EUA is the representative organisation of universities and national rectors' conferences in 45 countries across Europe. EUA's mission is to promote the development of a coherent system of education and research at the European level, acknowledging the diversity of its members and the importance of solidarity.

Through projects and services to members, EUA aims to strengthen institutional governance and leadership, and to promote partnership in higher education and research both within Europe, and between Europe and the rest of the world.

DEVELOPING AN INTERNAL QUALITY CULTURE IN EUROPEAN UNIVERSITIES

REPORT ON THE QUALITY CULTURE PROJECT

2002 – 2003

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EUA
European University Association

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Education and Culture

DEVELOPING AN INTERNAL QUALITY CULTURE IN EUROPEAN UNIVERSITIES

REPORT ON THE QUALITY CULTURE PROJECT 2002 – 2003

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FOREWORD

The past decade has seen an explosion of national quality assurance systems in Europe. These have been developed to assure the public that universities are fulfilling their role and functions in society. As important as these external processes are, however, it is essential that universities develop a quality culture to monitor internally all their activities and services in a way that is congruent with core academic values.

The EUA Quality Culture Project, funded by the Socrates Programme, was conceived to enable participating institutions to discuss how to introduce and embed a quality culture in their institutions and develop action plans in specific thematic areas. It is evident, from both the high number of applications (137 institutions) and the enthusiasm with which participants have worked, that the EUA Board and Council made the right decision to stress the importance of quality culture in EUA's first action plan. In this plan, internal quality culture is viewed as the essential precondition to ensure public accountability and strengthen institutional autonomy.

Participants included fifty institutions from twenty-nine countries: of the fifty institutions, seven were technical universities, three came from the extra-university sector, and forty could be classified as "classical" universities. These institutions represented the full spectrum of EUA members (from east to west, north to south) and included six universities from non-Socrates countries for which extra-Socrates funding has been sought.

The Project revealed great commitment on the part of participating institutions to develop a more systematic internal quality culture, identify and compare good practices and implement appropriate action plans. The following report analyses the results of this project and offers a set of concrete recommendations, illustrated with examples, for introducing and embedding a quality culture in higher education institutions. We hope it will be useful to all our members.

Eric Froment
President

◻ ACKNOWLEDGEMENTS

1. INTRODUCTION

1.1 Structure of the report

This short introductory chapter reviews the project's aims and the responsibilities and activities of the various participants.

Chapter II explores the external policy context and background for the project. It examines the growth of accountability in Europe as a context for the Project Guidelines and shows how these guidelines were applied in each network.

Chapter III builds on this discussion and moves to the consideration of quality in general and the complexity of various definitions that are used in higher education in general and how these concepts were discussed by the project participants.

Chapter IV analyses, at a **generic level**, the processes, actors and structures that are key elements for the development and embedding of internal quality.

With Chapter V, the report moves from the generic to the **specific level** and considers the tools for institutional development in each thematic area.

Chapter VI moves back to the general level and provides conclusions and general recommendations.

The reader is encouraged to consult Annex 2, which provides in-depth considerations of some of the issues that could not be integrated into the body of the report.

1.2 Aims and responsibilities

The aims of the Quality Culture Project were to:

■ Increase awareness for the need to develop an internal quality culture in institutions, and promote the introduction of internal quality management to improve quality levels;

■ Ensure the wide dissemination of existing best practices in the field;

■ Help institutions approach external procedures of quality assurance constructively;

■ Contribute to the Bologna process by strengthening the attractiveness of European higher education.

The participating institutions were grouped into six networks focused on the following themes (cf. Annex 1 for the names of all participating institutions). Each institution was represented by one senior member who was responsible for organising the project in his or her institution, attending the various network meetings and preparing several documents: institutional presentations, analyses and action plans. The co-ordinators were responsible for leading the work in their network, organising three network meetings, supporting the universities in developing appropriate action plans, and – following a template provided by the Steering Committee – writing the network reports. They met with the project Steering Committee twice (at the start and at the mid-point of the project), provided the EUA Secretariat with the key documents as they were being produced and were responsible for the network budget within the agreed framework.

The Steering Committee provided oversight and general guidance, monitored the progress of the whole project and is responsible for the project report. The Stakeholder Committee ensured that key EUA partners were kept informed about the project.

The EUA Secretariat developed the Guidelines and the template for the network reports and provided support to the network co-ordinators by clarifying the conceptual framework and discussing with them all aspects of the project.

Theme	Number of Partners	Co-ordinator
Research Management	**7**	Oktem Vardar, Bogazici University, TR
Teaching and Learning	**8**	Clare Stoney, Leeds Metropolitan University, UK
Student Support Services	**9**	Luciano Arcuri, University of Padova, IT
Implementing Bologna	**8**	Jürgen Kohler, Greifswald University, DE
Collaborative Arrangements	**9**	Jan Petter Myklebust, University of Bergen, NO
Communication Flow and Decision-Making Structures	**8**	Birute Maryte Pocuite, University of Vilnius, LT

1.3 Network Activities

Each network held three meetings, resulting in six final network reports. The first meeting provided an opportunity for understanding each partner's institutional and national setting. The second meeting discussed the results of the institutional analysis and their implications while the third examined the institutional action plans.

Thus, the meetings were based on three sets of documentation (institutional reports, institutional analyses and action plans) which were the result of broad internal consultations within each partner institution to ensure their validity and to embed the project results. The network reports indicate that institutions gained valuable returns on efforts invested.

All networks have followed the EUA Guidelines for the project (cf. Chapter II), albeit with some modifications, and have praised their constructiveness and dynamism. One network noted that "the project could act effectively as a form of external review but with a developmental enhancement focus rather than the negative implications associated with an externally imposed system of audit" (Teaching and Learning, p. 19).

The Communication Flow and Decision-Making Structures Network decided to benchmark its area. This exercise yielded interesting results, as summarised in Annex 2.3.

The network reports clearly show that new partnerships among participating universities have been created within the groups, some of which set up "list serves", newsletters and in one case, a website to communicate on a regular basis. All networks reported that the spirit of partnership that emerged through their work demonstrated the success of the networks in establishing safe and supportive communities in which to discuss common problems. Where clear overlap among the network themes required it, the networks made contacts with the groups with whom they had common interests, thus enlarging the spirit of co-operation and exchange.

The network reports were based on a template provided by EUA that gave a structured list of questions for analysis. These reports are available on request from the network co-ordinators.

2. CONTEXT, BACKGROUND AND GUIDELINES

2.1   Context

Higher education has always been driven by the need for quality but the explosion of external national quality assurance systems in Europe is making greater demands on institutions to be more transparent in this area. By and large, external measures have been useful in promoting quality, although there have been documented cases, here and there, of intrusive procedures. Nevertheless, if external accountability has become more systematic, then it is important that internal procedures become more developed and visible to the public. Therefore, it is important to describe the external policy context of this project for a better understanding of the discussion of internal quality in Chapter III.

2.1.1   What is accountability?
The external context

The growth of external accountability has its origin in a range of factors that have prompted universities to become more pro-active. Specifically:

■ Increased autonomy from governments
■ Increased demands for accountability linked to broader and wider access to higher education and its concomitant rising costs on the public purse
■ Increased need to diversify income sources as government funding stagnates or declines
■ The rise of the "knowledge society" and heightened expectations of higher education's contribution to the local, regional, national and European economies
■ The on-going creation of the European education and research areas
■ Increased internationalisation (e.g., student and staff mobility, cross-border partnerships), which, through comparisons, raises expectations about quality
■ Increased globalisation, leading to the emergence of competitors in hitherto safe national "markets" as well as a trend towards the "marketisation" of higher education

It is worth emphasising that the introduction of ambitious European reforms linked to the Bologna Declaration has stimulated structural curricular changes, more cross-border partnerships as well as an emphasis on quality assurance and recognition issues.

2.1.2   What is quality culture?
The internal context

The trends listed in 2.1.1 mean that universities can no longer simply express their commitment to excellence: they must actively monitor their activities and demonstrate their quality to a variety of stakeholders. However, in order to reach this goal effectively a number of preconditions must be met. These have to do with autonomy, effectiveness and accountability:

■ *Autonomy:* institutional autonomy is the precondition for promoting internal quality. Institutions must have a capacity for long-term strategic planning in order to develop quality monitoring of their activities in a meaningful way (i.e., to ensure feedback into the strategic planning process). This implies a stable funding and legal environment and the capacity for the career management of academic and administrative staff.

■ *Effectiveness:* Universities must examine carefully their internal and external governance in order to optimise decision making, engage students and stakeholders, ensure an effective administrative structure and develop an internal and external communication strategy.

■ *Transparency:* Once internal quality culture is developed and universities review cyclically their own programmes and activities, external accountability procedures could take the form of an institutional audit that evaluates the robustness and the embedding of internal quality processes. This non-intrusive approach to quality assurance would promote further institutional effectiveness and responsibility.

2.2 Steps to a quality culture

The Quality Culture Project was identified as a top priority for the European University Association (EUA) which has had a long tradition of developing membership activities focused on institutional development and promoting the quality of universities in Europe.

Its flagship activity is the Institutional Evaluation Programme which was launched in 1993 when few countries in Europe had national quality assurance procedures in place. The initial objectives of this trail-blazing programme were to raise awareness of the need for quality assurance and to prepare the Association's membership to respond to these procedures by developing robust internal quality cultures.

To date, eighty-nine universities in thirty-three countries have participated in the programme. Its hallmark combination of characteristics – an institutional focus and the European composition of the teams – is unique in Europe and much noted in the international quality assurance literature. The programme rests on several key principles arising from the nature of EUA:

■ *Improvement:* Evaluation procedures can be seen on a continuum from development and improvement of the institution to accountability to stakeholders. As a membership service, the Institutional Evaluation Programme is closer to the improvement end of this continuum. The evaluation stresses internal quality culture and encourages participating universities to develop this aspect further.

■ *Self-knowledge:* As an activity dedicated to strengthening universities, it stresses the need for an institution to know itself (the self-evaluation phase) and to internally monitor its quality as necessary steps in its development and strategic planning. It considers the institution as a whole and sees the evaluation as an opportunity for universities to think about change in a positive and strategic manner.

■ *European peer review:* As an activity of an association dedicated to the creation of a European higher education area, it offers its members the opportunity for an external examination by a team of European peers. The teams question universities about institutional efforts toward convergence in degree structures, the implementation of ECTS, partnerships with other universities and Europeanisation policies.

■ *Openness to the world:* Finally, as an activity of an association dedicated to inter-university co-operation and committed to the principle of solidarity, it makes this service available worldwide, thus contributing to meet the need for greater dialogue across regions of the world in the key area of quality assurance. These international activities are proving crucial as the debate on globalisation and its likely impact on quality assurance is gaining momentum.

These principles have guided and shaped the conceptual framework for the Quality Culture Project.

2.2 "Good principles" vs. "good practices"

The Guidelines for the Quality Culture Project were based on the combined methodology of two long-standing and inter-linked EUA programmes, both using SWOT as an analytical tool[1] :

■ The Institutional Evaluation Programme approaches each institution in a contextual manner. Recommendations for improvements are always tailored to the specific issues of the institution and its specific context.
■ The Management Seminar (co-sponsored with IMHE/OECD) is based on small group work in order to discuss the participants' specific leadership and management issues, in a supportive environment.

In both programmes, the notion of "good practices" is replaced with the notion of "good principles" because it provides a more flexible framework able to deal with a variety of national and

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[1] A SWOT analysis refers to an examination of Strengths, Weaknesses, Opportunities and Threats.
For more details on these programmes cf. EUA's web site: www.eua.be. The Guidelines also benefited from work done by EUA for the 2001 ESMU's benchmarking club.

institutional contexts while universities seek to benchmark their own practices.

Based on the experience gained in these programmes and the Quality Culture Project, it is evident that best practices in internal quality can only be generalised with a degree of caution. This is because quality assurance is contextual in three significant ways:

- *Internal coherence:* In terms of its internal environment, the institution must develop measures that can be acceptable to the university community and in keeping with its history, culture and organisational structure. Its quality culture must be congruent with these and be fit for its purposes and its specific mission and objectives.

- *Relationship to the State:* In terms of its external environment, the national QA debate is often politically charged. Institutions respond to these political demands in different ways, depending on a variety of factors such as the robustness or intrusiveness of the national QA system, the traditional relationship with ministries, the national political culture, etc.

