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2020 B

# Framework Plan UB Horizon 2020

*Baseline document proposed by the Planning Committee for UB Horizon 2020  
Document drafted February, 2008*

## Presentation of the Framework Plan for UB Horizon 2020

1.- Various functions have been assigned to universities. While these functions have historically taken very different forms, they have however kept a certain continuity. First among them are generally those of education and training (with the implications of preparation for professional activities), scientific research and progress and finally, an essentially reflective approach applied to society and to man.

Over the last thirty years there has been considerable insistence on adding to these the function of fostering the social, cultural and economic development of the society around them.

Naturally, it is impossible to do everything. Therefore, on the one hand higher educational institutions have had to specialise, choosing certain priorities at the expense of others. On the other hand, institutions have had to commit themselves to a division of labour by co-operating between one another, at the same time as they compete in other areas. The choice is not generally an easy one as the points of reference which traditionally guided university policy are now shifting.

The difficult choice mentioned above was in the past the responsibility of the authorities, controlled down to the last detail because excessive control sometimes avoids the need to decide. Nevertheless, the circumstances imposed today – which demand flexibility in the face of the uncertainty of change – and the inevitable shift towards a particular kind of university or higher education institution – which cannot be achieved through legislative texts conceived *ex ante* – have driven and spread university autonomy, shifting decisions on governance to universities themselves, and therefore making their central bodies responsible for strategic decision-making. The stress is on “their *central* bodies”, because autonomous governance applies to universities as a whole, not their components. This last point has needed to be repeated more than once.

2.- Making a choice means avoiding any contradictory attitudes which may slip in at different times in an effort to relieve the crises which are all too common in university life. A long-term view can certainly be a decisive tool for resolving any initial doubts and providing the perspective which may be considered desirable for the type of institution chosen.

In this way short-term views – which are inevitable for survival – can be tempered with options which will affect the university structure itself for the future. In the end, this is the only possible way to lay down a distinctive university policy.

3.- The university of Barcelona has very large numbers of students and therefore, historically, it has had to offer a wide and varied range of training. Nevertheless, far from being a predominantly educational institution, this university is at the forefront in Spain in terms of the quality of its research, earning highly positive assessments internationally in comparison with the rest of the universities on the Iberian peninsula.

It is incontrovertible that it has no choice but to organise and present itself as a research university and seriously commit itself to this course, if necessary giving up on diversions which might hinder such progress. If it fails to do this it may squander all that it has built up. Its activities supporting society and the economy through training (slanted towards scientific and professional practices and from a viewpoint of lifelong training) and through knowledge transfer to society at large – to social and public institutions and to business, in response to their current needs in terms of research work – must be considered in the above light. This approach also includes the concept of service to society as a whole and the university's commitment to it.

Governance of the university and its human resources must be in line with the university's mission. In this sense it must work with a view to the options perceived on the long-term horizon.

4.- Several months ago, the university Rector, Marius Rubiralta, appointed the academics Ricard Alemany, Enric Canela, Miquel Martínez and Enrique Pedroso to head work groups in the areas of human resources, governance and finance, teaching and research respectively, under the coordination of Xavier Pons. The Social Council took on responsibility for this task.

More recently work has been done to organise contributions from different areas into a whole, using a system to bring together all of university policy in accordance with certain priorities.

This may be a first step towards rigorous discussion of an issue which matters not only to the whole university but also to our society in general.

Josep M.Bricall  
March 2008

## Contents

<b>Presentation of the Framework Plan for UB Horizon 2020 .....</b>	<b>2</b>
<b>Contents.....</b>	<b>4</b>
<b>Preparation and debate of the Framework Plan UB Horizon 2020 .....</b>	<b>5</b>
<b>Introduction .....</b>	<b>8</b>
<b>1. The UB: an internationally renowned institution.....</b>	<b>9</b>
1.1. Strengthening the teaching-research relationship.....	10
1.2. Attracting talent .....	11
1.3. Creating a distinctive profile .....	14
1.4. International postgraduate programs .....	15
1.5. Fostering a culture of assessment and quality .....	18
<b>2. The UB: a socially committed institution.....</b>	<b>21</b>
2.1 Quality teaching for lifelong learning.....	22
2.2 Knowledge/technology transfer.....	28
2.3 Working with society.....	32
<b>3. Supporting change: towards 2020 .....</b>	<b>34</b>
3.1 Governability: independence, accountability and structural simplicity .....	35
3.2 Strategic resource management.....	39
<b>Annex A: Age pyramids for University of Barcelona staff.....</b>	<b>46</b>
<b>Annex B: Proposals under the UB Framework Plan Horizon 2020.....</b>	<b>48</b>
<b>Annex C: Bibliography of reference works .....</b>	<b>53</b>

## Preparation and debate of the Framework Plan UB Horizon 2020

Preparation of the basic document for the UB Horizon 2020 Framework Plan was commissioned by the Rector and the Social Council of the UB, and its content was drawn up between July 2006 and December 2007 by four work groups under the coordination of four lecturers at the UB:

- Dr. Miquel Martínez: Teaching.
- Dr. Enrique Pedroso: Research and Transfer.
- Dr. Ramon Alemany: Human Resources.
- Dr. Enric Canela: Finance and Accountability.

The four work groups were directed by a commission made up of the four lecturers mentioned above, the general secretary of the UB, Dr. Xavier Pons, the manager, Miquel Espinosa, the secretary of the Social Council, Jordi Camós, and a support team made up of the Head of the Information, Assessment and Prospect Unit, (IAP), Dolors Baena, and the facilitators Alfons Stinus and Toni Blanco. Since March 2007 the commission and the four coordinators have been advised by Dr. J.M. Bricall, who has contributed to the transversal aspect in the final process of drawing up the basic document.

The members of the different work groups and other people who have made contributions in the course of this process include both members of the university community and people from outside it, including Marta Borau Galdakano, Víctor Canivell, Miquel Clar, Joan Comella Carnicé, Miquel Espinosa Sáenz, Marta Fernández Villanueva, Xavier García Marimón, Victoria Girona Brumos, Gemma Fontrodona Baldajos, Víctor Gómez Gómez, Joan M. Malapeira Gas, Claudi Mans Teixidó, Olga Neira Garcia, Jordi Palés Argullol, Jordi Palés Argullós, Martí Parellada Sabata i Manel Viader Junyent.

Furthermore, while the basic Framework Plan document was being drawn up, symposia and seminars open to the university community and featuring top university experts were organised:

- Change in teaching at Research Universities, with Rees Rawlings (Pro-Rector for Educational Quality, Imperial College, London).
- Teaching teams: teaching in a different way, with Heather Fry (Director of the Centre for Educational Development, Imperial College, London), Lynn McAlpine (McGill University, Canada), and Francisco Michavila (UNESCO chair in university management and policy, the Technical University of Madrid).
- Managing and developing institutional teaching and research policies, with Heather Fry and Sybille Reichert (author of the recent US study of Research Management in Europe).

Contributions to these sessions, along with other documents of interest, have been made available to the university community and to the general public at the following web address: [www.ub.edu/horitzo2020](http://www.ub.edu/horitzo2020).

Finally, it should be pointed out that a room in the UB's Historic Building, the Sala Puig Salellas, has been fitted out to be used as a prestige venue for work and documentation in connection with the UB Horizon 2020 Framework Plan.

With the submission of the basic Framework Plan document to the Rector and the Social Council in February 2008, a consultation stage began which, it is hoped, will be a period of

the broadest possible participation by the university community and society at large, to debate the basic Framework Plan document and enrich it with their contributions.

However, three starting points for this consultation stage should be made clear:

- The Framework Plan is set within the UB's existing mission and values. This means that the Plan not only accepts the UB's goals, but actually sets out to reinforce them. For this reason the basic Framework Plan document does not deal with such goals, but rather focuses on discussion of the key issues which the work groups considered need to be strongly pushed within the university community.
- The UB Horizon 2020 Framework Plan is being written at a time of severe financial difficulties. Nevertheless, the efforts to improve its financing cannot dictate the UB's vision for the future: the university has to set out its vision for 2020 and then work towards it as far as available resources allow. One of the goals of the Framework Plan is to take advantage of the change in generations to make UB Horizon 2020 possible and establish a reliable framework with sources of finance, so proving the UB's ability to exercise independent governance and put a brake on the growing trend towards a deficit in which it is currently engulfed.
- The aim of the consultation stage for the UB Horizon 2020 Framework Plan is to debate and improve the content proposed in the basic Framework Plan document, in order to arrive at a document representing a consensus involving the university community and society at large, to inspire the UB's future governance and that of its centres and units in the coming years. The key ideas and issues dealt with in the basic document and subject to discussion in the context of the Framework Plan should therefore finally frame and guide the strategic approaches of the UB's different centres and units.

This dissemination and consultation stage will run from March 2008 onwards, by means of different initiatives including the following:

- Face-to-face presentation and discussion sessions on key issues in the Framework Plan for the following groups:
  - students
  - teaching staff
  - heads of management/services and administrative & service staff
  - senior academics
  - members of the Senate and other collegiate bodies
  - representatives of society, through the Social Council
- Virtual forum and mailbox to collect contributions and discussion through different channels:
  - intranet for students
  - intranet for lecturers
  - intranet for administrative & service staff
  - open website
- Continuation of the strategic discussion symposia and seminars open to the university community and society at large, with university experts of international standing.

The different contributions made in the course of this process will be compiled and made available to the university community through the UB Horizon 2020 Framework Plan

website. The completed version of the basic Framework Plan document should be ready by the end of 2008.

## Introduction

For many years now, our university institution has needed to base its organization on procedures of strict administrative regulation, which on one hand have made a valuable contribution to institutional stability and standardisation but which, on the other, have also weakened the university's ability to cater to the various social changes taking place around it. The writers of the present document understand that the university community needs measures to ease the burden placed on it by current legislation and private interest in order to further its own independence and strengthen its ability to act upon plans and so bring about the changes these involve. Society is moving forward at great speed and families, businesses, governmental entities and the community at large are increasingly demanding in their expectations of what the university should be doing and of its role as an agent of social transformation and economic development.

In view of these considerations, the Framework Plan Horizon 2020 does not propose either to add a further layer of regulatory administration to the existing university structure or to condition the future of that structure as it stands; and it certainly does not set out to define fixed objectives for the different units and entities that comprise the University of Barcelona. Instead, and as its name indicates, the aim of the Plan is that each university office and area of knowledge should interpret and adapt guidelines for action in the manner most suited to their individual abilities and needs, and that each centre should define its objectives and calendars in accordance with the resources at its disposal. In this way, a subsequent assessment procedure designed according to commonly agreed criteria will enable the University Governing Council to take those decisions it deems necessary.

The proposals in this Framework Plan derive from successful initiatives carried out by other leading public universities in Europe. With the help of advice and support from a number of representatives from these universities, international experts, and members of the UB community, the team responsible for drafting the Framework Plan has analysed the various initiatives and adapted them to the specific situation of the UB. Once the proposals have been amended following open discussions with the wider university community and other social agents, the team will be in a position to define a more explicit strategic vision and coordinate the work of the various faculties, schools and units that make up the UB.

The Framework Plan Horizon 2020 has two strategic objectives:

- To promote the recognition of the UB at the international and European levels as a highly productive research institution offering a range of international postgraduate programs.
- To consolidate and extend the university's commitment to society, to quality teaching for lifelong learning, and to the greater transfer of knowledge and technology.

A third objective, of a more internal nature, is to support the necessary development of human resources and to establish an organizational structure upon which a more governable and sustainable institution can be built.

Despite the current budget deficit, the forthcoming generational change in the UB community provides sufficient justification for the ambitious scope of the Framework Plan. Nevertheless, to achieve the objectives set out in this document it will be necessary to manage resources strategically, particularly in the creation of new teaching and research posts.

It should be remembered that the UB of today is responsible for building the UB of tomorrow; thus, the power to transform the UB into one of the leading universities in Europe under Horizon 2020 lies with the current university community.

## 1. The UB: an internationally renowned institution

It is unanimously accepted that the economic and social future of knowledge societies is increasingly dependent on the strength and health of their university systems. This requirement is recognised around the world, and the growing trend for global competition has now spread to higher education institutions.

Careful analysis of university rankings – mindful of the eternal debate that surrounds such classifications – leads to a number of interesting conclusions, particularly if the results of the UB are compared with those of universities that score highly for various assessment criteria. While the UB has built an excellent academic reputation and is viewed favourably by employers, it falls some way short of the highest-ranking institutions in terms of the **international profile of its teaching staff and students**. The most prestigious universities also exercise a high degree of autonomy over all areas of their activity, in particular budgetary matters, and have the power to agree specific conditions with teaching staff and to apply more rigorous selection procedures to prospective students.

In general terms, the **quality and impact of research** at the UB is also inferior to that of the top universities. Comparison with other European universities allows us to focus on institutions in a largely homogeneous geographical, social and political space: universities with a similar culture to our own and a clearly defined mission to act in the interests of society as a whole.

Moving away from the hierarchical focus of university rankings, it is useful to identify the characteristics that attract greater recognition from the international academic and non-academic communities. The answer is clear: **prestigious universities are uniformly excellent research institutions**.

At the national level, the research capacity of the UB is exceeded only by that of Spanish National Research Council (CSIC). Our university also enjoys greater international recognition than any other Spanish university. From this perspective, and in light of the analysis of a number of **different university models**, this Framework Plan proposes a series of policies designed to make the UB an internationally **prestigious university**, following the model adopted by the most highly regarded universities in the world. Under this type of university model our institution will be required to:

- **strengthen the relationship between teaching and research;**
- **attract talent**, in particular foreign lecturers, young researchers, associate lecturers and experienced management staff, increasing the proportion of teaching staff involved in research activities to 80%;
- **define a distinctive profile** by establishing priority research areas within the broad disciplinary and interdisciplinary spectrum covered by a generalist university such as the UB;
- **offer a range of international master's degree programs and doctoral programs**, establishing a level of quality that surpasses official requirements;
- **stress the importance of fostering a culture of assessment and quality**, to incorporate the notion of quality into all decision-making processes at the UB.

