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TECHNICAL UNIVERSITY OF LISBON - 75 YEARS OF HISTORY

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GHES Gabinete de História Económica e Social Lisboa 2007 Magnificent Rector of Technical University of Lisbon

Minister for the Environment, Territorial Management and Regional Development

Secretary of State for Youth and Sport

Distinguished Guests

My dear colleagues, teachers, non-teaching staff and students at Technical University of Lisbon

Ladies and Gentlemen¹

Technical University of Lisbon was created through the Decree with the Force of Law No. 19081 of 2 December, 1930. Naturally it did not appear out of the blue. In fact, it can be said that the formation of Technical University of Lisbon was simply the fourth stage in the development of technical education in Portugal.

The first of these stages had been the creation of technical education itself. This was a lengthy process, which began in the mid-18th century and was only completed in the mid-19th century.

Until the mid-18th century, the education given to those intending to work in the technical professions had been provided within the context of the traditional corporations.

The first step towards the setting up of a formal technical education system under the responsibility of the State was the creation of the School of Commerce (*Aula de Comércio*) in 1759, by the government of king José I, whose dominant figure was the Secretary of State Sebastião José de Carvalho e Melo.

¹ Keynote speech given by Professor Nuno Valério on 5 December 2005 at the ceremony held to commemorate the 75th anniversary of the Technical University of Lisbon – based on the book *Universidade Técnica de Lisboa – 75 anos de história* (Technical University of Lisbon - 75 Years of History) by Nuno Valério, Ana Bela Nunes, Carlos Bastien, Sandra Costa and Vera Barros, published by the Technical University of Lisbon in 2006.

Such an initiative has to be understood within the context of the politics of enlightened despotism, which was based on an awareness of the fact that Portugal had lost its former leading position in the Euro-Atlantic world-society. From this diagnosis of backwardness and decadence, it was concluded that there was a need for action to be taken to recover this lost position, one of the elements of which was to be the training of the human resources that were considered essential to ensure an adequate functioning of the apparatus of both the State and private organisations.

The last quarter of the 18th century witnessed the appearance of a new element in technical education: the School of Figure Drawing and Civil Architecture, popularly known as the School of Drawing (*Aula do Risco*), created in 1781.

From the last decade of the 18th century onwards, the political and financial difficulties associated with the wars against revolutionary and imperial France and later the struggles between the supporters of the regime of absolute monarchy and the supporters of the regime of constitutional monarchy hindered the development of the education system under the responsibility of the State. Despite this, a third element in technical education, the Veterinary School (*Escola Veterinária*), was created in 1830.

In the following years, the definitive establishment of the new regime of constitutional monarchy was followed by efforts taken to reform the education system.

Such efforts must be understood as one of the main features of the liberal project for the transformation of Portuguese society. This project bore certain similarities to that of enlightened despotism, by identifying a situation of backwardness and decadence in Portuguese society. Within such a context, the development of the education system was intended to play a similar role to the one that it had played under the enlightened view of society: the training of the human resources considered essential to ensure an adequate functioning of the apparatus of the State and private organisations. At the same time, however, there were profound differences between the enlightened project and the liberal project: the enlightened project was based on priority being given to the action of the State within the framework of the Absolute Monarchy; the liberal project, on the other hand, was based on priority being given to the action of private enterprise within the framework of the Constitutional Monarchy. Within such a context, the development of the education system was also intended to play a decisive civic role.

The first two educational reforms introduced by the Liberal Monarchy did not take any major initiatives with regard to technical education. The reform of 1836-1837, undertaken by the Progressist government resulting from the Revolution of September 1836, whose Minister of the Realm (responsible for educational matters) was Manuel da Silva Passos, created the Lisbon Academy of Fine Arts (*Academia de Belas-Artes de Lisboa*), whose teaching of civil architecture was, however, the mere continuation of what had already been provided by the School of Drawing. The 1844 reform, undertaken by the conservative government resulting from the restoration of the

Constitutional Charter in 1842, whose Minister of the Realm was António Costa Cabral, set up the School of Commerce (now *Escola do Comércio*) as a section of the Lisbon Grammar School.

It fell, however, to the government formed after the military uprising known as the Regeneration (*Regeneração*) to take responsibility for the initiatives that completed the creation of the technical education system.

In fact, it was this government that, in 1852, at the initiative of the first Minister of Public Works, Trade and Industry, the military engineer António Maria Fontes Pereira de Melo, introduced agricultural education into Portugal through the creation of the Lisbon Agricultural Institute (*Instituto Agrícola de Lisboa*), as well as industrial education through the creation of the Lisbon Industrial Institute (*Instituto Industrial de Lisboa*). It was also this same government that, in 1855, combined veterinary education, which until then had been dependent on the Ministry of War, with agricultural education.

