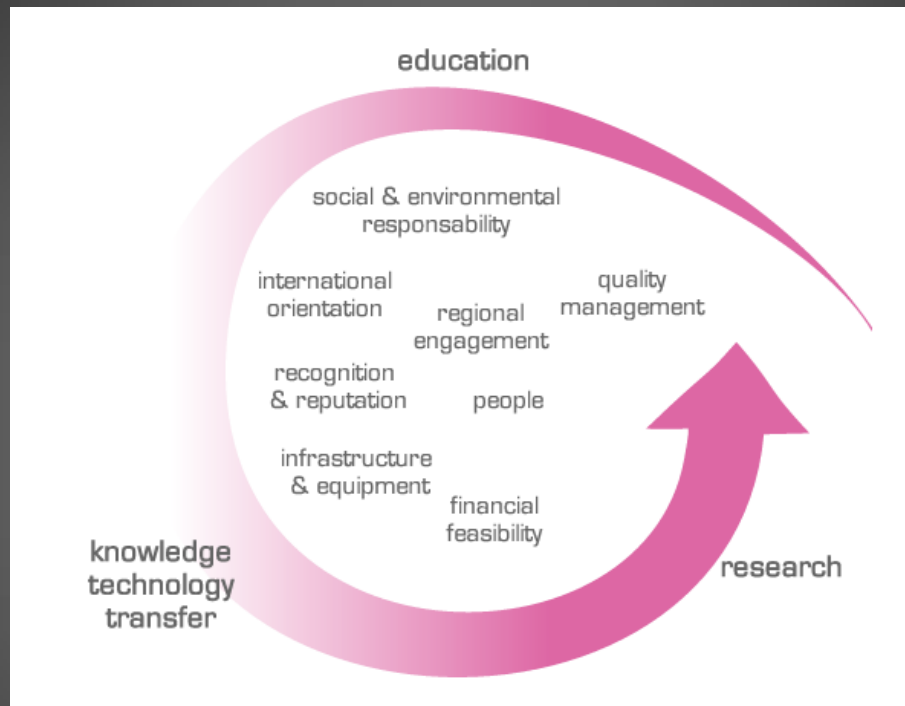


HANDBOOK



Strategic University Management: Unfolding Practices

ERASMUS LLP Project
<http://eusum.upc.edu/>
@OBSeusum

This Handbook has been an outcome of the overall results of the SUMUP LLP Project, coordinated by the UNESCO Chair of Higher Education Management (CUDU) based at the Universitat Politècnica de Catalunya (UPC) in partnership with the Katholieke Universiteit Leuven (KUL), Royal Institute of Technology (KTH), Instituto Superior Tecnico (IST) and the Politecnico di Torino (POLITO). We would like to express our special gratitude to all people involved in this project, specially the universities that have shared their experiences and the members of the Expert Committee who carried out a great effort on assessing and validating the good practices proposals. This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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PART 1 - STATE OF THE ART OF STRATEGIC UNIVERSITY MANAGEMENT

Dr. Michele Girotto (UPC) and Dr. Ludo Froyen (KU Leuven)

This study was applied to five higher education institutions members of the SUMUP Project and also to other institutions that are part of the Cluster of leading universities in Science and Technology, and associated universities that have also taken part in answering the questionnaire. The focus of this analysis was to better understand how strategy is developed within these universities, which tools are mostly used and how the strategic management processes are organized and implemented. The exploratory study was divided in four main parts:

Strategic process dimensions being explored:

1. Exploration of the strategy definition process;
2. Examination of the institutional strategy development and alignment processes;
3. Identification of the follow up process and;
4. Exploration of the feedback and learning process outcomes.



SURVEY SAMPLE

▼ THE QUESTIONNAIRE

The questionnaire has been sent electronically to all partners. The survey was then opened to all Cluster members as well as to other institutions not partners in the SUMUP project but that were willing to take part in answering the survey. The total of the respondents were thirteen, being five project partners institutions, six institutions belonging to Cluster and two associated institutions not directed connected to Cluster

Main Findings

The study findings have been framed to answer some fundamental questions:

How is the strategy definition process in the leading universities in Science and Technology like?

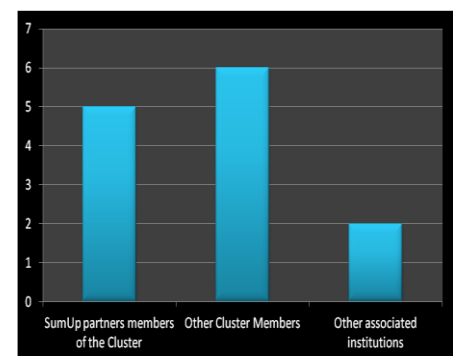
What tools and models of strategy development and follow up are used by the Cluster universities?

How do universities assure that their strategies are implemented and aligned?

What supporting instruments are at place?

Who are the actors leading the strategy definition and implementation process?

How do universities establish the feedback mechanisms of the strategy development process and ensure organizational learning from this process?



This chapter is organized in five main parts. Firstly, on the basis of a brief overview of the academic literature on the strategic management of higher education institutions, an overall approach to this subject is presented, followed by a detailed description of the universities sample. The third part deals with the exploration of the strategy definition process,

discussing aspects such as: types of strategy process (process formalization and strategy document categories); planning timeframe, planning cycles, planning levels and scope, actors involved, strategy main elements, methodologies and models used, as well as leadership and participation issues.

In the fourth part, it is presented the examination of the institutional strategy development and alignment process; dealing with issues such as: scope, institutional elements aligned to strategy, methodology and instruments supporting the strategy implementation and alignment, identification of key success factors and constraining barriers.

Finally, the last part considers the examination of the strategy follow up and feedback processes along with the learning outcomes being established, which includes the examination of aspects concerning to tools in use to support these process, their flexibility, as well as how the revision of the strategy development process is conducted.

1. Strategic management of universities: an overall approach

Problems with strategy implementation in universities have been closely linked with the way institutional strategy development is carried out. For instance, Gregory (2008) argues on two views which strategy development in higher education can be differentiated. On the one hand, there is the view of strategy as “consistent pattern of action”, on the other, there is the view of strategy as a tool of management control. From the former view strategic development is long established in universities but from the latter view it is a fairly recent phenomenon reflecting a shift from collegiality to managerialism in higher education. The long established view of strategic development in universities is reflected in Mintzberg and Rose’s study (2003) which tracks the realized strategies of a prominent university over a century, bringing forward that there was remarkable stability in the aggregate, however nothing revolutionary change in strategy ever occurred. According to them, this may be explained in some of the terms most popular in business today: “empowerment”, “venturing”, and especially “knowledge work”. Thus, while the typical university may seem very different from the typical corporation, its behaviour may in fact contain sobering messages for the strategic management of businesses.

On this vain, Meyer (2002) states that this shift to a more managerial approach arises from the need of boundary setting: ‘as “higher education” comes to take on a rainbow of meanings, university leaders need to define and redefine what kind of activities should be “inside” or “outside” the organization’s boundary. Central administrators...now engage in decision-making about the university’s aspiration level in terms of selectivity and visibility, its core competencies (selective excellence), its long-term mission, and short-terms goals as they identify key competitors and allies’ (p.540).

Clearly such a marked change has not gone without challenge, ‘...strategic action requires a degree of central steerage and organizational unity for which the university, with its tradition of weak central governance and collegial (consensual) form of decision-making has typically been ill equipped’ (Meyer 2002, p.540). However as academic institutions become more businesslike in their operations, so the tools and techniques of this world are duly assimilated by university managers particularly as regards the distributions of resources: ‘departments are requested to define strategic targets, which may be modified in negotiations with central administration. Eventually they receive money needed to achieve the negotiated targets. Renewed funding, however, is contingent on the degree to which the departments actually “delivered” on its target performance’.

Amongst the management tools applied to the university context, one of the top popular has been strategic planning. As noted, during the last decades, strategic planning has been regarded as a necessity for higher education institutions to meet a situation characterized by changing environment and increased competition. In the European context, both authorities and higher education institutions in many countries see strategic planning as a useful tool to handle shifts in the environment and growth in market competition. In like manner, when the need to reform higher education institutions has been on the agenda, strategic planning has been regarded as a useful tool.

The general processes of strategic planning and budgeting is manifested at the operational level into rigid workload allocation schemes that significantly impinge on the day-to-day working lives and professional freedom of academics. Indeed, Yokoyama (2006) starkly contrasts this shift as being one from collegiality (characterized by academic value, trust, informality and minimal hierarchy) to managerialism (characterized by formal hierarchy, lack of trust and strategic management). Gregory (2008) states that this shift, from a system perspective, from collegiality to managerialism may be seen as another aspect of strategic planning development failure attributed to a lack of understanding that strategic development processes operate at different systems levels.

Furthermore, this shift represents the disconnectedness between different systems parts (managerial seeking to control the parts rather than granting maximum autonomy because they cannot be trusted to act in the interests of the whole). As Gregory (2008) puts forward, in the academic environment an example of this may be the existence of a strategic plan being seen to be the physical evidence that the subject group had decided on its strategic plan to which it could be held accountable and that could be used for the purpose of management control; but this is to give the document a dubious ontological status. As such, in exploring the strategy development process in the context of higher education, if done from a purely methodological perspective is, argued by Seddon (2008) to use a popular phrase “tool headed”. Moreover, it represents a failure to approach the process systemically by neglecting the essentially historical and social embeddedness of the system involving consideration of purpose both in terms of the people involved and the wider context.

Within the strategic development process in universities, alignment is another relevant issue when exploring the concept of strategy implementation effectiveness (Sullivan and Richardson 2011). The importance of aligning strategic planning and assessment to achieve institutional effectiveness is increasingly recognized by higher education leaders (Hollowell et al., 2006). In particular, there is growing evidence that today's higher education organizations can benefit from a strategic planning model that integrates an organization's mission and vision-based strategic planning initiatives with practice and outcomes assessment at the unit level (Middaugh, 2010). Such a model includes ongoing environmental scanning and scenario planning, clearly framed strategic outcomes aligned with individual and team performance outcomes, the creation of a culture of continuous outcomes assessment, dialogue, reflection, and an adaptability to change (Aloi, 2005; Hollowell et al., 2006; Morrill, 2010; Wieringen, 1999). Additionally, administrative and educational support units have become increasingly engaged in the development of annual goals and objectives at the unit level. However, these efforts are not always aligned with institutional strategic planning goals and objectives (Sullivan & Wilds, 2001).

Many of the challenges associated with creating a culture of assessment have been identified in the literature associated with student learning (Palomba & Banta, 1999; Suskie, 2004), but it seems clear that the same challenges apply to the creation of a culture of assessment in administrative units (Hollowell et al., 2006; Middaugh, 2010). Individual contributors perceive their roles in bringing strategic outcomes to fruition through their own levels of commitment and performance self-assessment. Furthermore, assessment of individual performance in the context of strategic indicators provides leadership with critical data related to strategic goals that have been met or exceeded as well as shortfalls and possible causes for unmet strategic goals (Morrill, 2010, p. 228).

As such, effective strategic planning involves the creation of a culture of strategic planning and continuous assessment through the use of an integrated model that links strategic planning and outcomes assessment, and outcomes associated

with strategic planning efforts are most likely to be achieved when they are viewed as central to the work of the unit rather than as a disassociated task. Thus, according to Sullivan and Richardson (2011) leaders in higher education can keep strategic plans vital through promoting and valuing individual contributions, connecting performance evaluations to specific strategic plan goals, and keeping shared unit and institutional strategic plans relevant and actionable.

As such, strategic management as a particular form of management; should be participatory, critical, forward-looking, leading towards institutional policies which seek essentially to enhance the potential for change in a university. This potential depends on skills, the principles governing the conduct of all parties concerning, the organization and management methods and the network of relations and their quality. Thus, strategic management strives to introduce and sustain a capacity for adaptation, and collective learning about change at all decision-making levels. It relies on organizational methods, on a solid and clear commitment on the part of administrators in new courses of action, which is an integral part of appropriate methods of leadership. It encourages decentralized initiative, modernization, innovation, personal involvement, but also co-operation, the exchange of information, and network activity, with a constant concern for quality and the widest possible propagation of evaluation methods and quality standards.

As mentioned, there is no standard strategic management model. Each university possesses its own form of government, structures, traditions, experience, problems to be resolved, individual persons, means, capacity to manage and, in particular, its practice of leadership and use of management tools, such as strategic planning. In this sense, looking into the crucial dimensions of strategic management in universities, brings the conviction that universities strategic management should be done with a permanent eye on their specific organizational environment and as a result, special attention goes to the astonishing power of networking: more and more a modern university appears as a set of overlapping networks kept together by a broadly shared mission.

2. Study sampling

2.1. Sample of institutions

The universities that have participated in this study are a sample of CLUSTER universities (11/13)¹ and two more from Portugal which were invited by the Portuguese partner: University of Coimbra and Universidade Portucalense.

The partners of the SUMUP project embody a well-balanced consortium of 5 universities (UPC, KUL, KTH, IST, POLITO) from 5 European countries with relevant expertise in university management approaches, actively involved in university management research throughout the CLUSTER network.

¹ **CLUSTER** is a Consortium comprised of 13 universities which represents a Multi-location European University of Science and Technology with about 3.000 professors, 11.000 academic staff, 14.000 PhD students, with a total of more than 140.000 students.



UNIVERSITY	COUNTRY	N° OF STUDENTS	STATUS
UNIVERSITAT POLITÈCNICA DE CATALUNYA (UPC BARCELONA TEC)	Spain	37.783	Public
KU LEUVEN (KUL)	Belgium	41.255	Public
UNIVERSITÉ CATHOLIQUE DE LOUVAIN (UCL)	Belgium	27.310	Public
ROYAL INSTITUTE OF TECHNOLOGY (KTH)	Sweden	13.600	Public
INSTITUTO SUPERIOR TÉCNICO (IST)	Portugal	10.864	Public
UNIVERSIDADE DE COIMBRA (UC)	Portugal	10.864	Public
UNIVERSIDADE PORTUGALENSE (UPT)	Portugal	2.300	Private
POLITECNICO DI TORINO (POLITO)	Italy	26.000	Public
TECHNISCHE UNIVERSITÄT DARMSTADT (TU DARMSTADT)	Germany	30.000	Public
KARLSRUHE INSTITUTE OF TECHNOLOGY (KIT)	Germany	23.905	Public
GRENOBLE INSTITUTE OF TECHNOLOGY	France	5.300	Public
EINDHOVEN UNIVERSITY OF TECHNOLOGY (TUE)	The Netherlands	7.118	Public
AALTO UNIVERSITY	Finland	19.993	Public

3. Exploring the strategic management processes dynamics

1. University management structures

This section deals with the definition process, but before we start to describe it, this study gathered information concerning the management structure of the universities as well as patterns followed by the institutions in their management activities. As follows, the following figures set the stages to compare the main differences and common elements that exist between the universities, before describing the exploration of the strategy development process conducted within these management structures.

KTH Management Structure

The main management structure of the KTH (see Figure 1) is composed by the university board, which is constituted by fifteen members being represented by the chairperson, who should be one of the eight external representatives, faculty members, the President and students. The president reports to the university board and is appointed by the government for a period of six years after nomination by the University Board. The Deputy President is appointed by the University Board and the Vice-Presidents are appointed for special tasks by the President. The President's Group is comprised of the President, Deputy President, Dean of Faculty, Vice-Dean of Faculty, Vice-Presidents for Research, University Director and the chairman of the Student Union (THS). The President's Group deals with strategic educational, research and quality issues and other matters of a more general nature. President's Group meetings take place once per week.

The Management Group is integrated by the following figures: the President, Deputy President, Dean of Faculty, Vice-Dean of Faculty, Vice-Presidents, University Director, all Deans of Schools, Dean of the Unit for Scientific Information and Learning and two students' representatives. The Management Group deals with matters concerning all KTH schools and is a forum for discussion and information. Meetings in the Management Group take place every second week. As concerning the Faculty Council, it is body responsible for the quality of KTH's education and research. The Faculty Council is chaired by the Dean of the Faculty. Depending on the character of issues that are to be handled, the Faculty Council decides itself or prepares proposals for decisions to the President and/or the University Board regarding questions related to education, research and employment of new faculty. A number of Programme Committees and Sub-Committees are subordinate to the Faculty Council.

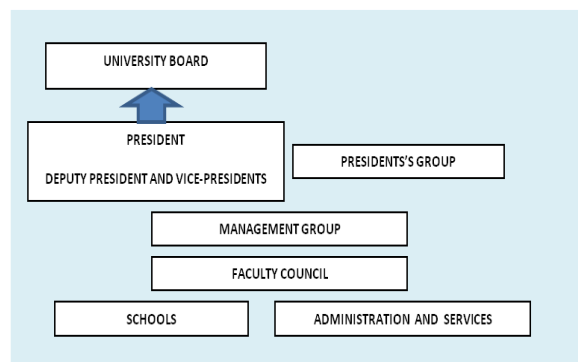


Figure 1. Management structure of KTH

KTH counts with ten Schools, which are responsible for education and research activities. Also there are different KTH Competence Centres activities of a varied nature; these often pertain to new research areas and frequently involve joint efforts with businesses and the external community. Each of the KTH Centres do always have a formal connection of some kind with one of KTH's Schools. On reference to the administration and services, the KTH Central Administration handles both administration and service functions for the entire university.

KU Leuven Management Structure

In the case of the KU Leuven, the general management structure of the university is composed of the following bodies: Board of trustees, board of governors, academic council, Special academic council, Executive board, University Council, Rector, Management director and Audit Committee. The executive board is comprised of the rector, vice-rectors and the general manager who is in charge of the university administration and central offices. On the other hand, the board of governors is constituted by the rector, three vice-rectors, general manager, external representatives and students. According to the university internal regulations, the Board of Governors meets once a month.