- *Experience:* The challenge of extracting generalised best practices has to account also for the time vector. An institution introducing explicit quality measures can certainly learn from those with a longer experience in the field but the specific challenges of an institution new to these practices cannot be ignored. To give a concrete, if obvious, example, the need for individual QA "champions" can be felt acutely at the beginning of such a process but not as much when the process is well established.

Thus, best practices in internal quality are difficult to present as universal recipes because each institution must decide for itself what they are, based on a SWOT analysis for instance. Therefore, it may be worth making a distinction between principles and their application in actual practices – with the details of such practices filled out by each institution.

According to some observers, the trend toward greater reliance on internal review can be expected to continue because it responds both to academic values and to bureaucratic needs: it respects institutional autonomy and allows governments to de-velop auditing procedures that are lighter and therefore less costly. In light of this central political consideration, what then might be considered "good principles"?

Key "good principles" have to do with the overarching framework of an internal quality culture. Namely, each university must organise its internal review to fit its own objectives and be coherent with its own academic and organisational values. At the same time, each institution must balance these against the need for external accountability as defined in its national context while keeping in mind European and international standards.

In this context, "good principles" include the following:

- building a university community and the staff's identification with the institution;
- developing the participation of students in the university community;
- embedding a quality culture through internal communication, discussions and devolved responsibility while understanding the resistance to change and developing strategies to overcome it;
- agreeing upon an overarching framework for quality review processes and standards;
- defining key institutional data – historical, comparative, national and international – and systematically collecting and analysing them;
- involving the appropriate external and internal stakeholders;
- stressing the self-evaluation stage as a collective exercise for the unit under review to ensure the implementation of appropriate change (this includes academic and administrative staff and students);
- ensuring a follow-up of the internal reviews, e.g., implementation of the appropriate recommendations and feedback loops into strategic management.

The specifics of how to apply these principles will vary: each institution must fill in the details that are appropriate to its own context. It is perhaps useful to note, nevertheless, that of the eight "good principles" listed above, only one involves a management practice (collecting and analysing institutional research data); all the others require a leadership that is attentive to both individual staff development and

community building – the two essential prerequisites for quality and change.

2.4 Good principles: the key to university development

The Quality Culture Project Guidelines stressed that the application of these grounding principles will vary in function of specific institutional contexts (i.e., SWOT, mission, etc.) and that it was important to first address these "good principles" rather than rush into sharing and implementing "good practices" that could be unsuitable to a specific context or introduced in an incoherent or haphazard manner.

The set of "good principles" provided in the Guidelines triggered lively discussions and led the networks to reject the notion of generic and universal "best practices" as spurious because it ignores national and institutional contexts.

The networks agreed that "good principles" are at a sufficient level of generality to constitute guidelines for benchmarking and developing specific and context-sensitive "good practices."

In addition, this approach provided the opportunity to look beyond the narrow confines of a specific activity area:

- The Teaching and Learning Network noted that,
  - one institution considered the issue of institutional data and concluded that it needed "to unify enrolment and registration system, to create a student database and to establish a special educational unit,"
  - while another institution developed and introduced a system for self-evaluation and feedback loops into the university's strategic planning.

- Several institutions identified activities aimed at improving communication, such as conferences and seminars as well as the active involvement of the internal constituencies (staff, students) and external stakeholders (e.g., employers).

2.4.1 From principles to mission

In addition to the principles mentioned above, the Student Support Services Network provided seven additional principles: a generic one, which involved approaching quality as institutions committed to enlarging and broadening access to higher education (p.5), and six specific ones to fit its thematic area:

- "Student support services should be informed by and based upon knowledge and analysis of the composition of the student profile and its changing needs.

- Universities should recognise these needs within their mission statements and should express commitment to address them by specific strategies in this area which contain defined goals, instruments and mechanisms to attain them, time scales for their attainment and means to monitor the strategy.

- Such strategies should address the key issues of changing cultures and conflicts of culture and of the need to balance central direction in the strategy of provision with distributed delivery and local ownership.

- The university should demonstrate active and visible engagement in the support of student support services at the highest level (e.g., Chancellor) and provide focus and direction at a senior level through an identified senior post (e.g., Dean of Students).

- University policy and practice in student support services should be backed by clear documentation and communication which is readily accessible to students and staff both by conventional means and C&IT technology.

- Universities should create opportunities for student involvement and participation in the decision making related to student support services and in the delivery of services and activities (where appropriate)" (p.11).

2.4.2 From mission to goals

In addition to agreeing on principles, some of the networks felt the need to precisely define the goals and objectives for their thematic area of activity. Thus,

■ The Student Support Services Network recommended approaching this area holistically and offering "programmes and activities designed to increase student *academic* performance together with student *personal well being*" (p.6).

■ The Collaborative Arrangements Network (which focused on international relations) identified the following objectives for their area:
  - "to improve the prerequisites for the development of co-operation with the external environment in the educational area (programmes taught in English, full use of credit system, incorporation of practical placement as an integral part of study, using of unique criteria in recognition of studies);
  - to create, on a contractual basis, a network of strategic partners in Europe and outside Europe as a basis for, e.g., participation in a higher number of EU educational and research projects, and to increase income generated from externally financed projects;
  - to provide an attractive range of institutionalised, contract-based exchange programmes to increase the number of students exchanges (outgoing and incoming), as well as academic and research mobility of PhD students and young teachers;
  - to further investigate the means of providing appropriate advice and support for the identification and the management of collaborative opportunities in research;
  - to increase the involvement from faculties and departments in international exchange by providing incentives to people and departments who work actively and contribute to the improvement of quality cooperation of university institutions with external partners;
  - to measure the objectives in quality according to the indicators used in Europe (academic feedback, the ways to select students, the activity of the universities, human resource management, scientific research, the performance of those students who graduated);
  - to build an internal network in the institution with a flexible and dynamic organisational structure to spread quality culture within the university, ensuring that internal bureaucracy is kept to a minimum:
  - to enable external evaluation of the university's international activities and agreements" (p.9).

The conclusion to this section is that any discussion of quality must take into account the complexity of activities in the academic environment, their transactional nature (e.g., a group of students and a teacher, a network of researchers) and thus the difficulties in measuring outcomes. Overall, the networks steered away from discussions of criteria and standards and preferred to discuss principles and objectives for their areas of activities to the point that some reports read as mission and strategy statements, as the above clearly demonstrates.

Seven external factors and trends were identified in the opening of this chapter as affecting the rise of external quality assurance, three of which are clearly international: Europeanisation, internationalisation, globalisation. The international dimension of quality assurance is bound to increase in importance and become a key concern for all university leaders. As discussions in Europe intensify regarding the quality dimension of the Bologna process, the European higher education sector is at risk of witnessing the development of external procedures that could be heavyhanded and potentially negative in altering the mission and function of higher education towards narrow instrumental goals (e.g., economic interests). A meaningful way to protect universities from such risk is to develop robust internal quality monitoring, guided by academic rather than merely instrumental and economic imperatives. Ultimately, the ability to do that refers back to issues of leadership and strategic management which are discussed in Chapter IV.

3. INTERNAL QUALITY

The Guidelines of the Quality Culture Project do not offer a definition of quality deliberately in order to ensure ownership of any definition that might emerge within the networks. The networks were asked to identify whether they adopted an implicit or explicit definition of quality from the following open-ended list of possibilities:

- Quality as fitness for purpose
- Quality as compliance (zero errors)
- Quality as customer satisfaction
- Quality as excellence
- Quality as value for money
- Quality as transformation (process of changing the customer)
- Quality as enhancement (process of changing the institution)
- Quality as control (punitive/rewarding process of quality assurance)

The Communication and Decision-Making Network listed seven definitions (for eight participants), thus showing how challenging the definition of quality is. This difficulty was echoed in the Collaborative Arrangements Network. Unsurprisingly, the most acceptable definition for internal quality was **fitness for purpose** which provided the broadest appeal.

This does not mean, however, that other definitions were rejected but that they constituted additional elements or facets of quality that were adopted to fit specific thematic areas. Thus,

- The Research Management Network adopted "achievement of identified outcomes" as a general definition for all HEIs' activities but added that with respect to research activities, "reference to excellence at international scales was desired" (p.3).

- The Teaching and Learning Network discussed quality as assurance of standards, student achievement and the quality of the student learning experience. However, it was agreed that these should be defined contextually, as fitness for purpose and as enhancement processes, in light of institutional mission diversity and characteristics.

- The Student Support Services Network suggested a combined and multifarious approach to quality including fitness for purpose, fitness for students'

needs, as well as student satisfaction, transformation and enhancement (p.4).

- The Implementing Bologna Network discussed quality as fitness for purpose as well as fitness of purpose (clearly defined and valid learning outcomes) and "fitness of the devices, i.e., programme items, their compilation and learning-teaching processes, with regard to their aptness and coherence to lead the desired learning outcomes" (p.6). In addition, since the Bologna Declaration identifies the desired outcomes of the curricular reform as enhanced employability and mobility, these two dimensions must be part of the definition.

- The Collaborative Arrangement Network felt that the key aspects were: quality as excellence, enhancement, transformation, and control (p.6).

The multiple dimensions of the quality concept are also evident in external quality assurance procedures which oscillate from approaches based on "excellence" to "fitness for purpose" and from "basic standards" to "consumer satisfaction" (Van Damme 2003). Van Damme argues that this pendulum movement is in perpetual motion and illustrates it as follows:
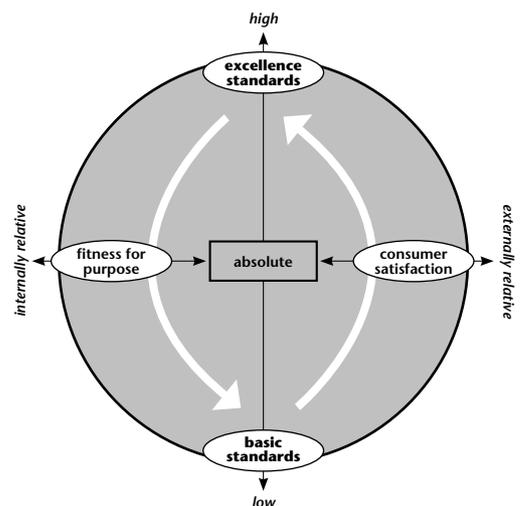
Figure 1: Mapping quality definitions

The networks were asked to analyse whether the type of institutions represented in the network affected the discussions concerning the definitions and to discuss these variations in terms of national and institutional factors.

In this context, the Teaching and Learning Network noted that:

- A higher degree of autonomy and mature internal quality arrangements are linked to "institutions that were seeking a less bureaucratic approach to the development of a quality culture" and were interested in improvement rather than the mechanistic and controlling aspects of quality monitoring (pp. 5-6).

- A higher degree of autonomy is associated with a definition of quality as excellence and the aspiration of demonstrating it on an international level "whereas in less autonomous situations, the perspective on international development related to accreditation" (p.5). The report further notes that the need to get external accreditation may lead to a compliance-driven and less effective quality culture (p.11).

The Communication Flow and Decision-Making Structures Network also addressed the linkage between external procedures and internal processes but stressed "that greater responsiveness to external demands for accountability, transparency, credibility, etc., should not be seen as opposite to self-regulation, but as an element of public responsibility, safeguarding autonomy" (p.3). It is interesting to note, however, that this conclusion seems to have been reached because some institutions in this network have the choice of which external agency to consult (e.g., ABET, EUA's Institutional Evaluation Programme, EQUIS, ISO) and wished to increase their international visibility. This objective was also shared by the Research Management Network.

In this context, it would be useful to point to the vocabulary used in this project. The term "quality culture," as one of the network reports underlined, refers to developing a sense of ownership of the goals, values and processes of ensuring quality internally (Implementing Bologna, p. 3). External processes of quality assurance are important but will become effective only if certain conditions are met: a robust internal quality and an external accountability that is forward looking and orientated toward building and developing institutions rather than simply inspecting them.

4. PROCESSES, ACTORS, STRUCTURES

Processes, actors and structures are the three basic elements to consider in order to successfully embed a quality culture. All three aspects require simultaneous attention as well as effective leadership, community building and capacity for strategic vision and intentional change.