### ***1.1. Strengthening the teaching-research relationship***

**The first policy is to strengthen the relationship between teaching and research.** The changing world in which the current generation of students will seek employment demands strong analytical and critical capabilities and greater intellectual flexibility. The best way to prepare students for this challenging environment is to adopt a research-orientated teaching policy that encourages them to ask themselves questions, analyse texts, plan experiments, analyse data and draw their own conclusions. It therefore becomes crucial to **establish close ties between teaching and research.**

The relationship between teaching and research is the defining trait of universities and sets them apart from other types of higher education institutions; however, it is not a naturally occurring phenomenon and must be carefully constructed and maintained through the implementation of coherent policies. Moreover, this relationship needs to be adapted to the specific requirements of different levels and areas of knowledge.

The task of teaching students to develop a research-orientated approach to their studies has hitherto been confined to doctoral programs, which place students in the novel situation of having to pose and answer their own questions. However, this task is far more difficult to achieve if it is delayed until such a late stage in the learning process, which may explain why the first years of doctoral study often produce little in the way of tangible results. Furthermore, it has become clear that the basic skills acquired through research practice will also be needed by students enrolling in future degree and postgraduate programs, albeit to a lesser extent. By establishing an effective relationship between teaching and research that encompasses both the students' mentality and the practical approach to their work, universities can provide students at all levels with a springboard to academic success.

The first requirement in the creation of the teaching-research relationship is that all academic staff should be actively involved in research activity. The key feature that distinguishes higher education from secondary education is that teaching staff at university level should be responsible not only for imparting knowledge but also for generating it. Thus, university teaching should push the boundaries of current knowledge, but it is difficult for lecturers to perform this task if they do not have the research profiles that will enable them to modify the content of the courses they teach throughout their academic careers. There can be no doubt that skilled researchers, provided that they make an effort to communicate effectively, are the best placed to transmit the knowledge that they are involved in creating and to explain the processes by which this is achieved. Only those who work regularly in a research environment can imbue students with the creative spirit that this discipline requires.

Leading research universities such as the 20 institutions that make up the highly exclusive League of European Research Universities (LERU) aim to maintain a close relationship between their teaching activities and international research and argue that the separation of the two activities would severely damage European competitiveness in the global knowledge society. The group believes that if universities are to channel their capacity to generate knowledge as a driving force for innovation, they must continue to work in a **wide range of disciplines** and strive to **link basic research to strategic and applied research.**

For a university such as the UB, which aspires to increase its output of quality research, the correct management of the connections between teaching and research and the appropriate

choices in designing and implementing the necessary policies are the keys to a successful future. In short, **the need for a thorough and conscientious approach should be considered equally important in both teaching and research.**

## *1.2. Attracting talent*

**The second policy is the attraction of talent.** The most dynamic universities strive to recruit only those teaching staff with outstanding creative talent, and the key to attracting such individuals is the excellence of the institution itself. The fundamental quality of a university derives from this mutual recognition of excellence.

Many universities devise specific strategies for attracting the best teaching staff. The UB would be advised to **align its policies for attracting and recruiting teaching staff with those commonly used by these institutions.** The development of such recruitment models may become increasingly important over the next few years.

The UB's policy for incorporating new teaching staff should signal **a move away from the traditional system of filling vacant posts to give greater importance to meeting strategic requirements** with long-term benefits. These requirements should be determined on the basis of both teaching and research, which could create specific candidate profiles weighted more strongly towards one discipline or the other.

The option of recruiting a lecturer to strengthen a particular teaching and research area can be just as valid as the option of recruiting a talented teaching researcher, and the two strategies should by no means be considered contradictory. **The proposal should be linked to the general aim of increasing the proportion of teaching staff actively involved in research activities from 50% in 2007 to a minimum of 80%.**

This first change in university culture will place considerable responsibility on the governing bodies of the UB and their respective members as it will, to a great extent, determine the future success of our institution. Competition between members of the teaching staff for places on recruitment committees should give way to a **new collective spirit.** Each of the groups involved in the process, particularly at the departmental level, must carefully consider, discuss and agree upon the direction they wish to take. Given the variety of interests at stake, this type of strategic thinking may not seem the most suitable approach, but the experience of various groups within the UB has shown that a broad consensus can produce positive results for all parties. The new model of independence and accountability developed later in this document leads to the same conclusion.

The second change will be to **ensure that new teaching staff and those that the UB wishes to retain are offered competitive conditions and a quality working environment.** This covers various factors such as salary, working areas, resources, technical and administrative support for teaching and research activities, the balance between teaching and research responsibilities, and sabbaticals. For example, by providing high-quality research infrastructures, the UB will stand a greater chance of attracting the best researchers, as well as creating more opportunities for collaboration with other institutions. In any case, it should be remembered that the attractiveness of a vacancy also depends on the intellectual and scientific level of the general working environment.

These changes should lead to the creation of good practices and operating procedures, in addition to the introduction of new regulations. The university needs to develop strategies for attracting new teaching staff and establish effective systems for advertising vacancies.

First, the UB must ensure **that teaching vacancies at the university are advertised internationally**.

Second, the **selection processes must be flexible and adapted to the specific requirements of each vacancy**. The systems for selecting new teaching staff should be comparable to those used by other leading European universities so that they are familiar to and accepted by those outside the UB community. The results of the selection process do not depend solely on the time dedicated by candidates and selectors, and the new policy should reflect this.

Third, it must be made clear that **the final decision in the appointment of a new lecturer rests with the Rector of the UB**. The official announcement of vacancies, the shortlisting of suitable candidates and the final selection should, in general, be tasks carried out by the departments concerned. Nevertheless, as part of the transition towards a new model of independence and accountability, it would be beneficial to introduce a system of external assessment to ensure that good practices are respected at all times. This task will be assigned to a **UB Teaching Committee** made up by members of the teaching staff appointed by the rector.

Finally, **three types of lecturers and researchers warrant special attention**.

First, the UB will need to increase its proportion of **foreign lecturers**. As mentioned earlier in this Framework Plan, the best universities in Europe have a much greater **international presence** on their teaching staff than the UB. This necessity is compounded by the process of convergence towards the new European Research Area (ERA), the structure of which demands increased mobility of skilled researchers. The UB should harness its prestige and the popularity of the city of Barcelona to attract outstanding lecturers and researchers from other countries.

The Spanish National Plan for Scientific Research, Development and Technological Innovation (2008-2011) incorporates a new program for attracting foreign researchers, and the UB must take advantage of the opportunities that this presents. Alternatively, or alongside the government plan, the university could discuss agreements with other public bodies, private companies and social agents to secure funding for UB-endorsed programs for the recruitment of foreign academics. Additionally, the UB should make better use of the procedures for recruiting research staff established under the ICREA program of the Catalan Foundation for Research and Innovation. The UB should aim to have a **minimum of 10% of foreign lecturers by 2020, chosen according to strategic internal criteria**. The total proportion of foreign teaching staff in 2007 was 1.3%.

In order to make progress in this area the various departments of the UB should be encouraged to launch recruitment initiatives to attract talented foreign researchers. Candidates should be assessed primarily on the basis of their reputation in the international research community and their capacity to bring together major, innovative lines of research. In addition, the initiatives should provide potential employees with incentives, one of which would be the exemption from teaching responsibilities for a period of three years. The justification for this measure derives from the fact that foreign lecturers obviously require a

reasonable period to adapt to a new working environment. For this objective to be viable it will be important that the language policies of the university do not preclude the arrival of teaching staff from other countries and that a realistic margin is given for language learning and perfection.

Secondly, priority should be given to the recruitment of **young researchers**. The current profile of the UB shows a worrying lack of staff aged between 30 and 39, which is considered the most creative and productive group in teaching and research activities. **In 2007, this group accounted for only 20% of the total academic and research staff at the UB – a figure that should be increased to 40%.** However, the lack of young academic and research staff is not simply a reflection of the age pyramids at the UB, but a symptom of the general lack of jobs for professionals in this age group in Spain.

The number of young lecturers and researchers employed by the UB has increased considerably in recent years, although the number of tenured lecturers has decreased. The base of the university staff age pyramid should be broadened, and efforts should be made to recruit staff of different ages to ensure that the problems reflected by the shape of the current pyramid are not reproduced in the future. Temporary contracts are commonly offered to young lecturers and researchers in universities across Europe and should not be considered as a significant cause of employment instability. The conditions of these contracts should be clear and transparent: the employee in question is contracted on a temporary basis to carry out specific research and/or teaching tasks that are different to those performed by tenured researchers and lecturers. Temporary employees are eligible for promotion but cannot be offered a renewed contract for the same tasks. The most talented young researchers and lecturers are rewarded with an indefinite contract by the same university or receive better offers from another institution or company.

To attract talented research staff from Spain and abroad, and to offset the lack of young researchers, the UB should create an internal program for the recruitment of **postdoctoral researchers**. In addition, the university should offer funding to promising young researchers who wish to embark on independent careers by setting up new lines of research.

The third type of teaching staff with very little presence at the UB are **associate lecturers**, who are external teaching professionals who collaborate in specific tasks on a part-time basis. Such is the diversity of staff available outside the UB community that it would be unwise not to take advantage of it. Failure to do so would lead to an excessively introspective university, content to operate according to its existing capacities and limitations, and it is unrealistic to assume that a single institution can employ leading experts in every field. External teaching staff must add value to master's and doctoral programs and provide a link between the teaching content and real problems in the relevant field. A reasonable aim for 2020 would be to have approximately 5-10% associate lecturers on the teaching staff.

**It is equally important to attract and retain talented professionals in the areas of research and teaching support and management.** In the third section of this document a series of proposals are made for new professional development opportunities at the UB, made possible by the growing flexibility of exact job descriptions and responsibilities and other training and mobility policies. In addition to these new opportunities, **this plan aims to stress the strategic nature of the new promotion and recruitment procedures** for support and management staff, who will play a key role in facilitating the work of future UB lecturers and researchers. Again, the procedures should be comparable to those already in place in leading

European universities; for example, public selection processes with the participation of faculty and school heads should be used when required, and all positions offered should reflect concrete teaching and research requirements and adhere to the same principles of assessment and promotion as those applied to academic and research staff.

The profiles described above should contribute to increasing the overall level of professional competence of the staff involved **to encourage greater involvement in teaching and research projects in the future**. The UB is committed to increasing the percentage of staff with the appropriate level of technical training for specific objectives, functions and tasks.

### ***1.3. Creating a distinctive profile***

**The third policy proposed is to define a distinctive teaching and research profile** that will be recognised across the higher education sector as specific to the UB, since it is no longer possible to rank among the leading universities in all areas of knowledge and in all disciplines. The number of European universities with similar objectives is simply too great for them all to be successful. For example, a high percentage of universities in Europe offer a range of postgraduate programs, whereas the figure in the United States is less than 10%, according to the report “The Future of European Universities: renaissance or decay” published by the Centre for European Reform (2006).

**The best European universities are committed to a high degree of diversification and to attracting outstanding teaching and research staff**, who set them apart from other institutions. The prestige of a particular university derives principally from the areas of knowledge in which it is recognised as a research leader, and the majority of its academic programs, particularly at postgraduate level, are structured around these areas.

This raises a serious problem for the traditionally generalist universities, which offer a wide range of subject areas and disciplines, albeit with a consistent level of quality. This is the case of many universities in Europe, including the UB. Crucially, those institutions which fail to respond to the growing trend towards specialisation, and which do not excel in any given knowledge area, risk losing visibility and prestige in an increasingly competitive sector.

The current strategy for solving this problem is to define **thematic priorities**. However, the process of selecting these priorities is extremely complex and a historically generalist university like the UB cannot simply channel its efforts into one broad field and neglect others. The ideal solution is to decide upon **specific disciplinary or thematic areas and sub-areas within each field that should be developed further**, whether this is because they have greater potential than others or because they allow the university to build a more diversified profile.

In addition, **social and cultural demands** may justify the decision to maintain certain areas and programs even if they lack the necessary degree of research excellence. The only restriction is that this approach should be taken only in those cases where it is considered necessary, and should not undermine the global benefits of specialisation and prioritisation.

Thus, one of the strategic requirements for the UB in the coming years is to develop an internationally recognised profile based on its research prowess in clearly defined areas of knowledge. Ultimately, the UB should strive to become the international research leader in a specific field. This is a long-term strategy and should therefore be defined according to

constantly evolving requirements, although it must be based exclusively on the establishment of thematic research priorities.

The responsibility for defining research priorities and managing all other policies defined in the Framework Plan that concern the promotion of quality research should be assumed by a **Scientific Policy Committee**, which will work to ensure the successful development of scientific policy at the UB.

In the shorter term, research that merits further development and promotion, whether or not the university considers it a strategic area in which to seek the highest level of excellence, should meet **the following three criteria**:

- High-level competitive research leading to the creation of new knowledge, particularly through published articles in quality indexed journals, transfer activities and innovation.
- Research with a proven usefulness in the economic, social and cultural activity of the UB. The scope of the university environment may vary according to the particular research area, bearing in mind that the UB operates on the local, national and international levels.
- Research in specific areas carried out by new research groups.

#### ***1.4. International postgraduate programs***

**The fourth policy proposed in the Framework Plan concerns the range of international postgraduate programs** offered by the university. The level of postgraduate programs is a key indicator of the quality of a higher education institution and the master's degree programs and doctoral programs at the UB must be an example of this.

Under the new framework of European Higher Education Area (EHEA) convergence, the generalisation of the range of master's degree programs offered by the UB should act as a natural means of redirecting the efforts of the current teaching staff towards postgraduate subjects. **A reasonable target would be to increase to proportion of postgraduate students at the UB** (long-term master's degrees and doctoral programs) **to 30% by 2020** (from the 2007 figure of 17%).

However, the first inherent risk in the planning of master's programs is to see them as systematic extensions of existing bachelor's degrees broken down into numerous specialised subject areas. This risk is evident in the large number of official EHEA master's degrees to have received approval thus far, and must be considered in the light of the limited resources to which the UB has access, particularly funding and teaching staff.

The second, related risk is that both the master's degrees and doctoral programs currently offered at the UB fall some way short of the required level of difficulty, which should be considerably higher than that of bachelor's degrees. It is therefore necessary to define a series of **UB quality standards** and to establish **selection criteria** to ensure that prospective students have the necessary academic level to complete master's and doctoral programs. These new conditions will distinguish postgraduate programs offered by the UB from courses with the same academic title but which may differ considerably in terms of quality.