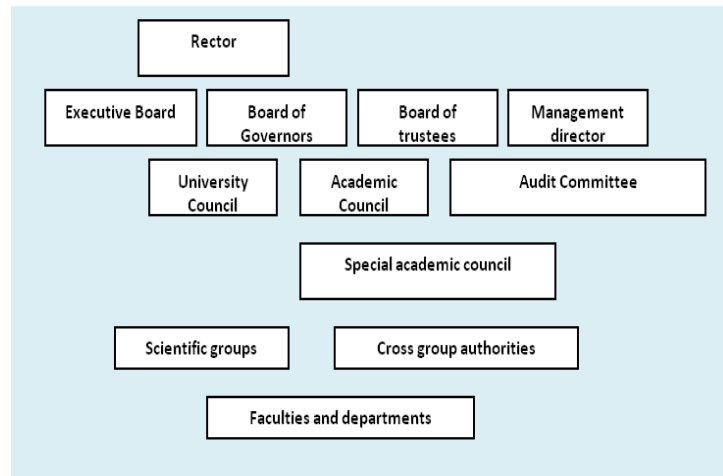


Figure 2. Management structure of KU Leuven

The chairperson may, on his/hers own initiative or upon request of at least one third of the members of the Board, call an extraordinary meeting of the Board. The academic council is comprised of the rector, vice rectors, the general manager, academic administrators, deans, staff representatives and students. The duties and powers of the academic council are established within the organic rules of the institution.

IST Management Structure

The School Council is a strategic decision-making body responsible for the enforcement of the institute statutes and, in particular, its mission. The management board is composed by the President, by the Vice-Presidents and members appointed by the president and the Administrator. The President may also convene to invite to the management board meetings, without voting rights, the Presidents of the Scientific and Pedagogical councils and other organic units, as well as the responsible for the schools services and representatives of students and non-teaching staff. The management board is responsible for the management of the administrative, economic, and financial and human resources of the IST.

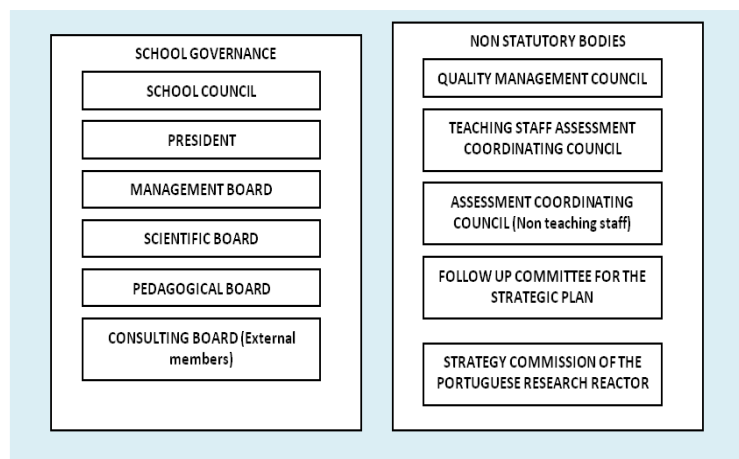


Figure 3. Management structure of Instituto Superior Técnico

POLITO Management Structure

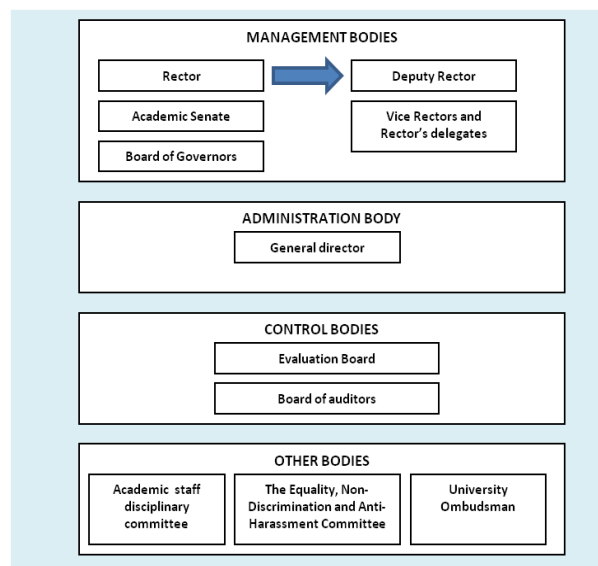


Figure 4. Management structure of the Politecnico di Torino (Polito)

The management structure of the Politecnico di Torino is comprised of management, administration and control bodies, as well as other bodies such as the academic staff disciplinary committee. The rector mandate is unique, comprehending a period of six years, which cannot be renewal. The rector is elected by votes from the university community (academics, researchers, technical and administrative staffs and student's representatives). Once elected, the rector appoints a deputy rector, who exercises the functions assigned by the rector and participates in the board of governors and academic senate. Additionally, the rector appoints four vice-rectors with the following assignation: teaching and learning, research, internationalization and quality. There are also specific delegates, who together with the vice-rectors respond directly to the rector. The academic senate represents the university community which is constituted of the university personnel and students representatives.

The board of governors is in charge of the strategic direction, operating in accordance with the principle of financial sustainability of the activities of the university, ensuring the integrity of its capital. The board of governors is comprised of eleven members, which includes the rector, faculty, technical and administrative staff; students and non-staff representatives. The general director is in charge of the management and organization of the university services, instrumental resources as well as the technical and administrative staff. The evaluation board is the body responsible for the assessment of research, teaching and learning, as well as the administrative management. On the other hand, the board of auditors is in charge of controlling the administrative and accounting regularity.

UPC Management Structure

The structure of the Universitat Politècnica de Catalunya-BarcelonaTech (UPC) and its system of governance are defined by the Organic Law on Universities, the Law on Catalan Universities, and the Statutes of the UPC. The rector is the University's highest academic authority and is responsible for representing and managing the institution. The rector is elected by a weighted vote in which all members of the university community are eligible to take part (students, faculty and research staff, and administrative and service staff).

The rector appoints the Executive Council, which is integrated by vice-rectors; general secretary whose functions is to assist the rector in his or her work; and the general manager, who is responsible for managing the University's administrative and financial services. The university community elects its representatives to the University Senate, the body that is most representative of the university community and the highest authority when it comes to establishing internal regulations, as well as determining and expressing the University's position and aspirations. The University Senate has a permanent representative body, the Governing Council, which is responsible for university governance, and also oversees the University's sectoral policies and activities throughout various committees. The Board of Trustees is responsible for maintaining the connection between the University and the society it serves. The

Board is composed of representatives of various institutions and sectors of society, and representatives of the University. The chair of the Board of Trustees is appointed by the Executive Council of the Government of Catalonia. The main functions of the Board of Trustees are to lay the groundwork for strategic planning, to approve the budget, and to assess quality and performance of the activities carried out by the University. The mission of the ombuds officer, who is appointed by the Board of Trustees, is to receive complaints, suggestions, and initiatives and proposals for improvements, and to provide support to individuals and entities who feel that they have not received proper treatment through the University's customary channels. At the request of the parties involved, the ombuds officer may also act as a mediator in disputes.

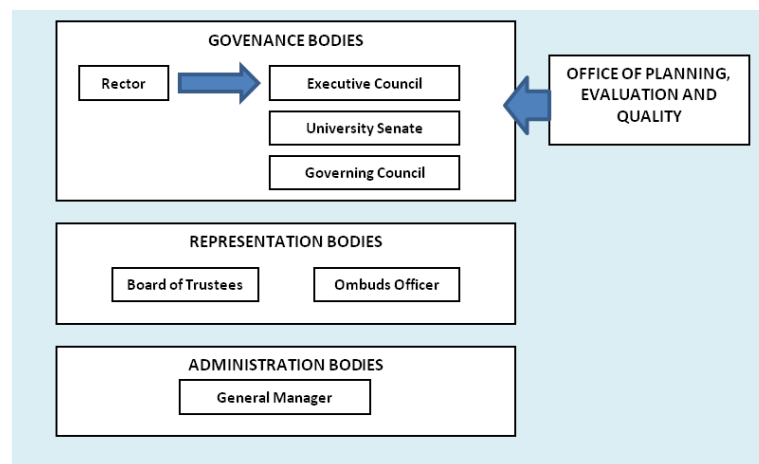


Figure 5. Management structure of the UPC

The ombuds officer acts autonomously and on the basis of his/ her own judgment. The mission of the Office of Planning is to support the governing bodies of the university in the design, implementation and monitoring of planning and institutional assessment, academic quality in accordance with the guidelines and objectives of the institution and legislation and regulations, in order to ensure continuous improvement in their different fields and accountability to different stakeholders.

Universidade Portucalense Management Structure

Portucalense is a private university that belongs to a cooperative; it is managed by the direction of the cooperative. The management of the pedagogical aspects belongs to the Rectory. There are four departments, each headed by a director working in conjunction with the Dean.

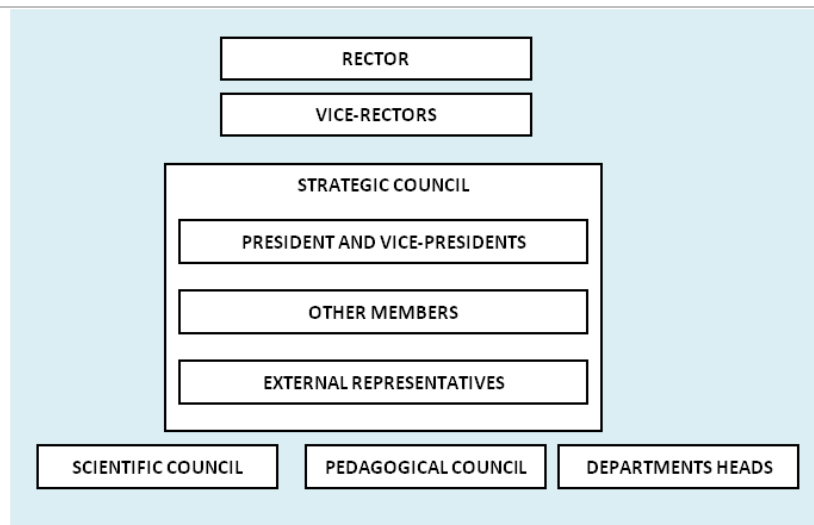


Figure 6. Management structure of the Universidad Portucalense

Universidade de Coimbra Management Structure

The rector is the highest body of government and external representation of the University, elected by the University Board. He is responsible, among other responsibilities, for the strategic university management, including: the proposal of the Strategic Plan and the Action Plan for the period of his mandate; the proposal of the general guidelines of the University, in terms of scientific, educational, development and innovation areas; the proposal of the Annual Budget; and the presentation of the Annual Report.

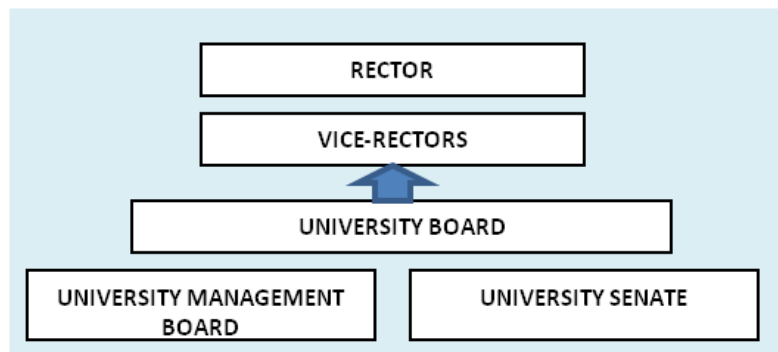


Figure 7. Management structure of the Universidade de Coimbra

The rector appoints the vice rectors. In the current team, there is a Vice-Rector responsible for the Strategic Planning and Finance of the University. The university board is composed of thirty-five members, with representatives of faculty and research staff; students; non-teaching staff; and also personalities of recognized merit, external to the University. After a proposal of the Rector, the University Board is responsible for approving the Strategic Plan and the Action Plan, the general guidelines of the University, the Annual Budget and the Annual Report. The university management board is chaired by the Rector and is composed of a Vice-Rector appointed by him/her and of the head of administration of the university. The board is responsible for conducting the administrative, human resources and financial management of the

University. The university Senate is an advisory body that assists the Rector in the management of the University, including the strategic university management.

TU Darmstadt Management Structure

The University Presidium is integrated by the President, the Vice Presidents and the Chancellor. This body is responsible for governing the university. In the strategic development of the university, the Presidium consults closely with university bodies such as the University Council, the Senate, the University Assembly as well as the Departments and members of the university; and the University Presidium reports annually to the parliament of the Bundesland Hessen.

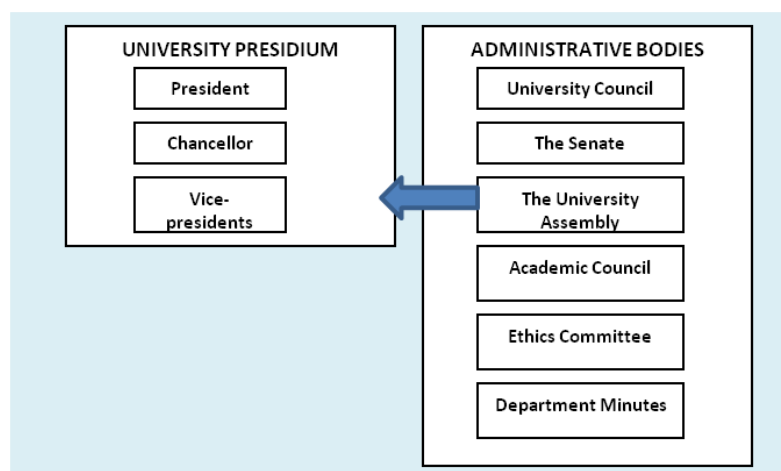


Figure 8. Management Structure of Technische Universität Darmstadt

The President is responsible for the university's strategy and structure, the appointment of new professors, research and junior researchers, quality management and international relations as well as for representing the university externally vis-à-vis policy-makers, society and other interested parties. The Chancellor is in charge of the budget, human resources, property, physical infrastructure and legal matters. There are appointed three vice-presidents who are in charge of: i) the academic infrastructure interdisciplinary culture as well as faculty training; ii) knowledge and technology transfer, collaboration with industry and science, creation of spin-off companies, patent management, as well as alumni and fund-raising; iii) tasks related to studies, teaching and professional development.

According to the university statutes, the University Council can take initiatives on basic affairs, in particular those pertaining to the development of the university, it also exercises control functions. The University Council is integrated by ten external members representing science and industry. Council members are appointed by the government of the Land Hessen. TU Darmstadt has the right to nominate half of the seats. The Senate advises the Presidium on matters of structure, development and construction planning, budget, research, teaching and degree offers. It supervises the Presidium's management board. According to the university statutes, the Senate has twenty members plus the President, who chairs it. The following are also permanent, non-voting members of the Senate: the departmental deans, members of the Presidium, the women's representative, Student General Council, which is the students' representative body, and Personnel Council, the representative of the severely disabled, as well as two representatives of the "Fachschaftenkonferenz" (Conference of Departmental Associations, which are student-governed organizations at departmental level).

The University Assembly deals with matters of fundamental importance to the university. This includes, in particular, issuing statements on basic questions of university development, as well as of teaching and study

operations and young academics. The University Council has 61 voting members: 31 professors, 15 students, ten research associates and five administrative/technical staff. The University Assembly elects the Presidium. The Academic Council is an internal advisory body that supports the Presidium in strategic or structural matters of university development. The mission of the Ethics Committee is to verify and assess the ethical admissibility of research projects, in particular studies on human's samples, or research using test persons' personal data. The Department Minutes is a central webpage where departments post the minutes of the public segments of their departmental council meetings for university stakeholders.

Aalto University Management Structure

The executive bodies at university level are the board, the president and the University Academic Affairs Committee. Aalto University has three vice presidents. Aalto University consists of six schools: the School of Arts, Design and Architecture, the School of Business, the School of Chemical Technology, the School of Electrical Engineering, the School of Engineering, and the School of Science. Each school has a Dean, and an Academic Affairs Committee. The overall organization can be observed in the university official chart (Figure 9).

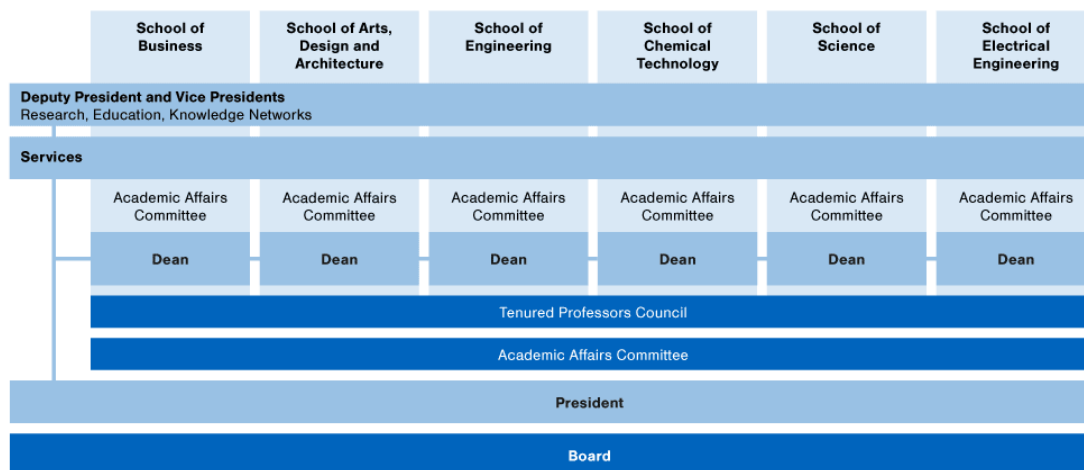


Figure 9: Organizational Structure of Aalto University (source: University organizational chart)

The university management team is integrated in a top level by the President, the deputy president and the vice-presidents (academic affairs and knowledge networks). There are also the directors of areas (Communications, Human resources, Policy and Foresight and Finance). Then there are the deans of each of the University Schools.