4.1 Processes

Quality has been a recurrent concern in higher education, however, as mentioned earlier (cf. 2.1), external quality assurance procedures are forcing institutions to make their internal quality processes more apparent. To be successful, this requires a change in attitude and behaviour in the institution, as reflected in the use of the word "culture" in this project. Such a cultural change is predicated on careful consideration of the internal quality processes, from the beginning and throughout the implementation of change.

As stated implicitly in Chapter III, the first steps in introducing internal quality require planning and sensitivity. Doing it right from the start is an essential precondition for further positive developments. In particular, it is essential that institutions distinguish between leadership and management as well as between quality culture and quality management. In addition, they must pay careful consideration to the use of the results of their internal monitoring in terms of strategic planning and future actions.

4.1.1 First steps

The networks discussed at length how to introduce an internal quality culture. Given its thematic focus, the Research Management Network started with a distinction between two types of research management (CRE 1994), which can be applied across all the networks' thematic areas:

■ Laissez-faire model (bottom-up, left to individual researchers' initiatives)

■ Interventionist model (mission-orientated choices)

Although this differentiation was not explicit in the other reports, it could be argued that it is a valid distinction, regardless of the activity area. The balance between centralisation and devolution within an institution varies and is never in a steady state.

In addition, higher education institutions are characterised by the diffusion of power and authority, the ambiguity and complexity of goals and purposes, and outcomes that are difficult to measure. The challenge then is two-fold:

■ To systematise standards and operations across an institution while taking account of the professional concentration of expertise at the grassroots.

■ To develop a set of criteria and measures that captures successes and failures in a constructive and transparent manner.

The reports wrestled with these considerations and highlight the need to pay attention to process as an essential precondition for a successful introduction and embedding of an internal quality culture.

A SWOT analysis is a useful starting point for introducing a quality culture as (i) a tool to identify success and obstacles factors within a specific institutional context and (ii) a means of engaging the whole community, including external stakeholders.

A mission statement that builds on the SWOT analysis is crucial as well, especially if quality is defined as "fitness for purpose." Thus, a mission statement that has been agreed upon provides the "yardsticks for quality" (Implementing Bologna, p.6).

In addition, several networks stressed the importance of:

■ involving the whole institution, including administrative staff and students in discussing the benefits of a quality culture;
■ creating communication flows (e.g., newsletters);
■ discussing and developing strategies with "champions";
■ developing teams and small working groups to share good practices across the institution;
■ setting up specific projects to increase involvement – as exemplars rather than pilots.

Above all, it is crucial to present quality initiatives as supportive rather than controlling processes. In this respect, the Implementing Bologna Network cogently argues that the Bologna reforms that are being introduced require accompanying supportive measures such as advice and evaluations which must take place simultaneously as the reforms are implemented (pp.13 – 14).

To ensure a consistent application of standards across the institution, the following aspects require attention as indicated in the Teaching and Learning Network report:

■ Development of tools that can be used across the institution to measure success and to benchmark the teaching and learning area.
■ Transparent processes and procedures with appropriate documentation developed with staff input.
■ A regulatory framework that encompasses the whole range of teaching and learning activities (including accreditation, monitoring and review) and engages with external reference points.

4.1.2 Feedback loops and communication flow

Internal evaluation and information systems are essential for improving activities and services and for forecasting and planning future activities in an institution. While this was recognised by all the networks, for obvious reasons, the Communication Flow and Decision-Making Structures Network paid a great deal of attention to this issue:

"Strategic planning is that part of the strategic management process concerned with identifying the long term direction of an institution of higher education, generating ideas and choices, taking the necessary steps to achieve the stated goals, and monitoring progress or non-achievement in order to adapt the future strategy. It is part of a continuous, rolling process of both planning and the implementation of plans. The purpose of strategic planning is to build a sustainable long-term future within a continuously changing environment, and more particularly:

■ To achieve an equilibrium between the institution and its turbulent environment and help it to: absorb pressures, demonstrate competence and acquire funds, reduce unpredictability;

■ To sort and classify priorities, allowing the setting of objectives at various levels and the best use of limited resources;

■ To secure co-ordination between the various planning elements, particularly the vertical (e.g., the operational units: faculties, departments, etc.) and the horizontal (e.g. the functions: finance, staff, logistics, etc.);

■ To establish the basis for performance monitoring.

As argued by the Network members, creation of the strategic plan as well as its operation, implementation and monitoring are certainly related to quality culture in decision making and communication flow. Free flow of information is obviously an essential constituent of strategic planning because:

■ It is impossible to involve staff at all levels into the development of institutional policies, priorities and strategy without it.
■ The needs of stakeholders should be identified and incorporated into the institution's strategic plan.
■ Success of the strategic plan is tightly related to the quality of monitoring that is based on collection, evaluation and dissemination of information to the internal (governing body, academic staff, support staff, students) and external (government, private sector representatives, media, alumni, etc.) audience" (p. 21).

The Network drew attention to the key role that central "interface" service units can play in gathering external information and redistributing it internally. However, the capacity to carry out this function – and therefore to respond effectively to the external environment – depends on the internal structures of the institution and more specifically on reaching the optimum balance between centralisation and decentralisation.

While recognising that internal structures are often determined by legislative framework, this network stressed the need for integrated (rather than fragmented) institutions as a precondition for effective institutional autonomy (p.36).

Comparing the tasks of management and leadership*

	Managers	**Leaders**
Create an agenda	**Plan and budget**	**Set direction**
Develop a human network	**Organise and staff**	**Align people and groups**
Execute the agenda	**Control and solve problems**	**Motivate and inspire**
	↓	↓
Impact	**Create order**	**Produce change**

Figure 2: Leadership and management

*   source: Derived from Kotter (1990) p.139

4.1.3 Leadership and management

Integrated institutions require both leadership and management. While these must be distinguished, they must also be seen as complementary to ensure success (Communication Flow and Decision-Making Structures, pp. 14-15; Kotter 1990).

Citing Declerck (1973) and Ansoff (1988), the Communication Flow and Decision-Making Network also noted that "while management is adequate for stable and known activities ('operations'), leadership is really needed for unstable and uncertain activities ('projects' or 'change situations')" (p.15).

While the importance of leadership cannot be minimised, this network also highlighted the importance of developing professional expertise in the administrative structures of those universities that have had a traditional collegial organisation. Paradoxically, when universities rely on academics to run administrative services (e.g., computer centres or libraries) this can lead to over-bureaucratisation. In such cases, because the administrative support staff do not have the appropriate skills and competencies, they may end up producing rules rather than services (p.20).
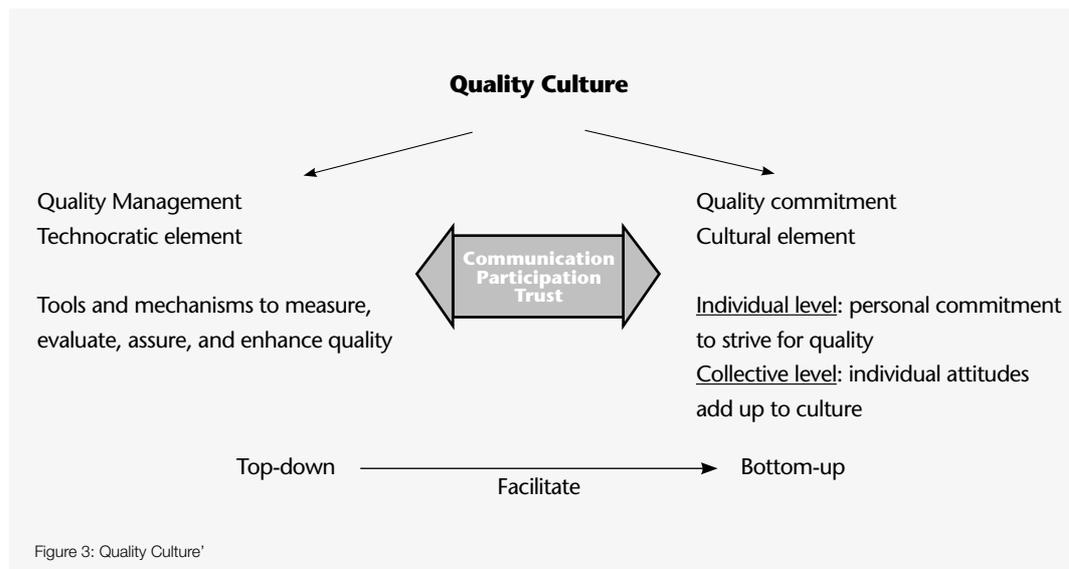
Figure 3: Quality Culture'

The distinction between leadership and management is applicable to the issue of quality as well. As the Implementing Bologna Network pointed out, "quality commitment" must be distinguished from "quality management":

Thus, "Quality culture aims at the creation of engagement and conviction with stakeholders to meet and improve learning objectives" and to ensure a bottom-up approach to quality. By contrast, quality management is the technocratic side of quality culture and refers to "tools and mechanisms to measure, evaluate, assure and enhance quality… In this sense quality management is close to a top-down approach of quality culture." The report further points out that both elements are essential and must be mediated by effective communication and participation (pp. 12-13).

4.2 Actors

The above considerations suggest that to embed quality, careful thought must be given to all actors within and outside the university, each of whom must adhere to the goals, processes and frameworks that are put in place to assure quality internally.

4.2.1 Senior leadership and quality champions

Senior leadership is an essential requirement to introduce and support the development of a quality culture. This responsibility, however, cannot be that of the institution head alone.

The senior leadership team (rector, vice-rectors, deans) is important as a 'champion' of quality culture at every phase, i.e., for introducing, implementing and embedding it. It is at senior level that an overarching quality framework, structures and procedures will be agreed upon, with contribution from across the institution. The senior leadership has the power to integrate the results of internal quality monitoring as a feedback loop into the institutional strategic planning, thus ensuring its long-term effect. Furthermore, the senior leadership team must be "responsive, competent, and enlightened," adopt "forward looking management practices that respond to the needs of the stakeholders" and involve the campus community in its strategy-setting discussions to ensure its implementation (Research Management, p.8).

In addition, several networks indicated the need to have a vice-rector (vice-president or pro-vice chancellor) or dean in charge of a specific activity area (e.g., student support services, research management) or a senior person with a responsibility for the co-ordination of quality processes. As an example, the Communication Flow and Decision-Making Structures Network identified the responsibilities of a "quality manager" as follows:

- *"Organisation of an internal 'Quality Network.'* Create a Quality network composed of people coming from various departments and hierarchical levels, in order to improve the way of work and spread the engagement towards the search for "Excellence."

- *Communication.* Enhance communication flow between units in order to best resolve quality issues and share best practices.
- *Learning.* Develop Quality Culture through a learning process based on a three-step approach: learning, applying, disseminating.
- *Recognition.* In order to have people feel involved, it is crucial to praise their specific skills and have them transfer this knowledge to others.
- *Imagination.* Quality Meetings organised around various topics can favour innovative ideas to solve problems through open discussions and experience sharing.
- *Measurement.* Keep track of qualitative and quantitative measures that will reveal the improvements due to Quality actions. Measurement processes involve both external and internal actors.
- *Assurance.* A Quality assurance system helps the institution to master its processes and maintain the benefit of its improvement actions.
- *Analysis.* Once a year each responsible of a unit will write an Activity Review gathering the performance indicators and an Action Plan, which will be validated by the Steering Committee.
- *Audit.* The Actions Plans will be audited annually by the Quality Manager and the General Director. Processes will be controlled, results will be checked and gaps will be revealed.
- *Comparison.* Benchmarking enables the institution to keep track of the best international competitors and introduce external viewpoints to improve our internal processes and stay up to date" (p.12).

While all networks recognised the need to create central functions responsible for co-ordinating quality initiatives, relatively few institutions report vesting the responsibility for quality in specific units (e.g., faculties).

Nevertheless, it is important that all parts of the institution feel responsible for quality as is illustrated in the following example from the Collaborative Arrangements Network: in one of its institutions, the quality dimension is an integral part of the international office's remit. Thus, the international office "is

responsible for quality assessment of international co-operation projects and exchanges. Decisions about the quality of co-operation agreements are taken by the international office in close collaboration with the departments (if the departments are involved in the cooperation) or the university leadership (for general agreements concerning the whole university)" (p.10).

