



Università
Ca' Foscari
Venezia

Corso di Dottorato di Ricerca
in Lingue e civiltà dell'Asia e dell'Africa Mediterranea
ciclo 28

Tesi di Ricerca

**A Study on China's Contemporary Personnel System Reform:
Public Universities**

SSD: L/OR-21

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Introduction

The research on the management of the structure of staff of China's public institutions, and particularly of its higher education system, is not an extensively addressed issue in Italy, due to the uniqueness and novelty of the subject. Even a mere comparison between the Italian administrative laws and the Chinese ones entails a great effort and some approximation, being the first a mature system and the second one a new-born, although in constant and rapid evolution: an evolution linked to the economic development of the Country and also to the interests of the business world. The renewal of Public Administration has become one of the most urgent issues of present day China.

The study of the reforms of the Chinese personnel of public institutions cannot ignore the analysis of the economic development that characterizes the context. It is well known that China is entering a critical phase in its transition to a market economy. There is a variety of types of market economies, so that the concept referred to continental Europe is not the same as the American or the Japanese one, because they possess distinctive institutional and legal elements, reflecting their diversity from political, social, cultural and historical points of view.

China has decided to adopt a market economy with “*Chinese characteristics*”, i.e. a market economy adapted to the particular context and history of the Country.

Article 1 of the Chinese Constitution states that ‘*the socialist system is the basic system of the People's Republic of China*’. So China's economic structure is grounded in the canons of the Marxist-Leninist socialism, according to the reading of Mao Zedong. The reforms inaugurated by Deng Xiaoping at the Third Plenary Session of the 11th Congress of the Communist Party of China (CPC), convened in December 1978, led to the so-called ‘*four modernizations*’, i.e. a process of renewal of rural/urban areas and the adoption of a policy of reform of the economic system¹. The CPC formulated a strategy of actively developing the economic cooperation with other countries, adopting a process of “opening-up” (the so-called ‘*open-door*’ policy)² that from then on became a fundamental principle of China's socialist system.

¹ Yu, T. 1994. *Intellectuals' role in China's Four Modernizations*. In Vajpeyi, D.K. 1994. *Modernizing China*. BRILL.

² Zanier V. (2010) *Dal grande esperimento alla società armoniosa – Trent' anni di riforme economiche per costruire una nuova Cina*. Franco Angeli Edizioni

As for the organizational principles of the government's structure, under Art. 3 of the Constitution all state bodies are organized according to the principle of "*democratic centralism*". This involves the elective nature of all members of the management, the strict application of party discipline, the majority principle for collective decisions and, finally, the binding nature of the decisions of the higher bodies.

A corollary is the '*double hierarchical principle*', whereby each state organ depends on horizontally from its constituents and vertically from a higher level organ.

This system should be read in light of the keystone of the whole system, i.e. the leadership of CPC.

As for the economic characteristics, the program of development issued by Deng Xiaoping was based on the introduction of market elements, implemented with a consistent centralized planning.

After the 14th Congress of the CPC, in 1992, which officially confirmed the establishment of the market economy, no less than 11 reforms of the Public Administration System have been launched by the Chinese government until today, gradually opening the Chinese borders, at the same time maintaining a decisive presence in economy and politics: the last reform has been launched on April 25, 2014 by Premier Li Keqiang.

As for the Higher Education System, during the same 14th Congress the CPC announced that "*developing education*" was its first priority and, on the turn of the century, it concentrated a relevant amount of economic resources of the central and local governments on about 100 "key universities": the organizational guideline was that of "*meeting a balance between the efficiency principle and the fairness principle*".

Out of them, a group of 39 elite universities was chosen (constituting the so-called *C9 League*), whose mission can be summarized by the acronym *R&D (Research and Development)*: to those "national universities" a consistent public funding and a large amount of managerial autonomy have been granted.

A question arises: "Were the Chinese government's reforms successful in laying the foundations of an efficient higher education system and the premises for a competitive *knowledge production* activity?"

The aim of the present research work is to investigate this question, exposing facts rather than expressing conclusive judgments: the Chinese reform process has not yet been concluded.

To successfully perform this investigation, it was necessary to take into account the Chinese history and its present reality, in order to assess the extent to which the reform's characteristics were "context-specific": to that purpose an "*inside out*" approach has been adopted, which considers the reforms as based on the identification of important features that are specific to the Chinese present-day society, as it will be better explained in Chapters 1 and 2 of this dissertation.

We also analyzed the structure of Italian higher education institutions, in light of the most recent reform introduced by the central government (the so-called *Gelmini Reform*), what could be seen as an *outside-in* approach. We adopted two case studies, the University of Padova and the Ca' Foscari University, both located in the North East of the Country, an area which was the protagonist of a great economic development, starting with the 60-ies of last century.

While adopting this "mixed approach" we did not intend to perform a "*one-to-one*" comparison between the Chinese and the Italian Higher Education Systems: that would have been an impossible task, given the huge differences between the two countries in terms of size, economic resources, and political systems. Our purpose was that of establishing a reference frame for the Chinese reforms, beneficial to the western reader, considering that China's first modern higher education institutions, as the Peking and the Shanghai Jiao Tong Universities, had been established according to Western models during the last quarter of the 19th century.

Chapter 1 - Methodology of the research and the relevance of the context

1.1 Methodology: the “inside-out” and the “outside-in” approaches

The analysis of a reform process must take account of the cultural tradition in which it engages.

Among scholars, two main methodological approaches have been adopted in examining the personnel reforms of the Chinese Public Administration system: the so-called “*outside in*” and the “*inside out*” approaches.

The approach called “*outside in*” aims to explain the Chinese reforms through a comparison with the models applied in North America and in other countries of the Western world (the European Union included): this is the traditional approach followed by western scholars while examining organizational and management issues, “*relating the new context to the literature familiar to the western readers*”. Barney and Zhang³ and Whetten⁴ were among them, maintaining that it would be more appropriate to investigate the Chinese management through the lens of existing theories and concepts previously developed in other contexts.

The ‘*inside-out*’ approach, on the contrary, considers the reforms as based on the identification of important features that are unique or otherwise specific to the Chinese present-day society. This approach requires a deep understanding of China and the ability to grasp the finer aspects of its rules and institutions: it has been best illustrated by the Sino-American scholar Anne S. Tsui⁵, Professor of International Management at the *W.P. Carey School of Business*, Arizona State University (U.S.A.) (and also “Distinguished Visiting Professor” at the Peking University, Xi’an Jiao Tong University, Fudan University and Nanjing University).

³ Barney, J.B. and Zhang, S.j. (2009) *The Future of Chinese Management Research: A Theory of Chinese Management versus A Chinese Theory of Management*. *Management and Organization Review*, 5 (1): 15-28

⁴ Whetten, D.A. (2009) *An Examination of the Interface between Context and Theory Applied to the Study of Chinese Organizations*. *Management and Organization Review*, 5 (1): 29-55

⁵ Tsui A. S. (2006) *Contextualization in Chinese Management Research*. *Management and Organization Review*, 2(1): 1-13

China is a country that emphasizes its identity and its ideological and legal peculiarities, whereas it incorporates and adopts solutions borrowed from western models because better suited to support its economic development.

The present study adopts a mixed methodology that uses the *inside out* approach for the analysis of documents from Chinese sources and the *outside in* approach to describe the western reality: more specifically, the Italian one.

As already underlined in the Introduction, the purpose of our partial adoption of the *outside in* approach in this research was not that of performing a “one-to-one” comparison between the Chinese and the Italian Higher Education institutions: its adoption has the purpose of creating a “reference frame” for the Chinese reforms, beneficial to the western readers. Given the need for both approaches, the applied methodology paid attention not to distort the semantic concepts to be compared. Relevant concepts in the management of public institutions, as those of “centralization” and “autonomy”, have a different meaning in the two realities, from a managerial, political, psychological and sociological point of view.

The management system of the civil service is a production of the central government for the implementation and execution of the administrative tasks in public institutions. Different countries adopt different management systems of civil servants because of the differences in history and culture.

We cannot treat the context of China’s management as a fixed or even uniform phenomenon: it has rapidly evolved over a short period of time, introducing a high level of decentralization in its business regulations. A wide range of contextual factors need to be taken into consideration, what Shapiro, Von Glinow & Xiao⁶ called “a *poly-contextual approach*”.

Lam and Chan⁷ wrote in 1996 that the Public Administration reforms in China were only apparently similar to those carried out in the West according to the *New Public Management Paradigm*⁸: for example, the privatization process in its early stages had been turned into a scenario in which private investors were only nominal shareholders of privatized state-owned companies, and were often former state cadres.

⁶ Shapiro, D.L., Von Glinow, M.A. & Xiao, z. (2007). *Toward Polycontextually Sensitive Research Methods*. *Management and Organization Review*, 2(1): 129-152

⁷ Lam, T. and Chan, H. (1996) *China’s new Civil Service. What the Emperor is Wearing and Why*. *Public Administration Review*, 56, No. 3

⁸ See Section 1.3

The implementation of the Civil Servant Law in 2006⁹ marked a new phase of the country's Public Administration System: this law sets the basis of the civil servant administration and defines the scope of civil servants, referring to those who perform public duties and whose wages are paid by public finance.

The conclusion is that to develop a research on China's reforms of PA it is indispensable to tailor them to their particular context, not overlooking the dynamics through which they have evolved over time.

1.2 Context of the Chinese Public Administration's Governance and Management

China has been defined as a “*regionally decentralized authoritarian regime*”¹⁰, characterized by a combination of political centralization and regional economic decentralization, that distinguishes the Chinese regime from federalism and from a typical centrally-planned economy: on one hand there is a highly decentralized decision-making with respect to the economic resources, on the other hand, a highly centralized decision-making with respect to governance and management's accountability.