Eindhoven University of Technology (TUE) Management Structure

The Executive Board (CvB) governs Eindhoven University of Technology (TU/e). TU/e comprises nine departments and eleven service entities that support the CvB and the departments. The governance and management of the entire university are monitored by the Supervisory Board.

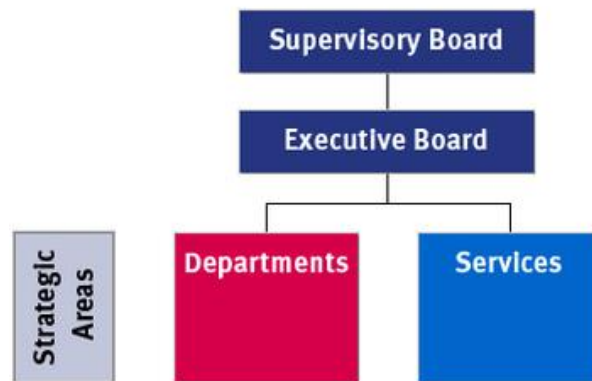


Figure 10: Organizational Structure of Eindhoven University of Technology (source: University organizational chart)

The Executive Board (In Dutch: College van Bestuur or CvB) is the board of Eindhoven University of Technology. It is responsible for all administrative matters and the management of the university. The Executive Board consists of three members: the President, the Rector and the Vice President. Additionally, the Secretary of the university supports the Executive Board, but isn't a member. On the other hand, the Supervisory Board, (in Dutch: "Raad van Toezicht", or RvT) of the Eindhoven University of Technology oversees the administration and management of the entire university. The main tasks of this body include the approval of the Institutional Plan, approving the budget and the administrative and management regulations as well as approving the annual rapport. The Minister of Education, Culture & Science will appoint the members of the RvT, and they are accountable to him. The Supervisory Board appoints the members of the Executive Board. The Executive Board is accountable to the RvT.

In a lower level the management and organization of the university is comprised of the departmental boards (9 in total), which are integrated by the dean, the vice-dean and the managing director. Furthermore, there are the directors of the supporting services (Communication, general affairs, economic affairs, real estate management, internal affairs, personnel and organization, equipment, ICT services, Information, Education and students services and Innovation).

Grenoble Institute of Technology Management Structure

The management team is integrated by the President and seven Vice-Presidents for specific areas (Technology, human resources, science, sustainable development, education and student life, information systems and R&D and partnerships).

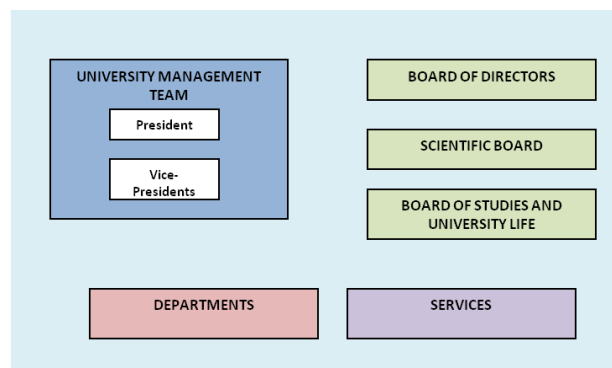


Figure 11: Grenoble Institute of Technology Management and Organizational structure

Grenoble Institute of Technology has three boards which manage and set its educational and scientific policies and allocate the financial and human resources required to implement these policies. These boards are made up of elected student representatives, staff and figures appointed from business or associations which work in partnership with the institute. The responsibilities of the Board of directors are the setting of the institute's policies. It votes on the budgets and approves accounts, and also allocates the jobs assigned by the relevant ministries. This body is also responsible for the institute's general directions in teaching. Thus, the board which manages each component (scientific or studies and university life) shall set its own objectives in the context of its own strategic direction and specialties.

According to the Institute Statutes, the scientific board proposes policy directions to the Board of Directors in the areas of research, scientific and technical documentation and the distribution of research credits. It shall propose the establishment, restructuring or closure of laboratories after having consulted with the relevant schools, institutes or universities. On the other hand, the Board of Studies and University Life shall propose policy directions to the Board of Directors as regards initial and professional development training courses and shall assess applications for accreditation of new training tracks. It shall takes all measures as to orient students and accredit their studies, facilitate their entry into the world of work, promote cultural, sporting, social or associative activities for students. Also, it shall provide the Board of Directors with an annual report on subsidies granted to student associations and their use.

The Grenoble Institute of Technology counts with 6 engineering schools and departments, as well as different support services.

Université Catholique de Louvain (UCL) Management Structure

The Organizing authority (in Franch "Pouvoir organisateur") is integrated by the President, who is the Cardinal Archbishop of Malines-Brussels, Bishops of Tournai, Liège and Namur. The top management team is composed by the Rector, the general director and Vice-rectors for different areas (student's affairs, personnel politics, health sciences, human sciences, technology, service to society, teaching and international relations, research and the voice-rector for UCL Hainaut.

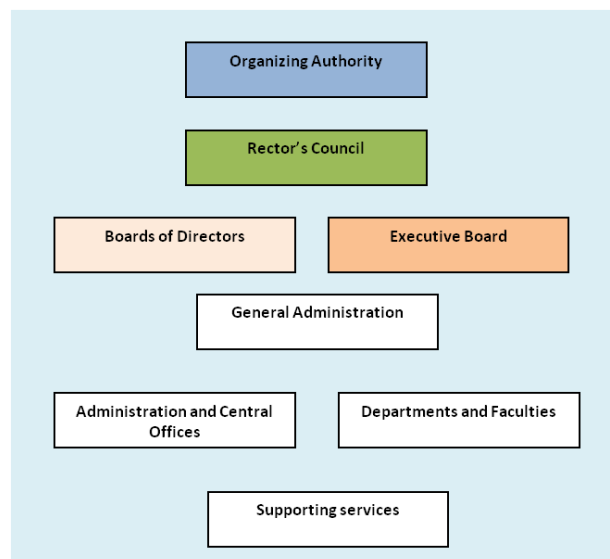


Figure 12: Université Catholique de Louvain Management and Organizational structure

The Rector's Council is comprised of the Rector, the General Manager and the Vice-Rectors. The individual

responsibilities of the members of the Rector's Council are to ensure the communication with Governors Board and the Academic Council. The Rector's Council meets weekly during the academic year for the peer review of issues related to the academic and scientific management of the University in its development strategy, its presence in society, and any other matters relating to the functioning of the University. The Rector's Council prepares document to the Academic Council and also draws lines to the Board such as proposals for the appointment of academic staff; proposals for the promotion of staff; the proposed annual budget; or any policy proposal falls under the jurisdiction of the Board of Directors.

The Executive Board is composed of the rector, the General administrator, and the vice-rectors. Also it is integrated by members appointed by the Academic Council from among its members on the proposal of interested delegations, respectively representative of academic staff, a representative of the scientific staff, a representative of the administrative and technical staff and a student representative. The Executive Board shall, within the framework of the policy laid down by the Academic Council, carry out the current management of the University's academic and scientific matters. It reports regularly to the Academic Council on the execution of its mission. It performs delegations received from the Academic Council or the Board of Directors. The Executive Board is a collegial body chaired by the Rector. Its members are required to maintain the discretion of the proceedings. The office shall adopt its rules of procedure and submit it for approval by the Board following a favorable opinion of the Academic Council.

Karlsruhe Institute of Technology (KIT)

The Presidential Committee is responsible for managing KIT. The Supervisory Board elects the full-time members of the Presidential Committee and adopts the structure and development plan as well as the construction plan. KIT is managed by the collegial board named "Executive Board". The Chief Officers are responsible for different areas (Science and Information; Science and Technical Infrastructure). The Senate confirms the election of full-time board members and issues an opinion on the structural and development plan as well as on the draft economic plan and the finance plan.

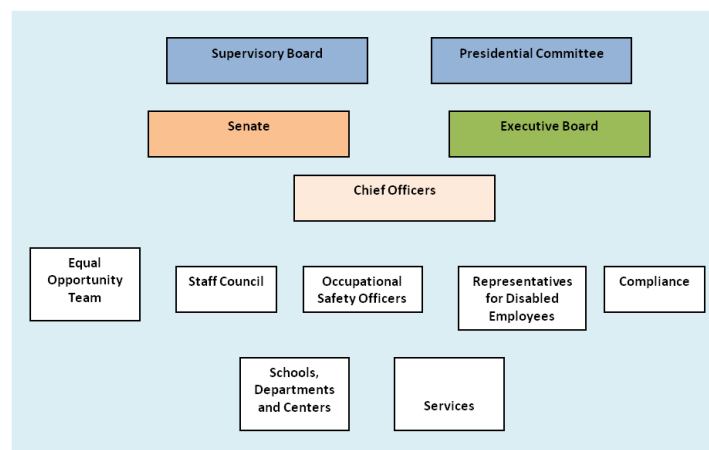


Figure 13: Karlsruhe Institute of Technology Management and Organizational structure

The Senate of KIT is composed of the board members, a representative of the equal opportunities team, a representative of the staff council and 25 elected representatives from the university sector and 25 elected representatives from the large-scale research sector. The Equal Opportunities team tries to increase significantly the number of women in leading positions and engineering. The tasks of the KIT Staff Council are outlined in the Act on Representation of Staff of State Institutions. They include the control of the implementation of collective agreements and service agreements as well as the support of the integration of employees in need of protection and the securing of jobs. The Staff Council consists of a total of 37 members: 34 representatives of the employees and three representatives of civil servants. The representatives

for disabled employees promote the integration of severely disabled persons at KIT, represent their interests, and provide advice and help. The KIT Occupational Safety Officers advise the executive board, heads of institutes and facilities or project managers on questions of health and safety measures and prevention of occupational accidents. At KIT, a large number of commissioners make sure that rules in diverse areas are consequently observed.

2. STRATEGIC MANAGEMENT DEFINITION

2.1 Top management teams election periods

Most of the universities elect or appoint their president/rector for mandate periods of four years horizon. The overall average is between four to six years.

In the case of the KTH, the rector (the president) and the deputy president are appointed for six years by the University Board. And in the University of Darmstadt, the Rector appoints his team after his election. The President (Rector) and Kanzler (Vice-Rector Finance etc.) for a period of six years and other Vice-Presidents for a period of three years. In the University of Coimbra, the rector is elected by the University Board, for periods of four years and cannot be reelected for more than one successive term, not during the four years after the end of the second term. In the Eindhoven Institute of Technology all members of the Executive Board are appointed for periods of 4 years. The staff office of the Executive Board does not undergo changes as a result of the appointment of a new member of the Executive Board.

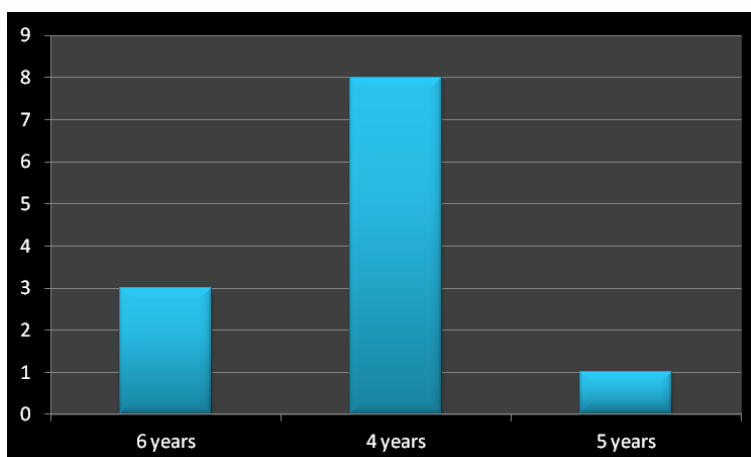


Figure 14. Period of election of the Rector/President team

2.2. Existence of a strategy document, vision horizon and continuity of planning cycles

The totality of the respondent universities has mentioned to count with a strategy document. These documents mostly are a result of a formal process conducted within the universities and are developed periodically.

Concerning the types of these documents, that is, the way they were structured, it was possible to identify types and formats of varied nature. Most of the strategy documents were elaborated as a formal strategic plan; others were a government plan, presidium strategy and or a development plan. Other strategy documents were mentioned as supporting these documents, such as the existence of Vision statements, quality policy document, target agreements between the corporate and units' levels, sectorial strategies, action plans, annual reports, policy plans for specific actions as well as assessment and accountability framework guidelines.

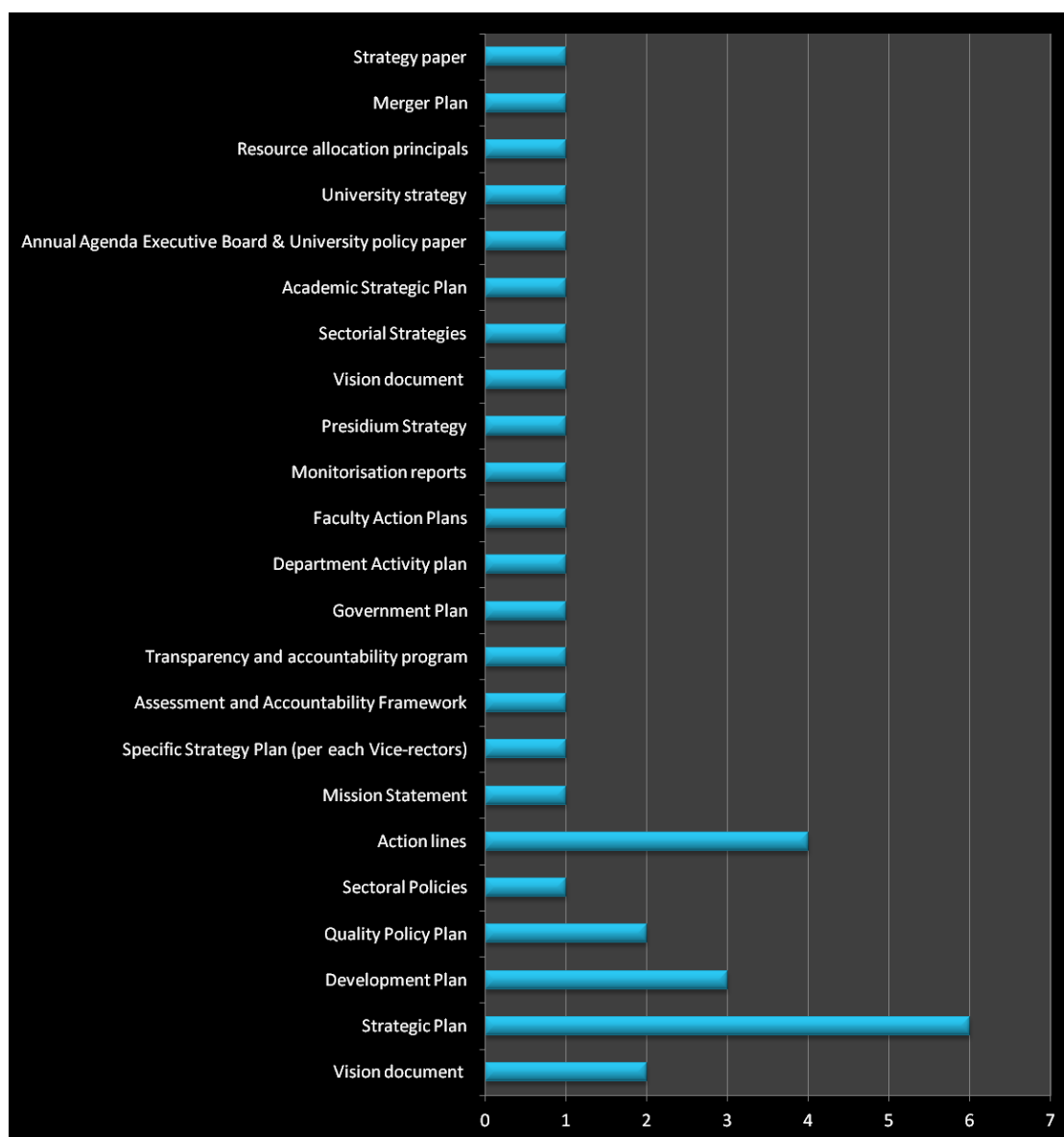


Figure 15. Type of strategy document

These strategy documents covered different periods, from short time planning of three years, to long time elaboration of strategic visions covering nearly two decades. Most of the documents embedded a horizon between four and five years. Concerning its continuity, it was observed that the formalized planning is relatively recent in most universities; most of them are in the process of implementing its first planning cycle or are revising and carrying out its second planning cycle.