The spirit that presided over these actions is clearly manifested in the reports which were published at that time and served as justification for these measures. Education was seen, alongside transport, credit and institutional reforms as the solution for the backwardness that was recognised to exist in Portuguese economic life in comparison with Europe's more developed countries. Although education would never be afforded priority within this complex group of policies, it must, however, be recognised that, in this as in other areas of Portuguese life, it was the action of the Regenerators that completed the inherited and largely unfinished projects of the initial period of liberalism and even of the period of enlightened reformism.

It is worth stressing that the technical education system created in the way that has just been outlined was a system of middle or secondary education. In fact, students could enter this form of education with only the level of primary education or without having completed their secondary education; courses lasted between three and five years; its teachers were considered as equivalent in status to secondary school teachers; and those graduating from this form of education neither had the social prestige nor performed functions that could be considered equivalent to those of the graduates from the University of Coimbra or from the higher education schools that already existed at that time in Lisbon and Porto.

The second stage in the development of technical education in Portugal was the creation of higher technical courses. This process for the creation of courses first began in the areas of agronomy and veterinary science in 1864, when the Lisbon Agricultural Institute was transformed into the General Agricultural Institute (*Instituto Geral de Agricultura*). The process was, however, only completed in the mid-1880s.

Amongst the partial reforms that marked these years in terms of technical education were the following important measures: the merger between the Lisbon Industrial Institute and the School of Commerce to form the Lisbon Industrial and Commercial Institute (*Instituto Industrial e Comercial de Lisboa*), in 1869; the creation of the Lisbon School of Fine Arts (*Escola de Belas-Artes de Lisboa*),

through the separation of this school from the Academy of Fine Arts to which it had been linked until then, in 1881; and the creation of a higher course in commerce at the Lisbon Industrial and Commercial Institute, in 1884.

The culmination of these reforms was, however, the reform of agricultural and veterinary education and the reform of industrial and commercial education, both measures being brought into effect in 1886 by a government of the Progressist Party, led by José Luciano de Castro, whose Minister of Public Works, Trade and Industry was Emídio Navarro. It was within the context of these reforms that the higher courses in engineering were created and the higher courses in agronomy, veterinary science and commerce were consolidated. It was also around this time that the General Agricultural Institute took the name of Institute of Agronomy and Veterinary Science (*Instituto de Agronomia e Veterinária*) that it was to maintain until 1910.

The new higher technical courses generally lasted for five years; access to the courses depended on the full completion of secondary education, or of the middle technical courses; teachers had an identical status to that of the teachers at the University of Coimbra and in the other higher education courses in existence at Lisbon and Porto; in short, the respective graduates – veterinary surgeons, agronomists, silviculturists, commercialists and civil engineers (to use the titles that were in common use at the time) – began to enjoy a certain social status and to perform functions at a level that was equivalent to that of graduates in other higher courses.

Once again, almost a third of a century elapsed between the creation of higher technical courses in the mid-1880s and the granting of autonomy to higher technical schools in 1910 and 1911.

As far as the origins of Technical University of Lisbon are concerned, this period was marked above all by the initiatives relating to the creation of colonial education that were taken in 1906 by a government of the Progressist Party, led by José Luciano de Castro, whose Minister for the Navy and Overseas Affairs was Manuel António Moreira Júnior. One such initiative led to the creation of the Colonial School (*Escola Colonial*), which was to be the origin of the present-day Higher Institute of Social and Political Sciences. Another led to the creation of colonial agronomical education, which a few years later would be integrated into the Higher Agronomical Institute.

Of course, the colonial education thus created in the first decade of the 20th century was, just as technical education in general had been in its original form, a secondary or middle level education.

The third stage in the development of technical education was the creation of higher technical schools from the technical schools with higher courses already existing in Lisbon. This was the case with the School of Veterinary Medicine (*Escola de Medicina Veterinária*) and the Higher Agronomical Institute (*Instituto Superior de Agronomia*) in 1910 and the Higher Commercial Institute (*Instituto Superior de Comércio*) and the Higher Technical Institute (*Instituto Superior Técnico*) in

1911. At the same time, colonial agronomical education was integrated into the Higher Agronomical Institute.

This creation of higher technical schools was carried out by the Provisional Government of the Republic, formed after the revolution that had overthrown the regime of constitutional monarchy, whose Minister of Development was Manuel Brito Camacho. This is an initiative that has to be understood in the context of the priority given to public education by the programme of the Republican Party. This priority was based on factors that were completely analogous with those that have already been invoked in relation to what was termed the liberal project.

