

THE PROGRAMME-CONTRACTS SIGNED BETWEEN CATALAN PUBLIC UNIVERSITIES AND THE GENERALITAT OF CATALONIA

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The programme-contract has proved a useful instrument for improvement of university quality through coordination between the Generalitat's university and research policy and the Catalan universities' strategic planning. The contracts also bring transparency in that the universities become accountable to society. The Catalan universities have been successful in adapting to this new framework and quality has improved, both physically and in terms of professional qualifications and management and institutional capacities. This note describes the programme-contract as a management instrument in Catalan public universities.

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1. Introduction

Higher education is undergoing major changes and transformations. These are mainly the result of new expectations and demands emerging in society: university education has gradually become mass education, and the university and its systems have had to respond to this new reality with innovative and occasionally imaginative new policies. The traditional teaching and research functions have become more complex and the various actors involved have highlighted new needs and adopted new strategies in keeping with their roles and the changing context in which they found themselves. All this has occurred in a setting of growing competition for public resources and demands for improved quality in public policy and management, and transparency with regard to the public benefits for society.

These changes have also had an effect on the relations between the Government and the universities. The former has tended to become more regulatory (establishing the legal framework), more strategic (defining specific sectoral policy strategies) and more evaluative. The universities now tend to have more autonomy for development of their own institutional profile and projects. This has led to a tendency to establish objectives, analyse performance, and foster effectiveness and efficiency of the public system as an added-value inter-institutional network. Evaluation of the university and the quality of its services has become a central function of public higher education policy. This has been the trend in Europe, and Catalonia is no exception.

Closely linked to this new situation and bound up with the concept of academic and administrative autonomy,

we find the notion of accountability: a demand for transparency and evaluation of performance and public service.

All the above changes have been formally incorporated into the Catalan public university system since 1997, among other formulas by the introduction of programme-contracts designed to foster improved quality. The programme-contract has proved a useful instrument for improvement of university quality through coordination between the Generalitat's university and research policy and the Catalan universities' strategic planning. The contracts also bring transparency in that the universities become accountable to society.

This note describes the programme-contract as a management instrument in the Catalan public universities.

2. The programme-contract, a new model of relationship between the university and the government

At the beginning of 1997, the Generalitat of Catalonia – represented by the Universities and Research Commission (CUR) of the Presidential Department¹ and the Technical University of Catalonia agreed to formalise the first university programme-contract. This represented a new university planning and coordination departure for Spain, linking additional funding to the attainment of mid-term objectives for improved quality. The programme-contract was then extended to the majority of Catalan public universities in a first phase which lasted until 2001. After 2002, it was a fixed *strategic subvention*

¹ The Presidential Department was at that time responsible for university policy in Catalonia. Since 3 April 2002, this responsibility has lain with the Ministry of Universities, Research and the Information Society (DURSI).

feature in the funding distribution model for Catalan public universities.²

The university system (and the public sector in general) was entering a period of public deficit control arising from the demands of European convergence. A process of reflection had also begun, in part motivated by the experiences of other countries and institutions, which pointed to the need to optimise the learning process and graduate employment, to improve teaching and academic performance and the general quality of university services, to use the new technologies to extend the scope of education and to innovate, to clarify and highlight the benefits of research for society as well as improving the quality and quantity of research and institutional management.

To progress towards these new objectives, it was necessary to implement new instruments for observation and diagnosis, planning and decision-making. It was necessary to incorporate into daily university life the management criteria commonly found in other areas of society: efficiency, improved performance and use of available assets; transparency, understood as accountability to society; rationality, establishing measurable objectives; and quality, understood as the measure of satisfaction achieved in responding to the needs of society by university teaching, research and services

In response to these needs, the CUR introduced a set of multi-level instruments for cooperation between the Catalan universities and the government education policy bodies. These were founded on five basic pillars: the Pluriannual University Investment Plan (1995), the university teaching programmes, the beginnings of quality evaluation by the Agency for the Quality of the Catalan University System (1996), the Catalan Research Plan

(1997) and the programme-contracts linking funding to achievement of objectives (1997).

A number of the Catalan universities had already initiated similar processes, as set out in their strategic or quality planning, in the form of new organisational structures designed to facilitate management of change, with phased implementation of specific sectoral plans and development of the then innovative management techniques and tools of the new public management.