In 2020 it is expected that approximately six million students will study academic programs outside their home countries, according to the report of the Centre for European Reform, referred to above. The UB must be in a position to attract a significant proportion of these

new students, many of whom will enrol in postgraduate programs. As such, the key characteristic of new postgraduate programs at the UB must be their degree of **internationalisation**. **By 2020, the UB should aim for approximately 30% of its master's students and 40% of its doctoral students to come from outside Spain (the figures from 2007 were 17% and 23%, respectively)**. The essential requirement for achieving this objective is to create postgraduate programs that will be taught entirely in English, or which will at least offer a complete pathway in this language.

A number of strategies can be used to improve the international dimension of postgraduate programs at the UB, which include:

- introducing incentives for teaching staff prepared to impart classes in English;
- inviting foreign lecturers and researchers to take part in the teaching of postgraduate programs;
- providing foreign students enrolled at the UB with more extensive support for non-academic matters (i.e. accommodation, residency permits, language tuition, etc.).

It is essential that the highest quality postgraduate programs, whether international or not, have much greater **external visibility** than all other programs. As such, the UB should give adequate publicity to international master's and doctoral programs and to all other postgraduate programs that can reasonably be expected to attract students from other countries. For example, foreign internet users accessing the UB website should be able to easily identify a specific section for international master's degrees and doctoral programs.

Care should be taken not to draw too great a distinction between the professional and research content of the master's degree programs; rather, the UB should endeavour to find ways of linking the two aspects and presenting this synergy as an attractive option for prospective students. The basic organizational structure of **postgraduate-level programs** should be modular, which will provide a high degree of flexibility when planning the range of courses to offer. It would also be beneficial to standardise the concept of master's-level studies under the name "University Master's Degree", the successful award of which will depend on the fulfilment of certain quality criteria. The distinction between official master's degrees and university-endorsed programs will be differentiated by the funding structure, the possibility of subsequent admission to doctoral programs, and, where relevant, the degree of specialisation of the subject matter. The same criteria could also be used to distinguish the master's degree programs from less formal programs such as lifelong learning and professional training courses.

The above considerations, alongside the fact that it is now standard practice in the rest of Europe, make it highly recommendable that the UB set up a **Postgraduate School** to act as a focal point for the development of programs at this level.

To ensure that it is able to deal with the subject-specific requirements of different schools and faculties, the Postgraduate School should have an office in each UB Campus. This requirement is justified by a number of additional factors that are not mentioned in this document.

First, the decision to offer a particular master's degree program must be weighed against the advantages of alternative programs. In other words, clear priorities must be established. Moreover, it is important to remember that many of the most attractive master's programs

may demand a broader scope or more resources than a particular school or faculty can offer and must, therefore, be planned accordingly.

Second, the Postgraduate School can take sole or joint responsibility for creating new master's programs with the participation of leading social agents, or take advantage of opportunities to plan combined master's or doctoral programs with other universities.

Third, it would be beneficial to share information, coordinate approaches and establish links between the most prestigious master's degree programs – particularly those with a specific research focus – and related doctoral studies.

Fourth, given the more international character of the new doctoral programs, it would be wise to ensure that they are not confined to the immediate environment of a specific research group or department, which will broaden the scope of the training received by doctoral students and stimulate a sense of belonging to a wider group of doctoral students.

Finally, it should be remembered that **doctoral programs are the main points of contact between the European Higher Education Area and the European Research Area** and the key source of a new generation of researchers. The nucleus of education at the doctoral level is the use of original research to broaden individual and collective knowledge.

Doctoral studies should therefore be considered as traditional learning processes as well as practical research programs, since the lecturers/researchers are required to impart knowledge to students in addition to overseeing their research activity. The directors of doctoral theses are responsible for developing the students' research skills, and this must also be considered a teaching activity. Doctoral students learn through their research, and it should be remembered that the aim of doctoral training is to provide students with the skills required to direct research in the future. As such, doctoral students should not be viewed simply as additional university research personnel, but as students with specific training and support requirements.

If, on the one hand, it is important to set the level of demand of doctoral programs at the UB as high as possible, it is equally important to prioritise those programs covering research areas that are recognised as particular specialities of the university or, alternatively, those that focus on emerging areas that the UB wishes to develop.

The Postgraduate School could also coordinate the **introduction of general modules into specific doctoral programs**. These modules could cover one or more of the following areas: research methods, scientific writing in English, conference presentations, patents, entrepreneurship, and the dissemination of scientific information. To improve the training received by doctoral students the UB should also promote periods of research spent in other countries and attendance of international conferences.

Finally, the UB needs to address the problem of the current ratio of doctoral students to teaching staff, which is one of the most worrying aspects of its current research situation. In a number of departments and important research groups there is a ratio of less than one student to each member of the teaching team, which makes it extremely difficult to maintain competitive, high-quality research. Under these conditions, all the efforts made to **increase the number of doctoral students** will be insufficient. It is therefore important to maintain the UB doctoral scholarships program and increase the value of the scholarships, as well as taking

advantage of the various strategies available for recruiting doctoral students, such as the provisions set out in the 7<sup>th</sup> EU Framework Program.

### ***1.5. Fostering a culture of assessment and quality***

**The fifth policy consists in deepening the culture of quality at the UB, simplifying the quality assessment procedure, and successfully incorporating the results of institutional assessments into the decision-making process.** Quality assessment is a key activity in prestigious universities and receives government support in countries such as the United Kingdom, where the Research Assessment Exercise (RAE) is used to allocate public research funding and serves as a guide for the universities themselves in the design of new research policies. In other words, assessment has a direct influence on individual and collective decisions.

At this point it should be stressed that the culture of quality promoted by this Framework Plan should not coincide completely with public assessment procedures, since it would be extremely unwise for the UB to rely exclusively on external evaluation to gauge the overall quality of the institution. The ambition to create a culture of quality is one of the principal factors behind the drafting of the UB Horizon 2020 Strategic Plan, the implementation of which therefore depend to a great extent on the application of quality criteria to internal processes and assessment procedures. An important factor in attaining the levels of quality required to meet the strategic objectives of the UB will be to secure the relevant external accreditations, for which schools and faculties will receive the necessary support. Nevertheless, the university should strive to exceed the levels of quality demanded by external accreditation processes.

Dynamic organizations work continuously to improve their overall quality. In order to instil this attitude in the UB it is important to ensure that all members of the university community understand, and approve of, the fundamental institutional mission. A culture of quality exists if the community as a whole defends and pursues a series of common values, convictions and expectations, which are, in turn, reflected in shared attitudes, behaviour and commitments.

If the UB is to achieve its goal of excellence it must build on the culture of quality already existing in areas of the institution and raise it to a more sophisticated level.

The process of **extending the culture of quality** will demand a degree of responsibility from all parties involved: from government education authorities and the governing bodies and heads of faculties and departments at the UB to all members of the academic, research, administration and service staff.

The process of **deepening the culture of quality** should be understood as replacing a generic and poorly defined culture with a more explicit one that is based on the commitment to institutional objectives and the implementation of specific strategies through which to achieve them. Fundamentally, then, **the culture of quality cannot be developed in the absence of strategy**. By creating a more mature and effective internal quality of culture, the UB will gain greater credibility and trust, both at government level and with society in general, and add weight to its arguments for greater independence.

It is widely accepted that **quality cannot be managed without assessment**. However, opinions differ as to **what should be assessed, who should carry out the assessment, and what use should be made of the results**.

With regard to the question of **what should be assessed**, the current focus on results and production should be replaced by a more balanced approach that places greater importance on the **assessment of processes** in the different areas of university activity. The key areas raised in this Framework Plan concern the work and structure of governing bodies, decision-making processes, systems for recruiting teaching and support staff, and administrative processes.

To offset the negative perception of assessment processes among many members of the university community, it is vital to provide a clear statement of objectives before proceeding to the data collection phase. The objectives must always focus on improving quality and should give due consideration to the financial and human effort required on both sides of the process, relative to the value of the information that will be collected and the foreseeable results.

With regard to **who should carry out the assessment**, responsibility for leading and coordinating the culture of quality and the new assessment processes will fall to the **governing team of the UB**, which will establish a series of priorities to prevent the assessment workload from becoming unmanageable. The departments, schools, faculties, institutes and their respective heads should actively support the assessment process, analyse the results, and play a part in defining and implementing those actions considered necessary to improve quality in any given area.

In any case, the creation of a **UB Quality Assurance Agency**, in addition to facilitating the implementation of university assessments and the collation of important statistical information for the governing bodies, should serve to introduce a general concern for quality across the university community. The Quality Assurance Agency should be assigned technical powers that will in all cases be subordinate to decisions taken by department and faculty heads.

**Teaching and research assessment committees should be formed principally by members from outside the UB**. These individuals may be from either academic or business backgrounds but should possess a detailed knowledge of the university and have a social perspective that is not influenced by corporate interests. International experts and UB alumni can also play an important role in the external assessment process.

The **procedures and parameters on which the assessment is based** should be determined taking into account the specific characteristics of the teaching and research environments.

**Teaching assessments** should be based principally on the knowledge gained and the skills acquired by students at all levels, despite the obvious complexity of such a task. Subsequent **employment statistics and testimony from employers of UB graduates** should also be considered significant indicators. The UB should continue to issue student questionnaires, which participants can use to reflect upon their own role in the learning process. Students should be encouraged to view university education as a combined effort between themselves and the teaching staff rather than a passive process of absorbing the information provided by lecturers.

In the area of **research assessments**, each field should have its own clear and transparent assessment criteria that expand upon the parameters currently used in GREC (a software application for research management and assessment). These criteria should be comparable to those used by other universities and public bodies in Europe, such as the RAE in the UK. The different types of research activity under assessment should be analysed separately: a) research intended to expand existing knowledge in a given field; b) research intended to lead to knowledge transfer and innovation activities; and c) research with a direct economic, social or cultural application. The most important consideration is that all researchers should be leading figures in their respective fields, regardless of the type of research activity in which they are involved.

The first phase entails the creation of a document summarising **the research structures in place at the UB**, which should be prepared according to basic criteria and clearly identify the relative research capabilities of the different faculties, schools and departments within the university. At a later stage the document should be expanded to provide greater detail on the activities of groups and individual researchers.

One of the main problems in the area of university evaluation is the time required for distributing and completing questionnaires and for collating the necessary data. The UB should make **extensive use of statistical software** for gathering and processing the required information and to provide heads of departments and faculties with a convenient reference tool. For example, some leading universities in Europe have introduced applications that gather information from their institutional databases in real time, which can be used to monitor figures such as the number of indexed publications during a given academic year. Another option would be to assign a technician responsible for collating this type of information.

In order to increase the overall quality of the evaluation process, it would also be beneficial to create discussion forums for raising suggestions on how to improve the different assessment activities and to foment a general attitude of tolerance towards criticism. The success of the process rests on the degree of **cooperation between those responsible for the assessments and those being evaluated**, who should show a mutual acceptance of the conditions and results.

With respect to the question of **what use should be made of assessment results**, the Framework Plan proposes that the assessment processes should produce tangible benefits rather than being used as simple control mechanisms or means of punishing individual or collective errors. Individual assessments should also be used to provide guidance and assistance to members of the UB community to improve their general performance. In addition, the results of these assessments should be extrapolated to the relevant groups (i.e. departments, university schools, faculties and services), particularly the heads and directors, to ensure that they assume a degree of responsibility for both the individual and collective results.

The UB should use the assessment process to make clear to all those under evaluation the exact tasks for which they are responsible and the levels of achievement expected; the process should also serve as the basis for identifying the strategic objectives of staff at all levels and of the university itself. Similarly, the UB should **consolidate the model of program-contracts with university schools, faculties and departments**, which facilitate short- and medium-term planning and help to structure the allocation of resources according to the

fulfilment of objectives set by the governing bodies of the university. Program-contracts should therefore be considered a form of collective motivation. Incentives should also be extended to individual members of staff, although care should be taken to ensure that this is done with absolute equality and transparency, based on the principle that greater effort and achievement should be recognised and rewarded. There are several possible forms of incentives, although economic rewards (such as a non-consolidated quality bonus) are not necessarily the most highly prized. In many cases, valued employees respond more favourably to incentives such as a reduction in bureaucratic tasks, modifications of the teaching/research workload, greater administrative and technical support, or assistance from research scholars and technicians.

Equal importance should be given to **the evaluation and continuous improvement of university services**, which should be carried out according to the same general criteria and using comparable procedures: in addition to simply meeting the levels required to obtain official accreditations, the university should strive to instil a culture of quality in all of its services.

## 2. The UB: a socially committed institution

The University of Barcelona's fundamental mission is to provide the human capital required by advanced democratic societies today. Furthermore, as an institution which aims to generate knowledge and to engineer social and economic development, the university must demonstrate that its financial commitments to knowledge development extend beyond the economics and business sector to the domains of society and the community at large. It must, therefore, maintain open channels with that community in the moments when it defines, assesses and improves its learning programs and processes.

On the other hand, this does not mean that universities in general should limit themselves to simply training personnel for professional practice; as one of Europe's most formidable university institutions, the UB needs an overall teaching plan that combines training for the satisfactory performance of jobs in themselves with training to provide students with the critical apparatus to see beyond given workplaces to ongoing or in-service training and to demonstrate commitment to such training. And in this area of concern, the university's teaching-research continuum must act as the cornerstone for success.

At the same time and in order to further the work on this model, the UB Framework Plan Horizon 2020 looks beyond the changes promoted by the process of European convergence that must soon be incorporated into our university system. These changes will lead to a transformation in most aspects of our teaching culture and, by logical extension, to a shift in how we approach the professional development of faculty and research staff and of administrative and service personnel. In this second part of the Framework Plan, we propose that the university should do the following.