Regional economies are responsible for initiating and coordinating their activities by providing public services and enforcing the law within their jurisdictions, but the governance depends on the central decision-making organs, thus creating a strong incentive for regional officials to follow the central government's policies in order to achieve an elevated economic performance.

As the former Vice-Minister of Personnel of the Chinese Government, Xu Songtao¹¹, underlined at the beginning of the new Millennium, the introduction of reforms, allowing development with stability, is the only way to maintain a sustainable socialism in China, because without innovation there would be no development, and without development the social stability could not be maintained.

⁹ See <http://www.china.org.cn/english/government/207298.htm>

¹⁰ Xu, C. 2011. *The Fundamental Institutions of China's Reforms and Development*. Journal Of Economic Literature, 2011, v. 49 n. 4, p. 1076-1151.

¹¹ Xu Songtao, 2001, China's Public Administration Reform: New Approaches. IIAS Asia Pacific Panel on Public Administration, pp. 1-10

Owing to the fact that China adopted a gradual approach to reforms, unlike the shock therapy held in the USSR and in Eastern Europe, the change in public ownership has been a smooth process. After entering the 21st century, Chinese reform and development activities have made great achievements, but China's market economy is still incomplete and the development has become harder to sustain. Moreover, China's growth has come largely from a rising labor supply and a rapid capital accumulation. The global financial crisis and the recent slowing down of China's growth have led to questions about its sustainability: China is too dependent on external demand and needs to 'rebalance' its economy toward domestic demand, especially household consumption, as a strategy for mitigating external shocks and maintaining a long-term sustainable growth.

In order to strengthen the domestic demand, the rebalancing policies adopted by the People's Republic of China have included increasing social spending, prioritizing health care, education, and pensions. For this reasons the previous policy of massive import of foreign technology has been replaced by a different approach, which aims to create a society based on knowledge and culture: in this way the Country will be able to form, through the Higher Education System, generations of specialists and technicians, capable to develop technology from the inside and make China independent in research and technological evolution.

After the 16th National Congress of the CPC (November 8-14, 2002), the Central Committee and its General Secretary Hu Jintao initiated a strategy of '*Scientific Outlook and Development*'.

Scientific development means a coordinated, sustainable development and a harmonious relationship of people with Nature as the fundamental task, with the goal of building up a "well-off society" (小康社会) (*xiǎokāng shèhuì*): this concept describes a '*moderately prosperous*' society, free of all worries about food, clothing and other social problems.

Deng Xiaoping used this concept to appoint the modernization underway in China in the late 20th century, but the term became especially well known in more recent years, as it was used by Hu Jintao when referring to economic policies meant to the creation of an equal distribution of wealth.

Also, the current General Secretary Xi Jinping used this term during the annual National Party Congress meeting of 2015, unveiling a set of political slogans, called *The*

Four Comprehensives, which include the “*comprehensively building a moderately prosperous society*”.

In this regard, according to the *Organization for Economic Cooperation and Development (OECD)* sources¹², Chinese funding for research and development has grown from US\$ 7.5 billion in 1991 to US\$ 243 billion in 2012, registering an exponential growth and an average annual increase of 18 %.

In 2014 Premier Li Keqiang announced the “*Personnel Management Regulations for Public Institutions*”¹³, where the “*human resource management*”¹⁴ plays an essential role, as it will be illustrated in Sect. 2.3.2 of next Chapter.

1.2.1 The Chinese Higher Education System

As China moved from a planned economy to a market-based one, Chinese universities gradually moved from a “state-controlled” model toward a “state-supervised” one.

Almost forty years after its launch, the process is still ongoing. Since education is a ‘quasi-public’ institutional activity, delivering goods and services, the main human and economic resources of state-run universities must be supplied by central, provincial and/or municipal governments, with additional funds for personnel and scientific research coming from academic entrepreneurial activities (spin-offs and others): the latter and the management should evolve according to the market rules.

The Chinese scholar Peijun Guan in a recent paper, entitled “*Epistemological and Methodological Issues on Personnel Reform and Development of University Teachers*”¹⁵, supports this thesis, consonant, at least in what refers to Higher Education, with the model of “*social market economy*”¹⁶ of the *Freiburg School of Economics* (successfully followed

¹² http://www.oecd.org/sti/inno/Note_MSTI2013_2.pdf

¹³ <https://www.global-regulation.com/translation/china/158924/institutions-personnel-management-regulations.html> and also Section A1 of the Appendix

¹⁴ Yun Yuan and Xiuli Cai (2015). *A management scheme for the universities’ reform on Human Resource Management and Development in China*. International Conference on Social Science and Higher Education (ICSSHE 2015), pp. 151-154

¹⁵ Guan P.J. (2015) *Personnel System Reform of Universities and Development of Teachers*, Beijing Normal University Publishing Group, Editor-in-chief: Zhu Xu Dong

¹⁶ Müller-Armack, A., *The Social Market Economy as an Economic and Social Order*, in: Review of Social Economy 36, Washington, D.C., 1978, pp. 326 f.

in the German Federal Republic by the Economy Minister Ludwig Erhard during the “reconstruction period” following the Second World War). He writes:

“In the process of promoting the market economy, it should be clearly stated what the government should control and what it should not. The relationship between the government’s behavior and the market should be clear in things such as the team building and the human resources allocation. The government cannot and must not give up its responsibility.”

Another aspect that must be mentioned is the important role attributed by the central government to the spreading of higher education among growing layers of the population in the economically disadvantaged territories in the West of the Country.

As it will be illustrated in the next Chapter, in the effort of moving from “*knowledge transfer*” to “*knowledge creation*” two distinct types of academic institutions have been established in China: the “*research universities*” and the “*comprehensive universities*” (i.e. “teaching and research universities), in addition to the so-called “*vocational universities*”, which deliver professional courses for the creation of skilled technicians. Which is the autonomy level of the university system in China? From a historical point of view, we should mention the lack of “intellectual autonomy” of Chinese scholars with respect to Power during the various imperial dynasties¹⁷, until the end of the 19th century. Over thousand years ago the system of *Imperial Examinations* had been introduced in the Country, for the selection of public managers. The cultural model followed inside the *Imperial Academy* (国子监 *Guózǐjiān*) was completely different from the *Humboldtian model*¹⁸, ruling in Western universities since the beginning of the 19th century.

The essayist Yu Qiuyu in his book entitled “*Bitter journey through culture*” writes: “*The Chinese scholars, even the excellent ones, were too closely connected with the Power: if they tried to take distance from it, that constituted a betrayal of that Power or even a complicity with its opponents. So their official speeches and behavior, in the spirit of ‘Rùshì’ (入世 = entering the world) were to renounce an independent cultural thinking. The alternative was the ‘Chūshì’ (出世 = retiring from the world)*”.

¹⁷ Yu Qiuyu, 2014 “Bitter Journey through culture”, Shanghai, 2.nd Edition (in Chinese)

¹⁸ *Humboldtian model*: it is a model of higher education based on “*academic freedom*”. It was enunciated in the early 19th century by Wilhelm von Humboldt (1767-1835), founder of the Berlin University.

The modern Chinese university system was born toward the end of the Qing Dynasty, in the wake of the *Hundred Days Reform* of 1898, as a consequence of China's dramatic defeat by Japan in the "*First Sino-Japanese War*" (1894-95): it was inspired by the Japanese model of education (which had been modeled according to western ones) and continued in the early 20th century on the basis of the direct experience of American colleges. The onset of the *Second Sino-Japanese War* (1937-1945) and the civil war between the Nationalist Party and the Communist Party blocked that evolution.

After the creation of the People's Republic of China, in 1949¹⁹, the CPC assumed full responsibility in formulating higher education policies, allocating resources, exercising administrative controls, employing teaching and research staff, developing curricula, recruiting students and assigning jobs to university graduates. The advent of the *Cultural Revolution* (1966- 1976) blocked anew the activities of all universities.

After the end of the "*Cultural Revolution*", starting with 1978 the governance of Chinese universities moved from a fully controlled model to a partially self-ruled one.

The granted autonomy was accompanied by stricter accountability rules²⁰.

A series of Public Administration and University reforms were then enacted, the last one in 2014²¹: we will examine them in Chapters 2 and 3.

1.3 The Western Context

From a historiographical perspective, the modern system of public personnel management in the West was adopted in the UK at the beginning of the 18th century, in response to the economic changes related to the growth of the British Empire.

The system of civil servants of the United States was established later, in 1871, for the performance of tasks in the administrative, judiciary-military and legislative sectors.

Since the Eighties of last century, a broad process of transformation is on the way in the West: those innovations have been generally covered by the concept of *New Public*

¹⁹ Su-Yan Pan, 2009. *University autonomy, the state and social change in China*. Hong Kong University Press, pp. 1-264

²⁰ Mei Li and Rui Yang, 2014. *Governance Reforms in Higher Education: a study of China*. IIEP (UNESCO), pp.5-39

²¹ see note 13, Sect. 1.2

*Management Paradigm*²² (NPM). This term indicates the introduction of organizational and operational models (similar to those utilized by private enterprises), which took place in the UK and in the US with the advent of Mrs. Thatcher's and Mr. Regan's governments in those Countries, and eventually spread all over the Western World: the NPM induced deep changes in the operational and decisional activities of public administrations, often summarized with expressions such as '*corporatization*' or '*materialization*'.

Those changes were caused by the highest standards and demands made in recent decades by the citizens/users and stakeholders with regard to the university's educational and research services and by the exceptionally difficult situation of the public finances in all western countries.