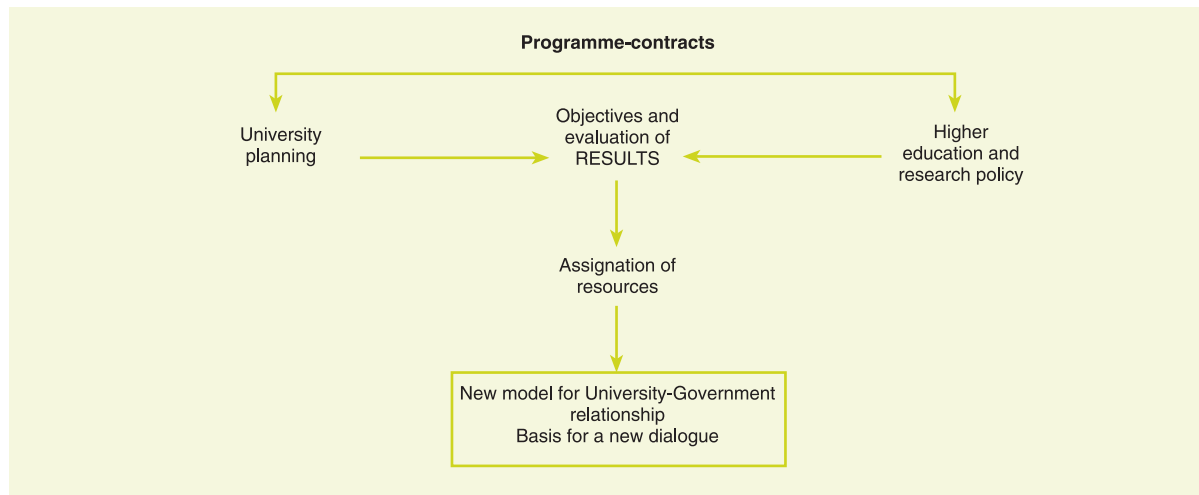
3. What is the programme-contract?

The programme-contract has become a strategic instrument for management and quality improvement in universities and the university system in general. The main characteristics of the programme-contract are:

- It establishes specific objectives for improved quality in services offered by the university to society, for more effective management and for improved service to users (with pluriannual time scales enabling definition of mid-term policies and plans spanning more than a single academic year).
- It provides for evaluation of the extent to which the objectives are achieved by means of pre-established indicators, mainly quantitative in nature.
- It determines specific public funding which depends on the extent to which the objectives are achieved. (In the first phase of the programme-contracts until 2001, this funding was in addition to funding to cover the university's basic activities and, later, it was integrated into the university funding distribution model).
- It includes provision for annual revision of the objectives, in keeping with evaluation of the contract and evolution of the Government's higher education policy and the priorities of the universities themselves.

² See PALLAROLS *et al*, 2003.

Graph 1
Areas of application of programme-contracts



The programme-contract has also served for financial management and planning, improved quality and social transparency.

In financial management and planning, the programme-contract aims to introduce new mechanisms for public funding of the university's day-to-day spending. Additional new resources were programmed which were linked to achievement of pre-established objectives. Under-achievement led to no funding, and could lead to revision of the university's quality policy and its overall funding. Therefore, full, and wide cooperation from the university community was needed in order to achieve the majority of the objectives established and thereby receive the additional funding.