Financial officers, at both central and faculty levels, are in key positions to ensure that quality culture is a central concern when budgetary and planning decisions are made. Therefore, they must be involved in the development and embedding of internal quality. This is important for any change to be successful but particularly for the Bologna reforms which require careful planning and preparation.

For some institutions, however, the ability to set aside funds for improvement and innovation can be constrained by rigid funding formula – whether these are externally or internally imposed – and lack of appropriate resources. In this respect, the Teaching and Learning Network notes that "[t]he totality of the costs of providing resources may restrict quality enhancement in teaching and learning, e.g., improving facilities or adopting innovative pedagogical approaches" (p.12). This important consideration was not developed further.

4.2.2 Staff

Quality is not only the responsibility of senior leadership; it must also be taken as a concern by all staff members. However, it is important to note at the outset the widespread lack of an overarching framework for dealing with staff issues, especially with respect to professional development, despite their centrality for an effective implementation of internal quality processes. If institutions wish to introduce an internal quality culture, they must start with staff development plans to avoid that quality processes (especially if they are accompanied by an incentive or punitive scheme) are perceived as a threat to individual career development.

For example, the Teaching and Learning Network report notes that older staff may feel particularly threatened if the evaluation of teaching and learning is perceived as an appraisal process rather than an opportunity for improving performance. To reduce

the level of threat, the Network report recommends that institutions develop:

- Incentive and reward schemes (e.g. setting up a teaching innovation fund, awards) and recognition of those who contribute on a voluntary basis to institutional life (e.g., in the student support service area).

- A systematic approach for research and development of pedagogy and a means of disseminating results to motivate academic staff to improve their teaching activities.

Similarly, the Student Support Services Network highlighted the need to train academic staff in academic support activities. Quality in this crucial area must entail that staff members are knowledgeable about the legal national context (e.g., concerning students with disabilities, healthcare or childcare provisions) and the professional and occupational standards in operation in their country.

In addition, in some institutions, academic staff members think that the notion of a quality culture is relevant to the administrative staff alone and not to themselves. "This is further exacerbated in many institutions by the longstanding bias towards research as the more prestigious (and income-generating) activity" (Teaching and Learning, p.9) at the expense of activities serving students directly, i.e., student services, teaching and learning. Therefore, it is important that research-led universities recognise the need to raise the prestige of teaching activities and student support services through concrete actions such as awards, career development schemes, etc.

Finally, it is important that rules and regulations (including governing reward schemes) are fully transparent and non-bureaucratic to ensure the continuing support of the academic staff (Research Management, p. 7, Collaborative Arrangements, p. 15).

Evidently, staff development cannot be improvised as it requires appropriate human and financial resources, a long-term perspective to changing attitudes and, when needed, changes in equipment and facilities. These costs must be evaluated and the adequate resources found before embarking on any other attitudinal or procedural change.

4.2.3 Students

The crucial role of students in internal quality processes was considered from several angles.

■ *Evaluation:* Students' views on the structures of programmes, employability and teaching and learning were identified as essential. To be useful, however, such evaluations must look at students as active participants in the learning process rather than passive consumers. In addition, for students' evaluations to be effective, it must be ensured that:
- feedback loops are closed and the results of the evaluations are fed into the decision-making process;
- students are organised as a body to participate in those decisions where their contribution is essential (e.g., Teaching and Learning, Student Support Services);
- students gain an international experience to bring back useful comparison points (Collaborative Arrangements, p.8);
- student support services are designed coherently to provide the appropriate safety net;
- a web-based "student engagement survey'" elicits students' evaluations not only of one module at a time but of their total university experience (e.g., entry, exit and cohort surveys);
- a survey instrument identifies evolving student needs.

■ *Voluntary involvement:* Students' involvement in the student support service area (e.g., tutorial, peer advising) could be encouraged and recognised through reward schemes, e.g., monetary, credits, scholarships, or mention on the Diploma Supplement. Their involvement should be organised around the following fundamental principles:
- "Students' work must not be a substitution and a convenient arrangement for the non-fulfilment of other components of the university system, neither must it imply the reduction of the administration's or teachers' responsibility.
- According to different local situations, to cultural traditions and to organisational resources, students' work might

be carried out on the basis of a voluntary commitment, of a selection and paid employment, of a selection and involvement with the allocation of formative credits.
- Independently from local choices we point out the importance of a formal recognition of the work of students and a set of criteria in order to define their contribution. The suggestion proposed by the Network is to identify a methodology of recognition which is similar to those envisaged for the model of the Diploma Supplement in the sector of learning" (p.21).

■ *Decision making:* Students' involvement in decision making varies across institutions and often depends on legislative frameworks. All institutions seem to include student representatives in all major decision-making bodies. This point was acknowledged but not developed further in the network reports.

4.2.4 External stakeholders

External stakeholders are also becoming increasingly important to ensure the social engagement of institutions. Stakeholders are integrated into institutional governance bodies and include some or all of the following:

■ National and regional government and legislative bodies
■ Professional and statutory bodies
■ Employers and industry
■ Future students, alumni and parents
■ Collaborative and partner institutions

Most institutions recognise the growing importance of the link with external stakeholders and view these relationships as a factor contributing to competitiveness. For instance, the Implementing Bologna Network underlined the importance of responsiveness to external stakeholders and society in general to meet the goals of employability and accountability (p.6). Despite the growing awareness of the need for a dialogue with stakeholders, however, these relationships are not generalised nor are they fully formed and formalised.

External environmental scanning is recognised as an important function that requires further development, both in its local and international dimension, and that must be linked to the internal communication flow within the institution and ongoing dialogue with external stakeholders to ensure wide awareness of trends.

4.3   Quality structures

All the reports recommend the creation of new structures to deal more systematically with internal quality issues. It is interesting to highlight that all the structures recommended by the networks are located centrally thus reflecting a trend away from decentralised to more integrated institutions. Locating the new structures at the institutional centre and ensuring that they report to the highest level would guarantee the adoption of a standardised framework within institutions. Four types of structures are identified:

■ *Quality Unit:* Many institutions have created a central quality unit but with varying degrees of success. The Teaching and Learning Network found that these units are most successful when the following conditions are met:

- The quality unit has credibility in terms of its staff's combined expertise in all areas under its remit.
- The quality unit plays an advisory role and is consulted on a voluntary rather than required basis.
- The balance between an improvement and a control orientation favours improvement.
- The quality unit serves the function of an internal auditor and reporting to the highest body (university Council) and the head of institution, in order to close the feedback loops and feed into the planning and decision-making processes.

■ *Office of Institutional research and information:* This office serves a supporting role for institutional planning and management, through data analysis and communication of results. These functions are key in allowing institutions to monitor effectively areas of strengths and weaknesses and, if done well, to develop appropriate actions in response to gaps in provision.

Yet, this area is flagged as one of the weakest in most institutions, reflecting their historically fragmented nature and their reliance on ministries of education to deal with institutional data. Key recommendations include:

- Regular and standardised data collection;
- Integrated data management systems (e.g., the Research Management Network highlighted the need for the following set of data: legal, financial, scientific information for all research projects, patents, publications, partners, expert databank). For an example of an integrated system, cf. Annex 2.3;
- Awareness and use of external standards and reference points;
- Regular data analysis and dissemination to enable further developments.

■ A *central Research Management Office* with the following tasks:
- "establishing an environment conducive to research;
- establishing institution-wide priorities and plans for research;
- seeking and allocating resources for research;
- costing research;
- identifying focus areas, priorities, suitable niches but at the same time protecting flexibility;
- setting and maintaining quality standards by supporting internal and external assessments;
- emphasising partnerships, collaborations and strategic alliances;
- informing staff about the policies and priorities of external research funding agencies;
- attracting outstanding and entrepreneurial researchers to the university;
- developing an ethical framework to protect the integrity of institutional research;
- providing for intellectual property and legal issues;
- planning for and managing staff research careers" (Research Management, p.4).

■ *Student support services:* Section 5.3 describes a comprehensive set of services: academic tutor-

ing, mental health support, etc. In addition, the Student Support Services Network highlighted first-year students as an at-risk category and recommends that institutions become more proactive to analyse and identify the success and risk factors in the development of students. This would include a holistic evaluation scheme to assess the quality of lectures, modules and courses; students' satisfaction; reasons for failures; drop-out data analyses; and employment patterns.

4.4   Conclusions

4.4.1 Ongoing central leadership

Results from the Quality Culture Project uncover the developmental steps taken by institutions in introducing a quality culture.

- Institutions generally begin the process with the central leadership in the role of "facilitator," allowing for variations of practices across faculties.

- In a second stage, the central leadership (with the contribution of the university community), through a more structured co-ordinating role, sets a normative framework for quality, i.e., common procedures and standards.

- In a third stage, the central leadership develops systematic monitoring and feedback loops into the strategic decision-making.

The third step requires (for some institutions) stronger central leadership and the appropriate re-balanc-

ing of power between the university centre and the faculties. It does not mean, however, an autocratic leadership style but rather one that strives to empower all members of the community to achieve clear and specific objectives within an agreed normative framework. Conversely, this does not suggest an overly centralised institution but instead one that balances the need for rational management across the institution while giving scope for innovations to flourish.

Regardless of developmental stages, the factors and steps detailed in the sections above (4.1 – 4.3) must be considered in an on-going manner because "no institution operates in a static situation" and "those with a mature quality culture were reiterating the same steps, albeit with a greater degree of reflection, as people and drivers changed." Furthermore, "in some of the more mature quality systems where a devolved structure is operating, the issue becomes one of motivating and engaging staff in undertaking their responsibilities. Although essentially this becomes a managerial issue, the underlying concept is related to ownership and leadership" (Teaching and Learning, pp. 9-10).

In this context, it is interesting to note that the reports have paid great attention to central processes but have not discussed in details how these can be articulated at faculty level. The Bologna process, however, involves local applications and care must be taken to ensure coherence of objectives and standards at all institutional levels. Needless to say, this observation is essential to any coherent internal quality policy as illustrated below:

Objectives must be defined on several levels

Coherence and consequence

- University mission

- Programme: learning goals

- Module: learning goals,
   learning-teaching processes

Figure 4: Coherence and consequences (Implementing Bologna, p.7)

4.4.2 Standards and criteria

It is worth emphasising that criteria and standards did not receive much attention from the networks. This was probably due to their international composition which led them to define quality as "fitness for purpose," and drew them away from the issues of criteria and standards.

The Research Management Network was one of the few to discuss at length performance indicators (cf. Annex 2.1) but could not come to an agreement as to how to prioritise them beyond the following items that were considered essential:

- Student input in research
- Human, physical and financial resources
- Qualitative and quantitative output measures: publications in international, refereed journals, citations, competitive grants, PhD theses
- External research assessment to increase national and international visibility

The Collaborative Arrangements Network experienced an "intensive group discussion on how quantitative measures in collaborative arrangements relate to quality issue. Especially in the field of international co-operations and exchanges, volume seemed to be considered as a way of measuring quality [because] it is easier to describe and account for" (p.7).

Interestingly, instead of suggesting measures for teaching and learning, the Teaching and Learning Network focused on quality culture and identified the following indicators of a successful quality culture:

- The level of satisfaction among students
- Effective operation of and improvements in the communication process
- Incorporation of the concept of quality culture into the corporate strategy
- Active participation at all levels of the organisation
- External recognition
- Innovative/creative activity attributable to the quality culture
- Use of internal assessment/reviews to improve performance
- Implementation of institutional action plans (e.g., from this EUA project)

Some or all of these points were also identified in other reports. These considerations point to institutional strategy as the building block on which success rests and will become evident in the following chapter, which is devoted to institutional action plans (cf. Chapter V).

5. TOOLS FOR DEVELOPMENT

While the preceding chapters focus on generic issues, with illustrations from the network reports, Chapter V presents recommendations for each thematic area as they arose from the reports. They constitute a synthesis of the individual institutional plans and can help universities in developing quality systems for each specific thematic area.

5.1   Research Management

Based on the institutional SWOT analyses, the Research Management Network identified a large number of common weaknesses and possible ways of addressing them (pp. 5-7).

5.1.1 Develop research and quality management:

■ A central office for quality assurance (possibly under the supervision of one of the vice-rectors) can be established to assume ownership of research quality. Sessions may be devoted to this topic in the Senate, academic councils, department meetings, etc., to assess and brainstorm the issues.

■ Specific procedures related to quality monitoring should be installed and promoted.