Schools, universities, health care organizations and others have undergone since then a series of extensive reforms, aiming to review and reshape the way the central government or local authorities conduct their business, in order to increase the levels of quality and efficiency of the public administration. A common aspect of all efforts of change in different countries and in different public sectors has been the introduction of higher levels of operational autonomy of the involved institutions, accompanied by the need for greater accountability in the use of public resources.

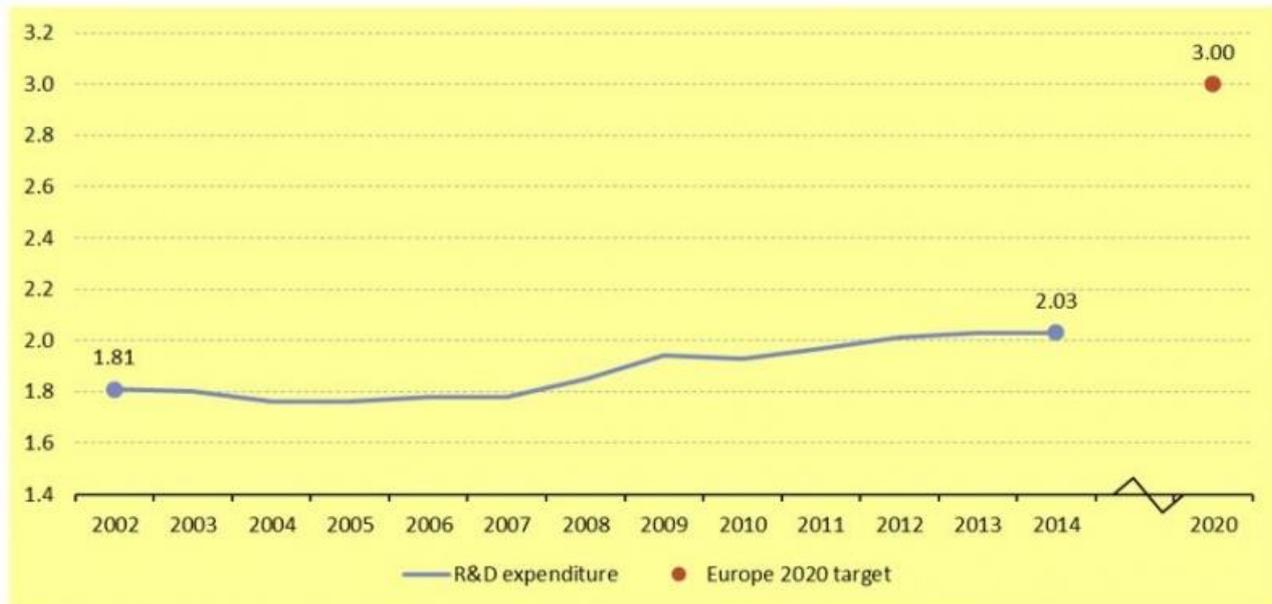
In March 2000 the European Council devised in Lisbon (Portugal) a common development plan for all member states of the European Union: its ambitious goal was to make the EU, by 2020, "*the most competitive and dynamic knowledge-based economy in the World, capable of a sustainable economic growth with more and better jobs and greater social cohesion*". It was the so-called *Lisbon Agenda* or *Lisbon Process*.

Its main fields were the economic, social and environmental ones and they had to be based on *innovation, learning economy* and *social and environmental renewal*.

Unfortunately, the progress of the *Lisbon Agenda* was not so smooth as foreseen: in contrast to China's rapid rise, Europe's *Research and Development (R&D)* spending remained stagnant. The continent made little headway in the past decade on a long-term

²² Hood, C., 1995, *Emerging issues in Public Administrations*, Public Administration, Vol. 73,1, pp. 165-183; Hood, C., *The "New Public Management" in the 1980's; variations on a theme*, Accounting Organizations and Society, 20 (2/3), pp.93-109; Barzelay, M., 1999, *How to argue about the New Public Management*, International Public Management Journal, 2(2), pp.183-216; Jones, L.R., Guthrie, J., Steam, P., 2001, *Learning from International Public Management reform*, Elsevier Science Inc.

target to reach 3% of the *Gross Domestic Product (GDP)* by 2020: it was 2.03% in 2014, corresponding to about US\$ 375 billion(see Figure 1.1)²³.



(*) Data for 2002–03 are estimates; 2014 data are provisional.

Figure 1.1 Gross domestic expenditure on R&D (expressed in % of GDP) in the EU in the period 2002-2014 (from ec.europa.eu/Eurostat, *ibidem*)

In spite of all that, the *Lisbon Process* gave an impetus to the renewal process of the European universities, as it will be discussed in next Section.

1.3.1 Guidelines of the European Higher Education System

Starting with the beginning of the 19th century, the dominant model of western universities had been that of a “*republic of scholars*”, in which *academic freedom* and *the pursuit of knowledge* were the dominant values: the institutional decision-making was collegial and consensus-based, and the president (the Rector) was elected from among the universities’ most esteemed scholars, to fulfill ceremonial and administrative duties as a “*primus inter pares*” (first among equals).

With the words of W. Saint²⁴, “*the [Higher Education’s] institutional mission was to preserve knowledge, add to accumulated understanding and transmit this intellectual*

²³ http://ec.europa.eu/eurostat/statistics-explained/index.php/Europe_2020_indicators_-_research_and_development

²⁴ William Saint, 2009. *Guiding Universities: Governance and Management Arrangements around the Globe*. Commissioned by the Human Development Network of the World Bank. <http://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1239047988859/University-Governance-and-Management-FINAL-Revised-2-Feb-2010>.

inheritance to the next generation...Any attempt to introduce accountability for performance was routinely rejected as an attack on academic freedom.”

Since the Nineties of last century, the European universities have been experiencing a long process of intense innovation, which exposed them to competitive dynamics and decision-making processes typical of companies operating in the private sector.

The *Lisbon Process* helped stimulating the international ‘*Organization for Economic Cooperation and Development (OECD)*, based in Paris, to assign a new role to the University System, as a promoter of innovation and economic growth. Accordingly, the universities were encouraged to become entrepreneurial actors in the competition for innovation²⁵.

Owing to the increasing necessity of establishing contacts with the extra-academic world for outside funding, a “*third mission*” was attributed to the centers of higher education, namely the development of services for economy and society, in addition to the traditional “*first mission activities*” (teaching) and the “*second mission activities*” (scientific research): the “*third mission activities*” mainly consist of “technology transfer”.

The affirmation of an “*entrepreneurial university model*” pushed the university administrations to introduce internal logics and processes typical of business and economy, which were very different from those traditionally used in the past. As a consequence of those changes, universities discovered the importance of taking strategic decisions, developing awareness and skills in the evaluation of performance and deploying instruments which had to meet the requirements of accountability to all stakeholders, while supporting effective decisions, especially concerning the allocation of resources.

The process of change that is taking place in present times is modifying, and in some cases revolutionizing (in ways and times different from Country to Country) the traditional procedures and the core values of academic institutions in Europe and worldwide.

Those reforms have been basically designed to move the reins of command from a state-controlled center to decentralized, private-management centers, with a peculiar attention to the final beneficiary, who is no longer a “user” but a “customer”²⁶. Organizational forms open to competition, rather than rigid structures characterized by an

²⁵ Fayolle, A. and Redford, D.T., 2014. *Handbook on the Entrepreneurial University*, Edward E. Publishing, pp. 121 ff.

²⁶ Meek, V.L., Goedegebuure L., Huisman, J., 2000, *Understanding diversity and differentiation in higher education: an overview*, Higher Education Policy, 13, pp. 1-6.

administrative/bureaucratic control, have been recognized as being better suited to the fulfillment of the desired transition toward a scenario marked by a greater diversity of supplies and a higher quality of services. At one side the high demand for quality, efficiency and effectiveness and, at the other side, the lack of financial resources, have suggested or even imposed on the academic world the adoption of principles and instruments aimed at achieving those goals. From the stakeholder's point of view, an entrepreneurial university could constitute a powerful tool to create a network of social contacts, giving rise to a platform for the exchange of funds collected from the private sector with the products of the scientific research, carried out by a talented workforce operating within the university system.

Among the most recent models of evaluation of performance there is the so-called “*Total Quality Management (TQM)*”²⁷, originated in the manufacturing sector, which has since been adapted for use in almost every type of organization (included the academic ones): its continuous improvement is based on the adoption of the most advanced evaluation tools²⁸.

North America and Australia have been able to effectively manage human resources in a flexible manner through the establishment of intermediate figures (the university’s *General Manager* and the *Board of Directors*) coming from outside the university, while the personnel was subjected to greater “wage flexibility”: that model is being followed by the European Union Countries in what refers to governance and management, while public investments still support the teaching and the greatest part of the research activities. According to the sources cited above, the annual public financing to universities was 100 Euros per inhabitant in Italy, while in France and Germany it amounted to 300 Euros, in the Netherlands to 400 Euros and to 700 Euros in Finland, Norway, and Sweden.

Italy has been stuck for long in a situation of total lack of flexibility in the management of universities’ human resources, with a low level of investment: the latter was managed with incomplete autonomy and lack of planning, in such a way that all those factors had a negative incidence on the levels of competitiveness with respect to the

²⁷ Winn, R.C. and Green, R.S., 1998, *Applying Total Quality Management to the Educational Process*, Int. J. Engng Ed. Vol. 14, No. 1, p. 24-29.

