed of response to queries.

151 The Silsoe campus has been the pilot within the University for the implementation of PDP. Initial attempts to deliver the programme as extra-curricula including workshops failed due to lack of engagement by the students due to their giving priority to the demands on time of their specialist master's studies. The approach now being taken is to embed PDP activity within the MSc programme, and students are provided with a handbook containing a skills matrix for each module of the course. The audit team examined the handbook and found it to be an appropriately succinct yet informative document. Students who met the team, however, while agreeing that PDP was a good idea, were not fully aware of its integration within the programme of study. The teaching team is encouraged to continue to promote a skills development agenda.

152 Timeliness of coursework feedback was raised in the CIWEM accreditation report and in student meetings with the audit team. Staff emphasised that they were making significant efforts to meet the University's guideline of response within 20 days, and were aware of the importance of feedback on the first coursework element of the course as an indicator to the

student of their performance, particularly when modules were taught in two-week blocks. Staff reported that it was intended to look at the value of different assessment instruments to enhance speed of feedback for the first assignment. The team heard from students that there had been an improvement in timeliness of feedback, with some assignments being returned within a few days, and in all cases students were in agreement that the quality of feedback was good and contributed to their learning development.

153 Students can give feedback through end-of-module questionnaires, the outcomes of which are collated by the Course Director who prepares a summary for module convenors. Student representatives are also able to make specific option comments at the course team/student meetings held three times a year. Issues raised in these meetings have included such matters as workloads in specific modules, availability of paper and electronic copies of course materials, lack of clarity in assignments and module content. The audit team was able to identify changes that had occurred in the programme from issues raised at the course team/student meetings and concluded that there was good communication between the staff and students. Students who met the team were aware that comments from the previous year's students had improved the programme for them, and felt that they should do the same for the next student cohort. Overall, the team found that the quality of learning opportunities was suitable for the award of the programme of study leading to the award of MSc in Water Management.

Section 4: The audit investigations: published information

The students' experience of published information and other information available to them

154 Students receive a range of material about their courses or programmes of study and/or research, including a general handbook, a course handbook and CD-ROMs which provide

detailed information about University regulations, facilities and support for students. In addition, the University's web pages provide information for prospective and current students. International students are provided with supplementary information, both before arrival and after registration.

155 The audit team discussed provision of information with the student groups it met through the DATs, in a meeting with research students during the audit visit and with Officers of the CSA during the briefing visit. Students generally confirmed that they rated quite highly the information they received, both before and after starting their programmes, although students who met the team in one of the DATs had found that the description of facilities led to expectations that were not fulfilled upon arrival. The SWS noted that the CSA survey had not asked specifically about students' experience of the information available to them, but pointed out that 'most students have made up their minds to come to Cranfield irrespective of any advertising or published information' on the basis of the reputation of the University, the availability of a specific course, recommendation and employment prospects, in that order. The survey indicated that publicity material was considered to be accurate in general but acknowledged that it was 'difficult to truly describe how rural and small some of the sites are'. The SWS expressed the view that, in consequence, some students, particularly overseas students, 'find the reality of the University quite a shock in terms of its location', possibly affecting their ability to get settled into academic work.

156 The audit team was left with the impression that control of content and accuracy of information produced for students at a local level was largely the responsibility of the originating school, with central control being confined to main brochures and prospectuses. There is no institutional-level mechanism for oversight of information relating to collaborative provision. Although there was no evidence of inaccuracy resulting from this lack of institutional-level oversight of such material, the University might wish to reflect upon the

merit of monitoring the application of institutional protocols for the growth area of web-based information. Overall, the team was able to conclude that the University takes seriously its obligation to provide useful, timely and accurate information for students.

Reliability, accuracy and completeness of published information

157 The University reviewed its information provision in the light of the requirements of the HEFCE's document 03/51, *Information on quality and standards in higher education: Final guidance* TQI set, as a result of which a new format was adopted for external examiners' reports. All reports are now being received on the new forms and will be made available electronically. Briefing sessions for external examiners who are not from the HE sector, to help them appreciate the purpose of the forms, will be provided in the induction programme to be introduced at the beginning of academic year 2005-06.