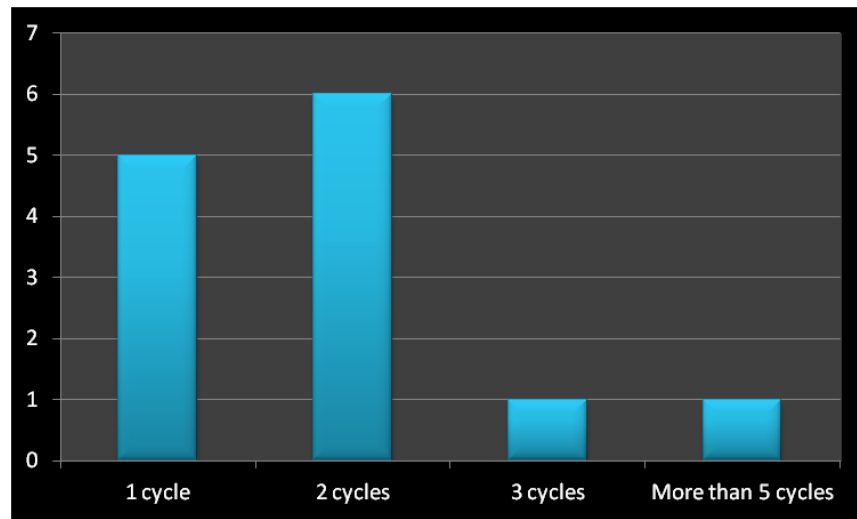


Figure 16. Number of planning cycles implemented

2.3. Strategy definition levels and transparency

Some general ideas can be observed when looking to how the universities approach their strategy definition process. The institutions combine different approaches when working out the institutional strategy, that is, the same institution claimed to assess their process as both embedding some general ideas and direction, explicit strategy, bottom-up elements as well as fruit of formal process. In the figure, it is only highlighted two perspectives: the existence of a formal process on the one hand, and the existence of a less structured process, acknowledged by the set up of general lines and directions.

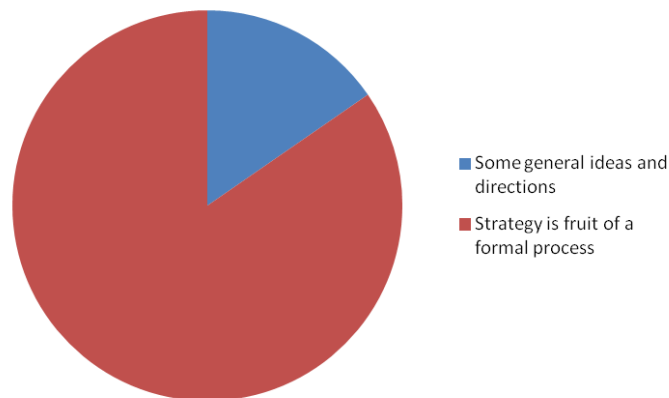


Figure 17. Level of universities strategy definition

In most of the cases, the definition process can be characterized as being clearly top-down process, and also, given the fact that most of the institutions has picked up more than one option when characterizing their strategy definition process (formal process, strategy is explicit and develop periodically, general ideas and directions), it can be suggested that the

strategy process within these universities are becoming more formalized and systematized, particularly if we associate this evolvement with the number of formalized cycles being implemented (figure 26). In the universities that have mentioned to have developed their strategy framed as a formal process, four institutions have highlighted that this formal process is embedded not only in a top-down format, but also take into account a bottom-up element of definition. Additionally, one institution, the Eindhoven Institute of Technology mentioned that this bottom-up strategy definition process is done partly in consultation with external stakeholders.

As concerning the visibility and transparency of the university strategy, it has been observed that almost all universities have their strategy document available on their website for open consultation. On the other hand, three universities stated that their strategy documents had a restricted access. When defining their strategy, only three institutions counted with the support of a consultancy, particular during their first planning cycles. This consultancy was mayor done by a private company. One institution said that that the consultancy service was provided by both a private company outside the higher education and by other higher education institution. Concerning the degree of satisfaction in relation to the use of a consultancy service to support the strategy definition process, only one university put forward that the consultancy provided by a private company outside the higher education sector was not a successful experience.

2.4. Main elements included in the institutional strategy

As observed in the following figure, the universities include in their formalized strategy, the typical elements of strategic planning process such as mission, vision, values, SWOT, strategic lines and objectives.

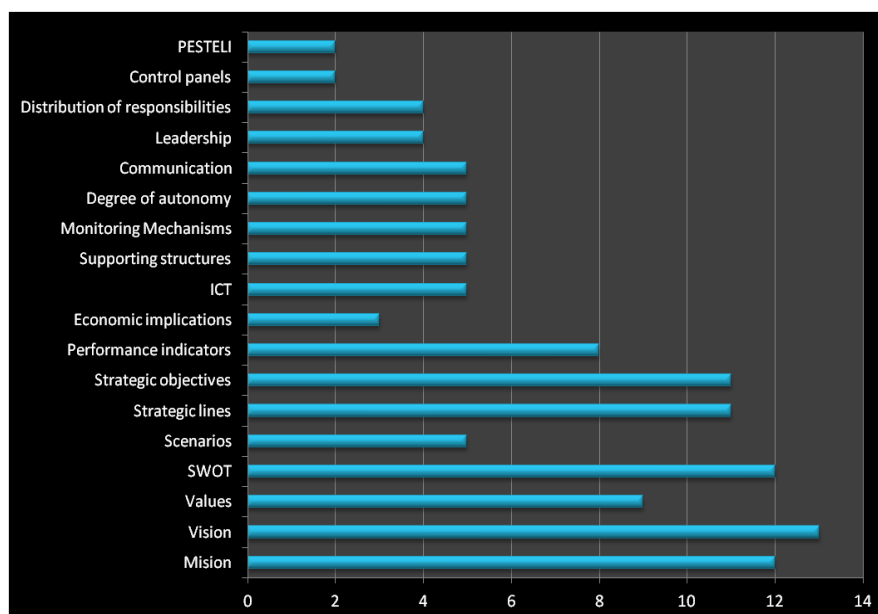


Figure 18. Elements included in institutional strategy

2.5. Methods used in strategy definition

When defining the strategy, the top popular used methods by the universities is the development of a SWOT analysis, together with the elaboration of action plans. Also the construction of strategic scenarios is a tool being applied. On the other hand, it can be observed that strategy maps and benchmarking are less used, as well as other techniques such as industry and market analysis, being mentioned only by one university. These methods and techniques are used in combination by most of the universities; the most common combination found was the use of the SWOT analysis with the development of strategic maps and action plans.

Table 2. Main methods used to support the strategy definition

	Frequency	Percentage
SWOT	11	84,6
Action Plans	6	46,2
Scenarios	3	23,1
Strategic Maps	2	15,4
Benchmarking	1	7,7
Industry and market analysis	1	7,7
Other	1	7,7

2.6. Characteristics, scope and actors involved in strategy definition process

It is particularly clear that in all the universities the rector or president holds an important role in the strategy definition process together with the members of the top management and executive teams, board of directors, senate and general manager. Additionally, some universities are involving students, as well as external participants.

Table 3. Main actors involved in strategy definition

	Frequency	Percentage
Rector/President	11	84,6
Vicerectors	3	23,1
Executive team	8	61,5
Board of Directors	9	69,2
General Manager	9	69,2
Academic staff	9	69,2
Administrative Staff	9	69,2
Students representatives	8	61,5

However, the above table only provides an overall overview on the main actors taking part in different moments of the strategy development process. The explicit role of different organizational bodies and member in the strategy definition process of the institutions were described differently, and it was in close relationship with their management structure being described in section 3.1 of this report. The main highlights on people involved and methodologies being applied, as well as by whom the strategy designed was approved are drawn together in table 4.

Table 4. People's involvement and methodology developed in strategy definition

University	Main people involved	Methods used	Strategy approval by
KTH	The President (Rector), the Executive team, the Board of Directors, the Manager and the Students union were all involved in the Strategy definition process. A special task group that consisted of the President (rector), the Dean, the Head of communication and a commissioner was responsible for producing the Strategy Vision	The Strategy was discussed in seminars/workshops and was also sent for comment/consideration to the students union, the KTH schools etc. as well as external participants/stakeholders. In the Strategy definition process we used special task groups and workshops/seminars.	The Strategy was approved by the University Board and by the Faculty Council.

	document.		
KU Leuven	Actors involved in the definition were the Rector, Executive team, Board of directors, Manager and people which were part of the Academic Council: academic staff, administrative staff, researchers; technical staff and students representatives.	The process was initiated and elaborated by the Executive team and included several iterations.	Academic council, Board of directors, General assembly.
IST	President, Management Council, Scientific Council, Academic Staff, Administrative Staff, Students, Consulting Council, Leaders (academics, non-academics and students)	It was created a top management working group coordinated by a member of the Scientific Council, which developed a SWOT analysis based on a diagnosis and benchmarking of IST at national and international level, accompanied by a series of interviews with IST stakeholders (internal and external) and a large group of leaders (teaching and non-teaching staff and students).	The Strategy definition was approved by IST's Management Council and School Council.
POLITO	Rector; Vicerector for Strategy and Reform (role not available currently); Vicerectors; Professors; Directors of department; Other representatives of European Universities (EPFL, UPC, University of Geneva, INPG); External experts (Città di Torino, Ministerial departments, Confindustria); Deans; Students; Researchers; Administrative Director	- A Strategic plan commission nominated by the academic senate in 2005 - A Senate Commission	By both commissions.
UPC	Rector; Executive Board; Board of Trustees; Professors; Management and Administrative Staff; Students representatives.	Strategic Plan Commission Quality Council (not existing currently) Cabinet for Quality, Planning and Evaluation	Board of Trustees
UP	Rector, Vice-rector, head of departments	Task groups using the blue ocean approach	The strategy is formally approved by the direction of the cooperative
UC	The strategic definition process was led by the Vice-Rector for Strategic Planning, spearheaded by the Rector, and followed by the Rector's team, the University Board and the Senate. A Strategic Committee composed of the Rector, the Vice-Rector for Strategic Planning and Finance, the other members of the Rector's team, the Directors of Faculties and the UC's Heads of Administration (UC and Social Services), followed up all the process through regular meetings. Each Vice-Rector is accountable for the strategic initiatives and actions in the area for	While being the result of a strong commitment of all, the process benefits from everyone's involvement: a) All Faculties and Units and all the University's bodies, ensuring that each group contributes a unique perspective to the process. b) University of Coimbra's alumni Network (UC Network): considering the important role the University of Coimbra expects from its former students and the contribution they could make to a process such as this one, their	During the definition process, there was a Steering Committee (Strategic Committee), composed of the Rector, the Rector's team, the Directors of Faculties and the Heads of Administration, which followed up and validated the entire process.

	<p>which he is / she is responsible for in the Rector's team (Research, Finances, ...). A team was created specifically for conducting the strategic process. It held responsibilities related to all the sessions with the stakeholders, with the data analysis recorded in all sessions and with the development of the document to be presented to the University Board.</p>	<p>involvement was deemed crucial, through the participation of the UC Network;</p> <p>c) Employers were invited to be involved in the Strategic Planning process as external stakeholders, in order to promote the continuous support and participation in the construction of the University's future;</p> <p>d) Other external stakeholders, such as the Ministry of Science, Technology and Higher Education or the Agency for Evaluation and Accreditation of Higher Education (A3ES)."</p>	<p>The Strategic Plan was then presented by the Rector and his team to the University Board, which approved it.</p>
TU Darmstadt	Rectorate with support from administration	Workshop/ retreat	Discussion and approval in Hochschulrat (Advisory Board) and in Senate
Grenoble INP	The President, the Executive Presidency Team, the Board of Directors and Managers.	<p>1- Council debate</p> <p>2- Bottom-Up Survey</p> <p>3- 2 day Board of Directors Meeting</p> <p>4- Council debate for approval</p>	Council
Eindhoven UT	Executive Board, supported by Staff Office of the Executive Board, in consultation with the Board of Deans, Board of Service Directors, representative advisory council (staff & students), panels with representatives of internal stakeholders (students, staff, alumni) and external stakeholders (industry, public authorities, NGO's)	A Steering Committee Strategy Development, specially set up for this purpose and led by the Vice President of the Executive Board, organised the consultation process, developed an outline sketch, organised discussion meetings about this outline sketch, came up with a more detailed strategy plan and organised en supported the formal consultation and decision making process with regard to this plan.	Decided on by the Executive Board, approved by the University Council (representative advisory council of staff & students) and officially approved by the Supervisory Board.
Aalto	Rector, Executive team, Board of Directors, Manager, Academic Staff, Administrative Staff, Students	School level workshops and university level task forces for service design	Final approval from the board of trustees
UCL	The Rector, Executive team, Board of Directors, COO, Academic Staff (through the Academic Board)	N/A	
KIT	Executive team, Board of Directors, Strategic Project team (Advancing KIT), Presidents, Chief Science Officers plus supporting staff, specific task groups incl. leading scientists, executive support team, administrative staff	Task groups (e.g. strategic committee), workshops, regular meetings	Board of presidents, Senate, supervisory board

Specifically regarding the methodologies used in the strategy definition process, as observed in the table, the methodologies that most convergence was found between the universities when elaborating the strategy definition was either the constitution of specific task and working groups, or the composition of special commissions and committees. Also workshops and seminars were held or the top team in charge of the process conducted several iterations throughout the process. As overall observed, the institutional strategy documents are mainly prepared by specific university groups, but also there are specific groups in administrative and academic units levels in charge of the elaboration of the strategy documents of the academic units and sectoral plans. Thus the scope of the planning in the universities takes place at least in four levels: institutional, academic centers (schools, department or research institutes), administration and other services and sectoral plans (e.g. internationalization, social commitment strategy, new technologies, etc.), as can be ascertained in table 5.

Table 5. The universities strategy development scope

University	Level of strategy scope
KTH	Institutional strategic documents , School strategic documents, Sectorial plans (e.g internationalisation, social commitment, new technologies, others)
KU Leuven	Institutional strategic documents
IST	School strategic documents, Sectorial plans (e.g internationalisation, social commitment, new technologies, others)
POLITO	Institutional strategic documents
UPC	Institutional strategic documents , School strategic documents, Sectorial plans (e.g internationalisation, social commitment, new technologies, others)
UP	Institutional strategic documents
UC	Institutional strategic documents , School strategic documents, A strategic definition framework was developed, covering the mission pillars, closely linked with the ones defined by the statutes - Research, Education and Knowledge Transfer -; and the resource pillars, i.e., the means required to achieve the first, which were also associated with strategic lines - People, Economic and Financial, Infrastructure and Organizational resources.
TU Darmstadt	Institutional strategic documents
Grenoble INP	Several contributions of school staff and service staff during the process but more orally in debate than formally in document
Eindhoven UT	<ul style="list-style-type: none"> - Institutional strategic documents - School strategic documents - Sectorial plans (e.g internationalisation, social commitment, new technologies, others).
Aalto	<ul style="list-style-type: none"> - Institutional strategic documents - School strategic documents

	<ul style="list-style-type: none"> - Sectorial plans (e.g internationalisation, social commitment, new technologies). - Strategy guidelines for Aalto horizontal activities.
UCL	<ul style="list-style-type: none"> - Institutional strategic documents - Sectorial plans (e.g internationalisation, social commitment, new technologies). - Internationalisation plan
KIT	<ul style="list-style-type: none"> - Institutional strategic documents - School strategic documents - Sectorial plans: research, teaching - Others: future research orientation e.g. via strategic appointments of professors, innovation, support of scientists throughout their lifecycle, gender issues, internationalization.

3. Strategy Development and Alignment Process

As observed previously, in most of the universities the planning scope involves schools, faculties, centers, departments, institutes, services and other levels. Hence, this section explores how the defined strategy at both levels is developed and aligned with the university different organizational elements.

3.1. Main elements in alignment with strategy

As contemplated in table 6, it is found that human resources, internationalisation and annual budget are the elements that have presented a higher level of alignment with strategy amongst the examined universities, followed by quality management, information systems and monitoring mechanisms.

Table 6. Organizational elements aligned with strategy

	Frequency	Percentage
Human Resources Policy	10	76,9
Internationalisation policy	10	76,9
Annual Budget	9	69,2
Quality Management	8	61,5
Information System	8	61,5
Monitoring mechanisms	7	53,8
Communication	6	46,2
ICT Policy	6	46,2
Corporate Social Responsibility	5	38,5

It is interesting to note that one of the most aligned elements was found to be the internationalisation policies. This aspect might out suggest that the universities are strongly aligning their strategy with an internationalisation vision, which the technological and science purpose of these universities may be one of the issues driving this behaviour. On the other extreme, it can be seen that elements such as the social corporate responsibility, the ICT policies or communication mechanisms are less taken into account.

3.2. Techniques and tools supporting the strategy development and alignment

As respect to the use of techniques and tools in order to support the policy and strategy development and alignment within the universities, it is shown that the most adopted was the management by objectives, followed by dashboards, tableau de bord and strategic action plans. The universities in overall adopt and use a group of tools when developing its strategy, blending three to five different techniques throughout their strategy development and alignment process.

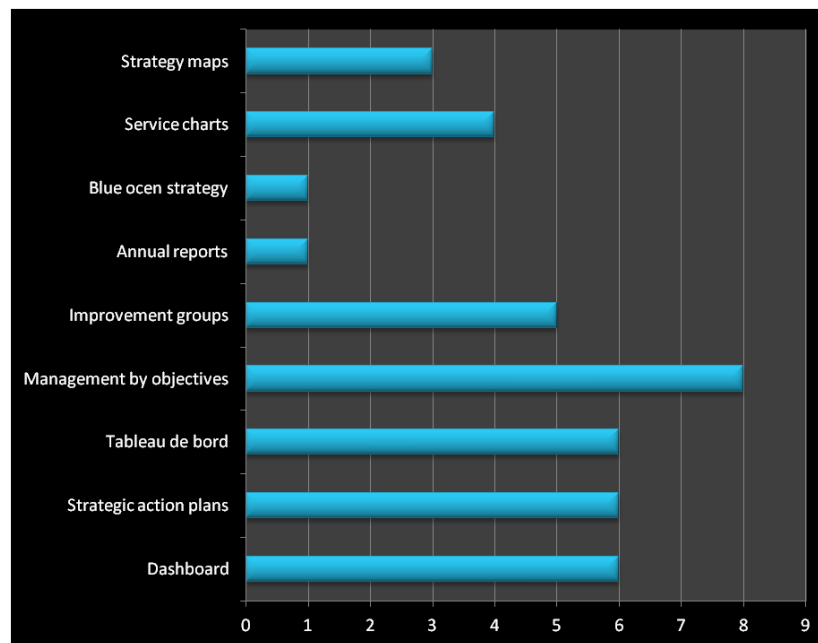


Figure 19. Corroborative tools and techniques in the development strategy process

It is also interesting to note that some innovative techniques, at least within the higher education sector, are starting to take place when the institutions come to support their strategy alignment and development processes, as is the case of the use of the Blue ocean strategy. Concerning the annual reports being mentioned to support the alignment and implementation, its particular role within the process was however unclear.