²⁸ Parker, L.D., 2002, *It's been a pleasure doing business with you: a strategic analysis and critique of university change management*, Critical Perspective on Accounting, 13 (5-6), pp. 603-619; Saravanamuthu K., Tinker T., 2002, *The University in the new corporate world*, Critical Perspective on Accounting, 13 (5-6), pp. 545-554.

corresponding northern-European institutions. Despite all of that, it can be said that, through the reforms introduced under the pressure of the EU, the Italian university structure has noticeably improved.

In order to complete the picture, let us briefly illustrate the joint efforts of the European Union's member states for the improvement of public Higher Education Institutions.

In 1987 the so-called *Coimbra Group* was established in Coimbra (Portugal): it is an association of long-established European universities, committed to creating special academic and cultural ties aiming to promote the internationalization, academic cooperation, excellence in learning and research, services to the society. The purpose of the Group is to influence the European educational policy and to develop the best practice through a mutual exchange of experience. A second important European initiative was the so-called *Bologna Process*: on June 18-19, 1999, the Education Ministers of 29 European countries met in Bologna with the purpose of creating, within 2010, an “*European higher education common space*” (*EHEA*), through a gradual standardization of the European educational structures, what already happened in most member states (Italy included) and is in the process of realization inside new countries joining the group.

Chapter 2 China's Public Administration and University Reforms

2.1 The pathway to Public Administration reforms

Since the foundation of the People's Republic of China (PRC), its governments launched eleven reforms of the Public Administration. The first three of them, which took place in the triennial 1954-56, 1959-61 and 1968-70, were based on Marxist theories of class struggle and aimed toward a stronger central government.

After the 14th Congress of the CPC, in 1992, which officially confirmed the establishment of a market economy, reforms were implemented in 1993 and 1998, focusing on the promotion of an economic and social development. The reform of 1998 evidenced the most drastic re-organization in the history of PRC. It consisted of a rationalization of bureaucracy, a reduction of functionaries and a change of the government's attitude with respect to the economy. Some industrial ministries were reduced to the level of ministerial sub-departments or else they became state enterprises (*corporatization phenomenon*) or, finally, they merged with other existing ministries.

On 11th September 2001, China joined the *World Trade Organization (WTO)*, thus becoming its 143rd member State. Cao Jianming, the general Secretary of the Central Committee of the CPC, affirmed that “*China's entry into the WTO will not only profoundly impact the 'Rule of Law' (法治 Fǎzhì)²⁹ in China, but will also call for higher standards of China's judicial system. As a result, it has become an urgent and important task for China to further promote reforms*”.

It must be underlined that the alternative to the ‘*Rule of Law*’ would be the “*Rule by Man*” (人治 Rénzhì), which in the past had been the norm in China.

A direct consequence of that reform was a great revision and a new development of the legislation in order to comply with the commitments arising from the participation in the

²⁹ Leigh K. Jenco (2010) “*Rule by Man and Rule by Law etc.*” *The Journal of Asian Studies*, Vol. 69, No.1, pp. 181-203

WTO. Only in the trade sector in two years³⁰ 210 laws were modified and 559 were abolished.

The reform of 2003 was a continuation of the reform of 1998; it constituted a positive response to the requirements of the economic globalization.

A new, integrated, Ministry of Commerce was created: the management of domestic and foreign trade and the implementation of antidumping and anti-subsidy policies were conveyed to this Ministry, thus putting an end to the separation of the internal market from the external ones.

A number of new trends in China's administrative reform are worth to be underlined: the rationalization of governmental administrative processes, the promotion of plural governance and the strengthening of the administrative litigation system. In the transition from a centrally-ruled economy to a market-oriented one, China started a gradual integration into the global economy, thus entailing an adaptation of the government in order to manage the changing social and economic structures.

A fiscal decentralization was also introduced, creating a sort of fiscal federalism: starting in 1994, a "separate tax system" (分税制 *Fēnshuìzhì*) scheme was implemented, through which local governments acquired significant amounts of taxation, fee collection, legislative and investment powers.

A new civil service system was introduced through the *Civil Service Law* of 1st October 2006.

China's public sector comprises three categories of institutions: "Party and State organizations" (党政机关 *Dǎng zhèng jīguān*), "Public Service Units" (事业单位 *Shìyè Dānwèi*) (delivering social services outside the government's structures), and "State-owned Enterprises" (企业单位 *Qǐyè Dānwèi*) (entities that remain within the government's ownership). Each category has its own personnel management system. Party and State organizations are staffed with civil servants (they amounted approximately to 11 million people in 2006), while the Public Service Units' employees (about 28 million) are not classified as civil servants. The employees of the "State-owned Enterprises" amounted in the same year, to approximately 25 million people.

³⁰ Guo, B. 2014. *New Trends in China's Administrative Reform*. China Research Center..

Although all administrative reforms (decentralization and delegation of functions, downsizing of administration, evaluation of performances, development of culture and education and use of the scientific progress to improve efficiency, standardization of administrative procedures, limitation of the administrative powers in order to prevent corruption etc.) were in agreement with the world trends: they evidenced also great differences with respect to the western homologous, due to the unique nature of China's political system and also to its incomplete market economy system.

The following tasks were singled out in 2006 as priorities for a serious administrative reform in China³¹:

- improve accountability,
- increase administrative transparency,
- enact appropriate laws governing the administrative procedures,
- introduce an evaluation of performance
- encourage public participation, allowing the creation of nonprofit organizations.

Those tasks have been not yet thoroughly fulfilled. According to the scholar Qun Wang³², the insufficiencies of those reforms were due to the fact that they were not in line with the rules of a market economy, in spite of the great efforts to renew the structures.

Another reason was the fact that the central government adopted a *top-down* procedure, with very limited inputs from local governments and the citizens. That centralized approach was not well adapted to widely differing realities.

In addition to that, '*administrative directives*' were issued, instead of enacting proper administrative laws: owing to that absence, the reforms tended to be discarded after several years. As an example, the *Administrative Litigation Law* (行政诉讼法 *Xíngzhèng Sùsòng Fǎ*), enacted in 1989, had a very limited impact on the administrative system because of political interference and excessive bureaucratization.

2.1.1 Most Recent Public Administration Reforms

³¹ Wang Manchuan, 2006. *An overview of public administrative reform in China: Experiences and Prospects*. http://innovation.pa.go.kr/include/file_dedown.php?id=2069

³² Qun Wang, 2010. *Administrative Reform in China: Past, Present and Future*. *Southeast Review of Asian Studies*, 32, pp. 100-119

On the occasion of the “*Third Plenum of the Eighteenth Party Congress*”, held in November 2013, China’s President and General Secretary of the Party, Xi Jinping, launched a new reform manifesto under the title “*Decision on Major Issues Concerning Comprehensively Deepening Reforms*”³³, with the purpose of promoting a speeding up innovation in China’s governance by strengthening the rule of law and building a service-oriented public administration.

The priority of that reform was placed on creating a new system of “*retroactive supervision*”. The “*Plan for the Institutional Restructuring of the State Council and Transformation of Functions*”, adopted in the same year by the National People’s Congress, further specified that many requirements concerning investment, production, operations, licensing and accreditation had to be canceled or delegated to lower-level governments.

Similar administrative reforms were carried out at the provincial and local levels, but the extent to which administrative simplifications have been implemented up to now varies greatly.

A noticeable change with respect to the past has been the establishment of a small leading group, called “*Central Leading Group for Comprehensively Deepening Reforms*”, with the task of supervising the implementation of reforms.

More recently, the State Council, by the Decree no. 652³⁴, signed by Premier Li Keqiang on April 25, 2014, and implemented on July 1, 2014, enacted the ‘*Reform of the public personnel*’. Among its programmatic points, there is the definition of the system of employment of staff, a new distribution system of salaries, the definition of the procedures for the public recruitment, for the employment contracts and for the labor disputes assigned to arbitration. The stated objective was to offer valuable counter-measures against persistent problems in the management of the Public Administration’s personnel. In 2008 a *State Bureau of Civil Servants* has been created³⁵, whose main role is that of enhancing the public sector’s management. This office is still in charge: it reports to the *Ministry of Human Resources and Social Security*. A major challenge for China’s government is to tackle the problem of the overlapping of functions, excessive bureaucracy, formalism, malfeasance, abuse of power and corruption within the Public Administration.

³³ http://news.xinhuanet.com/politics/2013-11/15/c_118164235.htm

³⁴ See Section A1 of the Appendix

³⁵ <http://www.scs.gov.cn/>

Attempts to counter the corruption practices have been implemented during the almost 40 years of the economic reform period. Over the past decade, the government has introduced new approaches to reduce the incidence of corruption and ensure greater observance of ethical standards by civil servants³⁶. The focus has moved from a campaign-based, top-down corruption control and education to an institutionalized “integrity management”, designed to improve the government’s integrity at the local level.

The issues of excessive levels of personnel assumptions and reports of nepotism have been dealt, offering a more transparent standardization of occupation: since the enacting of the reform, all the institutions and staff must now work on the basis of an employment contract, the duration of which should not be under 3 years (although, in general, the contracts of employment with public institutions offer longer periods of engagement, establishing a relatively stable base of staff). The contract contains provisions for the termination of the relationship by the same public institution, as a result of an evaluation that takes into consideration absences, rejections of proposals of re-allocation of the staff, test results of annual measurement of skills and performance. Civil servants whose employment relationship is regulated by contractual agreements see their rights and obligations explicitly transposed into the contract. The permanent employment is abolished: civil servants are evaluated on the basis of their productivity and at the expiration of the contract their position can be maintained only according to performance.