- **It should provide the driving force for faculty and research staff to facilitate society's engagement in lifelong learning, by:**
  - o **designing bachelor degree programs based on community needs and knowledge areas in which the UB already plays a prominent role**, promoting both diversification and specialisation leading to the recognition of prestigious UB-endorsed degree qualifications;

- **transforming the student's first academic year into a period in which he or she can assimilate a learning culture** and acquire the skills needed to ensure a good level of academic achievement;
  - **creating a mainstay structure to support academic teams of teachers and specialists, and extending the use of tutorial action for students**, hereby adopting the principles of academic practice as these are applied in European universities of renown;
  - **establishing the same principles of quality assurance and responsibility in the opportunities provided for lifelong learning (non-regulated)** to guarantee society long-term quality training in lifelong programs.
- **It should maximise its knowledge and technology transfer results** and increase by up to 40% the number of teachers engaged in transfer activities, reinforcing transfer support structures and promoting a culture of enterprise.
  - **It should extend its involvement in community activities** in order to assume a more important role in the creation of social opinion and to provide thrust for teaching practices which combine academic learning and learning through community service, and which promote culture.

## ***2.1 Quality teaching for lifelong learning***

**The university that is committed to serving its community must offer quality teaching personnel and programs to facilitate lifelong learning. At the UB this can be achieved by:**

- **equipping teachers with an attractive curricula of customised bachelor's degree programs** that meet the needs of a diverse public and offer study loads tailored to different student profiles;
- **introducing the first-year student to learning culture in a university context** and making this year the formal space in which to introduce and promote learning culture;
- **consolidating Teaching Teams** to tackle the task of teaching and learning, intensifying the presence of tutorial action during the student's entire degree period;
- **applying design strategies to lifelong courses** to more effectively direct these to user-specific groups.

### ***A choice of degree programs with contemporary relevance***

To offer an attractive range of bachelor's degree programs meeting the needs of a diverse public and offering study loads tailored to different student profiles, it will be necessary not only to allow degree program managers a considerable degree of freedom in their work but also **to have previously established the basic criteria by which proposals for degree material may be accepted**, among which may feature such factors as scientific, social or professional demand and forecasts of prospective student numbers. Thought must also be given to **which fields of university activity are or are not in a position to assume the leadership responsibilities** entailed in implementing proposals, to the alternative the university can offer centres that are still not fully prepared for certain programs and in which cases responsibilities would be more effectively handled by being shared by different university institutions. Taking advantage of the flexibility of two elements in the new framework will be especially important: on one hand, the opportunity for degree program

design and proposals to have considerable independence and, on the other, the practical disappearance in this framework of the area of knowledge.

To ensure the observance of these criteria, the university will need to encourage **community participation in university study councils and establish analysis and acceptance procedures at a Campus level** not only to appraise the extent to which proposals formally meet requirements but also to invest the end product with “added value”, employing external audits and other suitable validation mechanisms.

In order to cater to a diverse public, particular care will be needed to define **the objectives of bachelor’s degree programs and the types of programs made available**. One of the first objectives must be to train the student to a satisfactory level of employability through the acquisition of a series of generic and subject-specific competences; but it is equally important that programs provide a foundation for the student who plans to continue his or her studies beyond graduate level in the context of the Dublin descriptors’ broadly accepted generic competences for bachelor’s and master’s degree programs—as defined by the Joint Quality Initiative network—and in accordance with the European Qualifications Framework, which tabulates qualification correspondence in centres of study across the EU.

The first of the two objectives described above addresses the notion of “**labour market relevance**”, the common goal of bachelor’s degree programs. But as we have indicated, it must be noted that general or specific ‘employability’ differs to the specialist practice of ‘profession’ and that the condition of employment may or may not mean both these things. When designers determine their objectives in terms of how ‘employable’ a program will make a student, they must avoid oversimplifying this notion and understand it instead as the student’s potential to do two different things: to occupy a formal post in the labour market or to engage in labour activity of a more autonomous nature. A certain tendency for graduates to follow the first path need not mean that program designers should neglect the second. In other words, the university should be working on graduate degrees that are not solely intended to qualify the student for specific points of entry in the labour market but area also supported by approaches, methodologies and definitions of learning outcomes that correspond to the alternative study path.

On this alternative path, **students must be equipped with the skills to pursue postgraduate studies**, both in terms of the generic competences they need to have gained upon completion of first-cycle studies, and subject-specific competences more closely related to areas of professional, disciplinary or multidisciplinary expertise. And beyond such considerations, it is naturally essential that designers avoid establishing purely mechanical links between first and second cycle studies.

The university should offer students attractive curricula as an initial measure in furthering a policy of postgraduate excellence, and should incorporate other **design features to guarantee quality and diversification in bachelor’s programs**, maintaining the commitment to ongoing training by offering the student a level of specialisation in those programs which require this and which lead to **UB-endorsed qualifications**. To maintain the overall coherence of the system, designers will need to determine the level at which the objectives of individual programs are aligned with EQF directives; and to establish pathways within these programs, they may also use modules belonging to single degree programs, modules taken from multiple programs and other training modules.

Finally, it must be noted that this policy's future breadth of application will only be preserved if designers can take on board these criteria in the consideration of the presently debated EHEA study plans.

### *The importance of the first year in ensuring future academic success*

In many countries it is a common practice for universities to select their student bodies, creating a filter and environment that strengthen academic performance. The UB should develop measures by which to ensure its first-year students such an environment, and the opportunity to:

- **receive an introduction to university learning culture;**
- **use tutorial action** both to fully use the study choices they have made and, when necessary, to assist them in their choice of subjects in subsequent academic years;
- **secure the conditions and acquire the competences to approach subsequent academic years** from a position of personal and academic advantage.

Beyond all else, the student's strong performance in the first academic year must be considered essential for further studies.

For different students with different profiles and expectations, university admission is not a uniform procedure and, furthermore, upon successfully completing their first year of study, students in different programs demonstrate contrasting levels of basic competence. Consequently, it is difficult for designers of different programs to choose together a single first-year training model and this is particularly true of universities such as ours, whose declared mission is to open its doors—as far as it reasonably can—to everybody who genuinely desires to pursue university studies even while maintaining its status as an institution attracting the best students and offering quality study resources.

For all these reasons, **fundamental features** of each degree program **must be analysed**, as outlined below.

- An analysis must be made of the full and part-time calendar options offered within programs. **Given the present relevance of lifelong training, the university must ensure that programs may be studied along different pathways** which tailor study loads to contrasting student profiles, and that students may select either full or part-time calendars characterised by equal measures of academic rigour.
- An analysis must be made of those **generic competences**, learning contents and formal languages deemed instrumental in each disciplinary area and in regard to which students will need to demonstrate ability to enter and complete the first academic year and maximise their performance in the program's teaching and learning activities. These and the accumulation of solid English language reading skills in the student's disciplinary area should constitute the minimum requirements for students in all subject areas to pass from first- to second-year degree studies.
- An analysis must be made of proactive measures **to facilitate university admission for sixth-form school-leavers and students coming from technical schools**, and the means by which these prospective student groups can be assisted—especially during their final years of secondary education—to secure the academic level they will need to begin university. In particular, consideration should be given to competences of autonomous learning, self-critical abilities, the will to be constant in study habits and the demonstration of self-confidence.

- An analysis must be made of **the functions of first-year tutorial action in specific degree programs**. It is in this first year that students experience the greatest number of changes in their academic environment and, in many cases, greater or lesser degrees of doubt about the degree choices they have made. The question of what might characterise this tutorial action shall be considered at greater length below.

### *Teaching teams and the tutorial program*

We propose the adoption and/or intensification of two practices commonly employed in the European public universities of renown: **the creation and consolidation of Teaching Teams as the means to approach teaching and learning activity at the UB, and the development of tutorial action**.

The first observation that can be made from the study of university teaching teams at an international level is that in different contexts and defined by different objectives, there is a **wide variety of potential teaching team models** to choose from, and that these vary in format, composition and function. In this Framework Plan we shall define the teaching team as a working unit composed of teaching staff focusing their attention on the teaching matter of a single subject or collection of subjects. First of all, and in order for team development to truly bring about changes in teaching culture, in the activity of lecturers, other academic staff and associated personnel, it would be advisable for the UB to consider the crafting of teaching teams as a gradual process achieved in series of stages.

The objective should not be to adopt a new teaching structure but rather to introduce a system coordinating the body of teaching and learning procedures and bringing together the series of teaching functions and activities surrounding a subject or subject set. **In this context the teaching team would be defined as a group of teachers and specialists in teaching material, learning resources and documentation, working with the participation of postgraduate and doctoral students** as a model for university training activity in the area of teaching. This would improve both teaching quality and learner performance, and the team members in this model—especially the teachers—should be expected to regularly revise and review their teaching and learning practices. In this model, the use of ITs and documentation technologies should be fully incorporated in teaching and learning plans and the processes of monitoring, evaluating and improving teamwork quality should be reinforced by taking on board innovations and developments as these are encountered in the course of academic practice. This assessment process is to be conducted not only by the teaching staff but also by the specialists and, in particular, by those postgraduate students participating in the team.

Amongst the various tasks facing this team, first team members will be given the means by which to remedy processes of **knowledge fragmentation** that take place across different subjects and to facilitate a process of continuous assessment.

Second, the team will help to reinforce the teaching body's **collaborative and innovative work** and orient teaching and learning activities towards the student's acquisition of those competences described in the **learning outcomes** of teaching plans.

Third, the team can provide a **favourable environment for interdisciplinary practice, hosting the incorporation of new teaching staff and providing a space for the training of doctoral students beginning to collaborate in teaching staff projects**, and for young teachers and researchers involved in teaching design and planning.

Finally, in fourth place, such a team will also provide an appropriate space for the integration of **teaching innovation projects** and for the promotion of research in teaching and learning in higher education.

In short, this Plan proposes the need for a change in academic teaching culture to facilitate cooperative and collaborative activity between teaching staff and other personnel involved in assuring and improving teaching quality and learning performance.

Returning to the question of university practice at the level of Europe, the second observation that can be made is that the best institutions are traditionally concerned with **varieties of tutorial action**. And although a number of such models have been designed for university contexts very different to our own, tutorial action remains a key consideration for this Plan because of its focus on the student and, by logical extension, because it can be used to gauge the relative health of the student's degree or degree area.

It is advisable to monitor the student's progress during the length of his or her university study period so as to detect and rectify **problems related to student performance** such as insufficient motivation, academic failure or inadequate time management. To this end, it will be important to provide each degree area with **tutorial action equipping students with curricular orientation throughout their university study period**.

Applied in the long term, this type of assessment differs in that the student continues to be in a university context and his or her needs for information and orientation change in the three decisive moments of a student's university life: the beginning of his or her studies, the point at which the student reaches the middle of a degree and the moment at which the degree is completed. Without doubt, this kind of tutorial action can help students maximise their academic performance and adopt planning strategies for their future. As well as providing the channel for teacher-student dialogue, this action can be used to obtain first-hand information regarding the operation of the degree area and centre, which will need to be properly channelled in order to rectify problems and improve measures of progress. In any case, the effectiveness of the curricular orientation tutorial will depend upon how far such action has been adapted to specific degree areas and whether it has been recognised and used by teaching staff tutors.

The university tutorial must be considered within the framework of a **degree tutorial action plan** comprising other concurrent actions to complement the immediate task of the teacher as tutor. The University must promote **tutor support services** which teachers may consult for information regarding student-related regulations and academic services, and from which they may receive advice on matters which may not be directly professional but which directly affect their performance of tutorial duties. The aim must be to provide an efficient service which maximises the available resources and time and focuses on improving the student's personal performance in the long term. The personal characteristics required of the teacher as tutor will also be important, and the tutor's degree of empathy, maturity, responsibility and willingness to perform his or her role will be instrumental in successful tutorial action, as will the tutor's commitment to personal ongoing training, and knowledge of the degree area and its professional environment.

For this reason it is important that in each degree area special attention is given to the selection of tutors, to the definition of bachelor's and master's tutorial models for students

grouped both by level of studies and type, and to the implementation of tutorials—differentiated, where necessary—right from the first academic year.

Parallel to the tutorial, the University needs to **promote and regulate a series of actions to provide student counselling on learning activities organised by subject or subject area**. These actions must be integrated in the activities of different teaching teams and will become a key factor in the student's learning process, especially in view of the following areas of current change:

- the incorporation of ECTS credits in the university system;
- the gradual incorporation of IT resources in teaching and learning processes;
- the progressive integration of in-class and online teaching activity in universities across Europe, including the UB.

### ***High-quality lifelong learning***

**This Plan proposes that the University should employ strategic measures to involve the community in its lifelong learning studies and should apply the same principles of quality assurance and responsibility to the design of these studies as it should to bachelor's and official master's degree programs.** In the context of those competences that are required in the dynamic of 'learning to learn' and those skills involved in self-training, initial and lifelong learning must be understood as a continuum so that prospective graduates can be both motivated and equipped to continue the learning process throughout the course of their professional lives.

Our information and learning society constantly generates new training needs that cannot be met only by the provision of in-service training resources or tailor-made courses offered in in-company formats. Lifelong learning is also a tool to favour human mobility and adaptation to changing environments. And in the context of higher education, characterised by a concern with the skills of a group of professionals but also with the personal, cultural scientific and artistic development of the community at large, lifelong learning is rapidly becoming a social reality.

Furthermore, today's information society is the society of communications technology and documentation and this creates new scenarios for training and learning. The current integration of these technologies in the UB's teaching and learning practices in initial and lifelong learning is evident. Practically speaking, it might even be said that the university teaching and training model our university is moving towards is one in which online and off-campus teaching and learning activities are as integrated in teaching programs as in-class activities are, and that university teaching environments and materials are using learning, communication and documentation technologies as a matter of course.

In this sense, the UB should generate the synergies required by support units and offices serving the University's learning and teaching activities to **harness and integrate IT resources and coordinate their use in both initial and lifelong learning**. Furthermore, resources must be jointly invested in an integral, common policy to put these technologies to the service of teaching and learning both on- and off-campus.