3.3. Factors positively and negatively affecting strategy implementation

When analysing the main factors influencing in a positive way the strategy implementation, it is found that a shared strategic vision, a higher commitment with the strategy and the efficient use of monitoring mechanisms were found to be the elements that were most influencing positively in the implementation process. In a second level, two aspects were also considered as key drivers on achieving a better development outcome, it was the case of an excellent integration of the strategy within the different organizational units and the support of adequate communication mechanisms.

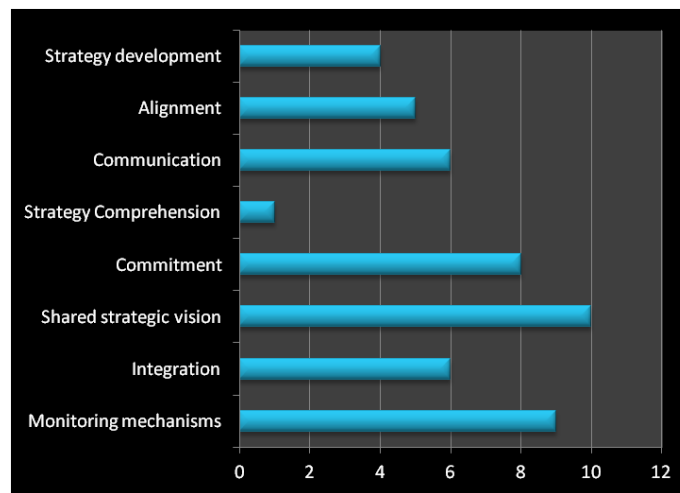


Figure 20. Main factors that positively affect the Strategy implementation

On the other hand, concerning factors that may have a negative influence during the strategy implementation in the universities, five main aspects were found to be more relevant. Amongst them, the most valued issues acknowledged as having a negative impact were the resistance found in changing process initiatives as well as the higher feeling of workload being experienced.

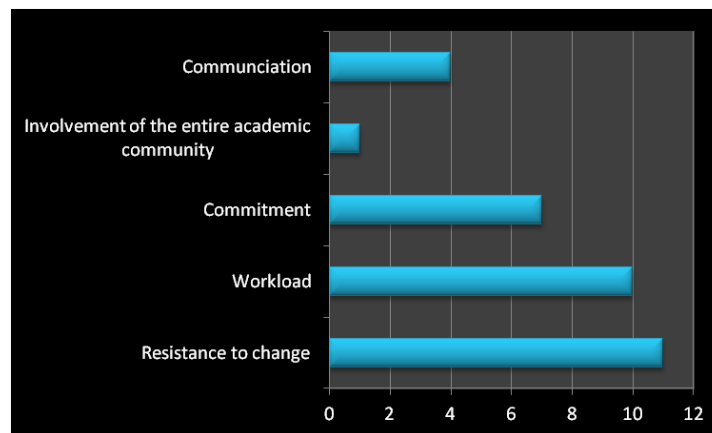


Figure 21. Factor negatively affecting strategy implementation

Again, it is interesting to observe that communication is not being perceived as having a highly negative influence in the implementation of the strategy, as well involvement of the community.

4. Strategy Monitoring, Feedback and Learning Processes

This section deals with how the implementation of the strategy is controlled and followed, and what is the process established by the universities to provide feedbacks on the process as well as to get to know its impacts and to assure the organizational learning in order to conduct further improvements.

4.1. Monitoring processes

Characteristics of the strategy follow up process and tools used

When analyzing the existence of a systematized monitoring process of strategy implementation within the universities, it was possible to identify that most of the institutions counted with some form of instruments to control the development of the strategy, yet is surprisingly to observe that there were some institutions that did not contemplated such process. The most commonly instruments and techniques considered in the strategy monitoring were the regular and continuous use of indicators to follow up performance and used of annual reports. On the other hand, some institutions only conducted monitoring in specific areas, related to some units or services. Also, instruments such as internal audits or follow-up of incidences in the field of administrative contracting and bad management practices were used.

Table 7. Characteristics of strategy monitoring processes

University	Monitoring process description	Establishment of a special committee and tools used to support monitoring
KTH	Use of indicators to follow the implementation of the objectives of the University Development plan that covers four years.	A follow up strategic committee were not defined, but there are other instances, such as the Faculty Council and the Management group, etc. Tools used are Dashboard, strategic action plans, tableau de bord, Performance indicators systems
KU Leuven	A follow up process has not been defined	The Executive team is in charge to monitor the development. Tools used are Dashboard, strategic action plans, tableau de bord, Performance indicators systems.
IST	Monitoring is conducted in certain areas, such as University Services –and Strategic Planning of IST's RD&I units. Also, as general follow-up, there are the annual Plans with the definition of the activities under each action line of the strategic plan and the Annual Reports.	There is a committee who is in charge of monitoring the strategic plan: Strategic Plan Committee (SPC). However, and despite having been formally constituted, it has not been working with the dynamic expected in terms of the monitoring of the strategic plan action lines. Therefore, the Management Board is currently reviewing the composition of the SPC, in an attempt to formalize the appointment of its members, independently of the school management cycles (4 in 4 years). Tools used are Dashboard, strategic action plans, tableau de bord, Reports, Performance indicators systems, QUAR and RA include performance indicators (not the PE itself)
POLITO	Not available as in 2009 the Ministry of Education created the Nucleo di Valutazione and changed the some management tools.	There is not an operative committee. Reports are used to monitor developments.
UPC	The Quality, Planning and Evaluation office is in charge of carrying out the university development in several aspects. Provides technical support to the social council, throughout the realization of Internal audit/ Follow-up of incidences in the field of administrative contracting and bad	With every strategic plan a new committee is defined but the follow up is carried out by the Quality, Planning and Evaluation office. Tools used are Dashboard, strategic action plans, tableau de bord, Reports, Performance indicators systems.

	management practices detection.	
UP	A follow up process has not been defined	N/A
UC	Regular monitoring of the indicators identified in the Strategic Plan (activities and action plans) plays a major role, enabling assessment of the degree of achievement of objectives. The frequency of its analysis will be differentiated according to the evaluation levels defined.	A Strategic Committee composed by the Rector, the Vice-Rector for Planning and Finance, the Rector's team and by the Directors of Faculties and the UC's Heads of Administration (UC and Social Services) follows up the entire process through regular meetings. The administration (through the Planning, Management & Development Unit and Evaluation & Continuous Improvement Unit) is responsible for collecting, preparing and analyzing the information necessary to produce data and report documents. Tools used are Dashboard, strategic action plans, tableau de bord, Reports, Performance indicators systems.
TU Darmstadt	Continuous monitoring of implementation (measures and indicators) and respective reporting	There is not an operative specific committee. The tools used are Reports, Performance indicators systems.
Grenoble INP	Annual indicator reports -> collective analysis -> regulation when necessary	No committee. The Vice President of Strategic Planning is in charge of the follow up and reports to the council once a year. The tools used are Reports : to Council Performance indicators systems : annual
Eindhoven UT	Strategy has been translated into transition projects, that are embedded in University Policy Papers (4 year plans) and the Annual Agenda of the Executive Board.	There is not an operative specific committee. The tools used are Dashboard, strategic action plans, tableau de bord; Reports, Performance indicators systems.
Aalto	Follow up is mainly performed in spring in strategic discussions president & deans, president & service directors.	Each school has an international SAB to follow the strategy and to give advice to the dean and to the president. The tools used are Reports, Performance indicators systems and others: dialog.
UCL	N/A	There is not an operative specific committee. The tools used are Reports.
KIT	N/A	There is not an operative specific committee. The tools used are Reports,

As observed in the above table, few universities confirmed to have established specific committees responsible of conducting and assuring the strategy monitoring process. The universities which mentioned to count with this type of committee, put forward that they were mostly responsible to conduct the follow-up in specific areas of the university (e.g. at the faculty level). As observed previously, the universities have applied the same corroborative tools and techniques in the development of the strategy process as well as in their follow-up. As such, the universities have blended a group of tools when conducting the follow up (e.g. use of dashboards, combined with action plans, performance indicators and reports). The survey also explored the degree of the flexibility of the strategy documents, regarding their capability of introducing and adapting its structure according to the ongoing changes that can be identify throughout the strategy follow-up process. In this manner, all the universities acknowledged that their strategy documents were of flexible nature, yet most all of them also put forward that the veracity of their flexibility was only achieved to some extent. Notwithstanding, no further comments were provided concerning which elements were found to restricting the process flexibility.

4.2. Characteristics of the revision process

Concerning the overall characteristics of the revision process, the universities were asked to provide some information on the periodic and systematic revision of strategy implantation processes, as well as a description of the overall process. The

results have shown some variability on the responses provided. Some universities have mentioned not to count with a revision process, and others which conducted the revision, the process was mainly based on a new set of indicators, results of annual plans activities as well as reports. In some cases, the revision process started at the end of the term of the executive team, and in other cases the revision of strategy implementation processes took place annually and according to the management cycle, and extraordinarily during the periods of new president/management bodies' election, normally every four years.

Also, one university conducted revisions of the university strategy performance; however it was not exactly aligned with the university strategic plan. Additionally, given the fact that there are also universities that are still in full implementation of their first strategy cycle, they do not have a full experience to provide a complete picture about the revision process as well as to define its improvement.

With regard to the periodicity of the revision and updated conducted within the universities, the results also suggested that there were no specific trends.



Figure 20. Strategy revision and update periodicity

As observed in the above figure, there were overall revisions of the strategy documents being conducted every four years, mainly coinciding with the end of the executive team or election period. Also, there was a university which revision was carried out each five years. Furthermore, the periodicity varied from periods of one, two to ten years. It is interesting to highlight that in some cases, it has been suggested that the academic units plan were more subject to a higher levels of adjustment than the institutional strategy plan.

4.3. Follow-up process perspectives of improvement needs

The universities were asked about their perceptions and perspectives concerning room for improvements in their strategy development, follow-up and revision processes, and the following elements were seen as most relevant:

- More visibility and communication of the strategy results.
- Greater integration of the management systems in the institutions in order to build more coherence and engagement achievement.
- Clear design and organization of the work to be done (closing the gap between formulation and implementation of activities).
- More visibility of the follow-up process.
- Introduction of new tools to support strategy controlling.
- More involvement from others organizational levels and members (e.g. researchers, faculties and other administrative staff) in strategy follow-up.
- Revitalization of strategic committees.

- Continuous improvement of the strategic plan and follow-up process.

Overall the universities stated that it is good to have a strategy, but there are relevant concerns on how to implement it effectively, as well as assure improvements of the tools and instruments use to support strategy control and revision, together with enhancement of participation and engagement.

4.4. Strategic planning effectiveness for accountability

The survey results show that universities have argued that accountability is becoming part of the institutional culture, yet few of them have embedded it in their strategic plans. This clearly suggests that the effective role of strategic plan for institutional accountability constitutes itself a relevant aspect for improvement.

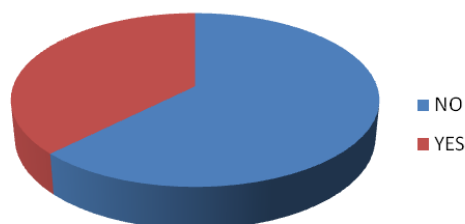


Figure 21. Strategic plan effective for accountability purposes

Notwithstanding, the strategic plan effectiveness for accountability together with the problematic involved in the universities strategy follow-up and revision processes, brings forward the issue of to what extent the universities can ensure that collective learning will be achieved based on the outcomes of their strategy development and feedback processes as well as how they will be capable of consolidating a relevant culture of assessment?

5. Mapping the trends of University Strategic Management

The overall survey results allow drawing a general picture of the universities strategic management structures, including in it the problematic involved in the process of defining, implementing and reviewing the institutional strategy. The strategy documents of the sample of universities have demonstrated that the universities are developing their strategic vision framing it in longer term (e.g. more than ten years), but also in short and medium periods of time, between three to five years. As regarding scope, the documents accounted for both generic and specific strategies. The specific and generic strategies were related to different issues such as quality, ICT, language, human resources, internationalization, ethical and gender policies as well as aspects more related to the core business of the universities such as education, learning and research policies. The documents also included at some extent, assessment and accountabilities frameworks, even though in some cases they were restrictive, incomplete or still not well consolidated. These aspects are very important, especially concerned with enhancing a collective learning and building a culture of assessment.

The definition processes were conducted in different periods; mostly of it comprehending between four or five years, with some regular updates, typically within two years. These processes were generally the result of a formal process, based on general ideas and directions. The definition was mainly a top-down procedure, yet in some cases was further open to discussion and debate into different organizational levels. The degree of participation and engagement is found to be a relevant shared concern between the institutions. These concerns are also connected to similar arguments in the academic literature which highlights that universities are more able to achieve a higher alignment through the establishment of a greater connection between the organization levels with its planning and assessment (Sullivan and Richardson 2011). The element of external consultancy was rarely used, however when used, it was provided by other higher education institution and connected with giving support during the elaboration of the universities first strategy cycle.

Typical elements of strategic planning model, such as mission, vision, strategic lines and objectives as well as SWOT analysis were found to be mainly included in the universities strategy documents. Other aspects and tools such as the construction of scenarios, performance indicators, information and communication system, follow-up and revision were also taking into account, but with less extent. On the other hand, issues more related to the social, political and economical aspects of the strategy, as well as the distribution of responsibilities were not clearly ascertained. SWOT analysis was found to be the common tool in supporting the definition process, whereas industry analysis, market studies or strategic maps were less or rarely applied. Yet it is interesting to also highlight that some innovative tools were being introduced, as was the case of the blue ocean strategy.

Concerning the leadership of the strategy definition and the actors involved in, it is clear observed that the top management, that is, the president or rector, the executive committee, the board of directors and the university manager, are the responsible for the elaboration of the document, however in some cases the students, other staffs or external stakeholders are also involved in the strategy definition. Nevertheless the specific roles of these different members are not always acutely defined. The process is mainly carried out in task groups and committees, workshops, seminars, as well as through interviews with different stakeholders. Again the engagement effectiveness is a clear concern, as the universities acknowledged that there is an apparent need to achieve a greater integration of the management systems in the institutions in order to build more coherence and engagement. Also there is a concern in conducting a clear organization of the work to be done in the definition process, foreseen implementation activities, responsibilities and roles. This is also in consonance with the arguments provided by Meyer (2002) upon the organizational unit, which states that decision-making in universities has been always ill equipped, given the fact that designing a strategic planning only as a “top tool” can fail to achieve the aim of the organizational unit and alignment.

Dashboards and management by objectives were the most common tools used to support the university policy and alignment, supported by the employment of indicators of performance to control the objectives. The key factors related to the success achievement in strategy implementation were connected to achieving a shared strategic vision, integration of management and other organizational systems, as well as assuring the effective follow-up of initiatives. On the other hand, there were two important aspects that were found to negatively affect the success of the strategy implementation, namely the resistance to change and the potential increase of the workload. These negative aspects can be related to an argument provided by Gregory (2008) who stated that resistance to change or the vision that the strategy activities are seen as very heavy workloads can be result of a lack of understanding of the strategy process itself or also the result of an important disconnectedness between the different organizational systems parts.

Some further discussions can be put forward that have resulted from the examination of the university management structures, which even though the current survey did not contemplate them; it however comprises a relevant point of departure for further examination. Such reflection deals with the following aspects:

- What are the changes foreseen by the strategic planning? (Incremental or revolutionary?)
- What are the main influences and impact that the type of management and decision-making structures held on the strategic management development of the universities? Specific governance and management structures results in more effective strategic management programme?
- What were the main changes in the internal power of different organizational management levels (How to balance power by the use of the strategic planning tools?)
- Do the strategic planning programmes provide more interaction between universities and society?
- What are the effects on the workload (i.e. quality assurance implementation)?
- Are strategic planning's following the current needs (new strategic areas) or are they a mere replication?
- Why strategic planning is implemented (main motivation): is it a wishful thinking or it intends revolutionary changes (i.e. reactions to funding problems - do universities have a real interest in quality assurance?). Are the changes really achieved, or are they just self-celebrations?
- What are the hidden functions and agenda of strategic planning? How can it be adapted to the current era of higher education continual changes and challenges, without hidden agendas?
- What are the emergent trends within the higher education sector and do the strategic plans reflect those trends?

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Part 2 - Approach to the EUSUM Observatory

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1. Development Process and Methodology

One of the main aims of the SUMUP project was to focus on promoting the exchange of university strategic management practices in order to combine and co-generate improvement approaches and tools for a common-understanding and transparent European framework for the university management modernization. In order to implement this objective, the universities partners of the project carried out a joint effort to establish an observatory of innovative practices in strategic university management in order to foster benchmarking of European universities for improvement and promoting dialogue between the university stakeholders. The first step to implement this objective was the conduct of an exploratory study on the university strategic management structures. The study results acknowledged some trends in this subject:

- The institutions mostly counted with formalized strategic documents.
- Specific and generic strategy scopes were being worked out.
- Most strategic documents were structured around the core functions of the universities: education, research and knowledge transfer.
- The specific and generic strategies were related to different issues such as quality, ICT, language policies, human resources, internationalization, ethical and or gender policies.
- Divergence and convergence on methods, tools and techniques when defining and implementing the institutional strategy were acknowledged.
- Common concerns were raised when coming to issues of improving quality management, leadership aspects, funding mechanisms, participation and governance, information systems as well as management mechanisms that would be able to support the university modernization.