158 The SED stated that the University is sceptical about the utility of TQI, and has progressed cautiously with respect to assembling information for publication. Information on the University's learning and teaching strategy and links with employers have now been made available on the HERO website. Reports of periodic programme reviews are being checked for publication. At the time of the audit visit, not all programme specifications were available in electronic format, but the University plans to make them publicly accessible through a weblink. The University has a mechanism for uploading TQI relating to its collaborative provision through which partner institutions can make external examiners' reports and periodic review reports available on the web. Some information, for example on employer links, is included with the University's own information.

159 The report of the 2000 quality audit commended the University on 'the processes used to develop and maintain the University's web site and the way in which the site is used'. The audit team learnt that resource constraints have impacted on the University's ability to increase the amount of information available on

the website, for example, it has not been possible to place a full range of committee minutes on the website. However, the Registry staff who met the team explained their intention to establish a quality assurance website, accessible both internally and externally, over the coming year to publish a range of information relating to the University's approach to assuring quality and academic standards.

160 The SED stated that the University is 'confident that an appropriately comprehensive and detailed range of information about all its activities is available in the public domain'. The audit team was able to review a wide range of University publications, including material available on the website, and formed the view that, on the basis of the sample of materials that it saw, it could endorse the University's statement of confidence.

Findings

Findings

161 An institutional audit of Cranfield University (the University) was undertaken during the period 11 to 15 April 2005. The purpose of the audit was to provide public information on the quality of the University's programmes of study and on the discharge of its responsibility as an awarding body. As part of the audit process, according to protocols agreed with the Higher Education Funding Council for England (HEFCE) the Standing Conference of Principals and Universities UK, three discipline audit trails (DATs) were conducted. This section of the report summarises the findings of the audit. It concludes by identifying features of good practice that emerged during the audit, and making recommendations to the University for action to enhance current practice.

The effectiveness of institutional procedures for assuring the quality of programmes

162 The University is a specialist, research-intensive institution which focuses on applied research in engineering, science and management. Much of this work is undertaken in collaboration with business and industry. The last intake of undergraduate students took place in October 2003, so from October 2006 the University's student body will be entirely postgraduate. The University's approach to quality management is influenced by its specialist portfolio and its history, which the University believes has generated a creative and entrepreneurial culture that enables it to sustain teaching and research in a competitive marketplace.

163 A particular feature of the University's approach to managing quality and standards is 'the separation of responsibility for quality and assurance policies and procedures...from the management and oversight of the University's business interests'. This separation gives rise to a system of schools, which manage staff and resources and determine the mix of activities, in parallel with a system of committees, under the Senate, which regulates teaching and quality assurance matters. Academic matters, and in

particular those that relate to quality assurance, fall within the remit of the faculty structure that operates in parallel with, but independently from the schools. The business and academic management strands come together through the office of the Vice-Chancellor and the Executive. While recognising the merits of the separation of resource management from academic quality management, the audit team also recognised the potential for the separation to introduce uncertainty into strategic academic planning.

164 The Senate is the 'principal academic body of the University', and therefore has overarching responsibility for the management of the quality and academic standards. The University takes a highly devolved approach to management, within a framework of Senate laws, Codes of Practice (CoPs) and guidelines designed to promote consistency and equity within the devolved structure. The Teaching Committee (TC) of the Senate is the main route by which the Senate maintains an oversight of quality and academic standards, and its role is seen as of particular importance in the context of the University's highly devolved approach to the management of its academic function.

165 The use of external advisers during the development of new courses is not a regulatory requirement, and the University maintains a robust defence of this position. In practice, however, considerable use is made of external advisers, albeit in an informal way to calibrate the standards and levels of the proposed programmes and to test their industrial relevance. This external input is often through the Industrial Advisory Panels of industry representatives established to advise on course matters. A course proposal is normally forwarded by faculty board to TC for university-level scrutiny and approval, but it is possible for a faculty board to promote its proposal for a new course directly to the Senate, thus bypassing scrutiny by TC. The audit team noted such a case, seeing it as an example of where the University needs to be watchful of the tensions that might result from its policy of separating business and resource matters from the quality management.