As a result of their creation, two of the new higher technical schools had to move to new premises. In fact, while the School of Veterinary Medicine was able to stay at the Palácio da Cruz do Taboado, which had been the headquarters of agricultural education since 1853 and the headquarters of veterinary education since 1855, the Higher Agronomical Institute was moved to the Tapada da Ajuda and the Higher Commercial Institute to the Convento das Inglesinhas, where they have remained until today. As far as the Higher Technical Institute is concerned, it remained in the premises at Boavista that had been the headquarters of industrial education since 1853, although it was immediately clear that a new building was necessary if the school was to be conveniently housed.

Shortly after the creation of the new higher technical schools, Europe and the World entered into a period of wars and crises that was initiated by the outbreak of the First World War and which had particularly harsh repercussions in Portugal at the level of economic activity and public finance, during the decade from 1914 to 1924. These repercussions made it fairly difficult to furnish the new schools with suitable premises and equipment.

In any case, the four higher technical schools created in 1911 were successfully consolidated, and, in 1918, reforms were introduced in all of them that would essentially remain in force until after the Second World War. It was at that time that the School of Veterinary Medicine changed its name to the Higher School of Veterinary Medicine (*Escola Superior de Medicina Veterinária*), a name that was to continue for several decades.

In the following years, it was the turn of the Colonial School (twice, in 1919 and 1926) and the Lisbon School of Fine Arts, and in particular its Department of Architecture (also twice, in 1925 and 1931) to be subjected to reforms. Particularly important in this case was the reform of the Colonial School in 1919, which created a higher course at this school. Colonial education thus began to follow the same path of development that the first technical schools had followed some decades before. In 1927, this change was marked by the new name given to the school of the Higher Colonial School (*Escola Superior Colonial*), although courses continued to be taught there that were not classified as higher education.

It was the four higher technical schools created in 1910 and 1911 that in 1930 originally comprised Technical University of Lisbon. The measure was taken by a government of military

dictatorship, led by General Domingos Oliveira, whose Minister of Public Education was Gustavo Cordeiro Ramos. The preamble to the Decree with the Force of Law No. 19081, of 2 December 1930, recognised that "Besides the Classical Universities, centres of high culture and scientific research, the time has come for Technical Universities to be formed, teaching about how economic life should be developed, with all the material requirements of modern civilisation " and, for this reason, it was proposed that "[...] the higher technical schools should be linked more directly with one another for collective economic purposes, and that greater value should be given to the professions for which they prepare people, and which represent fundamental activities for the nation's existence and progress."

The Decree that created Technical University of Lisbon guaranteed that it "grants the broadest possible autonomy to the schools from which it is formed" and handed responsibility for the government of the University to a Rector, "chosen by the Minister of Public Education from amongst the teachers involved in higher technical education or from amongst eminent persons that have rendered important services to the national economy ", and to a University Council composed of the rector, the directors of the schools, a representative of the full professors and a representative of the other teachers from each school, as well as a student who would represent the views of the university's students. In addition to this, one of the schools that were now part of Technical University of Lisbon, the Higher Commercial Institute, changed its name to the Higher Institute of Economic and Financial Sciences (*Instituto Superior de Ciências Económicas e Financeiras*).

Twenty days after the creation of Technical University of Lisbon, its first Rector took office, João Alberto Pereira de Azevedo Neves, a medical doctor and a Professor of Lisbon University, who had already served as Minister of Trade.

Some months later, the University Council proposed to the government (and the latter approved) the Statutes of Technical University of Lisbon. Curiously, these Statutes increased the representation of students on the University Council to one student for each school. It can be said that this marked the end of the process for the setting up of Technical University of Lisbon.

The context in which Technical University of Lisbon was created and lived the first moments of its existence displayed significant similarities and differences with what had been the context of the previous stages in the development of technical education and of the schools that were now grouped in such a way as to work more closely together.

From the structural point of view, the Portuguese economy continued to be an economy that was only middle developed. However, the basic problems of development were beginning to be overcome, and this was also happening in the world of education. The development of the higher technical schools and the recognition and social stimulus obtained with the formation of Technical University of Lisbon were one of the key elements in this process.

From the short-term point of view, the world economy in general and the Portuguese economy in particular were undergoing a period of great difficulties, associated firstly with what

became known as the Great Depression and its consequences, and then later on with the Second World War. These difficulties were to harm or distort the dynamism of the economy for roughly a decade and a half.