The reform introduced new provisions on long-term contracts, to encourage the turnover; it has also affected the ‘*double-track*’ of the pension system in China, where corporate employees had to contribute 8% of their salary, while civil servants used to be totally exempt. The State Council, in early 2015, has confirmed a long-awaited intervention to equalize the two systems (however it did not affect current retirees): employees will contribute 8% of their salary to the “*fund retirement insurance*”, while public institutions have to start contributing with 20% of an employee’s salary to a pension fund and develop an annuity arrangement³⁷. Before this reform, there was no source of income dedicated to pensions in the public sector, with the government simply paying retired workers by

³⁶ Dong, K.Y. Yang, H.S. and Wang, X. 2010. *Public Service Ethics and Anticorruption Efforts in Mainland China* in Berman, E.M. Jae Moon, M. and Choi, H. (eds), *Public Administration in East Asia: Mainland China, Japan, South Korea, and Taiwan*, CRC Press.

³⁷ *China: Public-sector pension reform launched*. Asia Insurance Review website January 19, 2015. Full article at <http://www.asiainsurancereview.com/News/View-NewsLetter-Article?id=31897&Type=eDaily>

drawing the necessary amount from the general tax revenue. According to the legislation prior to the reform, the majority of civil servants used to receive pensions equal to 80-90% of their previous salary, while the ratio for non-government employees was often less than 50%, a level that now will match even the public sector.

To alleviate the concerns and discontent of those affected by the pension reform, the *Ministry of Human Resources and Social Security* announced that it will be guaranteed to all civil servants a compensative pay rise³⁸.

The reform has also affected the mechanism of wage growth, thus fitting into an innovative process of income distribution in China that began in 2006 on institutional staff salaries; at the same time, however, it has further widened the wage gap between government employees with different working positions and different ranking: the new wage system provides 27 classes and a maximum of 14 grades for each rank, according to seniority and performance. In the light of national conditions and context and in accordance with the principles of rationalization of the system, unification, and efficiency, the public administrative departments are gradually adjusted and reformed.

2.1.2 The Public Administration Reforms in the Guangdong Province

In the South-East of mainland China, the Guangdong Province (with a surface of 177,900 Km² and a population of over 107 million people) was the first one implementing the economic reforms and rapidly opening its economy to the outside world, thanks to its advantageous position on the *Gulf of the Pearl River*: in 1979 the Central Government of the PRC created the **Pearl River Delta Economic Zone (PRD)** (珠江三角洲经济区 *Zhūjiāng Sānjiǎozhōu Jīngjìqū*), consisting of the cities of Guangzhou, Shenzhen, Dongguan, Foshan, Zhongshan, Zhuhai, Jiangmen and parts of Huizhou and Zhaoqing (see map in Fig. 2.1).

The **Pearl River Delta Economic Zone** accounted in 2005 for 19.9% of China's GDP and 38.9% of its total trade, and in 2014³⁹ it still accounted for the 9.1% of China's GDP and the 26.2% of China's total trade.

³⁸ Li Zhong' speech at a press conferences held by the State Council Information Office in Beijing, January, 19, 2015. <http://www.wantchinatimes.com/news-subclass-cnt.aspx?id=20150125000044&cid=1103>. See also Section A6 of the Appendix.

As the most dynamic region in the Chinese Mainland, the region has become an important industrial market for all sorts of inputs, materials, and capital goods. It is also a major market for transportation and trade-related services. The rapid urbanization has created demand for infrastructures, building materials, transportation services, housing and other goods and services associated with the urban development. The **Pearl River Delta Economic Zone** is also a highly attractive consumer market.



Fig. 2.1 The Pearl River Delta

The P.A. reforms have passed through the following periods⁴⁰:

³⁹ See <http://china-trade-research.hktdc.com/business-news/article/Facts-and-Figures/PRD-Economic-Profile/ff/en/1/1X000000/1X06BW84.htm>

⁴⁰ Ruilian Chen, 2002. *Administrative Reform in Guangdong Province and Its Characteristics*. Chinese Public Administration Review, 1, No. 1, pp. 17-24

First period: the 1980s.

The reforms initiated in that period focused on restoring at all levels, after the *Cultural Revolution*, the normal working environment inside the central, provincial and municipal agencies across the Guangdong Province. Efforts were made to transform the functions of the government, separating political affairs from corporate management and cutting payrolls in poorly performing enterprises.

Second period: the 1990s.

The reforms in that period focused on carrying forward the transformation of the governmental functions, simplifying the administrative system and standardizing the organizational structure.

Third period: the new millennium.

The reforms in this period carried further the efforts to transform the governmental functions, reforming the administration and personnel system, improving the operational mechanisms and gradually establishing an administrative system better suited to a market economy. More than 100 different administrative functions, originally under the control of governmental departments, have been handed over to society organizations and intermediaries. Additionally, the provincial government authorized outside parties, for up to 39% of the total 1,972 items, to take care of those affairs that in the past were managed by the government itself.

The size of those affairs of the provincial government has also been reduced to 514 items from the original 1,392 items - a 63% reduction. Such efforts have helped to cut the payroll of the provincial government. In addition, the number of functional departments under the provincial government was reduced from 57 to 44. Staff in subordinate divisions of these departments was cut by 24%. Moreover, the number of cadres at office and division ranks were reduced by 27% and 20% respectively.

Working closely with the Central Government's reform efforts, the Guangdong Province integrated the Peking's requirements with the actual conditions in the Province, showing a pioneering spirit, making bold explorations and setting a successful example throughout the Country in adopting the reform and the openness policy. For instance, in the early 1980s, the *Shenzhen Special Economic Zone* in Guangdong took the lead in transferring powers to lower levels, allocating a share of the operating benefits to the operators, as well as employment reforms in enterprises. In the late 1980s, Shenzhen took

the lead in conducting a “*shareholding system reform*” in the state-owned enterprises, despite a sharp criticism, claiming that Shenzhen City was being privatized. In 1994, Shenzhen eliminated the administrative supervision over enterprises, enabling the latter to conduct their administrative affairs according to internationally accepted practices.

2.2 The Chinese Higher Education System

2.2.1 Historic Overview

The traditional Chinese Higher Education System goes back over 2500 years, at the time of *Emperor Wu* (156-87 B.C.) of the *Western Han Dynasty*. It was based on Confucian ideals and its purpose was the preparation of the higher civil servants of the Country, to be chosen through an *Imperial Examination System* (科举 *Kējǔ*). The teaching was held (during the Yan, Ming, Qing Dynasties) by the *Court Academicians* (博士 *Bóshì*) inside the government-sponsored *Imperial College* (国子监 *Guózijiān*) in Peking, and the teaching materials were the *Four Books and the Five Classics* (四書五經 *Sìshū Wǔjīng*): *Great Learning, Doctrine of the Mean, Analects, Mencius, Classic of Poetry, Book of Documents, I Ching, Spring, and Autumn Annals*. The system lasted until the *First Opium War* (1839-1842) when the *United Kingdom of Great Britain and Ireland* forced the Emperor Dao Guang to open China to the western world.

As a consequence of China’s dramatic defeat by Japan in the “*First Sino-Japanese War*” (1894-95), things started to change with the so-called “*Hundred Days’ Reform movement*”, promoted in 1898 by the young Guanxu Emperor (1875-1908) at the suggestion of his political counselor, the scholar Kang Youwei.

The movement enunciated the following program:

- replace the absolute monarchy with a constitutional one, creating a truly democratic system;
- build a modern education system, based on the study of sciences and mathematics and modernizing the old *Imperial Examinations* system, based on the knowledge of Confucian texts;
- strengthen the Military through a technological modernization;

- introduce a rapid industrialization, applying the principles of capitalism to strengthen the economy, etc.

The first consequence of that reform movement was the establishment of the “*Imperial University*” in Peking (京师大学堂 *Jīngshī Dàxué Táng*) on July 3, 1898, replacing the old *Imperial Academy* (国子监 *Guozijian*). Another Higher Education Institution had been previously established in Shanghai in 1896, the *Nanyang Public School* (南洋公學 *Nányáng Gōng Xué*), nowadays the *Shanghai Jiao Tong University*, by an imperial edict issued by the Guangxu Emperor.

In spite of the fact that this reform movement only lasted 111 days because of the strong opposition of the conservative ruling elites, guided by the grandmother of the Emperor (the *Empress Dowager Cixi* (1835-1908)), the *New Policies* (新政策 *Xīn zhèng*) were nonetheless adopted by the latter, starting with 1901: they included reforms in almost every aspect of governmental affairs. The *Imperial Examinations* were abolished in 1905 and traditional academies were converted into western-style schools.

When putting the reform process in motion, it came to *Xinghai revolution* and the establishment of the Chinese Republic in 1911. In 1912 the *Peking Imperial University* was renamed “*National Peking University*” (国立北京大学 *Guólì Běijīng Dàxué*): it was China’s largest institution of higher learning, with 14 Departments and 2,000 students. Its Rector since 1917, the scholar Cai Yuanpei, was inspired by the *Humboldtian model*⁴¹ of academic freedom: he recruited prominent intellectuals (as the writer Lu Xun) and the students of that university formed the bulk of the patriotic *May Fourth Movement* (五四運動 *Wūsì Yùndòng*). The latter was an anti-imperialist cultural and political movement, growing out of a huge students protest which took place in Peking on May 4th, 1919 to demonstrate against the Chinese government's weak response to the Japanese occupation of the Shandong Province.

Among the most prestigious ones, created during the imperial and the early republican times, let us recall (besides the already mentioned *Nanyang Public School* of Shanghai and the *Imperial University* of Peking) the *Sanjiang Normal College* (nowadays the *Nanjing University*), established in Nanking in 1902, the *Fudan University*, founded in Shanghai in 1905, the *Tsinghua College* (nowadays *Tsinghua University*), established in

⁴¹ See note 18, Chapter 1

Peking in 1911, the *Zhongshan University* (nowadays the *Sun Yat-sen University*), founded in 1924 in Canton (Guangzhou). Among the universities established in China by the Foreign Powers let us recall the *University of Hong Kong (HKU)*, founded in 1910 by the British Governor and the *Harbin Institute of Technology*, founded in 1920 by the Russian authorities.