The further steps being taken was to conduct a detailed analysis of the trends and needs being identified within the exploratory study. This analysis was carried out throughout intensive discussions that took place along the project implementation. This has led to the configuration of what was the basic structure that should embed the good practices exchange platform. Therefore, the needs and trends of university strategic management were drawn together to form a two-level matrix that were structured in categories and dimensions. On the one hand, the dimensions acknowledge the main core functions of the universities, and on the other, the categories embed the current trends and priorities of higher education institutions in most European countries.

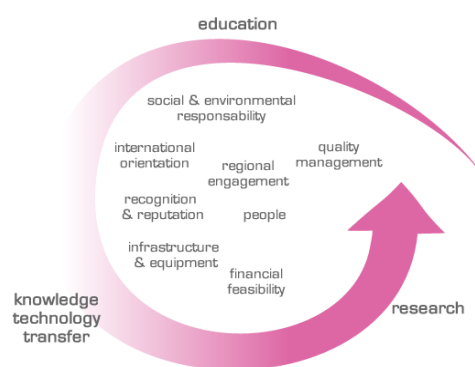


Figure 22. Proposed Framework for the dimension and categories of the platform for good practices exchange

DIMENSIONS	CATEGORIES
Education	<i>Social & environmental responsibility</i>
Research	<i>International orientation</i> <i>Infrastructure & equipment</i>
Knowledge & Technology transfer	<i>Regional engagement</i> <i>People</i> <i>Regional engagement</i> <i>Recognition and reputation</i> <i>Quality management</i>

2. Good Practices Results

Throughout the development of the project, two calls took place during 2013. The first call for identification of good practices in these different categories and dimensions was launched at the beginning of 2013. As a result of this first call, 16 good practices proposals were submitted. These practices were assessed by the Committee of Experts of the EUSUM Observatory, whom has evaluated and validated these experiences in accordance with the Observatory evaluation criteria. Therefore, after following through this assessment and validation process, 9 practices proposals were finally recognised as being good practices. Furthermore, a second call has been launched during 2013 second semester, resulting in the recognition of 22 good practices. A compilation of overall briefings of the 31 good practices being identified and validated by the EUSUM observatory is followed described.

Briefing overview of selected good practices EUSUM Observatory

CATEGORY / Dimensions	University /Country	Good Practice Title	Good Practice Briefing
Knowledge & Technology Transfer: Quality management	Universidad de Cádiz / Spain	CELAMA: Innovation in client management. A program for managing and linking audiences of educational culture activities.	<p>Until two years ago the work of the UCA's University Extension Service depended on it's own the information and management material and documentation. This resulted in: For users: insecurity, multiple telephone calls to follow up on their requests, fraud in the payment of pre-registration fees, errors in processing, etc. For the university's technical and administrative personnel: wasted time in the search for documents and in the preparation of lists and reports, the occurrence of errors and sluggish processing, etc. The objective was clear: reorganise the entire process to improve service for the user and improved the work environment for employees. CELAMA was the result. It was introduced as a homage to the literary territory created by the educator Luis Mateo Díez. It is a comprehensive management tool for cultural activities with educational benefits that aids in planning for greater public access through the application of new technologies in client management, and has the following objectives:</p> <ul style="list-style-type: none"> • Provide added value to our products through good partnership management. • Facilitate the relationship with users. • Provide service, 24-hours a day, seven days a week. • Automate the University's management of cultural activities (especially the key process of REALIZATION OF OFFERS). • Prioritize the user. • Demonstrate that cultural services, such as those of UCA, can undertake a wider range of activities despite limitations in growth potential of human resources. • Realising that improvement is possible: either outward (toward the user) or inward (toward the employees). • Demonstrate that the technology and information generated by one public institution can be used by other similar public institutions (CELAMA is now used by the University of Huelva and the University Pablo de Olavide in the context of Project Atalaya under the auspices of the Junta de Andalucía and Andalusian Universities).
Knowledge & Technology Transfer: regional engagement / Reputation & recognition /	Universidad de Santiago de Compostela/ Spain	<i>Cooperative project between four universities for the development of an information literacy course for first-year univeristy students.</i>	<p>The new university educational context arising from the Bologna Declaration, and within the framework of the European Higher Education Area, has generated a new model of teaching based on knowledge and skills. Many studies suggest that the success of this new teaching/learning model requires that students acquire information skills, that is, that the students are able to effectively find, organize, evaluate, use and communicate information. If developing the capacity to learn throughout a student's lifetime is one of the main objectives of institutions of higher education, then information literacy becomes one of the key principles of this learning process. In these circumstances, university students should master this skill set</p>

quality management			<p>in order to learn how to interact with and manage information efficiently either in an academic setting or in a work environment, and should incorporate this into their study process as a necessary tool for learning. Within the framework of the CRUE (Conference of Spanish University Chancellors), REBIUN, a sector dedicated to the network of Spanish university libraries, has been reflecting on and working with this subject over the last few years. The work under REBIUN is considered one of the future strategies for university libraries and as a basic element in supporting research, teaching and learning; also this work is aimed at the enhancement of collaboration in informational education and training of new university students. Thus contributing to the completion of the institution's objectives, one of which is responding to changes in a constantly evolving society. Within the context of REBIUN libraries, there was an initiative to sign a cooperation agreement to develop a common introductory course model in information skills training for first-year students between the libraries of La Laguna, Santiago de Compostela and Zaragoza universities. The Alicante University Library subsequently joined the initiative. This agreement was supported and signed by the Presidents of the four universities. The initial objective is to improve the training offered by the university libraries and develop a common assessment of student learning in the different universities.</p>
Research and Education: Quality management	Universitat Rovira i Virgili/ Spain	A Research, Development and Innovation Quality Management System (SGC I+D+i) for the research groups and innovation centres at Rovira i Virgili University.	<p>The Research, Development and Innovation Quality Management System (henceforth labeled as SGC+I+D+i) was the result of a strategy adopted by URV to implement mechanisms to improve the quality of processes and resources within the University. The need to certify quality, through both internal and external processes became evident. This certification involves all activities, including teaching, research and management: more specifically, evaluation and accreditation of educational programs, assessment and accreditation of teachers, quality certification of university services, the quality of doctoral programs, evaluation of research groups, audits and so on.</p>
Research and Education: Quality management	Universidad Europea de Madrid / Spain	UEM Quality Award.	<p>The UEM aiming at promoting the Culture of Quality and Continuous Improvement launches on an annual basis the "UEM Quality Award", by which rewards the best improvement actions developed in the faculty and staff departments and interdepartmental working groups. The winners in each of the awards categories (first, second and third), are given travelling vouchers of different amounts, which are shared by the members of the winning teams.</p>
Research and Education: Quality management /	Universidad de León / Spain	The Best Practice Approach of the University of León's Social Council:	<p>The activities described herein are intended to motivate the faculty through various incentives such as institutional recognition at an annual convocation, academic and economic incentives, and rewards for innovative practices developed either by an individual professor or a group of professors. Since 2002 efforts have been made to improve the quality of teaching. This process has evaluated improvements as</p>

People		<i>Promoting Innovation in Teaching.</i>	indicated by quality assessment processes, measured the importance and impact of innovations that have led to improvements in the quality of teaching, the extent of diffusion and consolidation of those experiences, and the prospects for their continuation. Subsequently, efforts were made to promote adaptation to the European convergence process by developing new strategies in organization and teaching methods and recognizing innovative practices aimed at bringing degree programs up to the standards of the EHEA (European Higher Education Area). This effort also involved assessing the degree of importance and impact of these strategies in adapting to this process.
Research and Education: People	<i>Instituto Superior Técnico/ Portugal</i>	<i>Academic Staff Evaluation at the IST (RADIST)</i>	The Portuguese law, revised in August 2009, requires public universities and polytechnics to evaluate their academic staff at least once every three years, according to regulations to be approved by each institution based upon a set of principles established in the law. Staff member evaluation aims at shaping individual staff member activity and is an instrument to regulate their carrier. Many Higher Education Institutions (HEI) already had some form of evaluation of teaching and research units are subject to a national evaluation. The new system, however, is linked to carrier development and focus on the individual academic staff member's performance. Instituto Superior Técnico (IST), the faculty of engineering of the Technical University of Lisbon, has opted to develop an elaborate process, based on a multiple criteria approach (RADIST). The procedure has a significant number of degrees of freedom in order to be aligned with the institutional mission and goals and to consider the breath of the activity of the members of the academic staff.
Research and Education: People / Infrastructure & Equipment	<i>Instituto Superior Técnico/ Portugal</i>	<i>Tutoring at IST</i>	The Tutoring Program involves five main areas: training (learning to learn, soft skills, learning to think for students and practical tutorial models for teachers), follow up (meetings and coaching for teachers and students alike, including student delegates), monitoring (performance frame, academic course critical points), dissemination (institutional presentation, homepage, facebook, flyers) and assessment (internal and external). In the scope of the Tutoring Program assessment, annual and semi-annual reports on the students, teachers and school activities are produced, gathering quantitative and qualitative data, collected among others by surveys.
Research and Education: People / Infrastructure & Equipment	<i>KTH Royal Institute of Technology / Sweden</i>	<i>The CDIO initiative</i>	IA major international project to reform undergraduate engineering education was launched in 2000 by MIT Massachusetts Institute of Technology, KTH Royal Institute of Technology, Chalmers Technical University and Linköping University. This project called The CDIO initiative has expanded to include almost one hundred engineering programs worldwide, to date. The vision of the project is to provide students with an education that stresses engineering fundamentals set in the context of Conceiving – Designing – Implementing – Operation real-world systems, processes, and products (CDIO). The initiative has three overall goals – to educate students who are able to: <ul style="list-style-type: none"> • Master a deep working knowledge of technical fundamentals

			<ul style="list-style-type: none"> • Lead in the creation and operation of new products and systems • Understand the importance and strategic impact of research and technological development on society <p>The initiative creates a range of resources that can be adapted and implemented by individual programs to meet these goals. The aim is a curriculum organized around mutually supporting disciplines, interwoven with learning experiences related to personal and interpersonal skills, product, process, and system building skills. Students receive an education rich in design-implement experiences and active and experimental learning, set in both the classroom and modern learning workspaces. The initiative was specifically designed as a template that can be adapted and adopted by any university engineering school. Because CDIO is an open architecture model, it's available to all engineering programs to adapt to their specific needs. Participating universities regularly develop materials and approaches to share with others. CDIO has open and accessible channels for the program materials and for disseminating and exchanging resources. CDIO collaborators have assembled a unique development team of curriculum, teaching and learning, assessment, design and build, and communications professionals.</p>
Research and Education: Quality management	KTH Royal Institute of Technology/ Sweden	Education Assessment Exercise at KTH	<p>In 2011, KTH Royal Institute of Technology initiated and completed an evaluation and development project, an Education Assessment Exercise (EAE). The project was a comprehensive internal evaluation of 90 education programmes at KTH. It primarily had a formative aim. In the process, it was hoped that new arenas for discussion and reflection would emerge which in turn would foster quality enhancement. The methodology involved self-evaluation at programme level, followed by peer review including site visit and report by an external, internationally composed panel of assessors. The self-evaluation format included questions on the prerequisites, processes and outcomes of education delivery. The external panel comprised 50 subject area experts, students and industry representatives. The clearest benefit of the project was the opportunity, at programme level, to discuss educational quality matters, to form new networks and to identify strengths, weaknesses and ways forward. Many methodological lessons were also learned, e.g. concerning the importance of clarity regarding project aims and concerning the time, energy and resources required to complete comprehensive evaluation projects. The project resulted in concrete recommendations which have since been fed into the regular quality management system. Resources have been allocated to areas requiring particular attention. The EAE project made reference to the national and the international policy context. It served as preparation for an external evaluation which took place in 2012. Lessons learned from the EAE will be of value for KTH in working out future quality assurance strategies. Hopefully it may also serve as an example for other education providers</p>
Education: Quality Management	IST University of Lisboa / Portugal	Collaborative Benchmarking: evidence from the working group for	<p>This practice describes the experience of GT2 - Grupo de Trabalho para a Qualidade do Ensino Superior (Working Group for Quality Management in Higher Education in collaborative benchmarking. This Group was created within the Sectorial Commission of Education and Training (CS/11), and its collaborative benchmarking practices are operationalized in monthly meetings, where quality management is</p>

Knowledge Technology Transfer: International orientation		<i>Quality in HEI in Portugal</i>	<p>discussed. With the involvement of 23 Portuguese Higher Education Institutions (HEI), Gt2 aims to inform and to promote the implementation of good practices in the HE Quality System field, by:</p> <ul style="list-style-type: none"> • spreading the information in the academic and scientific communities; • identifying and sharing good practices, contributions and strategic orientations regarding the HE Quality; • creating a practice of internal debates, not only in GT2 meetings, but also in CS/11 plenary sessions; • sharing good practices with partners and society in general, which includes a CS/11 - GT2 Annual Seminar.
	<i>Università Suor Orsola Benincasa / Italy</i>	<i>Generating research projects through interaction between academia and enterprises</i>	<p>The overall aim of GRACE - Generating Research projects through interaction between ACademia and Enterprises is fostering multi-stakeholders co-generation of research projects combining various techniques and approaches such as goal setting creativity techniques, diversity management, cross-sectoral and cross-cultural negotiation, in an open innovation perspective. GRACE is a project co-funded under the European Commission's Lifelong Learning Programme, sub-programme Erasmus-Cooperation university-enterprises. GRACE project partners have elaborated a co-generation model supporting multi-stakeholders generation of innovation. On one hand, this is process itinerary that provides information and guidelines on how to ensure a multi-stakeholder co-generation approach. On the other hand, it as a self-evaluation tool which can be effective for project management. Finally, it is also a framework of information with sources of examples to guide and facilitate the co-generation process</p>
	<i>Instituto Superior Tecnico / Portugal</i>	<i>Low Academic Outcome System in Portugal</i>	<p>The Low Academic Outcome System (LAOS) is active in IST from 2010 to the present as an answer to pressures of the tutelage upon Higher Education Institutions (HEIs) to graduate as many students as possible within a reasonable time frame. The Tutoring Program - http://tutorado.ist.utl.pt/en/ - runs the System by using an informatics tool that, in a timely manner, identifies students who present low academic outcomes, putting themselves at risk of being excluded from IST for one year. Some of the students identified through LAOS are also identified through a special grid that allows tutors to identify, each semester, their tutees academic results. Both these tools, combined, support the launching of recovery programs for students, such as workshops aimed at improving students self - regulation skills and, ultimately, their academic results.</p>
Education: People			
Education: Financial Feasibility	<i>Instituto Superior Tecnico / Portugal</i>	<i>Master – Career Development Program</i>	<p>Instituto Superior Técnico took an active role in the professional integration of its graduates in the labor market, through IST Career Development Program established in 2010. This program aims, firstly, to offer graduates of IST the best options for the start of their professional careers and secondly, to provide companies with the possibility of contact with potential talents for the core of their organization. The program focuses on students of the 2nd Cycle wishing to enter the job market with a master's degree, and also supports the Alumni who are interning in companies that have graduated in the last 2 years. The Career Development Program starts in the 1st Semester with the awakening for recruitment through</p>

Education : Quality Management			<p>the IST Career Sessions, beginning its preparation with the IST Career Workshops. The recruitment process, by the companies, starts in the 2nd Semester with the IST Career Weeks, and ends in May with the Jobshop. In these months, companies have the opportunity to contact 2nd cycle students, and may do so in person or posting their offerings at IST Job Bank. IST has provided 4th year students to have their first professional experience with IST Summer Internships.</p> <p>The Career Development Program offers to prospective employers the service of recruitment of talents. Our goal is to assist employers in the recruitment of IST's talents and to offer a career development program for students. This program provides students with opportunities to interact with networks of professionals and obtain quality internships and full-time positions.</p>
	Instituto Superior Tecnico / Portugal	Employability Observatory for the IST Graduates	<p>The OEIST (Employability Observatory for the IST Graduates) is a framework that aims to ensure mechanisms for regular monitoring of the situation of employment of graduates of IST, and promote their employability through systematization, analysis and dissemination of information directly or indirectly related to the career development of graduates. It was founded in 2008 under the experience and know-how that preexisted in IST, particularly in the Area of Research and Planning. Its activity is characterized by a systematic collection of information on employability, graduates position regarding employment, the adequacy of the training received, needs, experiences and expectations of graduates of IST. Therefore, the OEIST has a strong technical application-level especially in surveys, processing and analysis of data and production of technical reports in these areas. The need to return, not only the legal requirements but also to a vast population that gravitates around this problem, from the higher education candidate, their parents, the directors of course, employers, graduates, university administrators, etc, led to the need for develop this system not only to reinforce effective and robust processes but also to enforce the dissemination tools adapted to many different situations. The experience of OEIST also meant that in 2012 this structure coordinate a Project LLP Erasmus Accompanying Measures, FOLLOW, where it was possible to map the good practices carried out in Europe in terms of monitoring and promotion of employability</p>
Education : Social and environmental responsibility	University of Coimbra / Portugal	Peer support at the university residences managed by the Social Services of the University of Coimbra	<p>The issue of school failure in Higher Education in Portugal has been described as alarming and concerns schools, which are also afflicted by the dropout phenomena, demotivation and the gradual decrease in the number of students due to demographic factors. The explanatory causes of school failure are complex and wide-ranging and relate to the transitional / adjustment to college process, problems of an academic nature (curriculum organization, stress and anxiety when facing examinations, etc.) and factors of personal development. It is thus believed that it is decisive to act by way of social support and the promotion of healthy lifestyles. Social support is as more effective as the closer it is to the student, to the extent that a student's receptivity depends on the perceptions that students have on the effectiveness of such support, as well as on the characteristics of the student's personality. To that extent, the models of peer support - Peer Support /Counseling - constitute a highly effective support strategy in dealing with</p>