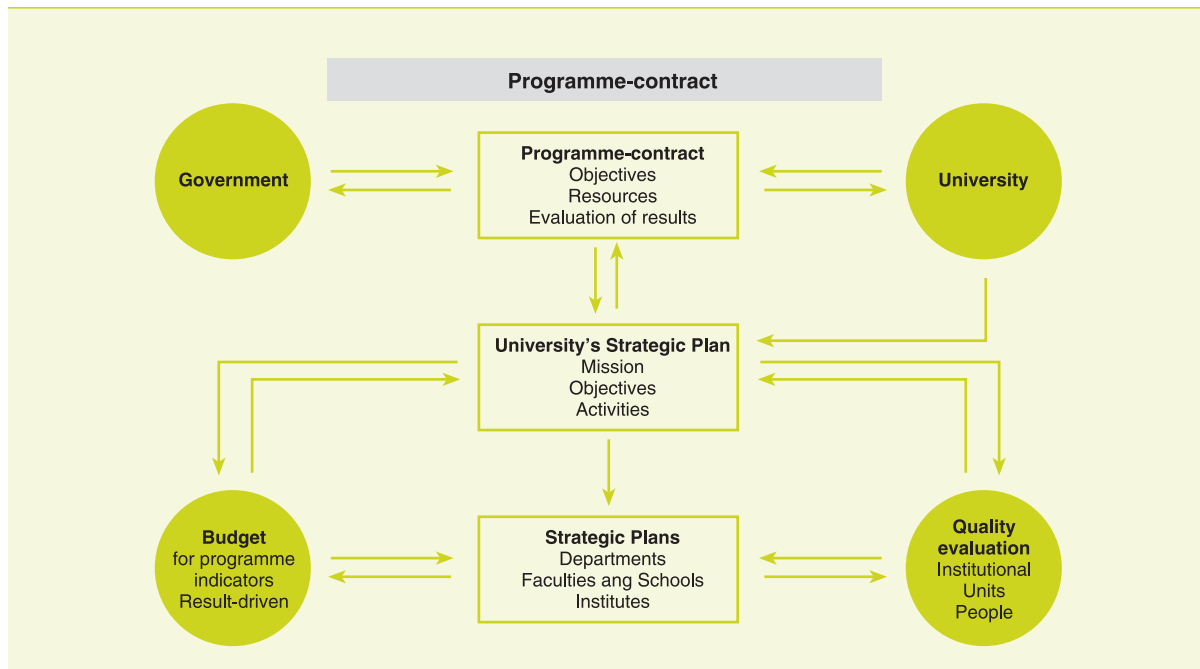
Despite the fact that this additional funding was relatively low in comparison with the total funding resources provided to the universities, it did lead to a major effort to achieve rational use of resources and foster a result-driven culture of efficiency. From a situation in which the university's funding was the subject of annual discussions

largely steered by an incremental principle, we have moved to negotiation and an institutional pact which sets out the improvements the university is to achieve over a given period in order to receive a given level of funding.

The programme-contract has also served to disseminate the challenge of improvement in the four strategic areas established (teaching and learning, research and technology-knowledge transfer, the university-society-region link, and management, organisation and resources). The first programme-contracts fostered establishment of strategic quality policies, priority-setting, associated action plans, and evaluation.

The programme-contract also led to assimilation of the concept of each university being accountable to society. Being accountable in terms of improvements achieved is relatively easy, bearing in mind that the contracts explicitly set out the use to be made of the public funding provided and that results were measured by means of a simple system of objectives and indicators. Through the programme-contract, each university set out the pre-es-

Graph 2
Relations between the programme-contract and university and department strategic plans



established objectives for which it received additional funding. The progress made was monitored by the Government. The Generalitat was also able to attach priority to aspects which it considered important, while still respecting the principle of university autonomy.

Introduction of the programme-contracts also had a positive effect in some universities with regard to internal functioning and dissemination of institutional objectives, and permitted adaptation of activity at different levels of the organisational structure to the academic and service objectives established in conjunction with the Generalitat. Some universities have even used simi-

lar mechanisms internally for the purpose of resource allocation.

4. The characteristics of the programme-contracts

The Generalitat of Catalonia signed programme-contracts with the following Catalan public universities for the 1997-2001 period:³

- Universitat de Barcelona, 1999-2002;⁴
- Universitat Autònoma de Barcelona, 1998-2001;

³ Via the Universities and Research Commission until March 2000. After this, through the Ministry of Universities, Research and the Information Society.

⁴ This period was later shortened by one year, and the new funding distribution model was applied from 2002 on (see PALLAROLS *et al.*, 2003.).

- Universitat Politècnica de Catalunya, 1997-2000 and a transition period for 2001;
- Universitat de Girona, 1997-1999 and another for 2000-2001;
- Universitat de Lleida, 1997-1999 and another for 2000-2001;
- Universitat Rovira i Virgili, 1997-1999 and another for 2000-2001.

Two programme-contracts were signed with Universitat Oberta de Catalunya for the 1998-2000 and 2001-2004 periods which, given the specific characteristics of the university, established public funding for each period on the basis of mixed parameters involving quantitative and qualitative evaluation based on pre-established objectives.

Two types of programme-contract can be distinguished in this initial period:

- Type B contracts or precontracts, and
- Type A contracts, or programme-contracts per se

Type B contracts had a shorter duration (three years), and were established with the more recently created universities (University of Girona, University of Lleida and Universitat Rovira i Virgili). They were designed to contribute to reducing structural deficiencies (human and material resources) which were due to the fact that the universities were relatively new, and to stimulate the establishment of overall quality policies. The increased public subvention for the purpose of structural consolidation and improvement was subject to the introduction of overall quality policies in management.