From the political point of view, the long period of military dictatorship (1926-1933) during which Technical University of Lisbon was formed was followed by a political regime that was one of republican authoritarianism based on the dictatorship of a conservative party. This was normally referred to as the New State (*Estado Novo*) and was to survive until the mid-1970s. The shocks between this regime's attempts to control university life and the struggle of the universities themselves to preserve the space of their own scientific and cultural creation were to mark these decades of Portuguese university life in general and the life of Technical University of Lisbon in particular.

One example of these attempts by the New State to control university life was the strain placed upon the Statutes of Technical University of Lisbon through the exclusion of the students' representatives from the University Council from the end of 1936 onwards. According to a mention made in the minutes of the University Council, this disrespect for the Statutes seems to have been based on a ministerial order (unpublished).

The evolution of Technical University of Lisbon in this phase of its existence and until the second postwar period of the 20th century was marked by a period of gradual, but vigorous, growth that was clearly greater than that of most Portuguese universities as a whole. At the time of its formation, Technical University of Lisbon had roughly one thousand students and one hundred teachers, approximately one tenth of the respective totals to be found at Portuguese universities. By the mid-1940s, it already had roughly three thousand students and two hundred teachers, approximately one fifth of the same totals. This growth was shared, albeit at different paces, by all of the University's four schools.

Another change that must also be noted is the admission of the first women students into most of the schools and, naturally, the first female graduates in the 1930s. In the next decade, the first women teachers were hired.

It was also in this period that the Higher Technical Institute finally had its new building located at Arco do Cego, from 1936 onwards.

Finally, mention must be made of the creation of a school dedicated to the teaching of physical education, the National Institute of Physical Education (*Instituto Nacional de Educação Física*), in 1940. This school, which lay at the origin of the present-day Faculty of Human Motricity, included from the very outset a higher level of education, although it also had middle or secondary-level courses. Only in 1954 was it given its own premises, in Cruz Quebrada, where it is still to be found today.

The period immediately after the Second World War was marked by a crisis in the relationship between the political power and the university that had a particularly strong impact upon Technical University of Lisbon. The context of this crisis was the expectation that had been built up amongst a section of Portuguese society that the defeat of the right-wing authoritarian regimes in the Second World War would also entail, in its wake, the fall of the Portuguese right-wing authoritarian regime and lead to the subsequent social and political movements against the New State. Two professors from Technical University of Lisbon, Mário Azevedo Gomes from the Higher Agronomical Institute and Bento Jesus Caraça from the Higher Institute of Economic and Financial Sciences played major roles in the Movement for Democratic Unity (*Movimento de Unidade Democrática*), which provided a formal expression for this social struggle, and were punished by being dismissed from their teaching posts in 1946.

Following on from these dismissals, there was a genuine purge of teachers who were either politically or academically linked to these professors, a process that then spread to include other schools and meant that Portuguese universities in general and Technical University of Lisbon in particular became considerably more homogeneous in terms of their political alignment with the New State than had previously been the case.

The transformation of the Higher Colonial School into a school that was exclusively one of higher education also dates from the period immediately after the Second World War, as a result of its 1946 reform.

The period between the second postwar period of the 20th century and the 25 April 1974 Revolution was a period of profound structural transformations in Portuguese society.

It can be said that lying behind these transformations was the definitive start of the process of modern economic growth in Portugal. In fact, between the late 1940s and the early 1970s, despite the increased rate of growth of the world economy, the Portuguese economy regularly managed to outstrip this rate and actually embark upon a process of recovery in relation to the world's more developed economies.

Amongst the factors that contributed to this favourable performance of the Portuguese economy in terms of economic growth were the increase in the levels of education of the Portuguese population and the country's greater openness to the world outside. This greater openness was particularly to be noted in Portugal's participation in the process of European economic integration, even though the country was far from being either in the forefront or at the central core of this process, and in the resurgence of the flow of emigrants from Portugal, particularly to the more developed Western European countries in the 1960s and early 1970s. All this also brought with it changes in the regional distribution of the population and economic activities in Portugal, which clearly became much more concentrated and urbanised, as well as in the country's social and cultural life in general.

What apparently changed the least was the political life, because the New State survived as a regime based on the dictatorship of a conservative party until 1974. Such survival was associated with Portugal's involvement in more or less open conflicts with the neighbouring countries of the

territories in Asia and Insulindia that were under Portuguese sovereignty, and, from 1961 onwards, in wars against the independence movements of Portugal's African possessions.

The structural changes in Portuguese society that have just been mentioned necessarily had consequences for university life in general and the life of Technical University of Lisbon in particular. Consequences that immediately led to a continuation of the growth from the previous period. Such growth can be explained both in terms of the demand for graduates on the part of the economic activities themselves and the demand for qualifications on the part of an increasingly urbanised population with an ever greater income.