Education and Research: Quality Management			problems of adaptation, promoting academic success, the development of social support networks to operate at the level of academic adaptation, social support and of the perceived wellness of higher education students. It is in this context that the Support Program for Students emerges, backed by the Social services of the University of Coimbra (SASUC) top management, applied to the context of university residences (UR) , intended primarily for students of disadvantaged socioeconomic status , based on a peer support intervention, aimed at helping process in the promotion of skills: dealing effectively with difficult situations that induce stress in an academic context and identifying students adaptation problems to the new environment. This practice is based on four dimensions, especially directed to the UR/ floor delegate students: basic training and ongoing training, supervision for supporters and program assessment. The compiled data is gathered and organized in annual and partial reports that are done over the course of each academic year. The work under this program involves multidisciplinary areas of expertise, particularly Psychology and Social Work. With this practice, consolidated over the period comprised between 1999 and 2013, the currently named Integration and Counseling Unit (ICU), which involved 9 staff members and 2700 students in its peer support related activities.
	Instituto Superior Técnico / Portugal	Strategic Planning for R&D Units	The PEUID (Strategic Planning for R&D Units) is a project aiming to provide all R&D units of IST with a planning mechanism for the medium/long term to allow them to adapt and respond to the current Context and future scenarios. This project consists of 3 approach levels: first, a model for the evaluation of R&D Units made in Brazil was adapted and tested in a medium-sized R&D unit; second, a Comprehensive study was prepared, which addressed the performance of the R&D units of IST focusing on survey information regarding human resources, training, research infrastructure, funding, projects, publications and patents, third, a study and collected bibliometric information / publications was carried out with analysis comparative and respective benchmarking (IST, Portugal, international) that focused on the impact of scientific output. The PEUID has an implementation plan which varies over time: each year, a bibliometric study is carried out in IST; every 3 years, a bibliometric study of the information of R&D Units; every 5 years a study of the performance of R&D units and review of all strategic planning. The bibliometric study results in the production of an informative dashboard which includes financial information and human resources, and allows, in addition to constructing performance indicators, for comparing the IST and its units with some international institutions.
Education: Quality Management	Politecnico di Torino / Italy	Quality Assurance Framework	The Quality Assurance Framework developed at Politecnico di Torino is a tool for internally assuring the quality of Programmes offered. This tool is conceived to comply with ENQA ESG's and broadly with the European trends towards QA for enhancement of Programmes. Following the latest developments in terms of regulations on Quality Assurance, the QA Framework is designed as well to comply with the national requirements imposed recently by the Italian law. In fact, after the introduction of the national Quality Assurance and Accreditation system by the new Italian agency ANVUR, the QA Framework of Politecnico di Torino has been aligned with the national requirements and has taken the official acronym

Education: Quality Management	SUA (see ANVUR website, www.anvur.org).		
	Università degli Studi di Ferrara / Italy	Implementation of a Quality Assurance Management	<p>The University of Ferrara has a long experience in national pilot projects on internal Quality Assurance (http://www.unife.it/ateneo/valutazioneCDL), thanks to the participation to two national projects: Campus (1995-2000) and CampusOne (2002-2004). In 2004, after the previous fruitful experience, the University of Ferrara has implemented an internal Quality Assurance project (Progetto Qualità), compatible with the ENQA Standard and Guidelines requirements for internal Quality Assurance within Higher Education Institutions, which requires, for all degree courses participating to the project, the presence of a teaching Manager, the definition of an efficient self-evaluation process, a self-evaluation working group for each degree course which has to compile an annual self-evaluation report, internal and external reviews (audits). The principal objectives of the project are:</p> <ul style="list-style-type: none"> • continuous quality improvement of degree course programs; • complete transparency of the effectiveness of expected learning outcomes; • accreditation of degree courses by a Quality Assurance agency. <p>The internal Quality Assurance project (Progetto Qualità) has been carried out in an experimental way, involving an increasing number of degree courses from 2004 to 2012, without a central coordination of the University's internal Quality Assurance policy. The principal task of the Quality Promotion Unit is therefore to coordinate the internal Quality Assurance processes and activities of all degree courses.</p>
Education : Quality Management	Instituto Superior Tecnico / Portugal	Support for surveys	<p>SEI (<i>Suporte à elaboração de inquéritos</i>) which stands for Support for Surveys) was created in order to guarantee that the use of surveys by the different structures and entities at IST is made by obeying to a set of rules and to the proper methodologies which guarantee that the used information gathering instruments are adequate and provide valid results. This structure is available for support and consultancy both at an internal and external level and aside from quality assurance in terms of proper methodologies applied it also has a teaching and formative role as it provides and builds in the academic and non-academic community of the institution key knowledge to avoid methodological error which eventually can lead to incorrect outcomes. SEI is supported by an internal regulation which has 3 key sections and which define the main courses of action:</p> <ul style="list-style-type: none"> • Evaluating the satisfaction of the users of the administrative services of IST • Validating and supporting surveys about the IST core activities • Surveys concerning the different kinds of population at IST but implemented by external entities or institutions. <p>Each one of these 3 sections has a specific set of stages and obligations. This project took off in 2011 and it's currently being consolidated and matured.</p>
Education : Quality	University of Coimbra /	Web pages of the University of	<p>The www.uc.pt project was developed in 2009-2010 with the objective of restructuring and updating the University of Coimbra's (UC) web system, from the supporting platform until the web pages themselves.</p>

Management / Recognition reputation	Portugal	Coimbra	The project had a dramatic impact on the UC communication strategy and on how the various stakeholders see this reference higher education institution in the country and abroad. Similarly to many other universities, up to 2009 the UC web presence was made of a large set of sub-sites managed in a disjoint way either in technical terms or in terms of content, with no consistent image or structure. Moreover, it was impossible to guarantee the various contents were updated and conveyed an official message. Using a very small team of information and communication technology web specialists, open-source platforms, a structured methodology, and a well-defined program of work of relatively short duration, the www.uc.pt project radically changed the web presence of the University of Coimbra as well as virtually all of its content management and production processes. The impact of the project was so big that its outcome is still the basis for the current development and organisation of the UC services offer on the web, both in terms of the public site and the private area. Moreover, the developed solution is nowadays considered to be a key aspect of the UC communication strategy, providing not only a graphical identity, but also an extremely efficient and effective organizational framework for content management.
Education: People / Quality Management/ Recognition & Reputation	Instituto Superior Tecnico / Portugal	Quality assurance system for IST's course units (QUC)	In 1993, the Instituto Superior Técnico (IST) started to carry out teaching performance evaluation exercises, always seeking to improve the results of this activity. The oldest quality management tool is the evaluation mechanism for measuring how subjects of the BSc programmes taught at IST work, which was modified in 2007 and is now known as Course Unit Quality Assurance System of IST (QUC). The new QUC system provides for a half-yearly evaluation of each Course Unit (UC) of the programmes taught at IST, aiming: to monitor each UC vis-à-vis the objectives envisaged in the curricula; to promote the continuous improvement of the Teaching and Learning process (TL); to identify and promote good practices and; to evaluate and involve the different stakeholders in the process in a clear and responsible manner. Many higher education institutions have similar mechanisms of assessing TL process (example: student inquiries), but what distinguishes this particular system is the integrated follow up which is made for each UC, involving all the participants in the process, and the action plans that take place (audits, good practices promotion, prizes for teaching excellence). The idea has been to abandon a static model, which should not be restricted merely to data collection and production, but to implement a continuous quality improvement process with a cyclical review of the results and with the ultimate purpose of fully measuring the objectives, both of the teaching and learning process, and of the readjustment, in real-time, of the internal processes.
Education /Research / Knowledge transfer: People	Universitat Politécnica de Catalunya / Spain	Equal opportunity plan at the UPC	The Universitat Politècnica de Catalunya (UPC) is an institution committed to all aspects of social responsibility. Within this framework, the issue of equal opportunities is subject to special attention. Thus, with the principal objective of guaranteeing equal opportunities for all at the UPC, the institution proposed to provide itself with both the means and a reference framework for the implementation of the 1st Equal Opportunities Master Plan 2007-2010, its institutional commitment to development. The Plan was extended by the UPC's Governing Council, in December 2012, with the approval of 2nd Equal

Research / Education / Knowledge transfer: Quality management			<p>Opportunities Plan 2013-2015. As a first step, and with the objective of determining the existing state of equal opportunity affairs at the University, a diagnostic process was undertaken that focused on two issues: equality between men and women, and equal opportunities for people with disabilities. Thus, the UPC's Governing Council (agreement number 133/2007 dated 23/07/2007) approved document DOC 25/7 "1st Equal Opportunities Master Plan". This Master Plan was divided into two sections: Equal Opportunities for women and men, and Equal Opportunities for people with disabilities. The Plan's guiding principles are: non-discrimination, social responsibility, personal satisfaction, trans-versatility, pro-activity and leveraging internal knowledge. The Plan, which was to initially run from 2007 to 2010, was extended (Agreement number 52/2010 by the UPC's Governing Council) during the evaluation, elaboration and approval processes of the "2nd Equal Opportunities Plan" (Agreement number 212/2012 dated 12/12/2012) and which is currently in force.</p>
	Universidad de Jaén / Spain	The design and development process of the University of Jaén's II Strategic Plan	<p>The process has been structured around five key areas that are related to the University's commitments to Teaching, Investigation, Knowledge Transference, Transmission of Culture, and additionally, to Social Responsibility; reflecting the importance of the University as a social agent and point of reference in the socioeconomic environment. Another innovative aspect of the process is that it uses a transversal focus during the strategic formulation phase, with the simultaneous use of two approaches when it comes to defining the main priorities and measures to be taken in the deployment of strategic objectives. Thus, the process is always watchful of the strategic areas as well as each element on the Integrated 'Dashboard'. With this, the process seeks to introduce approaches focused on: the client/user, on finances, on processes and on employee capabilities in the defining of the main priorities and strategic measures within each area and, in turn, facilitate the monitoring and evaluation of the Strategic Plan when it is implemented. The process also underlines the essential role of communications in the design and development of the Strategic Plan. Thus, a web page associated with the process has been set up that deals with distinct objectives: to function as a document management system for the groups directly implicated in the development of the Strategic Plan; to serve as a communications instrument with stakeholder groups on the development process; and lastly, to serve as Webpage 2.0 so that the University community and other interested groups can participate by presenting proposals on measures to be taken and strategic actions that had been previously defined. The process, as defined, is expected to require two years to execute the development phases of the Strategic Plan in accordance with the timetable approved by the University of Jaen's Governing Council. Furthermore, the University was invited to present this process to the 1st Conference on University Strategic Planning held at the University of Seville.</p>
Education: Infrastructure &	Universidad de Oviedo / Spain	Web Simulator of University Entrance Exam (PAU) marks	<p>During the 2009-2010 academic year a new system of access and admission to Spanish universities was introduced. This new system is much more flexible than the previous, but this flexibility has added a complication in the calculation of the admission marks for undergraduate study programmes (bachelor's</p>

Equipment		<i>and admission to graduate studies</i>	degree studies) with limited openings. With the new system these marks are calculated using a formula with several variables, that depend on the elected programme, a weight is assigned to each course in each university, and to the courses that the student has been examined on. In order to facilitate the calculation of this mark, the University of Oviedo presented in November 2009—prior to the implementation of the first University Entrance Exam (Prueba de Acceso a la Universidad or PAU) to this process, in June 2010—a web-based Simulator that can be completely configured by the student permitting them to easily ascertain their admission marks to their selected programme of study. The entire project has been developed by staff at the University of Oviedo and the Simulator has been designed in accordance with the principal standards of web accessibility. The simulator has been well received throughout the education community as well as by the communications media. Its impact (following its presentation at the November 2009 conference University Information and Orientation Services (SIOU) held in Murcia) prompted many other Spanish universities to subsequently incorporate similar orientation systems in their respective web pages.
Education: Infrastructure & Equipment / Social and environmental responsibility	<i>Universitat Politècnica de Catalunya / Spain</i>	<i>SIRENA: A project for reducing resource consumption and the environmental impact of buildings at the Polytechnic University of Catalonia (UPC) by means of information access</i>	The Polytechnic University of Catalonia presents the UPC Sustainability Plan 2015 as a strategic point of reference for promoting initiatives in the field of sustainability and for strengthening internal efforts and promoting external alliances. One of the strategic lines formulated by the UPC Sustainability Plan 2015 is with respect to Buildings, Energy and Climatic Change. This priority theme focuses on analyzing the effects of energy consumption in buildings and its contribution to global climate change, as a consequence of greenhouse gas emissions. The coordinated measures for improving energy efficiency and the incorporation of renewable energies in buildings implies an interdisciplinary approach in the fields of architecture and engineering, fields in which the Polytechnic University of Catalonia has demonstrated expertise and has many working groups. At the same time, the institution has a background in the internal application of these fields and which, in certain cases, can be used as a full scale laboratory.
Education: Social and environmental responsibility	<i>Universitat Politècnica de Catalunya / Spain</i>	<i>Sustainability and Social Commitment in the Undergraduate Curriculum at the Polytechnic University of Catalonia</i>	One of the missions of the Polytechnic University of Catalonia is training future professionals, who are conscious of their social and environmental responsibilities within their areas of expertise and able to use new skills in to order to meet those responsibilities. The new organization of university courses, within the framework of the European Higher Education Area, promotes training programmes that lead to the awarding of a degree which includes amongst their objectives the acquisition of such skills by students. Within this context, the UPC's Governing Council (9/04/2008) approved a document entitled "Framework for the Design and Implementation of Undergraduate Curriculum at the UPC", that outlines the guidelines for student-centred training, with an emphasis, amongst other aspects, on the acquisition of a series of detailed transverse skills and including obligatory transverse skills for sustainability and social compromise, assuring that the curriculum's training activities meet quality criteria.

Education : Infrastructure & Equipment	Universitat de Barcelona / Spain	Management of the teaching laboratories unit (TLU) at the Faculty of Pharmacy, University of Barcelona, for improving students transversal competencies	In 1997, the University of Barcelona's Pharmacy Degree was evaluated under the framework of the "National Plan for Quality Evaluation of Universities". Among the more important findings, was the need to improve the infrastructure and equipment used in practical teaching. This led to the design and implementation of a new Quality Management System (QMS) (Sistema de Gestión de la Calidad or SGC) in practical teaching that led to improvement both in the training of students and in economic management. To develop this project the Teaching Laboratories Unit (TLU) (Unidad de Laboratorios Docente or ULD) was established with the objective of managing the practical teaching laboratories in a best practice environment to provide students with additional transversal knowledge. The process began with the drafting and adoption of all necessary documentation for the implementation of the QMS and, subsequently, the involvement of all members of the TLU--the faculty responsible for coordinating the practice, teaching faculty and students--in implementing the new organizational model. Once the TLU's activities commenced, the operational, support and strategic processes involved in service delivery were identified and defined. Subsequently, a process map was created and profiles of the business processes were developed from which QMS indicators were identified. With respect to results those relating to student training merit highlighting. In this regard, periodic surveys were conducted to verify the students' acquisition of transversal skills related to quality, safety and the environment in the labs. The results obtained highlight students' learning content that would not normally be transmitted to them through their various courses. This additional training will make students more competent and will facilitate their entrance into the professional world. These activities led to the recognition of the TLU by the University of Barcelona (UB) as an Innovative Teaching Group (ITG) and later as a Consolidated-UB-ITG. Over the course of its existence, the TLU has gained Special Mention in the Education, Culture and Sport Ministry's National Plan for the Evaluation of University Quality, and the Jaume Vicens Vives Award for Quality University Teaching from the Government of Catalonia. In addition, in the TLU has obtained the distinction of Commitment to European Excellence 200+ (February 2013).
Education: Social and environmental responsibility	Universidad Internacional de Andalucía (UNIA)	Model of Social Responsibility at the International University of Andalucía	The International University of Andalucía (UNIA), based on the objectives defined in its first Strategic Plan UNIA 2007-2009, committed itself to promoting a Model of Social Responsibility that would permit the institution to respond to all stakeholders in the fulfillment of their respective responsibilities in economic, social, labour and environmental fields. In order to develop the Model of Social Responsibility the UNIA Social Responsibility Committee was created, in 2008, which has been working on designing channels of dialog with the University's stakeholders and in the development of Social Responsibility Reports. The Social Responsibility Committee was revised and extended in 2009 to accommodate and improve representation of the various stakeholder groups within the University. The Committee now has representatives from the faculty, the student body, public institutions and from the business world, groups that had not been previously represented. One of the basic elements of the UNIA's Model of Social Responsibility was the creation of an annual Social Responsibility Report, in accordance with the information requirements of the GRI (Global Reporting Initiative), and stems from a Planned Action that is