Longer programme-contracts (four years in duration) were established with the three long-established universities (Universitat de Barcelona, Universitat Autònoma de Barcelona and Universitat Politècnica de Catalunya). To a large extent these contracts coincided with the go-

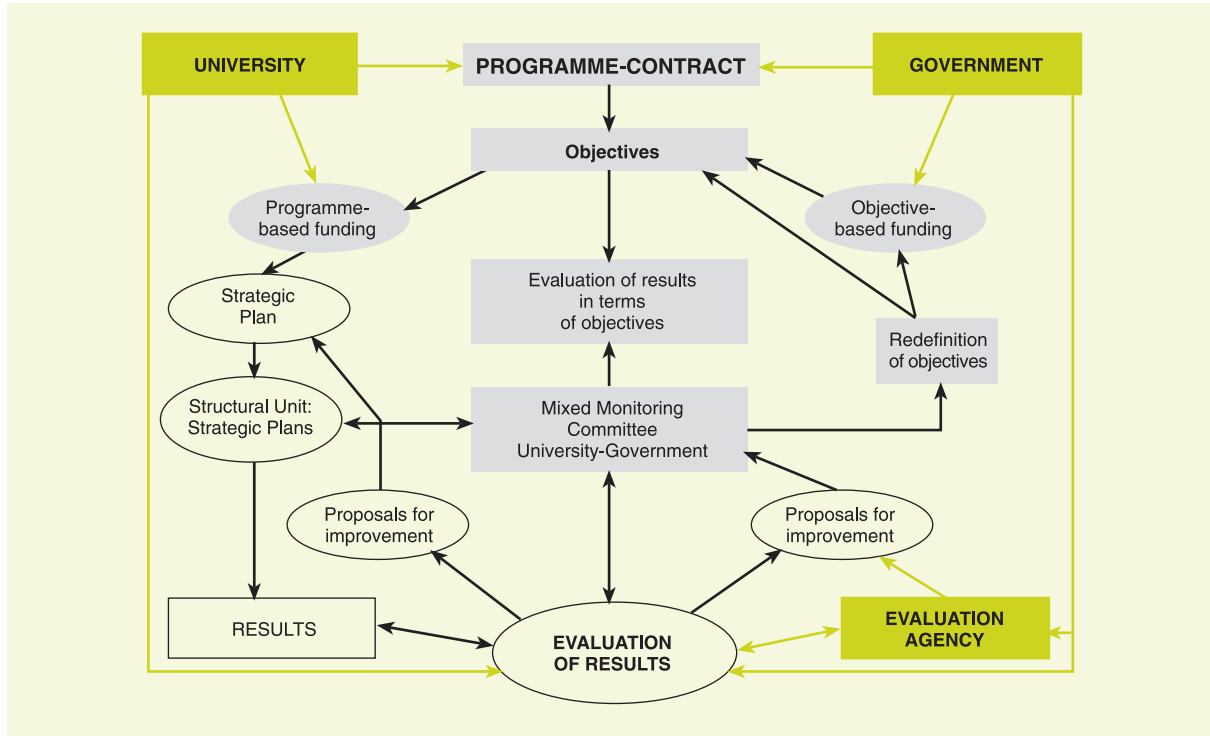
verning periods of the rectorial staff. These contracts established specific objectives, annual evaluation of performance by a set of indicators, and additional funding linked to this evaluation. From the outset, these programmes were defined as policy instruments designed to improve quality. Once concluded the initial three-year period, all the Catalan universities signed programme-contracts of this type.

The starting point for each contract was the individual university's Strategic Plan and the Generalitat's specific university and research policy objectives. From these two pillars, a range of objectives (14-19) were drawn up for each university. These were explicitly interrelated with the lines of action set out by the university's Strategic Plan, thus accounting for the specific characteristics and needs of each university.

A number of actions were set out for each objective, along with a broad-based set of tools and instruments for implementation and a set of between 50 and 70 mainly, but not exclusively, quantitative indicators. The few qualitative indicators employed corresponded to new actions. In later years, they were replaced by quantitative indicators. For each indicator, the starting point was specifically set out, i.e., the situation immediately prior to commencement of the contract period and the values that were to be achieved for each of the contract years and by the end of the contract period. Annually, the programme-contract monitoring committee revised the values required in the light of the results achieved in earlier periods and the overall commitments made for the entire contract period.