By the mid-1970s, Technical University of Lisbon had roughly ten thousand students and five hundred teachers, amounting to roughly one sixth of the total of Portuguese universities. The growth was shared by all the schools of Technical University of Lisbon, although these schools grew at different paces and over different time scales, which further accentuated the differences between them in terms of size.

At the same time, profound qualitative changes were introduced at all the schools of Technical University of Lisbon, required by the progress of science and technology. Between the late 1940s and the mid-1950s, all of the schools were given new educational programmes and regulations: the Higher Institute of Economic and Financial Sciences in 1949, the Higher Agronomical Institute in 1952, the Higher Technical Institute in 1955 and the Higher School of Veterinary Medicine in 1956.

In the 1950s, a higher course in architecture was also created at the Lisbon School of Fine Arts, which took the name of a Higher School (*Escola Superior de Belas-Artes de Lisboa*) in 1957, even though the other courses that were taught there continued to be of the middle level of education.

The 1960s saw the beginning of a process of internationalisation, resulting in particular in a significant number of graduates from Technical University of Lisbon going abroad to complete their postgraduate studies and doctorates.

At the level of the university's governing bodies, Professor João Azevedo Neves left his position as Rector of Technical University of Lisbon in 1947. Rather surprisingly, no new Rector was appointed, leaving the Vice-Rector Moses Amzalak, a Professor from the Higher Institute of Economic and Financial Sciences, to act as Rector on an interim basis for almost a whole decade. Only in 1956 was Moses Amzalak appointed Rector, a position that he held for another seven years, until 1963.

It was during Moses Amzalak's rectorship that Technical University of Lisbon was expanded for the first time with the admission of a new school, the Higher Institute of Overseas Studies (*Instituto Superior de Estudos Ultramarinos*), the name that was given in 1954 to the former Higher Colonial School. Immediately after its admission into Technical University of Lisbon, the Higher Institute of Overseas Studies received the new name of the Higher Institute of Social Sciences and Overseas Policy (*Instituto Superior de Ciências Sociais e Política Ultramarina*), undertook a profound reform of its educational programmes and moved to the premises that it was to occupy for several decades, the Palácio Burnay in Rua da Junqueira.

Moses Amzalak was succeeded as Rector by Francisco Leite Pinto, a Professor from the Higher Technical Institute and the Higher Institute of Economic and Financial Sciences, who had already held the position of Minister of National Education. He remained in the post for only three years, being succeeded by Professor António Herculano de Carvalho from the Higher Technical Institute, who also served as Rector for only three years. Fernando Vasco Costa, a Professor from the Higher Technical Institute, was the next Rector between 1969 and 1972. He was followed by António Maria Godinho, a Professor from the Higher Institute of Economic and Financial Sciences.

It was during these years, more precisely in 1966, that the Social Services of Technical University of Lisbon were created.

The tension between the regime of the New State and the universities reached a number of crisis points during this period, particularly in episodes involving student protests, such as those that occurred in 1956, 1962 and in an endemic fashion from the end of the 1960s onwards. The schools of Technical University of Lisbon did not escape this atmosphere and were in fact amongst the most active centres of student protest. By way of example, one need only remember the police invasions of the Higher Institute of Economic and Financial Sciences and the Higher Technical Institute on 16 May, 1972.

These academic crises were not, however, exclusively student-based and there were several episodes involving teachers at Technical University of Lisbon. The most important of these were the dismissal of Professor Vitorino Magalhães Godinho from the Higher Institute of Social Sciences and Overseas Policy because of the support that he lent to the student protests in 1962 and the dismissal of Professor Francisco Pereira de Moura from the Higher Institute of Economics for having taken part in a vigil of reflection and prayer for peace on the night from 31 December 1972 to 1 January 1973 at the Capela do Rato.

In contrast to this, in the last years before the revolution of 25 April, an attempt was made to introduce a reform of the education system, which had important repercussions for the university system, in particular a new regime for the teaching staff, a new regime for doctorates and the reform of the various courses of study. In the case of Technical University of Lisbon, these reforms took place in 1970 at the Higher Technical Institute and, in 1972, at the Higher Institute of Economic and Financial Sciences, whose name was changed at that time to the Higher Institute of Economics (*Instituto Superior de Economia*), and at the Higher Institute of Social Sciences and Overseas Policy.

This process for the reform of education culminated in the approval of the basic law for the reform of the education system and the creation of three new public universities and a university institute in 1973. Amongst the innovations of the basic law, attention is drawn to the transformation

of the traditional middle education into non-university higher education and the creation of postgraduate courses designed to provide specialisation for graduates and the undertaking of scientific research.