The subsequent civil war between the nationalist *Kuomintang Party* (中国国民党 *Zhōngguó Guómíndǎng*) and the *Communist Party* (中國共產黨 *Zhōngguó Gòng Chǎn Dǎng*), and the outbreak of the *Second Sino-Japanese War* (1937-1945) blocked the reform process of Chinese institutions of higher education.

After the creation of the *People's Republic of China*, Higher Education was brought under government leadership, being considered a critical element of a strategic political initiative aimed at strengthening the national power through science and education. The *Chinese Academy of Sciences (CAS)* (中国科学院 *Zhōngguó Kēxuéyuàn*), was established in Peking and a *National Higher Education Entrance Examination* to university studies (高考 *Gāokǎo*) was introduced.

After the initial contribution of know-how coming from the Soviet Union, from 1967 to 1976, during the *Cultural Revolution*, China entered a period of autarchy in technology, according to a strategy defined 'do it yourself'. The *Gao Kao* was abolished and the enrollment of postsecondary students dropped from 674,400 to 47,800.

In 1977, Deng Xiaoping made the decision of resuming the *Gāokǎo* and, from the 1980s on, the Chinese higher education system underwent a series of radical reforms. At the beginning of economic reforms, for a short time the strategy was that called 'buy it' (the government bought in mass machinery and equipment), and then the strategy of 'bargain for it', which led to the conclusion of relevant agreements such as the one constituting the joint venture *Alcatel Shanghai Bell* in 1984. In the Eighties there was a rationalization of the funding system, provided on the basis of specific projects (a strategy known as 'seed it'); it was also introduced the possibility for universities and institutions to create their own sales offices.

In the Nineties, China entered the stage of 'Open up to foreign investments', when the government encouraged the entry of foreign IT operators; the intensified trade and transfer of technologies and equipment from abroad was one of the driving forces of

China's entry into the WTO. The last phase, which marks a clear shift in strategy for the development and modernization, involves the abandonment of the import process and shifts towards strong support to the development of local entrepreneurs. We will examine that in greater detail in Section 2.4, devoted to the illustration of the *Chinese Academic Entrepreneurship*.

The Chinese Higher Education System⁴² consists of two major components: “*Regular Higher Education Institutes*” and “*Adult Higher Education Institutes*”: the former ones, which can be State, Provincial or Municipal Universities, offer full-time programs for a degree or a diploma. They include *Research Universities*, *Comprehensive Universities*, *Polytechnics*, *Specialized Colleges* and *Short-cycle* (two or three-year) *Colleges*. *Adult HEI.s* offer programs to people already holding a job: they include broadcasting and television universities and in-service teacher training colleges. In 2007 China had 2,321 Higher Education Institutions, of which 1,908 were “regular” institutions (740 offering a degree and 1,168 higher vocational), and 413 were for adults. In terms of the levels of degree they confer, Chinese HEI can be categorized as *Běnkē* (本科) and *Zhuānkē* (专科) *Institutions*: the former offer programs as a bachelor, master, and doctoral levels, while the latter are specialized *Training Schools*, delivering training courses and “certificates”.

The *Provisional Regulations Concerning the Management of Institutions of Higher Learning*, promulgated by the *State Council* in 1986, allowed universities and colleges

- to choose their own teaching plans and curricula,
- to accept projects from or cooperate with other establishments for scientific research and technical development in setting up "combines" involving teaching, scientific research, and production,
- to suggest appointments and removals of vice presidents and other staff members,
- to take charge of the distribution of capital construction investment and funds allocated by the state,
- to be responsible for the development of international exchanges by using their own funds.

In 2008 over 29 million students enrolled in regular HEI.s China aims to achieve a gross enrollment of 40% by 2020. As for private HEI.s, they number increased from 133 in

⁴² Mei Li and Rui Yang, 2014. *Governance reforms in higher education: a study of China*. IIEP Research Papers, UNESCO, pp. 1-54

2002 to 1,506 in 2008 (Chinese Ministry of Education, a quotation by Mei Li and Rui Yang)⁴³.

Investment in education accounts for about 4% of total GDP. International students have enrolled in over 775 higher education institutions in China. Until 2014, there were more than 377,000 foreign students from 203 countries or regions studying in China.

China has received educational aid from UNESCO and many other international organizations, including the World Bank, which loaned China \$14.7 billion for educational development. Since 2007, China has become the sixth largest Country in hosting international students. The top ten countries with students studying in China include Australia, Canada, France, Korea, Japan, U.K., USA, Vietnam, Thailand, Russia, India, Indonesia, Pakistan etc. The total number of international students studying in China ranges around two hundred thousand.

2.2.2 Developing excellence: Project 211, Project 985 and the C9 League

The 14th Central Communist Party Congress announced in 1992 that *‘to develop education is the first priority to the realization of the four modernizations’*. The General Secretary Jiang Zemin proclaimed that *‘it is essential for China to shift the economic construction to the track of depending on the advancement of science and technology and the improvement of the quality of laborers’*⁴⁴.

In February 1993, the Chinese authorities issued the *‘Program for Education Reform and Development in China’*, in which the Chinese government decided to concentrate the higher education resources of the central and local governments on about 100 key universities and a batch of key academic disciplines and specialties, enabling them to reach a higher level in terms of education quality, research, and management at the beginning of the new century⁴⁵.

In March 1995 the *Education Law of the People's Republic of China* was adopted at the Third Session of the Eighth National People's Congress (promulgated by Order No.

⁴³ Ministry of Education, China. China Education Yearbook 1984-2009. People's Education Publishing House (in Chinese)

⁴⁴ Ngok, K. and Guo, W. 2008. *The Quest for World Class Universities in China: critical reflections*. Policy Futures in Education, Volume 6 Number 5. www.worldwords.co.uk/PFIE

⁴⁵ Chinese Communist Party Central Committee (CCPCC), 1993. *The Program for Reform and Development of China's Education*.

45 of the President of the People's Republic of China on March 18, 1995, and effective as of September 1, 1995).

In May 1995 the CCP and the State Council, the cabinet of China, jointly promulgated the '*Decision to Speed up the Advancement of Science and Technology*', and decided to carry out the strategy of '*revitalizing China through the development of Science and Education*'.

In 1995 the *Project 211* (a group of 116 *high standard universities*) was established, with the intent of raising the research standards and developing strategies for the Chinese socio-economic development, granting them large amounts of funds. During the period 1996-2000 approximately USD 2.2 billion was distributed.

The 15th CCP Congress in 1997 emphasized anew that the strategy of reinvigorating the Country with science and education and the strategy of a sustainable development should become the two most important means for China to build a socialist market economy with Chinese characteristics. With regard to Higher Education, the *Higher Education Law of the People's Republic of China* (adopted at the Fourth Session of the Standing Committee of the Ninth National People's Congress on August 29, 1998,) stated the following: '*In light of the need for economic and social development, the State formulates plans of development of higher education, runs higher education institutions and promotes higher education in various ways. The State encourages all sectors of society, including enterprises, institutions, public organizations or groups as well as individual citizens, to run higher education institutions in accordance with law and to participate in and support the reform and development of higher education*'.

One way to accomplish the aforementioned objectives was to develop a Higher Education System of international stature. Higher education and economic reforms are dynamic forces that affect the development of each other. China had to train talents to compete in the global knowledge economy. The best universities had to be selected, benefitting from highly-intensive state investments, with the declared aim of elevating them to the status of world-class higher education institutions within the next one or two decades, thus simultaneously helping the *R&D (Research and Development)* of the Country and making it a driving force for the economic sector as a whole. In that year, on the occasion of the hundredth anniversary ceremony at *Peking University (Beida)*, Jiang Zemin announced the creation of *Project 985*, concerning a group of 39 elite universities, in order to promote

the development and reputation of the Chinese Higher Education System. Nine out of the 39 universities of this project created the *C9 League*: it was an “alliance” (analogous to the Ivy League in the United States, the U15 in Canada, the Russell Group in the UK, the Go8 in Australia).

After the slowing down of China’s economic growth, following 35 years of rapid The expansion, its leading universities put the basis for a sustainable development of the Country through a conversion of its growth into innovation. To that purpose, the Chinese government substantially increased its investment in universities and research institutes. In 2012 it spent more than 160 billion USD on research and development, and the number of full-time researchers in China increased by 38% (up to 314,000 units).in the period 2005-2012⁴⁶.

The teaching activity in those universities had to be obviously accompanied by an outstanding “*research activity*” of the teaching staff, in which the post-graduate students should take part: that is the reason why those Higher Education Institutions were called “*Research Universities*”, as distinct from the comprehensive universities, dedicated to teaching and research, and the specialized colleges, dedicated to the highly specialized professional training and issuing diplomas of specialization rather than traditional university degrees.

2.3 The Personnel Reform of Higher Education Institutions

The creation of research universities had to meet a balance between the “*efficiency principle*” and the “*fairness principle*”⁴⁷: this was the first issue. A second, fundamental issue was the availability of personnel of outstanding quality: part of the staff belonged to western academic or research institutions, while the greatest part was constituted by Chinese research oriented academicians, having completed their scientific education in western universities A serious teachers awarding or revising assessment work had to be put in place. Those who did not pass this scrutiny were destined to work in comprehensive or vocational universities. A third, not less important issue, was a “flow of talents”, to be put

⁴⁶ Jie Zang, 2014. *Developing excellence: Chinese university reform in three steps*. Nature, 514, pp. 295-296

⁴⁷ P. J. Guan, 2015. *Personnel System Reform of Universities and Development of Teachers*, Beijing Normal University Publishing Group

in place within the Country, with the purpose of developing universities in the western regions, as part of a strategy of development of those areas.