5.1.2 Develop management policies and appropriate funding:

■ Open the university to external research assessment while ensuring funding transparency.
■ Project funding should be tied to research performance to create motivation.
■ Funds for research management may be generated through overheads taken from projects or gifts.
■ Develop a system where positions are occupied by persons with proper competencies.

5.1.3 Develop a shared vision and strategy:

■ Develop an institutional vision, mission and strategic plan. Unless these plans are shared and internalised they are wasted and will not provide guidance to the institution. Thus, iterating processes should be developed to gather and discuss contributions from all. In all these processes, top management must show commitment, active ownership of the plan and repeatedly explain the general philosophy as well as the details.
■ Improve communication channels and allow feedback.
■ Translate strategy into day-to-day business.

5.1.4 In teaching-led institutions:

■ Award credit for research achievements.
■ Shift teaching-oriented incentives to research or, at least, use some part of it for research (levy an overhead on external teaching to subsidise research).
■ Balance the administrative time spent on research and teaching issues (e.g., if one department meeting focuses on teaching issues, arrange the next one to discuss research issues).
■ Choose and promote administrators who value research and are committed to research as a priority.
■ Arrange as many seminars and discussions as possible to create an environment conducive to research.

5.1.5 Emphasise stakeholder accountability:

■ Universities are accountable to society. Promote the notion that some of the research projects must be applied and geared towards economic and social benefit.
■ Establish schemes for internal and external evaluations.

5.1.6 Develop evaluation procedures/tools:

■ Benchmark with other (comparable) institutions.
■ Start self-evaluation reports or annual activity reports.
■ Self-evaluation processes are best if accompanied by site-visits of international panels.

5.1.7 Develop interdisciplinary/ multidisciplinary research (structure and methodology):

■ Joint supervision of Master and PhD theses.
■ Common seminars where experience, projects and expertise are shared, as well as common or complementary features are identified.
■ Incentives, extra funding for joint projects and research.
■ Promote "Mode II" problem-based research.

5.1.9 Develop awareness of size and quality:

■ Monitor graduate students' quality and number as vital components feeding into the research activities.
■ Leading edge research is growing in complexity, scale and cost, requiring cooperation. If cooperation within the institution is not feasible, develop external links.

5.1.10 Develop international funding expertise:

■ Develop an interface with external bodies and strengthen research management.
■ Promote participation in the European Research Area.
■ Promote mobility.
■ Train academics to meet EU's research proposal requirements.

5.1.11 Develop university/industry co-operation, research results transfer:

■ Promote service to society as the third function of the university.
■ Develop interface offices to promote links between university and industry.
■ Balance "laissez-faire" attitude with "managerial" tools in relationship to industry.
■ Increase academic staff size if critical mass is an issue: there must be sufficient staff numbers to achieve the three central missions, i.e., teaching, research and service to the community.
■ Identify focus areas and strengths in research for industry transfer.
■ Use R & D government subsidies to create units for technology transfer, knowledge transfer, spin-offs, incubators, and science and technology parks.
■ Create activities for venture capital support of promising research results.
■ Help to develop an entrepreneurial attitude among staff to help raise discretionary funds

5.1.12 Develop intellectual property rights policies (patents and royalties):

■ Give guidance to researchers on ethical issues (both limits to scientific research and the integrity of institutional research), on IPR and legal issues by qualified personnel under the supervision of an ethics committee (or officer).
■ Provide assistance and financial support to researchers for issuing patents and participating in the revenues of patents and royalties.
■ Have a clear and contractual set of statements with respect to IPR, setting out the rights of the university and the individual.
■ Introduce undergraduate courses on scientific and professional codes of ethics.

5.2 Teaching and Learning

5.2.1 Key issues

This network achieved wide consensus on key issues that should constitute the backbone of institutional action plans:

- Importance of the Bologna process (2-tier degree structure, ECTS).
- Importance of funding to implement change.
- Importance of leadership at top institutional level.
- Reaching a better balance between research and teaching.
- Importance of staff policies (staff development, recruitment).
- Influence of national policy and legislation on quality culture and the role and effect of external evaluation procedures.
- Importance of external stakeholders.
- Use of international contacts for benchmarking and support.
- Involvement of the whole institution in reform and enhancement.

5.2.2 Institutional action plans

As a result of the agreement on key issues, the action plans proposed by the participating institutions shared the following similarities:

- Development of internal quality systems, including the need to develop a self-evaluation methodology.
- Improvement of decision-making structures to reach a better equilibrium between centralised and devolved decision making, and better articulation between the academic and administrative lines.
- Improvement of infrastructures, e.g., technical equipment and development of quality units.
- Staff development: updating pedagogical and technical skills, supporting staff development, recognition and reward schemes, as well as better internal communication.
- Improved flexibility and access for students: implementation of ECTS as a credit and accumulation system, better marketing.
- Curricular improvement: focus on employability, internationalisation and globalisation.

- Student support: retention policies, students' evaluations and students' involvement in decision making.

5.3 Student Support Services

The Student Support Services report provides a holistic view of this area, based on the notion that students are more than learners and that all aspects of their well-being must be considered. The following is a long but useful excerpt from the report:

"Student Support Services offer programmes and activities designed to increase student academic performance together with student personal well being, offering members of the University community a range of services that complement the university experience and contribute directly to the welfare of individuals." There are four categories of services.

5.3.1 Advice and Guidance:

- *Psychological Assistance Service* aims to help students cope more effectively with the personal or emotional difficulties that may arise during their studies, such as coping with exams, stress, etc.

- *Health Promotion* provides health education services on sexual health, drugs, alcohol, nutrition, and general wellbeing.

- *Career Planning and Job Centre* aims to help graduating students find the best jobs and organise employers' recruitment campaign (for recent graduates or students for full-time, part-time, summer jobs or projects). The Centre organises career fairs, an internship database, and career counselling and posts information about job vacancies and training.

- *Mentoring and Tutoring* matches students with peer mentors or tutors, who are academically qualified and trained in tutoring skills. The student/peer mentor pair develops objectives for the year based on the student's personal and academic needs. It may lead to the identification of students at risk.

- *Legal and Procedural Advice* aims to ensure civil and equitable treatment for all members of the institution and deal with interpersonal conflicts,

faculty/student communication problems, discrimination and sexual harassment, procedure violations, disciplinary matters, reports of illegal activity, and immigration issues.

5.3.2 Material Support Services:

- *Financial Aid* helps students in need meet their living costs while studying, gives advice on tuition fees and is responsible for distribution of maintenance cheques with reference to students loans, grants and scholarships.

- *Student Health* offers the full range of medical services, more specifically dealing with preventive and medical care, dental and mental health.

- *Disability Support* promotes equality of opportunity and aims to adapt and organise support on an individual basis, tailored to each student's needs. According to their declaration of their needs on the application form, every institution will plan and prepare for arrival and support, e.g., note-taking arrangements, learning disability testing, academic tutoring, etc.

- *Accommodation and Catering* deals with both University-owned and privately rented accommodation and food service and helps with any queries.

- *Non-traditional Student Support* serves returning students and students with children, such as childcare assistance, subsidies, family programmes, etc.

5.3.3 Academic Support Services:

- *International Student Support* is responsible for the support and welfare of incoming and outgoing international students, to make their stay as comfortable as possible, running a comprehensive advice and information service.

- *Academic Technology Assistance and Distance Information* offers a variety of materials, workshops, open sessions for students, providing a variety of information and documents consultable through the web, and supplying hardware, software and electronic access for academic purposes.

- *Libraries, Databases and Electronic Resources* provides books, periodical journals, newspapers, databases, electronic texts, research guides, and other references tools (dictionaries, atlases, encyclopaedias, etc.).

- *Self-assessment, Basic Skills and Study Methods Services* aims to improve students' academic performance. It gives free assessment and advice on specific study skills, test taking and learning techniques in order to enhance the ability to store and recall information. Detecting preferential learning styles, it gives suggestions to develop learning strategies that are best suited to any particular style.

- *Linguistic Centre* offers courses in major languages at different levels, as well as intensive courses in the native language for foreigners, and special support to improve language skills for academic literacy and academic purposes.

- *First-Year Orientation* focuses on new students and prospective students, giving essential information about the institution and provides opportunities for interaction with faculty, staff, and other students. It serves as a clearinghouse for students considering the institution as an option, and offers a wide range of advice about faculty choice, graduate study skills and information on graduate programmes.

- *Educational Equity Office* is the co-ordinating body for a variety of pre-entry programmes designed as out-reach to promote the participation of students with disadvantaged background or members of minority groups who need extra support.

- *Tutor's Training* trains peer advisors, in order to increase their skills with reference to the tutorial service.

5.3.4 Non-Academic Services:

- *Sport and Recreation* provides a wide range of sport facilities, inexpensive courses and events.
- *Religious Groups, Racial and Ethnic Cultural Support* focus on the educational, political, social and emotional support of persons with specific racial or ethnic identities.
- *Sociocultural Centre* offers a wide range of social and cultural activities and events, (e.g., concerts, theatre, etc). It can be carried out by the Students' Union.
- *Transport* provides transportation within and across the institution. It also informs and manages all aspects related to mobility.
- *Security inside the Campus* is designed to enhance the security of property and the personal safety of staff, students and visitors to the campus. It may include: 24-hour emergency line; Campus police office, either internal or external; 24-hour patrol; Bicycle security and safety; Car security; CCTV and control office; Easy access to advice about personal safety; provision of personal alarms.

5.4   Implementing Bologna

The Implementing Bologna Network has produced a blueprint for implementing major reforms when these are framed by external actors. It identifies a sequence that requires developing a schedule and milestones, and communicating with internal and external stakeholders constantly to ensure their adhesion (pp. 18-26). The implementation process must balance a top-down with a bottom-up approach:

- *Awareness Phase:* create acceptance for the need for reforms, generate commitment and find appropriate internal and external partners.

- *Concept Phase:* based on a SWOT analysis, develop the strategic institutional mission, which includes identifying the institution's position, niche, public perceptions, and priorities.

- *Implementation Phase:* allocate responsibilities across the institution and co-ordinate activities at central level.

- *Evaluation:* All the while, the central level must monitor the implementation process in compliance with the overarching guidelines and the institutional mission. The report stresses the need for "constant iterative feedback… [to] add a dynamic element to the Bologna Process… assure coherence and detect errors as early as possible in the process in order to correct them immediately" (p.25).

Furthermore, the model identifies the key actors – academic and administrative staff, students, external stakeholders – and stresses their important contributions to the process and underlines the need to provide funding for this process.

Finally, the Network recommends working with the established institutional committees to design the overall strategy and to create a Bologna steering committee to co-ordinate the implementation across faculties and ensure its coherent application (p.30). A more detailed analysis is provided below.

5.4.1 Implementation Strategies

The method developed by the Network was to intersect the Bologna process as a frame of reference with the individual SWOT analyses in order to identify the action lines that are required in each institution.

1. Concept
The following set of success factors relate to the Bologna concept itself and shows how the main conceptual tools help with implementing the reform package.

a) Mission
The functions of a mission statement are:

- To offer orientation for defining the primary goals of the study programme and give guidance for future development. These must be coherent with the general mission of the institution.

- To crystallise the organisational culture and, more specifically, the quality culture. Since the mission represents the common denominator between sometimes very different faculties, it is important to find a common theme with which the whole community can identify.

- To communicate with the external world and describe the study programme concisely for use as a marketing tool to promote the values and the self-conception of the programme.

b) General Criteria for Programme Development

The core idea of the mission statement is translated into practice by formulating general and concrete criteria for programme development which can be used for the internal evaluation of programmes. A useful set of criteria are (1) the general principles of the Bologna declaration; (2) the specific objectives of the institution; (3) the educational concept of the institution; (4) the general principles of curriculum development; and (5) a set of specific principles with respect to the bachelor and the master level programmes.

5.4.2 People and Institutions

This set of strategies is connected with the institutional and human resource structure of the reform process.

a) Committee Structure

A committee structure can be a useful approach in developing and implementing Bologna tools, reforming study programmes and ensuring the representation of all stakeholders. The committee structure might include the following committees: (1) central steering committee that develops central guidelines and concepts, (2) programme committees that develop and implement single study programmes, and (3) an accreditation committee that evaluates new programmes internally according to defined guidelines.

b) Human Resources: sharing functions

It is crucial to allocate responsibilities and coordinate among the actors at different levels effectively:

- Senior management must signal the will to change, propose the strategic direction, set major milestones, disseminate the key ideas, and coordinate the reform process.