The overthrow on 25 April 1974 of the authoritarian regime that had governed Portugal since the military dictatorship of 1926-1933 inevitably brought profound changes to Portuguese university life. The period between then and the approval of the Constitution of 1976, normally referred to as the revolutionary period, witnessed the establishment of new forms of democratic management, the purging of a part of the teaching staff considered to be too closely involved with the previous regime and the introduction of a number of bold organisational and pedagogical experiments.

In the particular case of Technical University of Lisbon, there was also a change in the name of one of the schools, the Higher Institute of Social Sciences and Overseas Policy, which became known as the Higher Institute of Social and Political Sciences (*Instituto Superior de Ciências Sociais e Políticas*), and the admission of a new school, the Higher Institute of Physical Education (*Instituto Superior de Educação Física*), created in 1975 from the National Institute of Physical Education and immediately integrated into Technical University of Lisbon.

As would be natural, although it maintained the same scientific objectives, teaching staff and premises of the previous National Institute of Physical Education, the new Higher Institute of Physical Education was now exclusively a school of higher education.

During the so-called revolutionary period from 1974 to 1976, Portuguese society underwent some profound structural transformations: the process took place for the decolonisation of Portugal's African possessions, giving rise to the formation of five new states – Angola, Cape Verde, Guinea-Bissau, Mozambique, and São Tomé and Príncipe; the legal and organisational foundations of the new democratic political regime were laid; and a more profound control was exercised by the State over the large productive units and the basic sectors of the economy, through the nationalisation of large enterprises and of the ownership of the largest farms in the south of the country. Of these structural transformations, the first two – decolonisation and democratisation – proved to be inevitably irreversible; the third was to be almost completely reversed through a privatisation process in the last few years of the 20th century.

These transformations were joined by another one over the following years: the deepening of Portugal's involvement in the process of European integration. The country's association with the European Communities in 1976 and its accession to the same Communities in 1986 were the two decisive moments in this process.

Economic and cultural progress, expressed in particular by the trend towards an increase in the standard of living and educational level of the population continued to characterise Portuguese life in the decades after the revolution of 25 April, even though there were clearly some short-term interruptions in the trend towards an increase in the standard of living in the mid-1970s and towards the end of the first half of the 1980s, as a result of the so-called oil shocks.

All this both allowed and called for a significant expansion of the higher education system in general and the university system in particular. Such expansion was partly achieved through the growth of the already existing universities and schools, although at a notably more moderate pace than in previous periods, but, above all, through the creation and expansion of new universities and polytechnic institutes.

Meanwhile, the transformations that took place in the university system were not only quantitative in nature. There were important qualitative changes too, expressed in the much more frequent reforms of the courses of study than in the past and the formalisation of the master's degree and its respective courses, as well as changes in organisational areas ranging from the management and finance regimes to the statutes of the teaching profession.

The main structural change of Technical University of Lisbon during the period now under consideration was the admission of a new school: the Faculty of Architecture (*Faculdade de Arquitectura*), created in 1979 from the Department of Architecture of the Lisbon Higher School of Fine Arts and immediately integrated into Technical University of Lisbon.

Once again, as would be natural, the new Faculty of Architecture maintained the same scientific objectives, teaching staff and premises of the previous Department of the Higher School of Fine Arts, but it was now exclusively a school of higher education.

From the quantitative point of view, the growth in the number of students and successful graduates (licentiates) at Technical University of Lisbon between the mid-1970s and late 1980s was roughly 50%, clearly lower than the rough equivalent of the university system as a whole. For this reason, Technical University of Lisbon had roughly fifteen thousand students and more than a thousand teachers, roughly one tenth of the total of the university system. Its share of the master's degree courses created in the meantime was, however, larger, with roughly six hundred students at the end of the 1980s, approximately one quarter of the total of the university system.

In fact, when the master's degree was created, Technical University of Lisbon was already running postgraduate courses. It was therefore possible to begin the first master's degree courses as early as the beginning of the 1980s, and these have since continued to multiply. Most of the courses ended up being organised under the scope of each of the university's schools, although a significant number involved collaboration between several schools.

Only in 1980 did Technical University of Lisbon begin to have its own building for the University Rectory, which was officially inaugurated in 1983. This was the Palácio das Açafatas da Raínha, also known as the Palácio Centeno, situated in the Alameda de Santo António dos Capuchos, where the Rectory of Technical University of Lisbon is still situated today.