Each programme-contract includes its own weighting system for objectives and indicators, accounting for the coherence of each in relation to the others and in terms of its overall strategic value. Strategic objectives in the areas of learning and teaching, and research were given higher priority than the others.

Graph 3
The programme-contract: from signature to evaluation



Monitoring Committees comprising three representatives of the university and three of the government were appointed to monitor each programme-contract and determine the extent to which the objectives were achieved on an annual basis. These committees normally met once per semester.

5. Objectives set and results achieved

All the programme-contracts set out objectives and actions in four common strategic areas:

- Teaching, education and the learning process,
- Research and technology-knowledge transfer,

- University-society relations, and
- Internal university organisation and management.

A number of universities also included other strategic areas of their own.

In the area of teaching/learning, the objectives included improved adaptation of university education to the needs of society through sensitivity to social demands and the needs of the learning process, placing emphasis on methodological renovation, flexible teaching, improved teacher training and teaching.

In research and technology-knowledge transfer, the objectives concerned active collaboration of the universities

in achieving high-quality, internationally competitive science, technology and innovation systems which would contribute to the progress of Catalonia. This would facilitate improvement and expansion of research and the impact of results. It was also sought to foster multidisciplinary approaches, integration of international networks and collaboration with companies in general and especially with technologically innovative companies.

In the area of university-society relations, the challenges were firstly, to improve communication with society, so as to enable society to communicate its needs to the university and the university to highlight the contribution it can make to society; and secondly, to improve the attention provided to new students entering the university, to graduate employment, promotion of entrepreneurial spirit among graduates, improving university services to companies and institutions, and adaptation of continuing education to the needs of society and the changing demands of the labour market. Other objectives sought to improve language skills in two areas: firstly, in fostering greater use of the Catalan language in university life and academic activities; secondly, in developing improved foreign language skills in response to the increased international mobility in university life.

Finally, in management, the emphasis was placed on the need for effective and flexible organisations, orientated to constant improvement, with qualified, motivated and well-trained staff, and the need to develop management systems and tools facilitating improved quality, effectiveness and efficiency. In particular, it was important to continue to foster use of information and communication technologies in all spheres of university life so as to adapt to the new information society.

Despite the fact that the objectives were ambitious, the majority of commitments made in the various programme-contracts have been achieved, in many cases more than adequately.

The improvements achieved included the following eleven points:

- Improved quality in teaching, the learning process and teacher training, adapting university studies to professional practice of graduates.
- Improved student performance: a significant increase in numbers graduating and improved results in most courses.
- Improved graduate employment rates due to services provided to students by the university, for evaluation of labour market needs and, especially, by equipping students with the flexibility required for continuous re-learning and by fostering contacts with the labour market.
- Improved range of doctoral courses and continuing education in response to needs for specialisation and updated skills, and an increase in the number of doctoral graduates working in research and industry.
- Improved resources for research and technology-knowledge transfer.
- More mobility programmes for students and teachers and exchange agreements with international research and teaching institutions and networks.
- Improved use of the Catalan language as the language of the universities and greater participation of the universities in their cultural setting.
- Improved foreign language skills.
- Improved harnessing of professional skills and material resources in the university.
- Implementation of sustainable, integrated, environmentally-friendly, management systems, and development of professional health and safety policies.
- Strengthening and development of the use of information and communication technologies in all spheres of university life, thus harnessing the potential of the information society.

The gradual achievement of these objectives has been reflected annually by the programme-contract indicators. In all, the level of achievement has improved year

after year, with average percentages ranging between 85% and 95%. In some universities, the last year saw achievement rates of 100%.

The contracts represented additional funding of a total of more than 12,000 million pesetas for the universities over the 1997-2001 period.

6. New orientation of the programme-contract

The experience gained over this first period up to the year 2001, showed the programme-contract to be an effective instrument for improving quality. The instrument will continue to function as part of the funding distribution model for all Catalan public universities, which has been in operation since 2002.

The general objective of the funding distribution model is to establish criteria for distribution of public funds among the public universities. It is based on a principle of equality of all students in the public system and aims to be objective. Calculations are by a system of easily determinable common parameters.⁵

The model includes five forms of subvention:

- Fixed funding, equal for all universities, covering basic structural and operating expenses.
- Basic funding, resources for the ordinary academic activity and operating expenses. Based on common objective parameters.
- Derived funding, for expenses deriving from employment of teaching and research staff.
- Strategic funding, linked to quality objectives in relation to the university strategy.
- Competitive funding, for certain measures established

by the Ministry of Universities, Research and the Information Society and affecting all universities simultaneously.