166 Annual and periodic review is largely focused at the faculty level, with the faculty board taking the overarching role of monitoring the academic health of courses. The audit team found evidence of quality loops being closed, and of a commitment on the part of course directors to use the annual reporting system to enhance the quality of learning opportunities for students. The Industrial Advisory Panels seek the views of staff and students, and take an integral part in the quality enhancement and assurance processes. Because their membership includes senior staff from the industrial and commercial sectors, they have a particular role in ensuring the relevance of courses to industrial needs. Overall, the procedures for annual oversight of the quality of programmes at faculty level is operating effectively.

167 The periodic review process makes good use of external advisers from both the academic and industrial practitioner communities. Again, Industrial Advisory Panels play an important role in the scrutiny of periodic review reports, bringing external expertise to inform programme development. The audit team noted, in particular, the ability of a faculty to use the periodic review method in a flexible manner by reducing the length of the cycle where circumstances might be considered to pose increased academic risk. The team saw substantial evidence that the processes of annual and periodic review were rigorous and probing. The team formed the view that the mechanisms in place and the manner in which they operated gave confidence in the ability of the University to deliver its programmes to an assured quality.

168 With regard to the management of quality in collaborative programmes, the audit team saw evidence of robust discussion within the committees considering new proposals, but found no reference to an institutional policy for the strategic development of collaborative activity, or any systematic institutional-level overview of quality and academic standards in collaborative provision. Once approved, collaborative provision is subject to the same CoPs as on-campus courses, with the exception of a three-year periodic review period instead of five years. If the University

intends to expand its international portfolio of collaborative taught programmes, as its Strategic Plan implies, it would be advised to consider establishing an institutional policy to guide the strategic planning of that expansion so that it may be confident of meeting fully its responsibilities as the awarding institution.

169 Student evaluation of courses is obtained through end-of-module questionnaires or through feedback meetings. At campus level, surveys of library and computing provision are undertaken to seek the views of students on the adequacy of provision. The audit team, however, found no evidence of reliable mechanisms for disseminating good practice identified through course and campus-level evaluation. At institutional level, the exit questionnaire that was commended in the report of the 2000 quality audit continues as a student satisfaction survey, and provides useful feedback. The Cranfield Students' Association undertakes its own student survey annually, and make the results available to the University.

170 Communication links between the course and faculty level are short, effective and well used. Although there are close links between the faculties and TC, these appear to work less well because the TC receives a substantial number of routine papers from the faculties, and its agendas and minutes indicate that much of the business of the committee focuses on these detailed issues rather than developing the broader and more strategic part of the academic agenda. The audit team found a lack of a clear vision of the strategic role of the TC in portfolio planning and institutional-level oversight of quality management, or how it might need to be developed in order to give greater leadership to the academic business of the University in the context of a highly devolved management structure. TC does, however, keep effective oversight of the regulatory framework within which the devolved management operates. Overall, the findings of the audit confirm that broad confidence can be placed in the effectiveness of the University's current and likely future management of the quality of its programmes.

The effectiveness of institutional procedures for securing the standards of awards

171 The University considers that it 'retains a traditional approach' to defining and maintaining academic standards. The appointment and specific role of external examiners for taught course are governed by Senate CoPs which are aligned with the precepts of the *Code of practice for the assurance of academic quality and standards in higher education (Code of practice)*, published by the Quality Assurance Agency for Higher Education (QAA). Most external examiners are appointed from the higher education (HE) academic community, but about 20 per cent have a commercial or industrial background, in keeping with the University's mission. Recently approved amendments to an external examiner's report form, enable examiners to comment directly on issues related to the standards of assessments and the academic standard of the University's awards in relation to similar UK institutions.

172 The audit team found clear mechanisms at course, faculty and University levels for responding to the comments made by external examiners in their reports. Course directors respond directly to external examiners' reports, and reports are also considered, and acted upon, by course teams as part of annual and periodic course review. External examiners' reports seen by the team were generally complimentary and, where issues had been raised, the team found that appropriate action had been taken. The University has recently introduced a mechanism, through TC, for taking an institutional-level overview of the outcomes of external examiners' reports across the University. The team was able to confirm that the external examiners play a significant role in assuring the academic standards of the University's awards.

173 The audit team found that an appropriate range of statistical data for taught programmes is available at subject level, and is analysed in annual and periodic programme review. Research student data is reviewed at faculty level.