At the level of the governing bodies, Professor António Maria Godinho ceased to be Rector in 1974. For a while, the post was filled on an interim basis by the Vice-Rector, Professor Eduardo Arantes e Oliveira from the Higher Technical Institute, who was appointed Rector in 1977.

The first election to the position of Rector of Technical University of Lisbon took place on 3 April, 1984. The Rector Eduardo Arantes e Oliveira was re-elected to the post. In actual fact, however, he only filled the position until November 1985, when he took over as Secretary of State for Scientific Research. Consequently, until 1987, the position of Rector was filled on an interim basis by the most senior of the Vice-Rectors, Professor António Simões Lopes, from the Higher Institute of Economics.

In 1987, an election was held for a new mandate. Professor António Simões Lopes was then elected to the position that he had been filling on an interim basis.

Also in 1987, an agreement was signed with the Lisbon Municipal Council for the occupation by Technical University of Lisbon of the area of Alto da Ajuda, which until then had been municipal property. For the Rectory of Technical University of Lisbon, the plan was to install a campus on this land, where the University's various schools could be situated, with the possibility of its being able to take advantage of the synergies created between them. This campus would be adjacent to the Tapada da Ajuda, already used by one of the university's schools, the Higher Agronomical Institute. The project did not, however, meet with unanimous approval. The Higher Technical Institute decided not to abandon the Alameda campus, where it had been installed since 1936. The same thing happened both with the Higher Institute of Economics, which found in part of the former grounds of the Convento das Francesinhas the space that it needed to expand its premises at the Convento das Inglesinhas, where it had been housed since 1913, and with the Faculty of Human Motricity, which decided to remain at its premises in Cruz Quebrada. In this way, the Ajuda campus ended up being used only for the location of the remaining three schools, which, before this, had been experiencing clear difficulties in finding suitable premises.

It can be said that Law No. 108/88, of 24 September, normally referred to as the Law for the Autonomy of the Universities, marked a new stage in the life of the Portuguese public universities. There is no doubt that this law fitted in with the university's already perfectly consolidated definition of its mission – training, research, rendering of services to the community, exchanges with similar institutions and a contribution towards bringing people and nations closer together, most particularly the Portuguese-speaking countries and the European countries. Nor is there any doubt that it did not alter the legal status of the public universities as legal persons governed by public law. However, this Law established rules of statutory scientific, pedagogical, administrative, financial and disciplinary autonomy that had a much broader scope and were more precise than those in force until then. As a result of the passing of this law, all the public universities drew up new statutes, which, in turn, established new goals for the life of their organic units – in the case of Technical University of Lisbon for the seven schools of which it was composed.

The new Statutes of Technical University of Lisbon were approved in 1990. Under the terms of these, three of the university's schools changed their names: the Higher School of Veterinary Medicine changed its name to the Faculty of Veterinary Medicine (*Faculdade de Medicina*)

Veterinária); the Higher Institute of Economics to the Higher Institute of Economics and Management (*Instituto Superior de Economia e Gestão*); and the Higher Institute of Physical Education to the Faculty of Human Motricity (*Faculdade de Motricidade Humana*).

This was followed by the approval (by assemblies formed in accordance with the provisions of the university's statutes) and ratification (by the Rector) of the statutes of the schools that together composed Technical University of Lisbon.

In this way, the new collective bodies of the University were able to begin performing their different functions: on 25 October 1990, the first meeting of the Senate was held and on 4 December 1990 the first meeting of the University Assembly took place, which, on 31 January 1991 elected the Rector, for the first time under the framework of the new Statutes. Professor António Simões Lopes was confirmed in his position as Rector, which again happened at the next election, in 1995. After the election held in 1999, he was to be replaced by Professor José Dias Lopes da Silva from the Higher Technical Institute, who was also re-elected in 2003.

The context in which Technical University of Lisbon lived through this more recent period in its history was marked by the deepening of the process referred to as the globalisation and European integration of Portuguese society. Such a process led to the opening up of the Portuguese society and economy and made it possible to consolidate some already structural characteristics of that same society and economy, in particular the high level of economic development and the democratic political regime, without having prevented (and perhaps even encouraging) the persistent occurrence of significant short-term crises, such as the one occurring in the mid-1990s and the one occurring within the last few years, which is still being felt at this moment when Technical University of Lisbon is celebrating its 75th anniversary. At the same time, however, it accelerated or implied transformations, such as the tertiarisation of the economy or the monetary union with another eleven European countries in the so-called Euro zone. It also gave rise to new requirements and demands, of which the ones that proved to be particularly important for the life of the university were those relating to exchanges at all levels with the universities of other countries, and in particular with those in Europe. It also led to the need for an increase in the gualification of human resources, which, in general terms, fell short of what was to be wished for and expected in a country with the level of economic development achieved by Portugal.