Education / Research / Knowledge transfer: Quality Management			<p>executed on a yearly basis. These elements, along with the incorporation of the Model within the Institution's Strategic Planning, the activities of the Social Responsibility Committee and the tools of communication with the stakeholders make up a sustainable structure of the UNIA's Social Responsibility Model. Thus, the UNIA launched an innovative Model of Social Responsibility that permitted, through the Committee of Social Responsibility, maintaining a cycle of continuous improvements including: developing an annual report, evaluating the measures already put in place, designing an action plan and executing the planned improvements. All of this is supported with information from social, economic and environmental indicators adapted to the standards of GRI. This Model has been fundamental for the UNIA's achievement in 2012 of garnering the EFQM 300+ seal of excellence.</p>
	Universitat Rovira i Virgili / Spain	The Management Improvement Plan (MIP) of Rovira Virgili University (RVU)	<p>Within the context of the crisis now facing Spanish universities, the need to improve tools for planning and coordination of their management structures is obvious. In response Rovira Virgili University (RVU) has established a permanent "Management Board" responsible for all aspects of the University's management. To facilitate and foster this effort RVU has implemented the "Management Improvement Plan 2011-2014" which is presented in this document. The Plan on an annual basis gathers together the main management initiatives, that originate either from the Board of Director's Management Plan as well as organizational improvement projects from different departments. The collection of information regarding all actions and measures of the Plan is structured and systematised, and is tracked throughout the year, making the Plan a dynamic and vital element in the development of the University's management tools. Four annual follow-ups have allowed those responsible for the Plan to hold meetings to review their activities, while searching for potential points of conflict and ways of preventing their occurrence. The Plan has also allowed all management board members to become aware of what new measures are being developed and of their prioritization. In the context of the current situation some actions have had to be cancelled or rescheduled. Annual monitoring, by the University's Governing Council, allows for the sharing of projects as well as gauging their progress within the University community. The Plan has achieved its basic objectives: raising awareness of the Management Improvement measures undertaken by the University and improving coordination of various University structures. At the same time, the high degree of implementation of annual measures demonstrates that goals can be achieved in spite of the current situation, with the effort and dedication of the University community. Within the context of RVU, and also within the Spanish university system, the Plan is clearly innovative in its coordination of management structures, and results were evident within the first year of its implementation.</p>
Education / Research / Knowledge transfer: Quality	Universidad de Murcia / Spain	Evaluation and Improvement of Information Technology	<p>The implementation of an Information Technology (IT) Management model has enabled the University of Murcia to complete a comprehensive strategic plan for Information Technology which integrates with the University's overall objectives. The implementation of the IT Management model required the training and assistance of the University's management groups. In turn, this led to an evaluation of the state of the</p>

management / Infrastructure and equipment	<i>Management at the University of Murcia</i>	University's IT Management and a determination of what measures were necessary to improve the situation within the University. The University's model of IT Management uses the GTI4U model developed by CRUE (Conferencia de Rectores de las Universidades Españolas - Conference of Spanish University Chancellors) which is compatible with international standard ISO 38500. In addition to its implementation, the model is revised on an annual basis, with actions corresponding to this year that will detect deviations or changes from one year to the next. Six months were allocated for the initial implementation phase of the IT Management model, and it required more than a year to implement the improvement measures detected in the project's initial phase. The project's implementation has been noted in various media sources, also in the UNIVERSITIC report generated by CRUE in which the University of Murcia was noted as being one of the first to implement an IT Management system. A large part of the University's management team participated in the project's start-up, as the same personnel are responsible for taking the decisions that align the IT strategy with the University's overall strategy.
Education / Research / Knowledge transfer: Social and environmental responsibility	<i>Universidad de Alcalá / Spain Transparency Portal at the University of Alcala (UAH)</i>	The creation of this Web Portal was motivated by the belief that transparency constitutes a fundamental element in the activities of public institutions. The Portal's creation has taken into account international references such as the Office of the White House, the Office of the British Prime Minister, and various Latin American universities, such as the Catholic Pontifical University of Chile and the University of Chile. Also taken into consideration were the basic contents and data that Transparency International-Spain recommends for inclusion in public transparency portals. The Transparency Website constitutes a best practice management approach, which has produced a ripple effect within the University community, serving as a stimulus and incentive for the development of a democratic culture and for a greater participation by citizens. With respect to the results, in the month and a half after its launch in April 2013 the Transparency Portal registered 3,500 visits. The University of Alcala's commitment to transparency was recognized in the first report on the transparency of websites of public universities prepared by the Commitment and Transparency Foundation in October 2012, which placed the University of Alcala among the top ten Spanish universities with respect to transparency. Meanwhile, the newspaper El Mundo described the University's efforts in this field as exemplar. The implementation of these measures has attracted some very complimentary comments from the director of the Commitment and Transparency Foundation, which in the same newspaper was quoted as saying "that this was a serious effort to promote transparency in the University."

Part 3 - Approach to the Good Practices in University Management

Key Notes - University Leadership in a context of crisis

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"In the current climate of economic recession, environmental change and social fragmentation, higher education finds itself at a crossroads. HEIs are expected to deliver on an ever-expanding range of often conflicting goals and priorities" (Bolden et al, 2009).

As this quotation shows, universities have to act in an increasingly complex global environment yet at the same time, deliver a broad range of often conflicting outputs. The challenges include:

- A global expansion of student numbers (with universities seeking to attract the best international students, partly for income purposes)
- Diversification of provision
- More heterogeneous student bodies (to meet the diversity agenda)
- New (and often more stringent) funding arrangements
- An increased focus on accountability and performance (to achieve 'value for money')
- New forms of institutional governance (including moves towards more 'accountability' to funding providers)
- Greater internationalisation (in terms of both academic faculty and students)

As a result, universities have to address often quite diverse agendas apart from the traditional ones of teaching and learning. Research is often seen as paramount, not only as a source of funding but also pedigree and status. Another agenda item is knowledge transfer with universities demonstrating impact and relevance to their national and regional economies. However, universities often struggle to achieve a balance and synergies between these competing agenda items (EUSUM, 2014). This situation is exacerbated by rising tensions within the European higher education system. While the European Union has as its stated ambition the goal of 40 % of all young people having graduated from higher education by 2020, university funding across Europe is under strain with significant cuts in public funding expenditure (see Table 1), although the extent of these cuts is uneven. Hence, universities are beginning to explore strategies to address this crisis. For some, the answer may be deeper engagement with industry, undertaking research and/or developing graduates that are more relevant to local or national economies. Other sources of income include geographic expansion, setting up satellite operations overseas to leverage international student numbers. This, however, is becoming an increasingly competitive market and not all university players have been successful. And then there is e-learning in its latest guise – MOOCS (Massive Open Online Courses). Many prestigious universities have leapt on this latest innovation. However, how large scale, global courses involving often tens of thousands of students can be funded is open to question. Viable business (and pedagogic) models for MOOCS are still evolving.

Table 1 Cuts in public funding across the EU

Period 2008-12	Nominal change	Inflation-adjusted change
10% increase and above	AT, BE (fr), DE, IS, NL, NO, PL, SE	DE, NO, SE
5-10% increase	-	AT, BE (fr)
1-5% increase	-	FR, NL
Stable (-1% to +1%)	PT	-
1-5% decrease		HR, PL
5-10% decrease	ES	PT, SK
10% decrease and above	CZ, GR, HU, IE, IT, LT, UK	CZ, ES, GR, HU, IE, IS, IT, LT, UK

(Source: European University Association, 2012)

So where does leadership of higher education reside in this picture? As we have seen, leading complex organisations like universities is a challenge in itself, even before taking tightening economic budgets into account. Leaders also have to manage and balance conflicting objectives and agendas. Are European universities up to the job? The first observation is that leadership is disseminated across all organisations. Of course, members of executive boards are leaders, but there are many others at different levels and roles. In a university context, leaders could include: Vice-chancellors/presidents/rectors, Deans, Pro-vice chancellors, Chief executives, Academic Boards, Senate, Faculty Boards, University council, Research leaders, and Social partners. However, we often have a traditional perspective on leadership and think only about those 'at the top'. A more modern, effective and engaged model of university leadership will have to be:

- Networked (amongst and between internal and external stakeholders)
- Transactional (giving clear direction and orientation towards action)
- Inclusive (of race, gender, culture both in a European but also global context)
- Collaborative (with multi-stakeholders internally and externally)
- Innovative/encouraging of innovation (MOOCS being a current example of innovation in learning)
- Globally aligned (philosophically in terms of outlook but also in terms of systems and reach)
- Financially smart

If these wide ranging and at times conflicting agendas can be met, then European universities can be said to be fulfilling their modern role.

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Key Notes - Global Trends in University Management: towards innovation in times of crisis

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Can innovation management in corporations inspire innovation and change in university management?

"Management innovation has created more sustainable competitive advantage than any other innovation created in a lab or in a focus group". This sentence is extracted from an historical article by Gary Hamel, published in the Harvard Business Review in February 2006. This article is important because it suggests to focus on HOW companies do things, how they do manage themselves. Innovating in the HOW can be more important than in the WHAT and more critical in order to produce sustainable growth and profits. Some historical examples of management innovation, which have created enduring value, are:

Table 1. historical examples of management innovation

G&E (General Electrics)	Creating the I+D department in year 1900, and thus forging a patented knowledge producing machine that explains the leadership GE still retains today.
Dupont	Creating the concept of ROI in 1903.
GM (General Motors)	Creating the concept and practice of divisionalization in 1920.
P&G (Proctor and Gamble)	Creating the concept of branding in 1930.
Toyota	Creating a system that allows the company to capture the workers' knowledge, in 1960.
VISA	The first company whose only objective is to coordinate a specific activity (among companies which are competitors in any other territory of banking), was created in 1968.
SIX SIGMA, BUDGET, BALANCED SCORECARD, MATRIX ORGANIZATION, MBO, MARKET SEGMENTATION, CRM, BENCHMARKING...	All these are other important management innovations which have helped companies to generate growth and profits over time.

In the contemporary corporate arena, attacked by enormous challenges, some companies create their own management innovation path, offering inspiring case histories to any kind of organizations. Among many examples, we mentioned these:

Table 2. Management innovation path examples

Whole Food	The chain of eco-food supermarkets in US, splits the workers in mini teams of 3-4 people who are free to take all the key decisions, and makes the salary of everybody onboard public for everybody else.
W.L. Gore	The global fluor-polymer technology and manufacturing company. They do fabrics, medical implants, industrial sealants and filtration, signal transmission, and consumer products. And they have no flow chart, no bosses, no vertical organization. The decisions are slower but much more inclusive and no one has the right to say NO to an idea just because of his formal position.
Google	Innovative in so many ways, lets its people use 20% of their time to cultivate their own pet –projects, and a wealth of innovative and very profitable projects has been created in that 20% of “free time”.
HCL	The Indian tech company believes in an extremely well treated employee. At HCL, people rate their bosses in proper questionnaires which are then made public in the company intranet, and an employee can open a ticket with the company demanding improvements and explanations, and it is his own right to obtain an answer. These are just some examples of the HHRR innovations HCL is creating.

These and other innovations challenge the status quo and open the eyes about the importance of transparency and openness in management as ways to be more profitable, not only better accepted by society.

Part 4 - Conclusions and Recommendations

1. The benefits of an Observatory on good practices of university management

Throughout the development of the project, the partners involved were aware of the importance of emphasizing the relevance of counting with this type of platform in order to make it more visible and valid to the users. Therefore the most positive aspects being assessed as benefits provided by the creation of this type of Observatory were the following:

<i>Tool for innovation, improvement and collaboration</i>	If it is used properly it can be very helpful for innovation and improvement action by the university management at different levels. The Observatory may offer input for brainstorming sessions on specific actions which might lead to the creation of useful contacts with hands on experience. It can also create unexpected collaborations with other HEI in Europe.
<i>Forum of ideas and experience exchange and networking</i>	In promoting the achievement of an important number of active users, it may serve as an important forum to exchange ideas and experiences and as a way of sharing best practices that are proven to be successful as well as a place where one can get the opportunity to establish new contacts with colleagues engaged in university management.
<i>Think Tank for emergence of new concepts and principles</i>	Evidently, it promotes the dissemination of new ideas. Even if a practice is not straight applicable to any different situations, there are certain principles and ideas which may cast a light on current activities, helping new concepts to emerge.
<i>Identification of common, divergent and new trends</i>	Allows a better knowledge of strategic management systems taking place in different countries with contrasting governance structures (contribution to the discussion of common and not so common trends - what works in different contexts). Consequently it might favour discussion on what could be replicated and also what could be the possible lessons to be learned concerned to the different university management related issues.
<i>Easy access to a wide range of data on different aspects of university management from a practical perspective. Reference for benchmarking</i>	Easy access to a repository of practices for consultation and review, whenever a HEI needs to implement any practice under the strategic management area. Point of reference where anyone can find ideas that may help to develop new practices. The potential for Benchmarking is certainly the major added value of this type of observatory. The easy online access and the possibility of contacting directly the representatives of the practices, streamlines the communication between the parties involved in the process in a faster and less time-consuming way which may encourage the exchange of experiences between HEIs.

2. Potential impacts of the EUSUM Observatory at national and European level

<i>Reference platform and inspiration source</i>	We have observed a very hesitating attitude from many European HEI's to share their experiences and (good) practices. However if this threshold can be reduced, then the EUSUM observatory can become a reference platform and inspiration source for strategic university management.
<i>Affirmative impact on the quality of the university management</i>	It depends on what impact EUSUM gets, how visible the project is and how well known it will be. If it will be able to reach out to a large number of universities and different networks, it can be a very important forum to exchange ideas as well as a forum to which people active in university management can turn in order to look for best practices that have proven to be successful at other universities in order to implement them in their own organization. This may thus have a positive impact on the quality of universities that are actively involved in EUSUM and take note of the results. For some universities, there may also be a good opportunity to have their practices evaluated by EUSUM.
<i>Public arena to help circulate practical management concepts and ideas</i>	The present situation is a rapidly changing one. Having a depository of practices reduces the time for circulation of ideas. It is also interesting that the best efforts of all institutions find a public arena, a function which is not covered by the standard "scientific paper" Journal system.
<i>Platform for providing insights into case studies of institutional mergers</i>	In the northern part of Belgium (= Flanders) a massive change of the HEI's is ongoing, integrating all university colleges (formerly like the so called Fachhochschulen in Germany) into a university. This is a paramount challenge for the management of all concerned institution, specific for the legal situation in Flanders. As the integration is a fact since 1/10/2013 further implementation steps are needed and all inspiration sources including the EUSUM observatory are welcome.
<i>Space where small institutions can "meet" with reference and larger recognised higher education institutions</i>	If EUSUM becomes well known and a place where university leaders and administrators regularly look for best practices in order to improve the organization, this can have a positive impact, especially if EUSUM contains best practices that are also suitable for smaller universities.
<i>Authoritative reference for development of new methods and practices</i>	A depository of good practices can become an authoritative reference for those who are developing new methods, e.g. in the area of teaching and/or research quality assurance.
<i>Stimulation of further initiatives and partnerships throughout informal networks</i>	To share and disseminate strategic management practices between European institutions. The fact that the database is online, facilitating the network between all stakeholders involved, ends up stimulating other initiatives and partnerships, including applications for international projects through the informal networks which certainly will be created among the different users of EUSUM.
<i>Development of contacts and partnerships</i>	EUSUM, under the SUMUP project, has stimulated the exchange of experiences at European level, and also it has helped the development of contacts and partnerships between the various Portuguese HEIs, by disseminating good practice calls, as shown by the practices proposals submissions from Portuguese HEI.

3. Benefits to individual universities

<i>Strengthening of the institution reputation, brand and visibility</i>	EUSUM can serve as a source of inspiration where people involved in University management look for best practices that are proven to be successful at other universities (especially technical universities) and as a forum where one can publish best practices that have proved successful at KTH, something that can also serve as a way of strengthening KTH's reputation, brand and visibility.
<i>Management tool for strategic information inputs</i>	It can become a tool for our administrative personnel as well as for our teachers/researchers which are more involved in general organizational issues.
<i>Recognition of excellence and quality of internal micro-practices</i>	Brought forward the recognition of two good practices from IST (TUTORING and RADIST – Evaluation of IST teaching staff), which has helped to promote the recognition of the work carried out inside the school, and also it has motivated all those engaged in the development of IST as an institution of excellence in higher education.

4. EUSUM future development and consolidation

<i>Promotion of its benefits and different activities to bring in different know-how</i>	It will only be successful if it is known and appreciated by a sufficient amount of HEI's. The different institutions should also be enough motivated to bring in their own expertise.
<i>Publication of regular good practices calls</i>	The most important thing is to actively communicate EUSUMs activity outwards so that it becomes well known in the academic world and to ensure that new best practices will regularly be published on EUSUMs website.
<i>Recognition of the outstanding practices and promotion of the platform as a reference for the breakthrough of new and trendy ideas</i>	Promotion of own ideas, mutual recognition for those practices which bear on cross evaluation and accreditation, establish itself as an accurate– although quickly retrievable - and adjourned source of information.
<i>Promotion of feedback on the usefulness of the platform</i>	Make visible the real utility of this type of spaces, especially concerning how useful is to count with this type of platform for the exchange of experiences in relation to the impact it might have on the quality and modernization of the European higher education institutions at national and international levels.
<i>Buildup of strategic alliances and agreements</i>	Establishment and strengthening of strategic alliances at national levels within the partner countries and future associated countries, aimed at enhancing the spread of best practice platform and achieving a higher commitment from different universities in sharing their experiences.
<i>Development of comparative studies on university management trends</i>	Promotion of comparative studies and assessment of trends provided by identifying good practices.
<i>Organization of events at national and international venues</i>	Dissemination of the Observatory activities in national and international events in which project partners may participate, through a leaflet and/or poster.
<i>Promotion of biennial good practice calls at national levels</i>	To promote calls on a half-yearly basis, preferably with in-person presentation of the project through small workshops, at the maximum possible number of HEIs (in Portugal and abroad)
<i>International driven annual conference</i>	To promote an international annual event by presenting some of the Good Practices collected throughout the year.