The team found that such data is being used effectively in the course-level monitoring of quality and academic standards, but found little evidence of it being used systematically at institutional level to support the management of academic standards. The team would encourage the University to consider mechanisms by which progression and completion data can be used more effectively to inform strategic academic planning at institutional level.

174 At course level, the audit team found significant external input from industry and commerce through the Industrial Advisory Panels and professional, statutory and regulatory body (PSRB) accreditations. Course accreditation by a PSRB is the responsibility of the course team, with accreditation reports being monitored by the relevant faculty board. The University acknowledged, however, that a more strategic institutional-level approach to the wider use of accreditation report outcomes would benefit the University as a whole. On the basis of the evidence available in the DATs, the team found that input from Industrial Advisory Panels and PSRB accreditation was used effectively in the procedures for securing the academic standards of awards, and in assuring the quality of the learning opportunities available to support students in achieving those awards. Overall, the findings of the audit confirm that broad confidence can be placed in the University's current and likely future management of the academic standard of its awards.

The effectiveness of institutional procedures for supporting learning

175 The work of the Library and the University's computing services is monitored and guided by the Information Strategy Committee and the Learning and Teaching Information Committee. These committees are informed by faculty boards and student surveys. Students generally rate library and computing facilities as good, although there is some variability in provision across the campuses. The audit team found that decisions affecting the provision of learning and information technology resources had sometime been poorly communicated to students.

176 The provision of specialist support facilities to support learning at departmental level and the significant links which departments had with industry and potential employers was seen by the audit to be a particularly strong feature of the University. The audit team heard, however, from some students of problems with prioritisation of available resources, including work space and computing facilities, which they perceived to have an adverse effect on completion rates. It appeared to the team that, in the absence of an institutional overview of equitable allocation of available resource, the devolved management structure could be impeding resource sharing, leading to variation in practice in the quality of learning resources available to students. The team would encourage the University to consider how it might take a more central strategic approach to achieving greater equity and consistency in the allocation of resources to support learning.

177 Academic support and guidance is provided to students primarily by course directors in the case of taught courses and by supervisors in the case of research students. The support includes appropriate induction programmes and the introduction to academic staff and learning support facilities associated with each individual course. There are no formal University-wide requirements for the arrangements for personal support and guidance, as a result of which there is diversity in the format of provision across the schools, ranging from individual personal tutors through to course directors acting as a personal tutor to a whole class. In view of the often small cohorts on a taught programme, and the maturity and experience of the students, the audit team considered that diversity of practice to suit the circumstances of a course was appropriate.

178 At a central level, personal support is provided by a range of welfare, careers advice, counselling and medical services including arrangements for the support of students with disabilities and special needs, which is led by the University's Disability Learning and Support Officer. Language provision for overseas students is provided centrally but normally at an additional cost to the students. The provision of

basic health and safety training was found to be variable in quality across the University, and although compulsory in some areas, the team found that it was not always being enforced. The team, therefore, welcomed the recent appointment of a University Health and Safety Officer and the establishment of a central Health and Safety Committee, which appeared to be a positive step in addressing this matter. Careers advice was recognised to be a particularly strong feature of the University, and benefited from the links that most schools have with industry and potential employers.

179 In respect of supporting learning through the professional development of staff, the University has taken measures since the 2000 quality audit to develop significantly its approach to staff development. A Head of Professional Development has been appointed and the Professional Development Group (PDG) has been established, with responsibility for delivering a broad ranging portfolio of development activities to support good practice in teaching and learning, including a course, accredited by the Higher Education Academy, leading to the award of the Postgraduate Certificate in Learning, Teaching and Assessment in Higher Education. The professional development needs of staff are identified in annual appraisal and used to inform the development and differentiation of the PDG's activities. A Staff Development Sub-committee of the Senior Appointments Committee of Senate provides central oversight of staff development, which is therefore now a core part of institutional-level quality management. Overall, the audit team viewed the arrangements for professional development as forming a significant contribution to the enhancement of support for learning.