In view of the motion to create a Postgraduate School to structure the showcase of the UB's most prestigious international master's and doctoral degrees, the university should also set its sights on establishing an Institute of Lifelong Learning, which would be able to:

- **draw together the university's various lifelong learning objectives;**
- **provide a clear and accurate outline of the degree areas available**, ordered according to types of training, the body or agent proposing this training and the profiles proposed by such agents of prospective students;
- **take responsibility for systematic procedures of quality assurance.**

First of all, this will require all the units involved to guarantee their joint participation in the coordination of the tasks at hand, so that equal measures of responsibility are assumed by degree area managers, promoters and coordinators and the end product can be properly tailored to the community. At present, the University of Barcelona engages in lifelong learning activities through its various centres, departments and associated institutes. In time, it will become the role of the Institute of Lifelong Learning to bring together these activities in a recognisable portfolio which can attract those members of the teaching staff that are active in this academic area. In short, our objective is to gradually bring together a freestanding structure and **body of policy for the purposes of lifelong learning**, and to this end the Plan proposes the creation of a Committee for Lifelong Learning.

Second, the university will need to address strategies and measures to incorporate **a culture of quality assessment and assurance in lifelong learning** which not only monitors user satisfaction but is supple enough to accept revisions and modifications of objective in the context of our changing environment.

Third, it would be advisable for the UB to **share areas of activity and establish alliances with other universities** to make the its lifelong learning portfolio identifiable with the city of Barcelona. As well as creating a more attractive offer for visiting students from abroad, this would allow for the greater use of the resources of different universities and, once again, for synergetic, complimentary action and the greater quality it would involve.

In fourth place, the University of Barcelona can also play a key role in lifelong learning as this is practised by an increasingly active, discerning and informed public—today's diverse information society and the gamut of technologies that structures it. To this end and by way of an example, the university might propose to teach **higher education training programs addressed to specific sectors of the adult public with or without university qualifications.**

## ***2.2 Knowledge/technology transfer***

**The second policy proposed by a university committed to the community is the development of knowledge and technology transfer between the university and society.**

Increases in knowledge are a source of progress, and not only economic progress. Rather than stockpile its results, the university that generates knowledge must share this with society, which demands returns on its financial investment in university research and that institution's clear contribution to society's economic, technological, social and cultural progress. In short, the University must play its part in the transformation by which knowledge acquires value.

A university that serves society must be attentive and open to social aspirations, issues and dilemmas, and must share with the community the search for answers and solutions. **Constant dialogue with society** is essential if our university is to perform this service in all its various activities in teaching and in research, in transference and innovation. Many individuals and social groups in the community at large are to some degree affected by the

University's fulfilment of this role and are concerned that it should succeed in joint missions. The UB must therefore **reinforce and coordinate the participation of public and private players** in its particular arena of policy discussion and development, and this must include the public administration and public institutions, business executive bodies and employees, managers and cultural and artistic creators; it must include professionals in education and in health, archivists and curators, and agencies of law and justice, of economics, finance and industry. The university's ties with society are the means by which true merit can be conferred upon institutional research and the closer they are drawn, the more significant the degree and quality of cooperation. Many universities abroad are characterised by the institutional involvement of **alumni associations**, which provide a driving force in creating such ties. In this respect, the UB still has a fair distance to cover.

In the first place, the function of service has to be exercised in **knowledge and technology transfer**. Knowledge and technology transfer can only take place once knowledge and technology have been generated and the UB cannot forget that its transfer capacity is sustained by basic, disciplinary and thematic research. To lose sight of this would be tantamount to allowing our common well of transferable knowledge to run dry and would not, in the long term, constitute a sustainable policy. Furthermore, university research must not neglect the role it jointly plays with industrial research. And in no circumstances can reaffirming the importance of basic or pure research be considered as undermining the value of oriented or applied research, for the frontiers between these different practices are frequently and rapidly crossed. **The sole criteria determining the value of university research are its relevance to social need and its quality assurance.**

The UB should ensure that by the year 2020 practically half of its entire research activity is characterised by elements of knowledge and technology transfer. As explained above, one of the objectives of this Framework Plan is that by that year, 80% of the University's teaching staff should be actively engaged in research; another is that by **the year 2020, 40% of all teaching staff should be involved in transfer activities** (in contrast to the figure of just 13%, as quoted in 2007 reports). What this effectively means is not that staff should only engage in research that has previously been deemed transferable but that no opportunity to transfer research findings should be overlooked. Transfer must reach all areas of knowledge and not be restricted to such fields as natural or medical science. An ample number of examples demonstrate that achieving this breadth is a real possibility.

To create **the conditions to meet knowledge and technology transfer objectives**, the university must ensure the following.

- Researchers must be particularly alert to those occasions on which transfer becomes feasible.
- UB researchers' transfer activities must be given pride of place and the university must recognise their value as it recognises more traditional institutional contributions, such as public projects, publications, or the direction of theses.
- Efficient channels of information must be engineered to showcase research findings and make these known to UB professional transfer and innovation managers.
- The university must promote a culture of interaction to bring researchers closer to the world of public and private businesses and organisms by:
  - o assisting researchers in the identification of transfer and innovation potential in their research findings;
  - o demonstrating to researchers that there is no contradiction between basic quality research and a high level of activity in transfer and innovation;

- informing companies of the potential interest and benefits to be derived from university research;
- cultivating an understanding in the business community that our research can be applied to many ends beyond the university institution itself;
- using transfer and innovation centres as a point from which to offer companies assessment regarding the abilities of research personnel to address company issues and problems;
- assisting companies and UB researchers to find specific areas of common ground where the needs or objectives of the former can be supplied or achieved by the latter.

All the variants within the area of knowledge and technology transfer should be tapped for their potential. One of these is **consultancy** and the provision by researchers of assessment, a frequent feature of transfer infrastructures in universities abroad. It might be argued that this practice is still fairly limited in our university environment and detailed figures on the number of researchers participating in consultancy here are as yet unavailable. In any case, consultancy should be considered as a key factor in university-business relations.

The most commonly used form of transfer is the creation of **research contracts and agreements with businesses and administrations**. On one hand, these are often the result of specific requests by companies in the university's immediate environment. Most companies in this environment already know which research groups can most effectively cater to their needs, but it should be the task of the transfer and innovation centre to provide all the information businesses need to look in the right direction, when and where necessary. On the other hand, **the thrust for research contracts can also be provided by the emerging knowledge and technologies themselves**. Frequently spurred by basic or pure research, this is the channel that the university should use most because although difficulties are involved in obtaining such contracts, their potential returns are clearly much greater. The source of the difficulty is that companies that might be encouraged to show an interest cannot always be found in the immediate environment and must instead be scouted for. It is no coincidence that the countries with the greatest commitments to university-business transfer are characterised by their formidable industrial activity, which so easily absorbs university research findings. In this light, the support required by the researcher wishing to transfer his or her knowledge and technology becomes much more important. And if companies cannot be found, they can be created: as explained further below, the alternative our university should seriously consider here is the creation of technology-based companies within the university environment.

Once university-business communication channels are flowing smoothly and their exchanges intensify, we may then envisage the possibility of businesses providing university researchers with temporary contracts. **Researcher mobility between different businesses and other institutions** is a common reality in other countries but cannot yet be considered the norm in our Spanish universities, where those who leave have difficulty ever returning. While to some extent the recent revisions made to the Universities Act (the *Llei Orgànica d'universitats* or *LOU*) provide modest remedies to this, the UB will have to determine how it implements and regulates the Act and its modifications, streamlining areas of procedure and providing conditions in which researchers have greater mobility but maintain their professional and departmental stability.

**Patents** are another important area of knowledge and technology transfer. The intellectual property of research findings must be protected by patents when and where commercial interests have been identified. Ensuring this must be one of the UB's priorities in its move

towards greater knowledge and technology transfer: even though the number of patents granted has increased in recent years, it still falls below the figures provided by research units in other European universities and institutions. Researchers must also appreciate that with good time management, the activities of patenting and publishing are perfectly compatible. To increase the number of patents, however, a series of other factors mostly beyond the researcher's control also come into play:

- the analysis made by transfer professionals of the patent potential and commercial possibilities of research findings;
- the valuation of research findings to increase transfer potential by means of specialised orientation and economic aid to cover production costs and personnel activity not covered in research projects;
- the generation of the patent and an investment potential in the costs derived from its generation and from the bearing of risks in its eventual maintenance.

The fundamental objective of patenting is to **transfer** the rights of patent use to companies or to **license** companies to use these, and patents and licences are an integral part of university contexts. Nonetheless, finding companies with the sufficient capital and infrastructure to absorb and acquire new knowledge-based technologies is an extremely slow and difficult task. Researchers can and should participate in this task but it is the job of transfer professionals to make it work. In view of this, a proportion of 35% might be considered a satisfactory figure for licensed patents.

The UB stands at the cutting edge in the creation of **transfer and innovation structures** and without the work the university has done, it would be difficult to imagine present transfer levels. Looking towards Horizon 2020, the thrust of UB's knowledge and technology transfer activities and the institutional support these must receive require the following actions.

- The UB's transfer and innovation structures must be reinforced by material and human resources to acquire and maintain an involvement in all areas of knowledge.
- The various UB and UB-affiliated institutions presently engaged in transfer and innovation (foundations, innovation centres, the Barcelona Science Park, etc.) should be merged in a single authority—albeit an authority which, as sole transfer and innovation mediator, will certainly test UB researchers' and business professionals' collaborative abilities.
- The university must launch cooperative relations and network management activities to gain critical mass with research and transfer structures in other universities and with state and foreign administrations, in order to transfer innovation products to companies that can absorb these.

To examine the notion of **innovation as an example of entrepreneurial activity** conducted in a university and generated by university research findings would require a chapter in itself. Although only certain kinds of academic research results are commercialised by technology-based start-up or spin-off companies, society demands that universities should play a more active role in the advance of the knowledge-based economy. It is also true that across Europe, the universities of greatest renown are generally noted for their ability in this area of company creation.

Many of the observations made in the design of proposals for transfer also hold true for innovation, and the impulse of an **innovative UB** should be even more demanding—especially because it adds to the series of responsibilities which university researchers are expected to assume and should therefore be matched by equally increased degrees of

institutional support. Proposals for the creation of start-ups must be carefully analysed and the business incubation of new companies requires customised environments, such as the Barcelona Science Park in the UB's case, which can provide business management coaching, facilitate access to seed capital and systematically monitor the company's activities and results. If researchers are to be encouraged to engage in industrial innovation and company creation, they will need to see the university providing active support in terms of financial aid, support personnel, academic valuation and assistance in other task areas.

**Cultivating entrepreneurial spirit** requires time, investment and the creation of a dynamic environment across the field of play. If entrepreneurial activities are to prosper in an institutional context, then it is the university that must create that environment. One measure here might be the incorporation in a number of degree programs of course units that introduce the student to entrepreneurial training, and that these units adopt a gradually more specific design as they appear in the curricula of first-, second- and third-cycle studies. Young researchers would also need to be provided with extensive training of this kind. The university might also consider the creation of new degree programs in such areas as social entrepreneurship, a habitual practice in many European universities.

### ***2.3 Working with society***

**The third policy for the university committed to society must be promoting the means by which members of the community become more actively involved in institutional affairs.** All universities must observe and fulfil their responsibilities to the communities they serve but this is especially true of the publicly financed institutions, which must prioritise the improvement of community living standards, the attention to community issues of inclusion and cohesion and the maintenance of society's sustainable economic development.

It has been demonstrated that the best universities are characterised by their ability to relate to society in a process of **constant dialogue and** by means of **intense university-community interaction**. This interaction must be based on common areas of dialogue and activities in which the university and its community are seen to be delivering answers to society's needs. As indicated in the paper "The Public Role of the University" (CRE General Assembly, 1998), social exclusion, the increase in the community's collective needs (constantly neglected by the market) or the dissemination of culture and knowledge are all clearly issues that universities and society can address together. This Plan has already discussed the need to create an interdisciplinary scientific community that can tackle social problems, muster allies in society and help to create and support a body of opinion. In this way, the university will become an **active participant in the social dialogue with other entities proposing new actions and horizons**. The universities that declare **social responsibility** as one of their objectives provide human resources and creativity to initiatives of all kinds, from volunteer placement and practice packages for students and teachers, to joint project services addressed to the community, cultural promotion, or what is broadly referred to as "continuing education".

For many years, the University of Barcelona has provided the initial thrust to community-related research and training projects in many areas, including continuing education. It has also provided services in this environment, hereby cultivating **an area of common interests and objectives between the university and society**. Some of these activities are performed by the UB's Social Council while others go beyond the Council proper to directly involve and

affect individuals and events in the university as a whole. It must also be said that in the future, such activities should be given greater pride of place in the university and in society.

The UB will be able to move forwards and meet the challenges on the horizon of 2020 by providing gradually increasing impetus in **learning-service practice activities bringing together academic learning and community service**—activities which form part of the university's teaching plans in different degree and/or subject areas and which in certain circumstances can be integrated in research and innovation.

These can be defined as activities of an academic and research nature which, while preserving their academic rigour, prioritise in their objectives the service to social progress, the improvement of community living standards, the attention to community issues of inclusion and cohesion and the maintenance of society's sustainable economic development. These activities make the university not simply a space for learning and research or even a source of voluntary service, but more properly an arena for ethical **learning** where the task of knowledge building is conducted according to firmly declared social commitments. Integrating learning-research and community service in university study programs not only prepares people to become good professionals and competent researchers; it helps to form a generation of active citizens committed to making society more democratic and more participative. And it is also the University's opportunity to acknowledge society's financial investment.

In this sense, it will be necessary to coordinate all actions of social responsibility undertaken by the University of Barcelona proper through its units (libraries, hospitals, sports centres and centres for culture and for the arts, etc.), through the Solidaritat UB Foundation and the initiatives of the Social Council, and to ensure that the teaching plans and research and innovation projects incorporate learning-service activities.

### 3. Supporting change: towards 2020

The processes of European convergence, the constant reforms in the laws governing universities, the growing importance of assessment and efforts to promote greater permeability between business and university are examples of what should be interpreted as more or less successful responses by the authorities and universities to a situation of **fatigue in the existing university system**. Compared with other knowledge-based organisations, the organisational framework of universities has in fact **made it harder for them to adapt to the changes** in society, technology, culture and economics which have come about in recent decades, and which have placed increased demands on universities.

It should nevertheless be pointed out that most of the university community has reacted reasonably to this new, complex scenario. This reaction can only be explained by the vocational nature of academia and by the deeply-rooted public service ethic among much of the teaching, administrative and service staff. Having said this, this situation cannot be considered to be sustainable, as it is **causing a certain lowering of morale** among the university community and **wariness** among its financiers, who do not see increased resources as the solution to the problems faced by the university unless this is accompanied by other measures.