During the period now under consideration, the demand for higher education has tended to stabilise. The rates of growth of the number of students enrolling in the different undergraduate courses have clearly slowed down. This evolution can be partly explained by demographic factors: a low birth rate, an absence of growth through physiological movements, an overall ageing of the population. It can also be explained by social and economic factors: the proportions of the most relevant age groups applying for higher education seem to have reached a relative level of stagnation, perhaps somewhat prematurely. All this has led to a halt in the process of creating new

universities since the mid-1990s and a slowdown in the growth (and even, in some cases, a reduction) in the size of the existing organisations of higher education.

Where there has continued to be great dynamism is in the demand for postgraduate training, research services and the provision of other services to the community, areas where the growth of university activity has continued, particularly in the better equipped universities, such as Technical University of Lisbon.

Thus, the number of undergraduate students at Technical University of Lisbon recorded a relatively modest increase in the 1990s and in the first years of the 21st century, currently standing at close to twenty thousand. In contrast, the number of postgraduate students has almost tripled and now stands at one and a half thousand. The number of teachers today is also more than one and a half thousand. In this way, Technical University of Lisbon has maintained its importance within the Portuguese university system as a whole. The relative size of the schools has also not altered a great deal. All of this has meant that the main structural transformations have occurred through the reforms of the courses that are offered by the schools, and as a result of the increased importance given to postgraduate education, in all of its different forms, and to the research services.

During the period under consideration, the necessary building work was also undertaken for the relocation of the various schools of Technical University of Lisbon at the Alto da Ajuda campus. Thus, in 1994, the new premises of the Faculty of Architecture were inaugurated, followed by the new premises of the Faculty of Veterinary Medicine in 2000, the new premises of the Higher Institute of Social and Political Sciences and the Food Unit in 2001, and the sports pavilion in 2004.

At the same time, Technical University of Lisbon undertook the work necessary to ensure its participation as a partner in Taguspark, the science and technology park located in the municipality of Oeiras, in the Greater Lisbon area, with the aim of bringing the scientific and technological and business communities closer together.

This period also witnessed the setting in motion of a process of formal assessment of the universities' undergraduate courses and research units. As far as Technical University of Lisbon is concerned, besides the generally positive results obtained from these assessments, it should be noted that the presidency of the National Higher Education Evaluation Council was taken over by an emeritus Professor of Technical University of Lisbon, Professor Adriano Moreira from the Higher Institute of Social and Political Sciences.

Furthermore, in 2004, Technical University of Lisbon carried out an overall assessment of its research work between 1995 and 2003, summarised in two volumes and published in 2005 under the title <u>The production and dissemination of knowledge at Technical University of Lisbon 1995/96-2002/03</u>.

Mention should also be made in this context of the creation in 2001 of the College of Integrated Studies of Technical University of Lisbon with the aim of its becoming "a unit of cooperation and convergence, bringing together the scientific and technological areas existing at UTL, geared towards the study of scientific, cultural and socially relevant questions, at both a national and an international level."

As has already been noted, one of the most important consequences of the greater European integration of Portuguese society has been the intensification of university exchanges at a European level, stimulated in particular by the Community's ERASMUS and SOCRATES programmes designed to encourage greater mobility of students and teachers.

This naturally led to the setting up of a European higher education area and a European research area, which was initially formalised with the Sorbonne Declaration of 1998 and the Bologna Declaration of 1999. This marked the beginning of what is currently known as the Bologna Process, which has been further developed at successive meetings of the Ministers responsible for Higher Education and currently involves forty-five European countries.

The aim of the Bologna Process is to increase the competitiveness of the European higher education system, the mobility of students, teachers and researchers and the employability of those that are trained within this system. For this purpose, it is proposed that a system of comparable and easily understandable degrees should be adopted, based on an undergraduate cycle and a postgraduate cycle, leading to the traditional master's and Ph.D. degrees and promoting cooperation in the evaluation of quality and lifelong learning.

It can therefore be said that, at the time when it is commemorating seventy-five years of existence, Technical University of Lisbon is embarking on a new period in its evolution. Everything points to the fact that this period will fundamentally be characterised by the ever greater impact of internationalisation in both the European context and the world context. Technical University of Lisbon – and the schools that compose it – are therefore facing the important challenge of adjusting their teaching and research work to the norms and practices that are gradually being imposed in the World, in Europe and in Portugal. We therefore hope and wish that all those who work at the university will be adequately prepared to meet this challenge.