Outcomes of discipline audit trails

MSc Automotive Product Engineering

180 The DAT covered the MSc programme in Automotive Product Engineering delivered by the Department of Automotive, Mechanical & Structures Engineering located within the School of Engineering. Programme

specifications set out appropriate learning outcomes, and link these to teaching, learning and assessment. While no subject benchmark statements are relevant to this master's programme, the programme specification had taken note of progression beyond first-degree benchmarks and of the accrediting PSRB's reference points.

181 Students receive detailed and helpful information about their studies and assessment requirements and expectations. Student evaluation of the provision was largely positive but those students interviewed did express some reservation about the learning resources not being up to date and relevant to the course of study. The programme benefits from very close links with industry and a proactive Industrial Advisory Board which has a positive impact on course design and curriculum development. The audit team was able to conclude that the standard of student achievement on the programme was appropriate to the title of award and its location within the FHEQ, and that the quality of learning opportunities provided for students is suitable for the programmes of study leading to the named award.

MSc Logistics and Supply Chain Management

182 The DAT covered the MSc programme in Logistics and Supply Chain Management which is offered as a full-time degree and in three different part-time versions. Programme specifications set out clearly the aims, objectives and learning outcomes of the programmes together with details of how these are to be achieved and the programme delivered. The specification reflects the relevant benchmark statement and is informed by the requirements of accrediting professional bodies. From its study of students' assessed work, and from discussion with students and staff, the audit team was able to conclude that the standard of student achievement on the programme was appropriate to the title of the award and its location within the FHEQ.

183 Students receive helpful and detailed information about their studies and useful feedback on their work. They comment favourably on the standards of teaching, the

quality of the learning environment and the learning resources that are available. In particular they commend lecturers' knowledge of the subject area and their accessibility and helpfulness. The programme benefits from the very close links that exist between the academic groups responsible for its delivery and the industry, so that students have a wide choice of industrial projects to choose from for their dissertations. The audit team concluded that the quality of learning opportunities provided for students is suitable for the programmes of study leading to the named award.

MSc Water Management

184 The DAT covered the MSc programme in Water Management which is offered in five options. The programmes are available in both full and part-time modes within the Institute of Water and Environment in the Faculty of Agricultural Engineering, Food Production and Rural Land Use based on the Silsoe Campus, and are accredited by the Chartered Institution of Water and Environmental Management. Programme specifications presented for each option of the programme included appropriate aims and learning outcomes, linked to teaching, learning and assessment. From its study of students' assessed work, the audit team was able to conclude that the standard of student achievement on the programme was appropriate to the title of the award and its location within the FHEQ.

185 Students who met the audit team were generally complimentary about all aspects of the programme including learning resources and support, staff accessibility, staff response to issues, the quality of handbooks, the timeliness of assignment allocation, the quality of coursework feedback and the clarity of the assessment requirements and marking criteria. They have opportunities to comment on the course through end-of-module questionnaires and in the course team/student meetings. Students who met the team were aware that beneficial changes had occurred for their programme due to comments from the previous student cohort and felt they should do the same for the next student cohort. Overall,

the team found that the quality of learning opportunities is suitable for the programme of study leading to the named award.

The use made by the institution of the Academic Infrastructure

186 The University expects its staff to be familiar with the Academic Infrastructure through familiarity with its own Senate CoPs and guidance. It is particularly important, therefore, that the Senate CoPs and guidance are appropriately aligned with the Academic Infrastructure. It is the responsibility of TC to consider this alignment, and to recommend amendments to the University's own CoPs or guidelines as necessary. The University listed the dates on which TC had considered individual sections of the *Code of practice*, and the action that was taken. While the audit team was able to confirm that the University had engaged with the *Code* in relation to its own policies and procedures, it noted some delays in response to the 2004 revisions of the *Code* and incomplete application of certain sections, such as that on placement learning, which it dismissed as 'not applicable'. The University may wish to reconsider the applicability of the sections of the *Code* and to give more timely consideration to revisions of the *Code*.

187 The University has developed a set of descriptors for M-level awards and is currently developing D-level descriptors. The audit team found clear evidence of the use of *The framework for higher education qualifications in England, Wales and Northern Ireland* (FHEQ) for both sets of descriptors. The University's academic portfolio will soon to be wholly postgraduate, for which there are currently few subject benchmark statements. The team saw evidence of the use of the M-level *Subject benchmark statement* for general business and management, and of undergraduate subject benchmark statements being used as an indication of the anticipated subject knowledge of recent graduates entering postgraduate programmes.