- At the faculty level, a steering committee brings together stakeholders and professionals to assure the necessary breadth of the reform process, coordinates the reform efforts within the faculties and serves as a liaison between senior management and the next two levels.

- At the programme level, new study programmes are conceptualised. The programme level combines competence and proximity to implementation problems in order to carry out this task in the most effective way.

- Last but not least, a strong working level is essential. Here, the actual concepts are prepared and implemented to translate the strategic targets of senior management and of the steering level into concrete actions.

c) Human Resources: Capacity and Competence

Who should be responsible for implementing the reform? There are two options:

- Academic staff: although academic staff is eminently suited for this task it may constitute an extra workload.
- Specially appointed administrative staff as support to the academic staff.

Individual competences and responsibilities must be clearly defined to foster greater commitment and sense of ownership and ensure effective and timely co-ordination.

d) Information and mobilisation of the academic community

Information plays a crucial role in a reform process to reduce resistance to change and draw attention to the university by establishing its profile as a modern institution. In addition, the reform process needs to evoke enthusiasm among university members. That is why it is important to be successful and, crucially, to demonstrate this success to university members. This will produce a success culture which enables the institution to promote reforms more easily.

5.4.3 Process

Strategies related to the process of implementation give information about how the reform is taking place, i.e., which mechanisms and tools are used to implement new study programmes.

a) Implementation Approach
There are several possible approaches to implementing a reform programme:

- *The Unitary Approach* is a comprehensive implementation concept that seeks to carry out the reform programme in the whole institution at once and covers all aspects of the reform package and all faculties. There are advantages to this approach which ensures coherence, efficiency and commitment.

- *The Segmented Approach* carries out the reform programme in several steps (e.g., a few faculties start to implement Bologna study programmes or some parts of the Bologna tool-kit, i.e., ECTS is implemented). This strategy allows the university to capitalise on "reform champions" and learn from a smaller set of experiences. The main disadvantage of this approach is in the risk of gridlock; if the reforms are not progressing as planned the reluctant parts of the organisation could be discouraged with a possible risk of rollback.

- *A mixture of the two strategies*, i.e., only one tool can be implemented within the entire institution. This might have two advantages. First, fewer resources are needed to implement only one feature of the Bologna reforms at a time, which can lower the overall resistance against reform. Second, if one tool is implemented successfully, the ideas of the reform are better conceived by all university members and may reduce resistance against other reform features. The drawback of this strategy is that synergy effects that arise from the combination of all reform features cannot be used.

- *Pilot projects* are a good way to experiment, within a controlled environment, with a view for a more comprehensive implementation to follow. This approach allows an institution to test different processes thoroughly before it chooses its standards for implementation and improves information on the entire reform project.

b) Guidelines
Guidelines, with concrete instructions, are useful and even necessary to support programme development and implementation in a complex process like the Bologna reforms. The guidelines are both an implementation support tool and a quality assurance tool, therefore leading to more coherence and firmness in implementation.

c) Phases
A reform process in two phases is useful. The first phase includes the proposal and drafting of a general outline of the content and structure of study programmes, following strict guidelines. The proposed programmes are reviewed and given the green light to develop a detailed curriculum. This increases the efficiency of the process as quality assurance steps at an early stage contribute to correct programmes that might conflict with the guidelines.

d) Schedule
A strict schedule is very important for the implementation process to discipline participants and minimise procrastination.

e) Evaluation parallel to the Process
Setting up evaluation in parallel to the implementation process can help in detecting problems and deviations from the guidelines and concepts at an early stage and in taking counter measures. A process-accompanying evaluation is more efficient that mere end-of-line evaluation.

5.4.4 Environmental Factors

Environmental factors that influence implementation are external factors and as such are not under the university's control.

a) National Legislation
Some European countries have adopted national legislation requiring the implementation of the Bologna Declaration. This approach has both positive and negative aspects.
On the positive side, it allows for better synergy and momentum as all actions are directed toward the

same objectives and all players share the same problems and can benchmark their progress. Any opposition to the reform must be aired which results in clarification and constructive debate, thus avoiding the risk of mere passive resistance or non-participation.

On the negative side, centrally steered Bologna reforms imply a curtailment of university autonomy in planning and design and a "top-down" approach. Gradualism is lacking, not so much in a sense of time, but from a qualitative point of view: there is no opportunity to begin by involving the more convinced and committed people and then move on step by step towards wider involvement. Moreover, and somewhat paradoxically, the fact that European reforms are mediated by a national Ministry of Education is misleading in that universities may lose track of the "European" dimension of the new features.

However, a state imposed implementation need not necessarily be a top-down approach. There is still room for bottom-up features and dialogue between ministry and universities. This can be done by working groups on the national level that consist of representatives from universities and the ministry with a clear mandate to design and shape new legislation. This approach maintains the autonomy of higher education institutions and at the same time imposes some pressure on them to work in a constructive way for new standards in higher education.

b) Funding

Reform efforts always require additional human resources that can be a drain on core funding. If extra public funding is not available it is useful to turn to third party funding (e.g., foundations will support reform projects).

5.5 Collaborative Arrangements: International partnerships

Two major trends affect universities and especially their international offices:

■ *Globalisation* is perhaps the most unsettling trend, particularly with the growth in borderless and transnational education and the further inclusion of higher education in the GATS negotiations. Globalisation means that the rise of the knowledge society in an increasingly competitive world offers great opportunities for universities to play an important role if they are able to position themselves on the world stage and strengthen the link between education and research and research and society.

■ *The Bologna process* has inspired higher education reforms across Europe and has led to quicker results than expected. It has been observed all over the world and shows no signs of slowing down. However, as the Trends III report reveals, academic and administrative staff and students show, by and large, a low level of awareness and much work needs to be done to fill this knowledge gap.

Along with the Bologna process and its goal of creating a European higher education area, Europe is also determined to create a European Research Area which will imply more policy coordination and a better integration of research efforts as well as a target for R&D spending that should reach 3 per cent of GDP in each of the Member States by 2010.

These processes have an impact on the different levels at which higher education policy is developed and on the future role of international offices. Until recently, there were two dominant policy levels: the national and the institutional, with the national being the most dominant. The nation states defined the university (e.g., via charters), provided funds and employed large percentages of graduates.

Since the late 1980s and beginning of the 1990s, however, we are witnessing the emergence of new policy levels (regional, e.g. Europe) and shifts in the importance of the various levels such as the increased stress on university autonomy and accountability.

At the national level, there is an increase in the number of higher education institutions, increased involvement of external stakeholders, e.g., through changes in governance structures, State withdrawal through reduced or stagnating funding levels and change in its role from a directive to an increasingly steering function. The steering is done through the external quality assurance procedures and a shift in focus from control of inputs to monitoring previously agreed outputs and outcomes. To conceptualise the interaction of the different policy levels, it is helpful to distinguish the role of each as follows:

Institutional level: strengthening the institution to cope with the different challenges it faces.

National level: still playing a major role and expressed in a great diversity in Europe and around the world, which needs to be accepted.

European level: convergence of structures is a goal.

International level: a natural environment for higher education, especially in research. Globalisation is leading to rapid developments that require a new policy framework.

Thus, higher education institutions have to deal with two sets of pressures, some of which are conflicting.

- *Europeanisation and internationalisation:* Europeanisation requires developing European partnerships in research and teaching while globalisation requires institutional "branding" and competition in the global higher education market place.
- *Tensions and balance among the university's three core missions* - research, teaching and social dimension.

To cope with these pressures, higher education institutions will need to:

- Consolidate their autonomy while understanding that autonomy is not independence but that it implies accountability.
- Improve stakeholders' understanding of the challenges they face.
- Promote appropriate external quality assessment and an internal quality culture.
- Reinforce their capacity for strategic management and networking.

It could be said that international offices are a point of converenge of all these tensions and pressures. Therefore, these offices can be a major driver for change and play a significant role in showcasing their institution but they must:

- Think strategically and articulate their strategy with the overall institutional plans, i.e., work within the institution to develop an overall action plan and discuss the place of internationalisation in it.
- Reassess the current international activities in terms of the institutional plan, its mission and objectives.
- Involve academic staff in developing new action lines, in setting priorities and implementing them (e.g., through an academic board for the international office).
- Receive support from the central leadership in order to develop staff competence and a robust expertise in international activities.

5.6 Communication Flow and Decision-Making Structures

The Communication Flow and Decision-Making Structures Network identified the following ranked factors that contribute to effective governance:

■ *For Decision-Making:*

- "Strong feeling of community and identity, commitment and responsibility;
- Recognition based on performance criteria;
- Awareness of the necessity to improve quality reasons - why we need to be efficient and have clear aims & strong commitment towards quality in all fields of activity and processes;
- Believe and trust in the strategy (for everyone);
- Transparency in formal/informal decision-making structures;
- Systematic training for staff on decision-making skills;
- Information system supplying data for decisions and enabling information sharing;
- Evaluation of changes in the university;
- Clear objectives and deployment leading to strategic planning and action plans and these supported by adequate funds;
- Spirit of competition and cooperation at all levels (internal, external)" (p.9).

■ *For communication flow:*

- "Defined structure - who is responsible for what;
- Culture of sharing information and culture of communication;
- Written down responsibilities, work plans and deadlines;
- Fine-tuned communication inside - to process incoming and outgoing information;
- Clear objective of information flow - what kind of information must be sent to whom;
- Clear purpose for the communication and identified main work processes;
- Listing the sources and receivers of information in different areas;
- Define information resources and information (provides end-users [targets] - flow chart);
- Communication flow should simplify the daily work (keep the flexibility, avoid bureaucracy, ethics);
- IT used for changing the organisation" (p.10).

6. CONCLUSIONS

As the following graph illustrates there is evidence that the project was successful. The graph represents movement averaged across institutions in the Teaching and Learning Network over the period of the project and tracks the growing awareness of the importance of the principles provided in the guidelines.

Staff ownership and identification

LOW ———————————○——————▷——————————→ HIGH

Regulatory framework

LOW ——————————————————○————▷——→ HIGH

Internal communications and devolved responsibility

LOW ——————————○————▷——————————→ HIGH

Student participation

LOW ——————————————○—▷————————→ HIGH

Definition, collection and analysis of institutional data

LOW ——————————————○—▷————————→ HIGH

Involvement of internal and external stakeholders

LOW ———————————○——▷—————————→ HIGH

Self-evaluation

LOW ——————————————○————————▷—→ HIGH

Feedback and follow-up

LOW ——————————————○———▷————————→ HIGH

Good practice

○ Shows position at start of project (October 2002)
▷ Shows position at end of project (April 2003)

6.1 Preconditions for change

As the graph above illustrates, the project demonstrated that attitudes and awareness can change. The project also shows other lessons learnt, perhaps the most important ones having to do with the preconditions for change. Specifically, the project has recognised the importance of effective governance, leadership and management to achieve the following objectives:

■ Sustain creativity and innovation in higher education institutions within a higher education landscape characterised by mission diversity.

■ Strengthen the link between research and teaching through appropriate strategies.
■ Ensure students' success by providing them with the optimum conditions for formal and non-formal learning during their studies.
■ Promote the dynamism of each institution through a vigorous dialogue with stakeholders while ensuring a long-term vision for higher education institutions.
■ Ensure higher education institutions' contribution to the development of the European higher education and research areas and to the construction of Europe within a globalised world.

6.1.1 What institutions can do

The project has shown that to achieve these objectives, the following pre-conditions must be met:

■ In terms of **decision-making structures**, institutions must seek the optimal balance between centralisation and decentralisation (relative responsibility of faculties and central university leadership), which should be based on notions of institutional effectiveness and a clear internal division of responsibilities, within a participative and collegial system. The optimal balance would allow the central leadership to set the overall institutional strategy while the faculties develop their own strategies in close articulation with the institutional vision. This means that funding should flow directly to the centre and redistribution should be based on transparent and clear internal rules.