Those issues have been only partially satisfied up to now: some Chinese scholars attribute it to the fact that those reforms obeyed to a centralized, *top-down* strategy⁴⁸.

Although the number of students has been increasing there are some concerns about the quality of education these students are receiving and the skills which they have at graduation.

The imbalance of the regional education system leads to the different treatment of students from different regions. Even though the enrollment rules are based on the scores in the *Gaokao*, a given university's minimum score threshold can vary depending on the province an applicant is from and the degree of competition in applicants from various provinces. The university admission quotas are not based on the population of the areas where the universities are located, but on university's own enrollment plan. In some populous provinces, the competition is extremely fierce, while in some areas with more institutions, such as Beijing or Shanghai, the access to a prestigious university is more attainable.

Two issues are still open: the students' university fees and equity. Although many professors praise reforms for moving the higher education sector from a unified, centralized and closed system to one that allows openness and diversification, decentralization and semi-privatization have led to further inequity in educational opportunity. Graduate unemployment rates are also a growing concern.

As already mentioned, the suggested solution was to create different types of universities, obeying to different requirements: there are "research-oriented universities" and "comprehensive universities" (the latter focusing on teaching activity and research) and finally universities focusing only on teaching, and a teaching assessment would be necessary. Quantitative and qualitative standards had to be somehow combined and quantified, as for instance the number of scientific publications, the quality of the journals where the research papers have been published and their "impact factor".

Another aspect which had to be taken into account was the balance between the "*efficiency principle*" and the "*fairness principle*":

⁴⁸ Xiao Xing'An, Xiao Bin, 2013. *How the Government influence the change of the personnel system in Chinese Universities*. Public Administration in the time of Regional Change (ICPM 2013, ATLANTIS Press., pp.229-232
PDF: www.atlantis-press.com/php/preface.php?publication=icpm-13

“To build up an efficient university policy means to let the outstanding talents, the teaching staff, the researchers and the core management to be basically satisfied and convinced that the university is their best ‘living environment’ while letting the ignorant and lazy people find it difficult to survive there.”

As for the “personnel mobility”, the Government had to take appropriate measures in order to avoid a disorderly flow of talents and an unfair competition”, especially in what refers to the development of universities in the West-China regions of the Country.

2.3.1 The Personnel Reform at Peking University, Zhejiang University, and the Shanghai Jiao Tong University

These three universities belong to the C9 League of Chinese Higher Education Institutions of excellence: they undertook important reforms toward the beginning of the new Millennium. Even though the important role exerted by the central government in that process of change cannot be denied, the university elites influenced the change, providing intellectual support for the reforms. It is, therefore, worth examining in greater detail their Personnel Reforms.

A) Peking University (北京大学 Běijīng Dàxué)

The university consists of 30 colleges and 12 departments, with 93 specialties for undergraduates, 199 specialties for Master's degree candidates and 173 specialties for doctoral candidates. A leader in basic sciences research and teaching, the university has successfully developed applied sciences research and teaching as well.

Its academic staff amounted in 2015 to 4,206 units, his undergraduate student to 15,128 students and his Masters and Ph.D. students to 15,120 units.

At present, Peking university has 216 research institutions and research centers, including 2 national engineering research centers. With 11 million books, the university's library is the largest of its kind in Asia.

To this university belongs the *National School of Development (NSD)*, founded in 1994 as the *China Centre for Economic Research*, which is ranked amongst the top five most influential think tanks in China. It organizes a comprehensive interdisciplinary research concerning the sustainable development of China and the evolution of world policy.

Over the years, *NSD* has made an innovative contribution to China's economic education, scientific research and international academic discussion, especially for national policy consultancy.

In May 2003 it presented a draft of a “Personnel Reform Plan”⁴⁹, mainly consisting of the following measures:

- teachers could be moved to work at different levels of posts;
- a competitive mechanism should be introduced for the personnel employment and promotion;
- the post for teachers should be divided into two kinds: teaching & research or else full-time teaching;
- a judging panel of professors should be set up for teachers employment and promotion;
- an elimination system should be instituted for different branches of learning that did not have good prospects of development;
- no students from Peking University could be directly recruited into the teaching staff upon graduation.

That reform plan aroused strong concerns because a teaching post at Chinese universities had been traditionally a lifelong employment; the greatest opposition came mainly from humanists and social scientists. As a result, some few month later a second draft was presented: although the university claimed that it managed to adhere to the basic principles of the original reform project, it was much more moderate, trying to balance various groups of interest.

B) Zhejiang University (浙江大学 Zhèjiāng Dàxué)

It was founded in 1897 in the city of Hangzhou, approximately 180 km southwest of Shanghai. Under the direct administration of China's Ministry of Education, it is a “key comprehensive university” whose fields of study cover Philosophy, Literature, History, Education, Science, Economics, Law, Management, Engineering, Agriculture, and Medical

⁴⁹ Rui Yang, 2015 “Peking University Personnel Reforms”
<http://ejournals.bc.edu/ojs/index.php/ihe/article/viewFile/8500/7634>

Sciences. Under its administration, there are 13 National Key Laboratories, 2 National Engineering Research Centers and 3 National Engineering Technology Centers.

Its academic staff amounted in 2015 to 3,350 units, its undergraduate students to 23,678 units, its postgraduate and Ph.D. students to 23,376 units.

An important aspect of its personnel reform⁵⁰ concerned the teacher's "*internal allowance system*": the teacher's salary consists of the "*file salary*" (i.e. the basic salary), established by the central government, which takes about 80% of the income, and the "*internal allowance*" (i.e. the "incentive system", originated from university's own resources), which only occupies the remaining 20% of the income. The internal allowance is subdivided into "*post allowance*" (about 60%, subdivided into several levels and handed out according to the actual post taken and a number of years taken in that position) and "*performance allowance*" (40%): its incentive power is very limited.

The Faculty members are subdivided into Lecturers (full professors, associated professors or assistant professors), Assistants, Management (administrative or technical staff). According to their working positions, all those people are subdivided into 2 groups:

I) "*Working according to a signed contract status of general nature*" (按合同签 *Àn hétóng qiān*),

II) "*Working according to specific projects*" (按聘用方式 *Àn pìnyòng fāngshì*)

Group I) is in turn subdivided into the following 2 groups:

a) "*fixed career staff*" (senior staff members, "*eating from the iron bowl*", i.e. getting a fixed salary, no matter their performance) (固定事业编制 *Gùdìng shìyè biānzhì*),

b) "*staff paid according to contract*" (i.e. junior staff members, incentive to get a better salary according to their performance) (合同制 *Hétóng zhì*).

Group II) is in turn subdivided into the following 2 groups:

c) "*Engagement of institutional nature*" (事业性质 *Shìyè xìngzhì*),

d) "*Engagement through an outsourcing agency*" (劳务派遣 *Láowù pàiqiǎn*).

Table 2.1 summarizes the situation:

⁵⁰ Zhou, Li, Xu, Baomin (2015) *Modern Enterprise Education*, 2: page 98

By Contract Status		By Engaging System	
Within quota	Contract signed	Career	Labor dispatch
31.9%	68.1%	84.8%	15.2%
By Post Nature			
Lecturer	Assistant	Management	Other
40.8%	9.3%	16.0%	33.9%
By Belonging Department			
Faculty	Units directly under authority	Rear service	Other
66.2%	14.3%	10.6%	8.9%

Table 2.1 Diversification of Faculty Member Posts of Zhejiang University

C) Shanghai Jiao Tong University (上海交通大学 *Shànghǎi Jiāotōng Dàxué*).

As already mentioned in Section 2.2.1, this university was established in 1896 by an imperial edict issued by the Guangxu Emperor.

Today SJTU has 31 schools (departments), 63 undergraduate programs, 250 master's degree programs, 203 Ph.D. programs, 28 post-doctorate programs, and 11 state key laboratories and national engineering research centers.

Its total enrollment of students amounts to 42,881, of which 1,598 are international students. There are 17,766 undergraduates, and 24,017 masters and Ph.D. candidates. The university has more than 1,900 professors and associate professors, including 15 academicians of the Chinese Academy of Sciences, 20 academicians of the Chinese Academy of Engineering, 92 accredited professors and chair professors of the "*Cheung Kong Scholars Program*".

Great success had its Personnel Reform⁵¹, which created through it a culture of innovation, moving from “*knowledge transfer*” to “*knowledge creation*” in three steps, over a period of 10 years, starting around 2006 under the leadership of Prof. Zhong Jie, a prominent scientist with pioneering contributions in laser-plasma and high field Physics.

⁵¹ See note 47, Section 2.2.2

The personnel reforms created a culture of innovation, moving from “*knowledge transfer*” to “*knowledge creation*”, through personnel reforms⁵² to be performed in three steps over a period of 10 years:

1) *Recruiting and mentoring of junior staff.*

A “*six-year tenure-track*” was set-up in 2007 for new junior faculty members, based on mid-term and final evaluation by an international committee. In 2008 a mentoring system for junior faculty members under 35 years old was established.

2) *Introducing a “three career-track”.*

In 2010, a *three career-track (teaching, research, and tenure)* was established, with an average salary increase of 60% in the period 2010-2014. The University decentralized its governance to give schools and departments more autonomy to recruit, develop and evaluate their staff. Budget reforms gave each school or department direct access to resources.