188 The University has adopted a template for programme specifications based on QAA's guidelines. All postgraduate taught

programmes have a programme specification which is updated as part of the periodic course review process. The audit team found the procedures in place for the approval, including amendment, of programme specifications by faculty boards to be effective.

189 Overall, the audit team concluded that the University was engaging appropriately with the Academic Infrastructure, and was promoting internal debate on aspects of the Infrastructure, but the team saw little evidence of the University's engagement with the consultation processes and the wider debate by which the sector develops these reference points. Notwithstanding, or perhaps because of, the specialised nature of the University, the team formed the view that the University would gain benefit from a greater interaction with the wider debates within the HE academic sector on external reference points and protocols, such as the debate on the implications of The Bologna Declaration for taught master's programmes.

The utility of the SED as an illustration of the institution's capacity to reflect upon its own strengths and limitations, and to act upon these to enhance quality and standards

190 The self-evaluation document (SED) provided the audit team with a clear and accurate description of the University's central processes for the assurance of quality of provision and for securing the standards of its awards. It provided useful background to the University's approach to quality assurance, and highlighted areas of good practice and plans for enhancement. The document was prepared by a subgroup of TC, and was strongly reflective of the role and the perspective of groups such as the Registry. However, because of the devolved nature of the University, the team was able to form a better view of the institution's capacity for self-awareness after speaking with staff and students at the operational level.

191 The audit team noted a lack of a strategic emphasis within the SED. In part this reflected the uncertainty within the institution at the time of the audit surrounding the future of the

Shrivenham campus. The team came to the view, however, that this lack of strategic emphasis was consistent with a culture of limited institutional-level strategic planning in a highly devolved structure.

Commentary on the institution's intention for the enhancement of quality and standards

192 The SED identified four areas where the University believes enhancement is needed. These relate to staff development, professional networks, dissemination of good practice and collation and use of information across the University. In addition, the University plans to build further on various pilot studies previously undertaken, for example, introducing personal development planning for students; and continuing to build on key initiatives such as e-learning.

193 The audit team confirmed that the enhancement agenda presented in the SED was relevant and appropriate. It considered, however, in the context of the University's highly devolved management structure that the proposals gave little sense of a clear agenda for change emanating from central strategic planning of the future academic business of the University.

Reliability of information

194 Despite institutional scepticism about the value of publishing the teaching quality information (TQI) required by HEFCE's document 03/51, *Information on quality and standards in higher education: Final guidance*, the University has made good progress towards meeting the requirements of publication. Those aspects of TQI which are not yet published are in the process of being made ready for publication. The University is also proposing to develop further access to information on quality and standards and has put in place a means of allowing partner institutions to upload their TQI.

195 Students find the information provided to them useful. The audit team found no evidence of inaccurate or unreliable information, but was not convinced that the University had robust institutional-level mechanisms for assuring itself of reliability and accuracy, especially in relation

to collaborative provision. On the basis of the evidence available, the team formed the view that reliance can be placed on the accuracy, integrity, completeness and frankness of the information which the University publishes about the quality of its programmes and the standards of its awards.

Features of good practice

196 Of the features of good practice noted in the course of the audit, the audit team noted the following in particular:

- i the active engagement of Industrial Advisory Panels in quality management and course development (paragraphs 47, 55, 76, 125, 137, 145)
- ii the institutional recognition of the value of the periodic review process as an effective quality management tool (paragraph 54)
- iii the provision of opportunities for the professional development of academic staff (paragraph 89)
- iv the widespread use of the University's research environment and links with industry to enhance the quality of learning opportunities (paragraph 94).

Recommendations for action

197 The University is advised to:

- i give greater prominence to the strategic planning of the academic business of the University (paragraphs 32, 39, 48, 70, 82, 95, 113).

In addition, the University may wish to consider the desirability of enhancing its quality management arrangements by:

- i reviewing the University's provision of learning skills support in the context of an increasingly diverse student intake (paragraphs 100, 139)
- ii testing the security of the present and planned arrangements for academic partnerships leading to the awards of the University against the guidance contained in section 2 (revised 2004) of the *Code of practice* (paragraph 110).