Looking at the difficulties repeatedly encountered by the governing bodies of the UB in dealing with the Gordian knots identified by the Framework Plan, it seems evident that the policies proposed in the strategic objectives cannot be achieved without **a change in the university's culture of governance**. The organisation of the university and of decision-making processes within it must be at the service of research and teaching. A model for governance is needed which takes care of students, enables teaching and support staff to do their jobs properly, allows those elected to govern to do so, demands accountability from those with responsibilities, pays attention to social and cultural change and technical and scientific developments, and plays its part in the university community and in the city. In order to reach the levels of results of the public universities which are benchmarks for us, we will need to find formulas which enable us to **take decisions rigorously and employ staff and assign resources accordingly**. These are the universities which serve as an example to other European universities, and those which are already starting to inspire university policy in European Union member states. Governments are taking the first steps to foster greater **university autonomy, which in return demands accountability before society and clear, precise recognition of the different individual responsibilities involved**. However, it will be hard to promote responsibility, recognition and autonomy within the existing organisational framework. Responsibility for governance is currently diluted in a multitude of collegiate bodies and committees, and the positive or negative consequences of their decisions generally affect the university (and its budget) as a whole, but not their members. Giving a university and its units autonomy means **handing over real decision-making power, including power over the associated budget, but also ensuring that those responsible for decisions are involved in their consequences**, whether they are individuals or groups, as well as recognising and recompensing this assumption of responsibility.

The inefficiency of the current model for governance of the university reveals the fragility of generalised decision-making by committee, which paradoxically has helped to weaken the university community as a group. A primary objective of the UB is to **recover the group spirit of the university, with greater efficiency and effectiveness in the work done to cooperate in the university's governance, and debate which is less bureaucratic and**

**more involved in the university's day-to-day affairs.** This spirit needs to be backed up by an organisation which systematically encourages **teamwork** by students, teachers and support staff in the work of learning, teaching, research, transfer and cultural outreach.

The following is therefore proposed:

- **To implement an organisation which is compatible with the exercise of responsibility and accountability, and simplify its structures,** in order to enhance the UB's autonomy and governability, as well as its efficiency and effectiveness.
- **To manage resources strategically,** by developing a team with a strategic view and assigning financial resources in line with the UB's priorities and with the results of assessment and accountability.
- **To improve the internal and external projection** of the UB's own profile, on the basis of greater internal cohesion.

### ***3.1 Governability: independence, accountability and structural simplicity***

**The first policy proposed to accompany the UB's transformation is to improve the UB's governability, with greater autonomy and accountability, and by simplifying its structures.**

Governability is a situation whereby a government is able to formulate and implement public policy. This definition can be expressed as the ability to direct the university towards the goals it has set itself, and therefore the ability to act with efficiency and legitimacy, as well as bringing purposes together around a project which synthesises the institution's identity as a unified body serving the community. Internally, governability has to do with the day-to-day running of the institution, involving everyday decision-making, and must therefore be subject to carefully-designed structures for authority and accountability.

Governability therefore provides the institutional scenario within which the university's work can go on, from teaching functions and research activities to the tasks involved in dissemination, exchange and so on. At the same time it affects specialised administrative activities such as fund-raising, financial planning, human resource management and managing the different institutional programmes. The result of all this is increasingly complex university institutions which are difficult to manage when such a diversity of goals and missions exists. Responding to change calls for a flexible institution which is able to adapt to meet a range of social demands. It is hard to meet these demands on the basis of the rigid structures and slow responses which characterise Spanish universities.

In Europe there is a growing trend towards increased autonomy for universities in those countries where the state has in the past been strongly interventionist, and on the other hand growing indirect intervention by the state in the form of accountability and systems of conditional finance in those where universities enjoyed considerable independence. Thus, **modern university systems are tending towards increased self-government and autonomy for universities.** This has involved the modification—where necessary—of the legal frame of reference, by setting up central structures with extensive powers and a high degree of control over the institution. Alongside this, **university heads have been given greater authority and executive governing bodies with broad powers have been set up to take decisions in the area of resources.** The grouping together and simplification of structures proposed above will help to create these decision-making centres.

This system of organisation does not necessarily need to be centralised, but in an institution as large and diverse as the UB, differentiation matters. Differentiation has to involve broad management responsibilities for the various units, and at the same time rigorous mechanisms for assessment. Thus, the problem is not differentiation and decentralisation, but for the people and bodies responsible to answer to the Rector and therefore, indirectly, to the same institutions as the Rector. This would **guarantee a shared view based on values assuring coherence, coordination and cooperation**.

Talking about governability also means talking about a **system of accountability: this is the other side of the autonomy coin**. The model for university governance must decide what the different players need to account for concerning their performance, how they should do this and who they should be accountable to—who, therefore, is to assess the task of governance itself. This makes clear the firm link between accountability and the model for governance.

Accountability is the other issue at the centre of attention in the new systems for university governance and for planning university education in the new knowledge-based Europe. **As autonomy increases, so does the need to provide openness and clarity in actions and explain the results achieved to society in order to legitimise universities' reason for being and use of public funds**. There is a growing demand by society to know what is being done with its money, whether in the form of direct contributions, tuition fees in the case of universities or else the resources received from other authorities which, in the last instance, come out of tax contributions.

Accountability is a key factor in the good governance of organisations, but it is above all a change in the system for managing these organisations. It is a matter of moving on from control over procedures to control over results, and is based on adherence to a code of principles of good governance by all those making up the institution, as well as on a solid information system able to provide clear, comprehensible data concerning the activities of the organisation and its members.

The accountability process consists of three main parts:

- Information including data, indicators and strategic plans.
- Openness to make the information accessible and the process and data credible.
- Identifying social benefits.

The second area to approach in improving governability is the **simplification of structures**. It is not hard to see that **the UB is one of the largest universities in Europe**. Its organisational model is the traditional one of centres (20) and departments (105). The centres correspond to the major subject areas which in the past led to a single qualification. Departments are generally organised around subject affinities or fields of knowledge, and the main condition for them is to have a minimum number of lecturers.

Around 50% of the departments at the UB have lecturers in a single one of the many fields of knowledge defined on the basis of the Spanish university reform act (the *Ley de Reforma Universitaria* or LRU). On some of the UB's Campuses there are departments (or sections of departments) in different centres just a few yards apart with lecturers in the same fields of knowledge and no specific orientation. On the other hand, the fields of knowledge were laid down to impose order on the academic disciplines, but above all to regulate access to permanent lecturing positions. In attaining this administrative category, the fields of

knowledge have profound implications for the progress of teaching and research, and can even function as serious barriers to interdisciplinary work.

Nor is it hard to see that **the best European universities are much less compartmentalised than the UB**, i.e. they have fewer centres and departments, the organisational units they have are larger and more flexible and they are more structured around research goals than teaching goals. The centres in many European universities are the equivalent to groups of several UB centres. European departments sometimes match what in the UB would be centres. The different scale of universities might go some way towards explaining this phenomenon, but it does not explain it entirely.

The multitude of structural and organisational models in European universities cannot conceal the existence of a highly generalised trend towards the **simplification of traditional university structures**. The stated goal of the structures of these universities is to **stimulate communication and the exchange of ideas**, and encourage the generation of synergies between different subject areas, making it possible to deal with the most relevant scientific issues and the most pressing problems which often go beyond the sphere of a single subject area. In general, the goal is to **encourage the kind of interdisciplinary work which is so highly-praised**.

Moreover, the powerful departments in many of these European universities have real decision-making power and room for manoeuvre: they manage considerable budgets and are assessed on their results. That is to say, they **conform to a model of autonomy and accountability**.

At the UB the departments have powers in the areas of teaching and research. In practice they set programmes and distribute the teaching assigned to them by the study councils. In research they generally limit themselves to acting as arbiters between autonomous research groups over issues such as the allocation of space, and at most they co-ordinate relations between groups in areas such as acquiring infrastructure. The current departments handle many issues, often merely administrative ones, but they have small budgets, little room for manoeuvre and no power to take strategic decisions for themselves.

The importance of finding the right structures to fulfil the roles entrusted to the university is an issue which concerns many universities. It is true that the structures are not in themselves the solutions, though they can make it easier to find, but they can above all become the problem if they become barriers to moving forward in the right direction. At the present moment, the UB's autonomy as an institution has been spread too thin and the university is unable to take decisions in a coherent way.

In line with this argument, the UB needs to make headway in the next few years with simplifying and rationalising its organisational structures. The process of simplifying the existing situation of fragmentation into faculties and departments **to create new, less compartmentalised structures, should be undertaken gradually, building up cooperation and synergies in order to reduce the overall number of units**. The sense in keeping some of the centres in the UB separate needs to be questioned and, where appropriate, centres must be merged. As regards departments, it would make sense to foster the concentration of related departments (and departmental sections) into new departments structured around broad scientific disciplines and with a significant critical mass of researchers. The largest departments could be organised around research/teaching clusters.

In recent years, the creation of **new research institutes** has represented an undisputed leap forward on the path of thematic research. Some of their benefits have yet to be reaped and in the next few years it is both probable and desirable that new ones be set up. From an organisational point of view, it is undeniable that the institutes have added a further factor of complexity to the UB's structure, among other reasons because their researchers belong to existing departments and conduct their research using departmental facilities. It is habitual for research institutes to co-exist with centres and departments in many universities, and the only issue this raises is basically a technical one, that of clearly defining respective areas of responsibilities.

The progress made must not obscure the significant limitation that the new institutes are virtual and dispersed between various centres and departments. An important objective in the medium term is that of providing these institutes with separate spaces to aid communication between their members and make it easier to carry on their activities, as well as making them more visible to the outside world.

Apart from this, it should be pointed out that there exists a **risk of a spinning-off of university research by the Generalitat, the autonomous government of Catalonia**, through the setting up of parallel structures. This could cause university research to be reduced to a merely symbolic level, which in turn would lower the level of university teaching. To face up to this trend, the **UB must respond** by stressing its role within the research system and by restating the essential link between research and teaching at university level, but also by **generating greater confidence** in its ability to articulate and manage solid research and transfer programmes to make identifying the missions of the university compatible with the ambition displayed by the best research centres.

The UB's current structure, and the roles attributed to centres and departments, make it very hard to make progress on the basis of individual initiative, all the more so in a university as big as ours, on the way to integrating surrounding spheres in teaching and research terms. The major academic areas have in fact been defined by the geographical distribution within the city of Barcelona of the UB Campuses. More important still than location is academic coherence, and once again it can clearly be seen that all the centres on each of the UB Campuses correspond, with some logical variations, to faculties in different European universities. The task of **breaking down traditional barriers and stimulating communication and cooperation between disciplines, departments and centres calls for a specific effort on each Campus**. This is as vital for research as it is for teaching. For example, it makes complete academic sense—and is what society demands—for a large part of the future master's degrees to involve contributions from lecturers and disciplines in more than one centre, regardless of whether they coincide with the administrative management of the degree program. There is no reason why the position of doctorates should be very different, and sharing educational areas with a Campus perspective can only enrich doctoral students' training.

Finally, the Rector's Office itself must set out to **break down the barriers separating the research institutes owned wholly or in part by the UB** which, sited on different Campuses, pursue the same ends from different approaches. This is the case at least with basic and clinical biomedical research. The same can be said of the need to co-ordinate the purchase and efficient use of infrastructure and resources between research centres of the UB and the UB Group.

In order to **foster grouping together and simplification of structures, academic positions at vice-rector level** (and therefore appointed by the Rector) **would need to be created, to act as Rector's delegates for each Campus**, with broad powers in a small number of strategic matters. It does not seem appropriate to generate complex new structures at all levels of teaching, research and administration. Rather, it is a question of having responsible positions of governance specifically devoted to each Campus, with the necessary administrative support. These Campus delegates would need to be advised and supervised *a posteriori* by small committees – similar to what would be referred to in the English-speaking world as boards – regarding strategic issues, as already mentioned in the Plan. These committees' members would have to be chosen on their personal merits, and not represent any individual interest other than that of the UB as an institution. Also, one of the members would have to be put forward by the Social Council.

The body through which the community exerts control over the university and before which it is accountable is the Social Council, the role of which needs to be strengthened. Learning from the experience of countries like the United Kingdom which have already taken a step forward, those who have studied the system highlight that one of the main difficulties identified in the “boards” is that the part-time nature of membership of the external council makes it hard for these members to become familiar with an institution as complex as the university. This means that they depend excessively upon the information provided by those in charge of management. This could be remedied, if only partially, by providing the institution with an internal audit responsible directly to the board. The role of this audit would be to analyse processes from a point of view of efficiency and effectiveness, and rather than traditional auditors it would be advisable to use experts familiar with the facts of the university. In this way the Rector's actions would from the outset be subject to accountability before a stronger Social Council and there would also be more openness about the use of public resources before the authorities.

### ***3.2 Strategic resource management***

**The second policy proposed to accompany the transformation of the UB consists of developing the workforce** from a strategic perspective by designing and implementing clear human resources policies, assigning **financial resources in accordance with the UB's priorities** and the results of **assessment and accountability**, and projecting the UB's own profile both internally and externally on the basis of improved internal cohesion.

#### ***Strategic management of human resources***

Strategic management of the UB workforce involves the **ongoing design and implementation of clear human resources policies** which make it possible to achieve the aims of the Framework Plan by taking advantage of the current age pyramid of staff and the consequent imminent retirement of a significant proportion of the workforce.

Thanks to the change of generations which has already started to come about, the UB has the chance to gradually **rationalise a personnel cost structure** which, according to financial reports, **is not sustainable**. Currently, while lecturers/researchers carry out teaching, research, management and administration tasks for which they are **over-qualified** and at the same time lacking in the necessary training (which is frustrating for them, as well as wasting university resources), support staff find themselves caught in rigid job descriptions which **may or may not meet the institution's needs** in terms of teaching, research or management, with all the

harm this does to their careers. The above-mentioned over-spending also makes it harder **to recruit—as is the case in other countries—more young people** to do these jobs, or makes it necessary to employ them in insecure positions. In general, **a real possibility exists of improving working conditions for two groups**, those of lecturers and support staff, who will have to work more closely together.