■ In terms of **actors**, institutions must acknowledge the importance of staff, students and stakeholders:
  - **Staff development schemes** must be implemented in an integrated and coherent way to ensure that when quality culture is introduced it is understood as being part of a framework that can benefit everyone.
  - **Students** are key members of the academic community and, through their feedback, they are important actors in developing quality within their institutions. Their potential must be developed through appropriate leadership training and opportunities to serve on those university committees and activities where they can contribute. This also provides students with an invaluable pre-professional experience in problem solving and teamwork.
  - The relationship to **external stakeholders** must be carefully thought out in terms of:
    ● Clarity of roles and expected contributions of universities and their stakeholders: while stakeholders contribute richness to the strategic discussions in universities, their short-term economic view must be balanced by the long-term academic and public service vision of higher education.
    ● Careful identification of external stakeholders, including reaching out to those who tend to keep their distance from higher education institutions (e.g., SMEs).

■ In terms of **process**, success factors for embedding effectively a quality culture include the centrality of institutional governance and leadership (vs. management), the importance of strategic thinking and awareness for the need to build community within the institution. This implies that the central leadership must have the capacity to both steer the institution in order to ensure consistency of standards and avoid replication of activities and services as well as pay attention to individual staff needs and community building.

■ To ensure deep **attitudinal change**, the community must work together to define quality – however difficult that task is – and contextualise it, based on accurate identification of the institution's internal and external environments. The community must agree on the appropriate processes and structures to put in place and must accept that higher education institutions exist to serve the public and are not simply a confederation of faculties or a collection of individual fiefdoms.

6.1.2 What governments can do

It is an important outcome of this project that as institutions benchmarked their activities in the quality front, the following became evident:

- A definition of quality as excellence and the aspiration of demonstrating it on an international level are associated with a higher degree of institutional autonomy. Less autonomous institutions have a narrow perspective that is confined to accreditation and lead to a compliance-driven and less effective internal quality culture.
- Institutions that demonstrate a more mature and effective internal quality culture (i.e., a less bureaucratic approach, interest in improvement rather than in the mechanistic and controlling aspects of quality monitoring) are those that enjoy a higher degree of autonomy.

This suggests that governments can also play a key role in creating the appropriate conditions for quality. Governments are important in providing a stable funding environment that enables institutions to develop long-term strategies. In a context of mission diversity, legal frameworks must be stable and flexible to allow universities to develop decision-making structures that are congruent with their specific missions and goals and enable them to develop human resource policies that are adapted to their current academic and administrative staffing requirements.

In addition, legal frameworks must promote European co-operation in research and teaching, industrial partnerships and articulation with the non-university sector. Relationships with external partners – whether these are at local, regional, national or international level – can have impact on quality:

- Through comparisons, international partnerships facilitate transfer of good practice in all areas of activities and encourage institutions to increase their attractiveness.
- Industrial partnerships support education, training and research by strengthening the link between theory and practice.

6.2   Future directions

The "quality movement" in Europe started, as it were, from the wrong end, with the rush of establishing external quality procedures rather than building them internally. This project has served to highlight the importance of internal quality.

It is hoped that, with time, the optimal balance between accountability and autonomy will be based on higher education institutions' central responsibility for internal quality while external accountability would review how this responsibility is carried out. In other words, successful and widespread implementation of such action plans as developed by each institution in this project will ensure that future external accountability procedures could take the form of an institutional audit that would evaluate the robustness and the embedding of internal quality monitoring processes.

As this project also demonstrates, however, much remains to be done not only in terms of implementation but also at the conceptual level. This work can be accomplished in Round II of the project (2003 – 2004). It is expected that about the same number of institutions will be selected to work on specific thematic areas – some of which overlap with Round I. Thus, Round II will constitute an opportunity to build on the results so far and to address some of the pending questions that have been raised by the six networks in Round I. These issues include:

6.2.1 In terms of actors

- The role of students in decision making and in internal quality.
- The role of stakeholders particularly, how to identify the appropriate ones, how to best use them in decision-making and internal quality processes and finally in identifying more precisely their possible contribution.
- The role of staff in quality, which must be linked integrally to career development frameworks which encompass administrative and academic staff careers.
- The appropriate role of the senior leadership team and its relationship to faculty and departmental leadership.

6.2.2 In terms of process

- How to create acceptance and maintain motivation to promote quality internally.
- Developing specific examples of student evaluation questionnaires, particularly in the area of teaching and learning, which would view this area as a transaction rather than a passive transmission of knowledge.
- How to use these processes to integrate fragmented institutions and to make sure that the community is working within a generic framework for quality.
- How to identify the funding needed in order to organise these processes.

6.2.3 In terms of structures

- How to develop the internal structures which are identified in 4.3, namely the quality unit, the office of institutional research and information, the research management office and the student support service area.
- How to set priorities.
- How to identify staffing (number, qualifications, etc.) and reporting lines.
- How to identify the remit and use of these offices.

6.2.4 In terms of culture

- The emphasis on thematic areas has somewhat constricted the perspective of the networks (but cf. 5.4 for a counter-example). In Round II, it will be important that the new networks look beyond the confines of their thematic areas to identify the common issues that contribute to a robust internal quality.
- Internal quality culture can be perceived as a threat to academic freedom. What are the best ways to manage this tension?
- What are the leadership styles needed to make all the changes discussed in this report?

6.3   Conclusions

These questions and issues need to be set within a context that takes into account the internal and external environments and the fact that both are in a state of flux and should be scanned constantly. Most importantly, answers to these questions must be framed with a view that, in order to promote quality, institutions must have at their disposal the tools and the conditions to promote their responsibility for internal quality. This implies a role for government and for institutions as has been described in Chapter II:

- A stable legal and financial environment.
- The financial processes and decision-making structures that build integrated rather than fragmented institutions and increase capacity for partnerships.
- Appropriate external quality assurance procedures that build on and promote internal quality processes.

Europe has great political, cultural and economic aspirations and its higher education sector is eager to contribute to meeting these goals. This necessarily means a series of paradigm shifts in terms of quality, leadership, the role of all the actors in an institution as well as its funding formula, structures and processes.

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□ ANNEX

ANNEX I: NETWORKS AND PARTICIPATING INSTITUTIONS

Network 1: Research Management

Bogaziçi University, Turkey - coordinator
Humbolt University Berlin, Germany
University of Thessaloniki, Greece
University of Udine, Italy
University of Bucharest, Romania
University of Žilina, Slovakia
Rovira i Virgili University, Spain

Network 2: Teaching and Learning

Leeds Metropolitan University, UK - coordinator
Azerbaijan State Economic University, Azerbaijan *
Aalborg University, Denmark
Tbilisi State Medical University, Georgia *
University of Hamburg, Germany
University of Latvia, Latvia
Warsaw Technical University, Poland
Babe-Bolyai University, Romania
University of Ljubljana, Slovenia

Network 3: Student Support Services

University of Padova, Italy - coordinator
Viborg National Institution for Social Education, Denmark
Université Claude Bernard Lyon 1, France
Hochschule Brandenburg, Germany
University of Debrecen, Hungary
University College Dublin, Ireland
Universitat Autònoma de Barcelona, Spain
Novosibirsk State Technical University, Russia *
London Metropolitan University, UK

Network 4: Implementing Bologna

University of Greifswald, Germany - coordinator
K U Leuven, Belgium
University "Dzemal Bijedic" of Mostar, Bosnia and Herzegovina *
University of Cyprus, Cyprus
University of Tampere, Finland
University of Rome "Tor Vergata", Italy
University of Aveiro, Portugal
Uluda   University, Turkey

Network 5: Collaborative Arrangements

University of Bergen, Norway - coordinator
Belarus National Technical University, Belarus *
University of Rijeka, Croatia *
University of West Bohemia, Czech Republic
Technische Universität Braunschweig, Germany
University of Economics in Katowice, Poland
University of Pitesti, Romania
University of Economics Bratislava, Slovakia
Brunel University, UK

Network 6: Communication Flow and Decision-Making Structures

Vilnius University, Lithuania – coordinator
University of Tartu, Estonia
Lille Graduate School of Management, France
Technical University of Łód   , Poland
University of Porto, Portugal
University of Novi Sad, Serbia and Montenegro *
Technical University of Valencia, Spain
Yildiz Technical University, Turkey

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* Non-Socrates funded participation

ANNEX II

Annex II compiles excerpts from the reports. These have been selected by the Steering Committee and are meant to complement the project report and provide a more in-depth consideration of issues of interest. Only those that could not be integrated into the body of the report are reproduced here. Therefore, not all network reports are represented below.

Annex 2.1: Research Performance Indicators

The Research Management Network compiled the following list of indicators based on discussions and guided by Liston (1999). The Network, however, could not agree on a prioritised list.

Applications for grants
- How many applications per year
- What percentage of full-time equivalent (FTE) staff applied
- How many were successful

Grants received
- How many
- What percentage of FTE staff were successful
- What was the range and average value

Nature of grants
- International, competitive
- National, competitive
- Peer-reviewed
- Industry
- Institutional

Other research outcomes
- Fellowships
- Post-doctoral awards or scholarships
- Non-peer-reviewed grants and awards
- Professional practice
- Editorships and editorial boards (scholarly journals)
- Marketed research products
- Internal PhDs completed under supervision
- Internal professional doctorates completed under supervision and associate supervision
- Masters as above
- PhD and research masters examined
- Chairing or organising major national or international conferences

- National and international research presentations (abstracts and posters)
- Presentations at local, state and district conferences
- Research reports to client groups (discussion papers)
- Artistic productions or performances
- Citations received through international publications
- Prestigious awards, publications, medals for research performance
- Keynote or plenary lectures and awards for best papers and presentations (at national and international conferences)
- Membership of national and international decision-making panels for research grants and awards applications
- Membership of other decision-making panels for research grants and awards applications
- Reviews of external research grant applications
- Refereeing journal articles and conference proceedings

Research output
- Books authored (research)
- Books authored (other)
- Books edited
- Books revised or new editions
- Book chapters
- Journal articles (scholarly refereed)
- Journal: other contributions (scholarly refereed)
- Journal: non-refereed articles (including professional journals)
- Journal: letters or notes
- Major reviews
- Conference publications: full written papers, refereed proceedings
- Conference publications: full written papers, non-refereed proceedings
- Conference publications: extracts of papers
- Conference publications: edited volumes of conference proceedings
- Audio-visual recordings and CDs
- Computer software
- Technical drawings or architectural designs and working models
- Patents
- Other creative works: major written or recorded works

- Other creative works: minor written or recorded works
- Other creative works: individual exhibitions of original art
- Other creative works: representations of original art
- Exhibitions curated

Annex 2.2: Benchmarking an Internal Quality Culture in Decision-Making Structures

1. The Network on Communication Flow and Decision-Making Structures benchmarked the critical success factors for introducing **internal quality in decision making**. Participants brainstormed to generate ideas and voted on each element. The main factors identified were:

- Strong feeling of university community and identity
- Recognition based on performance criteria
- Awareness of the necessity to improve quality, clear aims (strong commitment towards quality in all fields)
- Belief and trust in the strategy
- Transparency in formal/informal decision-making structures
- Systematic training for staff in decision-making skills
- Information system

2. The Network also benchmarked factors needed for **effective communication flows** and identified main factors as follows:

- Defined structures (who is responsible for what)
- Culture of sharing information and communication culture
- Identify who does what and when
- Internal and external communication strategy
- Clear objective of information flow: What kind of information must be sent to whom?
- Purpose of the communication: What for? Define the main work processes
- Listing of sources and receivers of information in different areas
- Define information resources and information (provides end-users (targets) (flow chart))

- Communication flow in order to simplify the daily work (keep the flexibility avoid bureaucracy)

Annex 2.3: SiFEUP: an example of an integrated Information System

SiFEUP is the information system developed by the Faculdade de Engenharia da Universidade do Porto and that covers such aspects as the school infrastructures, the academic records, the course plans, scientific productivity and the external assessment processes. It supports the planning and decision-making processes. The following is a summary based largely on a text provided to one of the networks.

Goals of the project
The main goals for developing an information system at the Engineering Faculty of Porto University (FEUP) were:
- To enable faster access and dissemination of scholarly, scientific, technical and other information-resources, stimulating a stronger collaboration among members of the academic community.
- To increase the connection and the interaction with other higher education institutions and with industry, especially in the northern region of Portugal.