The funding derived from the programme-contracts is included within the strategic category. Within the model, the contracts assign funds to the universities for three purposes: firstly, in order to achieve objectives in the area of quality, secondly, for specific purposes in each individual university which cannot be included within a general model, and thirdly, to progressively align funding of each university in the transition phase towards completion of the model's target situation. As already pointed out, in this second period the programme-contracts have been fully integrated into the instruments for management of public funding, and the aim is to increase their relative weight in the funding provided to each university.

In the case of the first two purposes of funding mentioned above, the Ministry of Universities, Research and the Information Society establishes an annual maximum which is determined by variables of scale but also by strategic considerations in the case of each university. The final sum assigned is determined by the overall extent to which the programme-contract objectives have been accomplished as reflected by the indicators. This is expressed as a percentage which is then applied to the maximum funding permitted.

The new programme-contracts are much more homogeneous. All are for a duration of four years (2002-2005) and all are type A. The number of objectives has been reduced significantly (to between six and ten) as has the number of indicators, (around thirty). A similar weighting system has been maintained for objectives and indicators along with an evaluation system for progressive accomplishment of objectives.

⁵ For further details on this model see PALLAROLS *et al*, 2003.

New objectives have been introduced for adaptation of the system and the universities to the new European Higher Education and Research Space and to new legislation, and for improvement in student intake, access and induction processes, greater involvement by the universities in regional development through closer links with society and improved use of Catalan and better third language skills.

The programme-contracts have been simplified in this second phase, by identification of the main common strategic priorities of the university system and ignoring the bulk of ordinary activity. Similarly, a set of previously-tested output/outcome indicators was established and the work of the Monitoring Committee was also facilitated.

7. Critical evaluation

Overall evaluation of programme-contracts in the Catalan university is highly positive. Study of their application also enables us to draw conclusions which enrich the debate on management of public universities.

Among the positive effects, are the development of a policy of institutional co-responsibility and increased dialogue and cooperation between the government and the universities. The programme-contracts have contributed to generating a climate of inter-institutional trust and cooperation which has led to a higher share of co-responsibility for universities in policy development, and multi-level cooperation based on negotiation, mutual understanding and increased government support.

The contracts have also played a role in promoting the autonomy, specific identity and strategy of each individual university. They respect and promote university autonomy, which is linked to the concept of accountability, while also recognising the different contexts in which

the universities operate. In addition to parametric criteria which are common to the entire system, the contracts are sufficiently flexible to incorporate the specific features, problems and projects of each individual university.

The new contracts-program will have to make increased provision for co-operation, synergy and implementation of large-scale joint projects by the universities, and also between the universities and other educational, economic and social institutions.

The contracts have proven to be an effective tool for analysis, diagnosis and evaluation, in that they allow study of all aspects of the university's life. Hitherto, standard practice was to focus on a given aspect of the university (teaching, research, mobility, teaching staff, resources and infrastructure, etc.) and it was rarely possible to carry out a comprehensive diagnosis of all aspects which would facilitate institutional decision-making and management. Participants in definition, implementation and monitoring of the programme-contracts have also evaluated them positively. This has reinforced participants in their commitment to improvement and innovation.

As previously mentioned, the programme-contracts have contributed to modification and modernisation of the university funding system. The funding mechanisms now take account of academic and other results, as opposed to the inputs which predominated in previous models. Now, the pluriannual programme-contracts enable long-term financial projections rather than single year approaches. Since 2002 the Catalan system has had a model for assignation of funding to public universities. The programme-contract is one of its most impor-

Table 1
Objectives of the new programme-contracts between the Ministry of Universities, Research and the Information Society and each of the Catalan universities