Specialists point out that strategic management is at least as important as strategic planning itself, and it is consequently of key importance to manage efficiently a change of generations at the UB which should very soon face up to the recommendations in this Framework Plan right across the spectrum of lecturing/research positions, both permanent and otherwise.

Various factors underpin this imperative:

- In the future it will not be possible to reproduce the age pyramid of the existing workforce. By Horizon 2020 a constant, regular influx of new lecturers must be achieved which does not compromise the UB's delicate financial balance.
- Teaching arising from the new course areas emerging from the Bologna process will call for a considerable effort in a wide variety of tasks on the part of different lecturing staff.
- The present position of research at the UB is really not sustainable, characterised by a very high proportion of permanent lecturers as compared to pre- or post-doctoral fellows and young researchers. Many research groups have the same age pyramid as the workforce in general, and valuable researchers lose competitiveness because of a lack of human resources to carry their projects forward.

Without going into detail about the specific human resources policies the UB needs, the possible central pillars of such policies are outlined below.

First of all, **the variety of roles played by lecturers needs to be broadened and/or recognised** in order to overcome the concept of rigid, structured workforces which do not vary over time and to progress towards providing for and gaining a return on posts in accordance with teaching and research needs. The policy for **attracting talent** has described what is lacking at the UB in comparison with benchmark public universities. The widely-varying range of tasks lecturers can take on must be considered. As European experts insist, the demands of the university environment have led to enormous diversification in academic roles: **lecturers are researchers and research managers, lecturers and tutors, teaching team leaders, evaluators and expert consultants, innovators and entrepreneurs, scientific disseminators, university public relations people, gatherers and administrators of finance, all in a single person.**

It will be thanks to **recognition of all the different work lecturers do**, to the possibility of these tasks **varying in relative weight during their careers**, that academics will be able to fulfil their complex, varied mission.

Likewise, there is a need to **rethink the nature of the new roles and categories of staff in the areas of administration, services and support for different university activities**: teaching, research, knowledge transfer, cultural and community outreach, Campus life and so on, within a process of **professionalising management, with targets and assessment**.

Support staff will be increasingly involved in the job of direct support for teaching and research, in a much more interdisciplinary, cooperative setting. Taking into account the new direction in teaching laid down in the Framework Plan, in the future the UB may foreseeably be changing the ratio of students to teachers, with more doctoral-level technical staff

supporting research and assistant lecturing staff with knowledge specific to developing the skills and abilities specified in the course curricula. It is a question of overcoming the model of a rigid, structured workforce by fostering the emergence of **broader categories of support and administrative staff** while taking advantage of the new possibilities opened up by the option of employment contracts. It needs to be possible, on the one hand, to establish differential levels for each category, with the corresponding incentives in monetary, career and prestige terms. On the other hand, it should not be forgotten that support staff and assistant lecturers will be part of teaching and research teams made up of lecturers, technical and administrative staff and postgraduate students. Teams which need **clearly-defined goals and tasks to ensure that the makeup of the team is the right one**. If this is the case, it will be easier to define the profiles needed for selection, as well as making it easier to assess the quality of the work done.

Secondly, **staff templates for UB personnel in the different units need to be laid down**. These should cover the different possibilities for roles, categories and tasks, with a view to being able to provide a response to changing future needs and functions for lecturers and support staff. These staff templates will be filled by fostering the **recruitment of lecturers and support staff in the light of the UB's strategic criteria**, as discussed above.

It is clearly the job of the UB Rector's Office to lay down the broad lines which will govern the new staff templates for Horizon 2020. As it is practically impossible to draw up precise instructions for shaping templates which would be valid for all the areas of knowledge in the UB, the departments need to decide what future they want for themselves and make the effort to plan this in the short and medium term. It is therefore advisable for each unit responsible for employment proposals – basically, the departments – to draw up a proposed teaching and research staff template for the 2020 horizon in accordance with the general guidelines issued by the Rector's Office. This proposal should do the following:

- reflect their needs and aspirations in both teaching and research;
- cover all the teaching and research posts to be financed out of the UB's budget: pre- and post-doctoral fellows and employees, assistants under the university reform act, permanent and contract lecturers (professors, senior and junior lecturers), assistant lecturers, teaching assistants, etc;
- not involve any increase in the department's spending on teaching and research human resources, but in any case a reduction to the extent determined by the Rector's office either across the board or in specific cases;
- bear in mind, therefore, the amount of teaching work and the cost of each position, as well as the agreement on lecturers' working hours, both in the present situation and as it may foreseeably be in the future;
- as a general rule, tend towards a ratio between permanent lecturers and non-permanent teaching staff of between 1 and 1.5:1;
- contain some planning of a timescale to work towards the target for 2020 in stages, and from then on to allow sustained renewal of staff.

**This proposal will need to be approved by the Rector's Office**, which will monitor the achievement of its goals and timescale, and be **subject to a program-contract**. Naturally, the staff template will need to be reviewed regularly and adapted to meet changing circumstances.

Thirdly, **staff selection processes need to be simplified and made more efficient**, breaking with the usual formal mechanisms and **adopting an interview method which makes it possible to take into account candidates' skills and abilities as well as their recognised**

**qualifications and experience**, as well as rethinking the makeup of the selection committees. In any case, the final decision on employment must lie with the Rector, as pointed out above.

Obviously, a proper selection process requires a good number of quality candidates, for which reason **the offer of places needs to be made more attractive, and published internationally** in order to attract good lecturers and professionals from foreign universities as well.

Fourthly, **career and training plans need to be drawn up, making it possible to follow staff through their career development.**

Taking into account the policies proposed in the Framework Plan, the career and training plan for staff, lecturers and support must consider the different career possibilities and stages together with their goals and the training needed to achieve the necessary levels of skills and knowledge (e.g. for teaching and research teams).

In an institution on the scale of the UB, **training in leadership and people management** for heads of units, managers and senior academics also needs to be reinforced.

To encourage the exchange of experiences, both within the UB and with other universities, staff **mobility must be increased**, enabling personnel to complete short stays at centres other than their own and at universities elsewhere in Catalonia, Spain, Europe and the world.

Finally, career plans must provide for **regular staff appraisal**, according to criteria corresponding to the different categories of lecturer and support staff and to their level of professional development.

Fifthly, and as a necessary measure **for assessment to have consequences at an individual level, it is proposed that a special UB bonus scheme be set up**, of a non-cumulative nature (it would apply by assessment periods) and high enough to be attractive, with the Social Council's authorisation and the following features:

- in the case of lecturers, it would be the result of an overall assessment of teaching, research and other recognised tasks, based on verifiable indicators of activities;
- in the case of support staff, the bonus would be earned by achieving targets for the period.

### ***Resource allocation in line with strategic priorities***

It should be remembered that in GNP terms, Spanish investment in our sector is low. It should also be added that there are some dysfunctions in the mechanisms for financing Catalan universities. Though a considerable increase in public funding must continue to be a demand, the UB cannot ignore the fact that it currently suffers from a structural financial deficit. It is to be expected that resources will be better used as a result of many of the proposals in the Framework Plan, such as the drive for accountability or the simplification of structures. Below are highlighted some key factors in improved management of resources which will help to keep the UB viable and gain credibility in the eyes of the community which is to finance it.

A key factor in the UB's future is for those in charge academically of the university, Campuses and units to have a relatively large budget or **funds to implement strategic policies**, above and beyond the budget sums allocated by the statutory bodies. In any case:

- The internal allocation of resources to units must be in accordance with the priorities set by the Rector for the university as a whole and with agreed goals.
- Any planned activity affecting the university's budget should be accompanied by a financial description which considers the cost of implementing it and the income it generates, the sources of finance, the priorities it pursues and the possible alternatives. For academic activities the cost of teaching or support staff must necessarily be included.
- Any activity implemented must be specifically financed. In the case of teaching an agreed model must exist to allow the calculations to be made.
- In some cases the implementation of activities without specific financing in terms of marginal costs might be authorised in order to take advantage of surplus resources.
- The Social Council should play a more pro-active role in supervising the university's finances, ensuring that good practices are followed.

Strategic resource management must also involve considering **what a university service actually is**, this concept having been blurred by the fact of its inevitable diversity. The university sometimes falls into the temptation of wanting to support activities which are highly peripheral to its mission, activities which lack a sufficient level of quality or involve an uncompetitive cost. Existing services need to be reviewed in order to identify those that must be set up in order to provide support for different groups on their progress towards Horizon 2020, and in particular to think again about those more peripheral services to which the university does not contribute any specific value.

Furthermore, obeying the logic of the Campus as the basic unit for strategic management at the UB, there is a need to move towards better use of resources in the most common services, where **grouping resources together will not only help to exploit them better but will involve meeting points and common ground** for students, researchers, teaching teams and so on.

Another key factor is **improving the use of premises**. The use of university space must be justified and strategic use must be fostered by putting in place new mechanisms for assigning it and conducting regular audits of space, a habitual practice in many European universities.

The UB has **valuable assets, both tangible and intangible**, which need to be properly maintained in order to be kept in good condition. Thus, the UB has a fine set of premises and large numbers of scientific facilities in different fields of science and technology. The collection of books and journals kept in the UB library is also of great importance, not forgetting other collections in different academic areas. All this fixed capital can be of considerable use to different institutions in a variety of fields.

Moreover, the UB possesses enormous intangible capital in the knowledge of its experts, and this needs to be properly leveraged. Doing this involves associating this knowledge with the **UB brand** and managing this brand well, as the most prestigious European universities do.

All this calls for professionals who work to promote the UB's tangible assets, which could be better exploited. In the area of resource management, the UB should have an asset company which, as well as managing its various holdings, should be responsible for **maximising the value of its assets and gaining more outside finance**.

*Internal and external dissemination of the UB image*

The goal of defining a distinctive profile and image requires an effort to strengthen internal cohesion and the sense of belonging to the UB community. The structures for relations, association, participation and communication within universities have not adapted to major social and cultural changes, and as a result the social relations among those making up the university community are declining in terms of both quantity and quality. The UB's social capital therefore needs building up by encouraging new ways to create social and cooperation networks.

Nor do existing barriers between disciplines help to create the “UB scientific community”. It would therefore be worthwhile for the university as an institution to stimulate **activities of a multidisciplinary nature** where experts in different fields, aware of the limits to their own knowledge, could discuss the definition and scope of their theories and human problems, willing to test the validity of their reasoning and listen to other points of view.

The need must also be stressed for lecturers and administrative and services staff to work more closely together, in particular in teaching and research processes. This cooperative work should cut across departments, centres and Campuses. This is a process which requires a major change in culture, as well as new policies on employment and specific training, and on organisational and decision-making processes.

Students' associations have pointed out the difficulty of involving students in the activities they organise. The **associations must be helped to explore new ways of connecting better with students' interests and initiatives**, and students also need to be provided with the means (premises and other resources for specific projects) to organise themselves easily in new associative formats. Students must feel that the university offers real opportunities to take advantage of what university life can offer in terms of their extra-curricular social and cultural concerns.

In the same way, **teaching staff who organise university-level extra-curricular activities** that are popular either with other students or with lecturers, and that themselves form opinion in the community, should be helped to find the university's support. This is a very important issue in fostering the UB's involvement in the community, as proposed in the pertinent section of this Framework Plan.

The UB will therefore be able to enhance its cohesion and build up its identity when the circumstances are created for effective participation in its governance, when this governance fosters policies of transformation which affect the whole university, and when the university community appreciates the possibilities offered by whatever social networks (formal and informal) spring up within it. On the basis of this expansion of the university's social capital and increased cohesion, it will be possible to **project a distinctive identity which properly reflects its values, and its own research and teaching profile**.

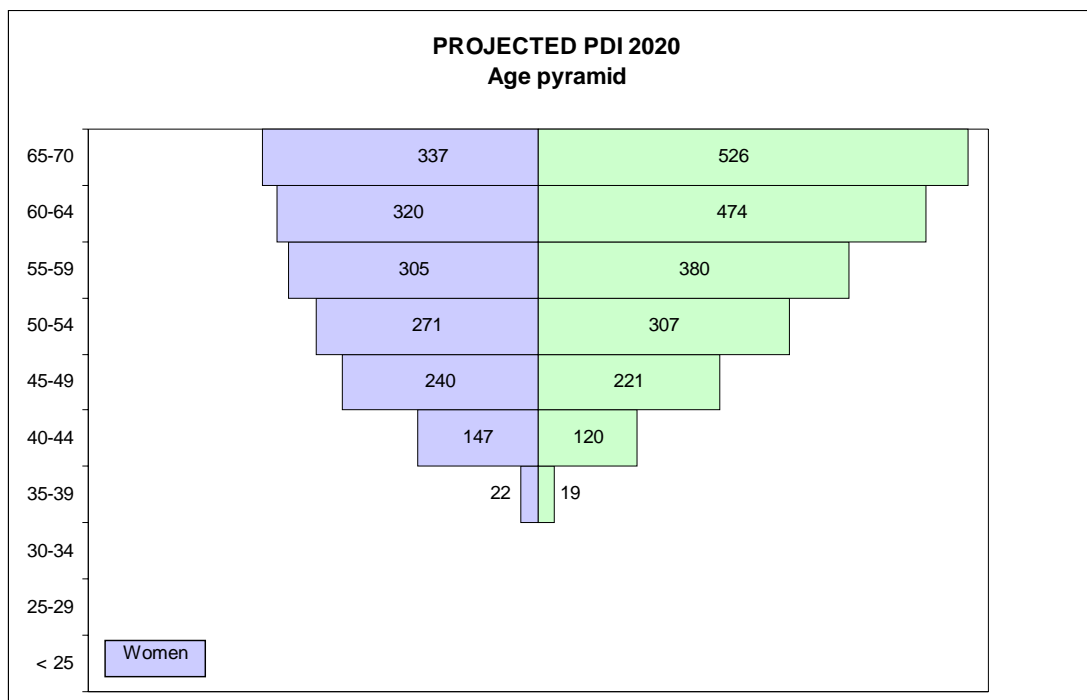
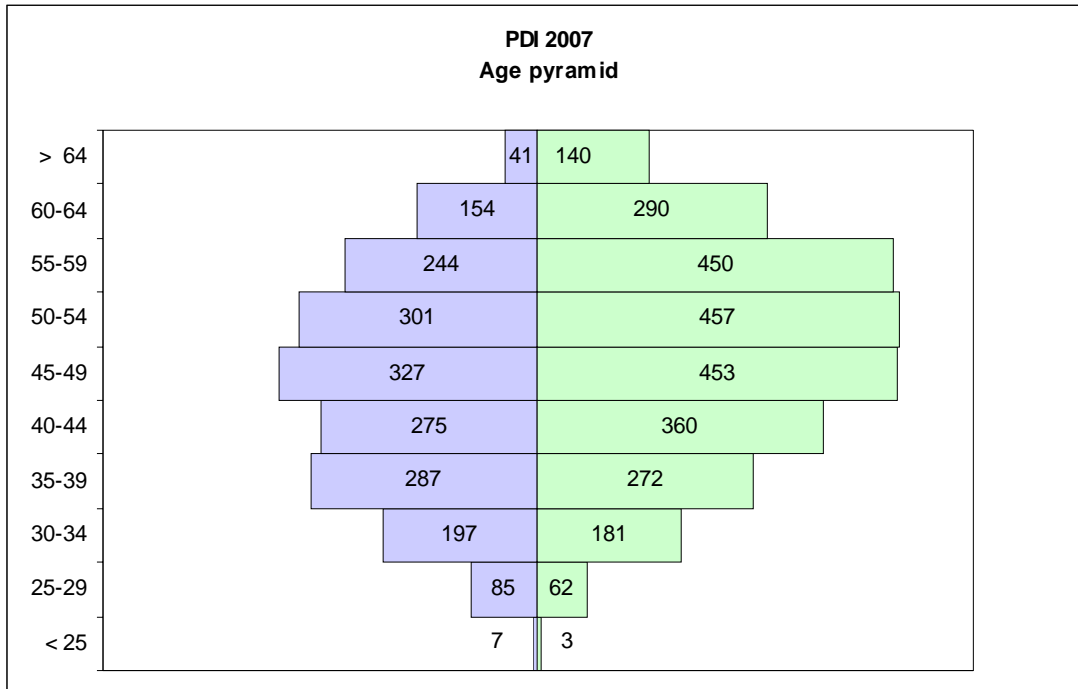
For society at large to become aware of it and get to know it, the university will need a Communication Plan based on both on the classic media and on those offered by the latest information and communications technology. Its aim would be to project the university's identity and dynamic spirit as broadly as possible; in particular:

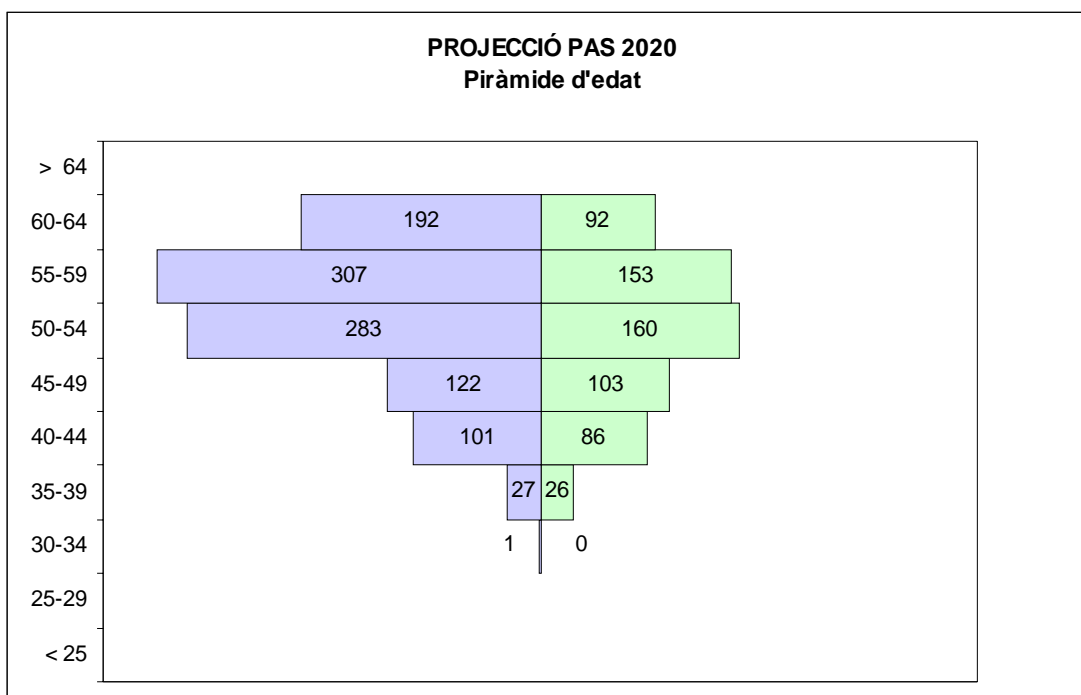
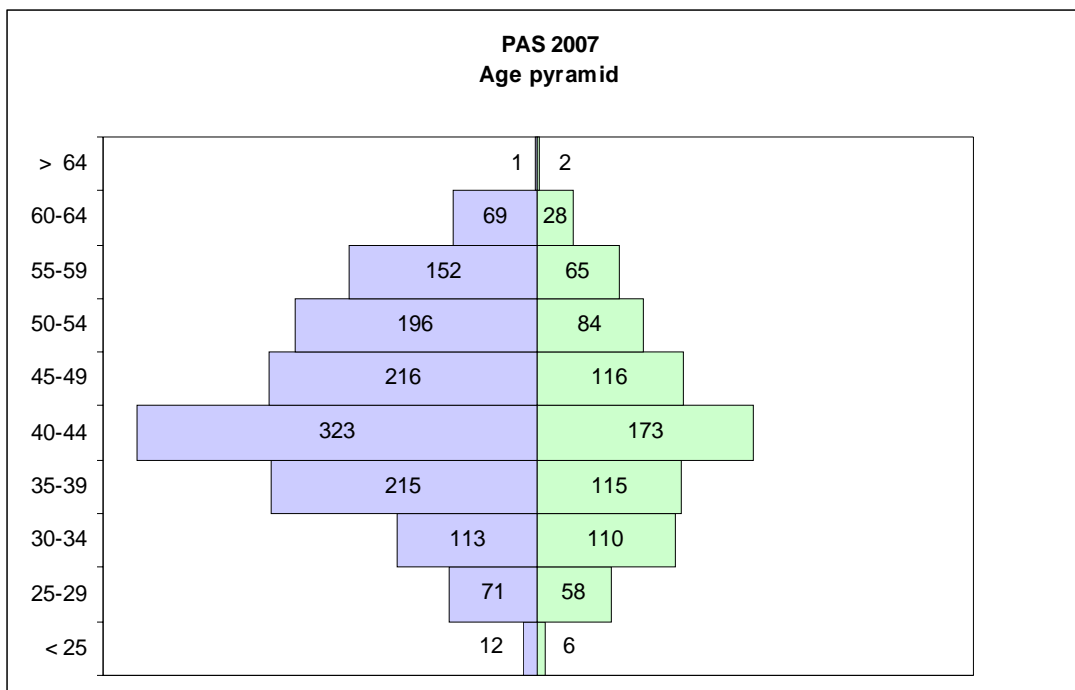
- the opportunities the UB community offers students to acquire the knowledge and abilities to confront the economic, social and environmental challenges of today's society;

- the research areas in which the UB excels, their most outstanding contributions in terms of knowledge and technology transfer, and their impact on social, economic, cultural and artistic development;
- the UB's active commitments to critical reflection and to cooperating with society and disseminating culture.

## Annex A: Age pyramids for University of Barcelona staff

The following tables describe the age pyramids for the UB's faculty and research staff (PDI) and for its administrative and service staff (PAS) for the year 2007, and a calculation of these for the year 2020, applying the premise that there will be no incorporations in the UB's human resource team.





## Annex B: Proposals under the UB Framework Plan Horizon 2020

<b><u>STRATEGIC OBJECTIVE 1: A university of international standing</u></b>	
The first strategic goal envisages a model for the UB by the 2020 horizon as a research-intensive university with world-class postgraduate programs.	
<b>Strengthening the link between teaching and research</b>	<b>Indicators:</b> -80% of lecturers active in research -10% of foreign lecturers, chosen by strategic criteria -40% of lecturers aged between 30 and 40 -5%-10% of lecturers who also work outside the university -new functions for the Academic Committee
<b>Attracting talent</b> , with a special emphasis on foreign lecturers, young researchers, associate lecturers and experienced administrative staff	
<b>Defining a distinctive profile</b> by incentivising priority subjects for research by fields of knowledge, within the broad spectrum of disciplines covered by a generalist university like the UB	<b>Indicators:</b> -UB research is internationally recognised in at least one subject area -a more ambitious Academic Policy Committee
<b>Offering masters and doctoral programs of international standing</b> , with an internal standard of quality which is more demanding than the required one	<b>Indicators:</b> -30% of UB students are postgraduates -increased number of doctoral students -30% of masters students and 40% of doctoral students are foreign
<b>Making progress in the culture of quality and assessment</b> , in order to incorporate the results in decision-making.	<b>Indicators:</b> -introduction of incentives and high rate of results successfully achieved in program-contracts -stronger quality agency

**STRATEGIC OBJECTIVE 2: A university committed to society**

The aim of the second strategic objective is to **strengthen the commitment to provide quality teaching for lifelong learning in the community, and to transfer the knowledge and technology** society needs, with a more fluid dialogue with our social, economic and cultural setting.

**Fostering quality teaching to provide citizens with learning throughout their lives:**

- Designing a **range of degrees** based on the demand from society and the fields of knowledge in which the UB is outstanding
- Making the **first year of studies** into a space to consolidate a culture of university learning in students, so that they acquire the skills necessary for good academic performance
- 4Encouraging **teaching teams** as a way of approaching teaching and learning at the UB, and implementing **tutorial measures** for students
- Establishing the same principles of quality and responsibility across the (unregulated) **lifelong learning** programs

**Indicators:**

- % success rate of students in their 1<sup>st</sup> year
- number of Qualification Councils with community participation
- graduates and postgraduates finding employment
- number of stable teaching teams
- number of teaching teams including teaching support experts
- % of time devoted to tutorial measures
- results of quality assessment in lifelong learning
- number of lifelong learning programs in association with other universities

**Building up the results of transfers**, raising the number of lecturers involved in transfer activities to 40%, by reinforcing structures to support transfer and encouraging a culture of enterprise

**Indicators:**

- 40% of lecturers involved in transfer activities
- 35% of patents licensed

**Increasing the involvement of society and citizens in the university, developing the UB's social responsibility**, in order to take on a more important role in opinion-forming in society, by fostering joint-initiative service-learning practices and promoting culture.

**Indicators:**

- Numbers involved in different UB-community activities
- number of students taking part in service-learning practices

**ACCOMPANYING TRANSFORMATION: towards 2020**

This section deals with the changes in organisation and in the management of human and financial resources which are essential to ensure the viability of the strategic objectives. The two policies proposed affect the key feature of the UB Horizon 2020 Framework Plan: proactive strategic management of the generational changeover which will be occurring in the next few years.

**Simplifying structures and establishing an organisation which is compatible with the exercise of responsibility and accountability**, in order to enhance the UB's autonomy and governance, as well as its effectiveness and efficiency:

- Incentivising **the voluntary grouping together of centres and departments**, generating co-operation and synergies and encouraging interdisciplinary work.
- Creating the figure of **Campus Vice-Rectors**, with broad powers in a small number of strategic areas (approving qualifications, prioritising research and employing lecturers), advised by small commissions similar to British boards.
- Less supervision of procedures and more of results at all levels, with better and more open information and decision-making based on the achievement of **program-contracts derived from strategic plans at unit and centre level within the framework of the UB Horizon 2020 Plan.**

**Indicators:**

- Number of organisational structures and units grouped together
- creation of the figures of Campus Vice-Rectors
- number of active program-contracts

<p><b>Strategic resource management:</b></p> <ul style="list-style-type: none"> <li>• <b>Establishing and developing clear policies for the strategic management of human resources</b> <ul style="list-style-type: none"> <li>○ Expanding and recognising the <b>variety of roles</b> played by staff, overcoming the concept of rigidly-structured workforces which do not change over time, to foster an <b>attractive professional career</b> with a suitable training plan and <b>appraisal</b> with consequences.</li> <li>○ Providing and paying for positions in accordance with teaching and research needs, while overhauling the unsustainable existing personnel cost structure on the basis of the criteria set by the strategic goals: <b>an age pyramid with a wide base, and largely professionalised administrative staff</b> carrying greater weight in teaching and research support tasks.</li> <li>○ Adapting the process of <b>selection/hiring to the practices which are customary in prestige universities</b> (with more interviews and selection committees with a different composition).</li> </ul> </li> </ul>	<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>-% of personnel with recognised variable working hours</li> <li>-width of the base of the age pyramid of lecturers and administrative and support staff</li> <li>-% of experts among administrative and support staff</li> <li>-% of staff hired following the selection procedures which are usual at top European universities</li> </ul>
<ul style="list-style-type: none"> <li>• <b>Assigning and using resources in line with strategic priorities</b> <ul style="list-style-type: none"> <li>○ Having a relatively large fund to <b>back up strategic policies with incentives</b>, linked to assessment of results.</li> <li>○ Approaching <b>Services with an overall strategic view</b>.</li> <li>○ Achieving a <b>greater yield on the university's premises and its valuable assets</b>, both tangible and intangible.</li> </ul> </li> </ul>	<p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>-size of the fund to provide incentives backing strategic policies and the number of units benefiting</li> <li>-number of initiatives to group together administrative and support resources</li> <li>-scale of yield on assets</li> </ul>

<ul style="list-style-type: none"><li>• Improving the internal and external projection of the UB's own profile, on the basis of greater internal cohesion among the university community.</li></ul>	<p><b>Indicators:</b></p> <ul style="list-style-type: none"><li>-% of students involved in activities forming part of university life</li><li>-% of academic and administrative staff involved in non-academic university activities</li><li>-number of activities and impacts of the Communication Plan</li></ul>
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