Some of the most important operational objectives of SiFEUP were:
- To store and recover institutional legal data (e.g., financial and employee data);
- To increase internal communication effectiveness;
- To offer to institutional managers a decision-support system;
- To continually increase educational quality, providing students with information about the school, course plans, bibliographic and computational resources, research and social activities, and support services;
- To create on-line educational materials, namely to gain recognition as a centre of excellence on new learning techniques and to promote open access to education and provision for distant learning;

- To support R&D activities, in particular to help resource discovery and diffusion of research results;
- To provide information about the current FEUP activities to educational and industrial partners, as well as to the general public, establishing an Internet presence in accordance with the institutional mission.

After identifying the objectives, other requirement for the system development were identified as follows:

- The system must be quite large, the information is dynamic and presents different validation periods;
- The system growth is expected to be fast;
- The info-structure accommodates a wide variety of information types such as text, tables, graphics, images, audio and video data;
- Besides Portuguese, the info-resources must also be available in English;
- The system must be flexible and modular. New components must be easily incorporated, such as new types of info-resources, new information providers, or new facilities needed by the end-users;
- The diversity of information providers is large, implying a disciplined intervention;
- Sensible information, like student marks and financial data, must be secure.

The planned scenario of the project and its present state

In the past, a multiplicity of autonomous and disconnected subsystems were developed within the institution. These subsystems suffered from important gaps and inhibited the development of a coherent environment and the automation of a significant number of functions.

In 1996, the Faculty direction board took the initiative of creating an information system within FEUP. Its strong commitment to the project was essential because the different departments and R&D units within FEUP have a great deal of freedom in managing their resources. Therefore, a high level influence

is necessary to push towards the development of an integrated campus wide information system.

To accomplish this task, the direction board formed a working team whose main motivation was to find a balance between the development of an articulated system, moving towards full integration, and the incentives to the information providers within FEUP to creatively produce and disseminate info-resources.

The starting point was to elaborate a document that surveyed the status of the information system in FEUP and its intended evolution. The methodology followed in the IS organisation required a detailed knowledge of the corresponding information space, considering the different players and resources involved. Without understanding the role and the responsibility of each player with respect to each piece of content, it would not be possible to shape the system.

The information space on which SiFEUP was built has three dimensions: (1) information providers; (2) information resources; and (3) information end-users.

Considering the assumed goal of integrating the existing subsystems, a model where the information production was concentrated in a central data-entry service was refused. Although this model could be more effective as an initial step, the distance between the information providers and the data-entry would lead to delays and mistakes that would reduce the system's usefulness. The chosen approach favoured closeness between the maintainers of the info-resources and the corresponding providers. This way, the people involved felt ownership of the resources and incorporated them in their daily work routine, reducing the temptation to develop other disarticulated personal tools.

It was then decided that only the elements of the academic community, the units of the FEUP organisation structure, the courses, and the research institutions could maintain info-resources of their own on the system. This decision was essential to define the overall high-level organisation of the system. The accuracy and currency of the information associated with each provider was vested with each unit manager.

The end-users belong mainly to the internal academic community, although users at other R&D institutions and industry, particularly in the north of Portugal, are also important consumers. The general national and international public is the ultimate end-user of SiFEUP. Concerning end-users, different access levels must be recognised, both internally and externally, depending on the user profile or the information resource itself.

Additional services

The information resources (info-resources) accommodate a wide variety of information types and must integrate multiple sources and repositories. The following table presents a summary of the resources that were initially planned with the implementation status for each. As shown, most of the plan has been accomplished with about 30 of the main modules already available. The remaining modules are under development.

The architecture of the information system has thus two vectors: the consolidation of the data by a relational database and the information access by Web browsers.

	Resource	Description
>	FEUP	FEUP presentation, history, organisation, external links
>	News	General and specific notices
>	Legislation	Laws, regulations, statutes, minutes
>	**Programme**	
>	Plans	Programme descriptions
>	Course record	Official information of courses
>	Course Web-site	Course support resources
>	Teaching service	Allocation of teaching service
>	Timetables	Timetables for professors, labs, and classes
>	Lab classes	Enrolment in classes
6	Accreditation	Accreditation and external evaluation reports
>	Pedagogical assessment	Results of the pedagogical inquiries
6	Continuous education	Continuous education programmes
>	**Students**	
>	Official page	Personal data
>	Student record	Record of grades
>	Personal page	Personal Web page
>	Certificates	On-line certificate requests
>	Statistics	Statistics of academic results
>	Print quotas	Running account of the printing credit
>	Academic fees	ATM payment and status
6	Alumni	Professional record, contact, personal page
6	Employment	Help on matching students and employers

	Resource	Description
	Staff	
>	Official page	Personal data
>	Personal page	Personal Web page
6	Staff records	Contracts, qualifications, positions
	I&D	
>	Projects	Description, budget, participants, results
>	Scientific papers	Bibliography, abstracts
	Facilities	
>	Building drawings	Layout of all the buildings and floors
>	Rooms	Descriptions of room characteristics
>	Assets	Official records
>	Computational resources.	Hardware and software available, maintenance
>	Resource reservation	Booking of rooms, equipment
6	**Other**	
§	Library	OPAC
§	Accounting	Economic and financial information
6	Budget	Project budget information
>	Trouble Tickets	Management of user support
>	Dynamic mail	Dynamic distribution lists
>	Forums	Debate areas
6	Search	General search tool
		> Available module. 6 Module under development. § Autonomous subsystem.

Internet

Web technology, mainly because of its simplicity, availability and versatility, was chosen to join up the different components of the SiFEUP. The Web is the ultimate interactive end-user interface with the information system. But database systems, developed elsewhere, are used to compensate for the weaknesses of the Web.

The first phase (1996 - 1998) was devoted to recording the basic facts about the school's activity. In a second phase (1998-2000), the previous modules were refined according to the experience accumulated and the suggestions received from users. A new layer of services was added. The full system is reachable at the URL http://fe.up.pt.

Analysis of the results and impact on the institution

The measure of the adequacy of the SiFEUP becomes fully significant only in the framework of an evaluation of the performance of the Faculty itself. The in-house development of the SiFEUP, by a team who knows how it works, ensures a degree of accuracy. Feedback was gathered through meetings with directors of departments, services and courses; an e-mail address for people to send comments, suggestions and requests as well as a guest book page in the system for people to leave public messages were developed. Adjustments were then done in the system in order to extract the information and make it more useful to its consumers.

The information system has been running for the last four years. Most of the planned components are available and significant improvements are noticeable.

User education

SiFEUP is now widely used by all members of the academic community, from students to teachers and staff, and in relation to all aspects of the faculty activities: teaching and learning, research and development, administration and management. To promote such use, a number of presentations took place both for teachers and for students, mainly those in the first year, as well as training sessions for the staff.

The following list highlights some of the more visible improvements on access to information obtained with the system:

Before SiFEUP	After SiFEUP
Room availability	
Disperse and hard to consult	On-line for all the school rooms
Internal phone list	
Paper list seldom updated	Always updated and including second number
Student records	
Visit to the academic service to consult the records	Student record on-line, with password
Certificates	
Two visits to the academic services	On-line request and process evolution monitoring
Course and teacher timetables	
Separated by programme, consult in the staff room	Single on-line timetable integrating all the programmes
Enrolment in lab classes	
Lengthy process done by hand	Enrolment via Web preference form with automatic allocation
Messages to the students	
Contact between classes very difficult	Immediate, using the dynamic mail list facility
Regulations	
Paper copy from the administrative service	Relevant regulations on-line (restrict access)
Pedagogical assessment	
Lengthy semi-manual processing, restrict dissemination	Automatic processing, aggregate results on-line
Accreditation/external assessment	
Manual process organisation	Statistical tables extracted from SiFEUP, on-line publication
Project information	
Sometimes available in annual reports	On-line searchable list
Scientific bibliography	
Sometimes available in annual reports	On-line searchable list with selective bibliography print

De-centralisation

Being a fully integrated modular system based on relational database technology and universally accessible through the college intranet ensures both the quality of the information, in terms of consistency and versatility, and its wide availability, which brings the central services and all the members of the academic community closer. A change in some data, for instance a new telephone number or a new timetable, immediately shows up in all the related queries. Efficiency grows because a number of telephone calls, personal enquiries, and wrong assumptions are avoided.

Efficiency & productivity

Other examples of an increase in efficiency and productivity of some processes:

- the information on teaching service guides the printing of exact numbers of the pedagogical enquiry forms, with the identification fields already filled in, thus reducing the processing time and the number of optical reading errors;
- students may use, as a self-service, any of the printers equipping the thirty computer labs supported by the computer centre; in the beginning of the semester they are credited with a number of pages which may depend on the programme and year; each print job is recorded and a summary is available on the official student page, which shows the current balance and any new payments;
- several reports, e.g., accreditation results, departmental scientific activity reports, and personal activity reports, required information on scientific publications, research projects and teaching service; the availability of such information in the SiFEUP releases the burden of answering recurrent questions and improves the document preparation efficiency.

Rapid development

Synergies among the existing resources make it easy to install new modules, such as the module to produce or execute fee payment forms via ATM, or the module for car parking cards issue and control.

In general, the utilisation of the several modules represents an improvement in the way administrative processes are performed. The effectiveness of the modules in changing the response capacity of the services goes along with decreased individual dependency, more uniform external image, and higher quality standards. The modules were designed generically to facilitate deploying them to other services in the faculty, thus spreading good administrative practices. Many modules include flexible access control, with the ability to dynamically define groups of responsibility.

The impact of the SiFEUP may be evaluated from different points of view. From a user's perspective, the communication facilities, the up-to-date information, the possibility to post and follow the evolution of requests, as well as the possibility of quantifying the quality of the services offered, are the most relevant improvements.

The system contributed to the modernisation effort carried out by the FEUP direction board. The institution's management now has more accurate indicators of the actual academic and research activities, which support decision making better suited to the institutional reality. Also, the task of convincing professors to answer inquiries and produce information has been facilitated because the transparency of the IS exposes mistakes and gaps and the possibility of on-line data entry simplifies the work.

The development of a complex system always brings difficulties. The main current problems are:

- The lack of technical staff. This delays the release of new components. In fact, most of the development effort comes from students working as temporary collaborators or within curricular projects;
- The need to increase co-operation between the FEUP units. The policy of assigning the responsibility of keeping the data updated to the corresponding unit requires a co-operation that is not always easy to obtain. As it occurs with any organisational change, there are habits to modify and different models and perspectives about the institution to acquire.

Cost-effectiveness

Designing the intranet around a database requires an extra effort of systematisation and modelling of a complex organisation such as a faculty. But it pays off in terms of consistency, reliability and flexibility of the information system, which becomes an infrastructure able to support new developments. Indeed, the Si-FEUP has been designed to be a service as well as an infrastructure. This way, it is relatively easy to develop new modules, perhaps of restricted interest, which profit from the information already included in the system and maximise its application. Several course assignments for students on databases and information systems are such examples.

Conclusion

This report shows that a dual-based approach, combining the Web and database technologies, is adequate to benefit from the capabilities of storing, structuring, and searching large amounts of data, with adequate exploration tools and levels of security, and to access this same data with simple, versatile and widely used tools.

ANNEX 3: COMMITTEES

Steering Committee
- Prof. Henrik Toft Jensen, Chair, Roskilde University, DK
- Prof. Dionyssis Kladis, Ministry of Education, GR
- Prof. Ferdinand Devinsky, Comenius University, SK
- Prof. Dirk Van Damme, University of Gent and VLIR, BE
- Prof. Johann Gerlach, Freie Universität Berlin, DE
- Prof. Luciano Modica, University of Pisa, IT
- Prof. Michel Mudry, Université d'Orléans, FR
- Mr. Mads Aspelin, ESIB

Stakeholders Committee
- Prof. Henrik Toft Jensen, Chair, Roskilde University, DK
- Mr. Mads Aspelin ESIB
- Prof. Sergio Machado Dos Santos Universidade de Minho, PT
- Prof. Andrei Marga, EUA Board
- Prof. Gemma Rauret, Catalonia QA Agency, ES
- Prof. Adrien Schmitt, ESMU
- Prof. Molly Temple, Bolton Institute, UK
- Mr. Christian Thune, ENQA

Committee meeting schedule

1 - 2 July 2002: Steering committee meeting

3 September 2002: Steering committee meeting with the six network coordinators

3 September 2002 : Stakeholder committee meeting

26 - 27 March 2003: Steering committee meeting with the six network coordinators

26 – 27 June 2003: Steering committee meeting