Objective	UAB	UB	UdG	UdL	UPC	UPF	URV
Improvement of the quality of education provided and effectiveness and efficiency of the system	X	X	X	X	X	X	X
Improvement of measures to attract and enrol new students	X	X	X		X		X
Improvement of research and in attracting competitive external funding	X	X	X	X	X	X	X
Development of mechanisms for technology-knowledge transfer and for promotion of R&D&I	X	X	X	X	X	X	X
Promotion of high-quality third cycle education and employment for doctoral graduates	X	X	X	X	X	X	X
Strengthening active career guidance for graduates and fostering links with former students	X	X	X	X	X	X	
Consolidating the use of Catalan and improving the university's linguistic competence in third languages	X	X			X	X	X
Participation in regional development via closer links between universities and local society				X	X		X
Strengthening the international dimension of academic activities, university mobility programmes and development cooperation	X	X	X	X	X	X	X
Improvement of the quality of management processes and optimisation of human and material resources, with support of ICTs	X	X	X	X	X	X	X

tant constituents. However, further consideration is required concerning the percentage of funding assigned to each university, since this will have to be more closely related to results achieved.

There can be no need to insist on the importance of transparency and social communication. The contracts have also played an effective role in achieving this transparency; however, it is evident that further improvements can be made in the area of university communication and accountability to society.

Conversely, the programme-contracts can also improve in highlighting the value of higher education and the public service provided by the universities. To achieve this, we must advance in the debate on public values and the challenges facing university education, and the strategies to enable us to face these challenges.

We must also better harness the full potential of the contracts for innovation. They also provide the potential for

the introduction of benchmarking mechanisms, rarely employed to date in our institutions or system in general. Clearly, this would bring the challenge of the difficult balance between competition and cooperation among universities in a highly integrated system. Striking the correct balance will facilitate development of a high-quality university capable of serving society and being competitive at European and international level. To achieve this, the contracts will have to make increased provision for cooperation, synergy and implementation of large-scale joint projects by the universities, and also between the universities and other educational, economic and social institutions.

Work must also continue on improving various aspects of the indicators employed. Difficulties to be overcome in this area include the influence of the context and other random external variables and temporal factors. Work must continue to establish common indicators which will be valid for the entire system.

Table 2
Indicators to measure the main objectives of the new programme-contracts between DURSI and the Catalan universities

First and second cycle courses:

- Percentage of students choosing courses as a first option relative to the number of places available
- PAU exam grade of a given percentage of students enrolled
- Student success rates in first and second cycle courses
- Student performance rates in first and second cycle courses
- Percentage of students graduating within pre-established time and/or within an additional year relative to initial cohort
- Percentage of total credits registered relative to total theoretical credits for each degree.
- Drop-out rate
- Percentage of students assigned a tutor
- Percentage of students/graduates completing work experience programmes in companies and institutions
- Credits registered for skills and universal competencies

Third cycle and postgraduate courses:

- Number of doctoral theses read
- Number of DEAs achieved
- Number of students registered on doctoral programmes / accredited doctoral programmes
- Number of accredited doctoral programmes
- Number of inter-university doctoral programmes
- Percentage of doctoral graduates / students with first degrees from other universities
- Total number of postgraduate class hours registered / number of students registered on postgraduate programmes

Research and technology-knowledge transfer:

- Resources obtained from competitive research funds
- Income from research agreements with companies and institutions
- Percentage of teaching and research staff participating in funded research projects
- Percentage of teaching and research staff participating in technology transfer projects
- Number of consolidated research groups
- Number of patents registered
- Number of predoctoral scholarships awarded
- Number of externally-funded postdoctoral researchers

International dimension and cooperation:

- Student mobility: number or percentage of students on exchange visits to other universities / number or percentage of students from other universities registered in the Catalan university
- Percentage of graduates having studied abroad
- Teacher mobility: total months spent by teaching and research staff on exchange visits at other universities, and by teachers from other universities at the Catalan university
- Number of development cooperation and volunteer projects

Catalan and foreign language skills:

- Percentage of first and second cycle teaching in Catalan
- Number of books and manuals published in Catalan
- Number of first and second cycle subjects taught in English
- Number of doctoral and/or Master's subjects taught in English

Finally, one of the most frequently voiced criticisms has been the low level of participation within the university in definition of the objectives of the contracts and in working for their accomplishment. In this regard, the situation and context varies widely from one university to another and each has taken the approach most suited to its own context. Once again, work must be done to establish the right balance between participation by university personnel and strategic and management leadership by the university's management.

Several universities have taken the opportunity to improve their internal management, by developing internal contract mechanisms. These instruments have enabled increased objectivity in analysis of the academic activity of the various departments, faculties, schools and institutes, and have fostered the development of new objectives agreed between the university management and each unit. This is a practice which should be extended to all elements of the Catalan university system.

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