3) *Merging the three tracks into a single tenure track.*

In 2013 six pilot schools or departments began to merge the three tracks into a single *tenure-track*, with encouraging results. On the basis of that experience, the entire university will switch to the tenure system between 2015 and 2018.

Faculty members who do not qualify for the tenure track will choose to leave or else to remain in the contract system until it is phased out by 2018. The faculty who have served the university well but cannot meet the new standards must be treated fairly and provided with a channel to continue to serve the Institution.

Similar reforms were later introduced in all “elite universities”, without raising noticeable protests by the academic community: let us quote the Sun Yat-sen University in the Guangdong Province, which we will examine in detail in Section 3.1.

2.3.2 The Chinese “Human Resources Management”

The development of Higher Education Institutions from a “scale expansion” to a “quality-oriented” one found its guidelines in the *National Medium, Long-Term Education Reform and Development Plan (2010-2010)*⁵³, enunciated in 2010 by the 17th Communist

⁵³ http://planipolis.iiep.unesco.org/upload/china/China_National_Long_Term_Educational_Reform_Development_2010-2010_eng.pdf

Party of China National Plan, which pointed out that the key to the Chinese education development was to advance the education reform and the institutional innovation, accelerating the pace of the personnel management reform through the introduction in all Chinese colleges and universities of the “*Human Resource Management*” (*H.R.*). The latter is a product of the western “*Human Relations Movement*“ (originated at the turning of the Millennium in Australia through the works of the psychologist Elton Mayo⁵⁴) which studies the behavior of people in groups, and in particular in a workplace: *HR* is focused on maximizing the employee productivity through continuing training, performance evaluations and reward programs. In 2014 Premier Li Keqiang signed a decree of the State Council, entitled “*Personnel Management Regulations for Public Institutions*”⁵⁵, which gives the basic rules for a change from “personnel management” to “H.R. management”, based on “*mining of human resource*”.

Three different aspects have been taken into consideration: the individual’s development, career development, and group development. “Individual development” is about developing individual’s competence and improving his/her performance through a wide range of development activities; “career development” is about making and implementing a career development plan dedicated to each individual, in order to guide him/her to achieve successes. “Group development” is about gathering collaborative strength and stimulating the team spirit in order to achieve an optimal performance for a group. The “individual development” (or “staff development”) is the key factor. As shown in Fig. 2.2⁵⁶ all these factors link to each other and form a full cycle of human resource management and development.

⁵⁴ Mayo G.E. (2003) *The Human Problems of an Industrial Civilization*, Routledge, reprint edition

⁵⁵ <https://www.global-regulation.com/translation/china/158924/institutions-personnel-management-regulations.html>

⁵⁶ See note 11, Sect. 1.3

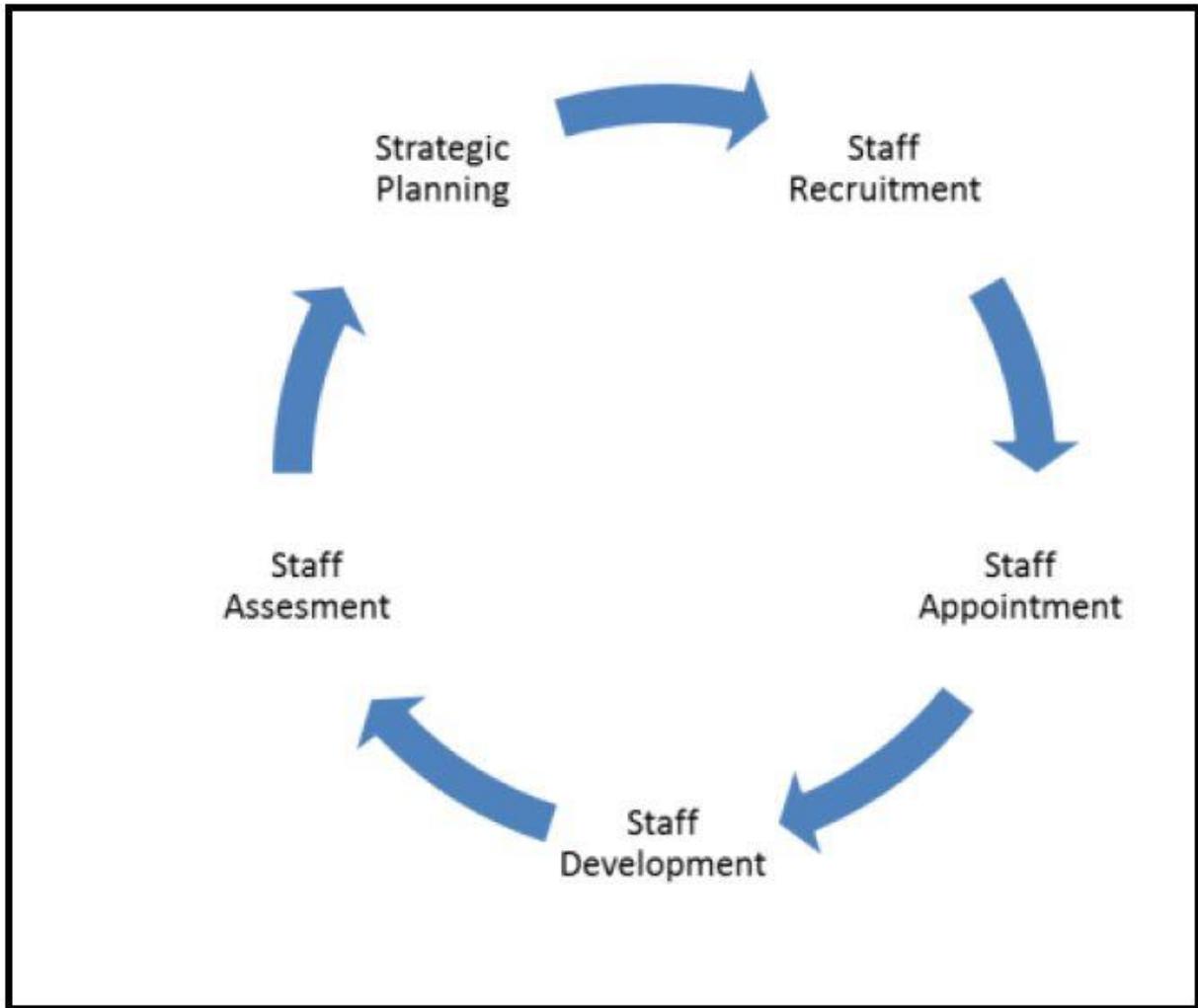


Figure 2.2 Complete scheme of the “Human Resource Management and Development System” (from Yu Yuan and Xiuli Cai, *ibidem*)

According to the Law, to recruit the staff of public institutions, the following procedures should be followed:

- (a) there must be an open recruitment program;
- (b) job candidates need competition for employment ;
- (c) the employment contract must last at least 3 years, with a probation period of 12 months;
- (d) having worked continuously in the same unit for 10 years, a contract of employment until retirement should be made;
- (e) at the end of each year an annual assessment must be made about each employee, evaluated as “good”, “qualified”, “unqualified”;

(f) staff should follow the requirements of the unit, and participate in pre-job and job training, and perform special training for specific tasks;

(g) staff wages include basic salary, performance pay, and an allowances subsidy. The wage distribution should be combined with the characteristics of the different institutions, reflecting job responsibilities, performance, actual contributions and so on. The State shall establish the normal growth mechanism of the staff wages, which should be coordinated with the national economic development, and the social progress.

Jobs, wages, and renewal of the employment's contract depend on the job requirements, the staffing training programs, the grading and classification obtained in the staff training.

(h) Workers enjoy social insurance benefits in accordance with the law.

(i) Rewards should be given for:

- outstanding long-term services; implementation of major important national tasks without outstanding performance; significant inventions or technological innovation at work;
- outstanding contributions in personnel training, advanced culture;
- bonus rewards and material incentives can be attributed.

2.4 Academic Entrepreneurship in China⁵⁷

As a consequence of the centrally steered transition from the three university pillars of “*teaching, research and social services*” to the new pillars of “*teaching, research and industry*”, in March 1986 the Ministry of Science and Technology launched the *National High Technology Research and Development Program of China*, the so-called the “*863 Program*” and university-run enterprises (URE) were created.

In China, the universities have always been linked with industry. For example, the Huazhong University of Science and Technology originated from the needs of industrial development. In the past, the teaching activity and the practice of industrial production were closely linked. This linkage was industry-led. Universities were passive, due to the tradition that the government had always run universities in China. With the decentralization of autonomy, professors had to be dedicated to founding and running firms themselves in the

⁵⁷ *University Spin-offs in China* – European Regional Development Fund, Project Code A32450, 2014 , pp. 1-22. http://www.ladec.fi/filebank/2640-Chinese_universities_spin_off_final.pdf ;

universities. The URESs were the inevitable transition in the process of the formation of the entrepreneurial university.

To guide the process were selected the top “research universities” of Group 985, in which science and engineering disciplines dominated, with funding priorities to develop talent training, research, and high-tech industrialization. In 2002 the UREs were the following:

- Tsinghua Tonfang (Tsinghua University),
- Zheda Wangxin (Zhejiang University),
- Dongruan Gufen (Dongbei University),
- Qingdao Tianqiao (Peking University),
- Fangzheng Kenji (Peking University),
- Nankai Gede (Nankai University),
- Qingdao Huaguang (Peking University),
- Tianda Tiancai (Tianjin University),
- Yunnan Keji (Yunnan University),
- Huagong Keji (Huazhong Science and Technology University),
- Beida Gaoke (Peking University),
- Tsinghua Ziguang (Tsinghua University)
- Jiaoda Angli (Shanghai Jiaotong University),
- Fudan Fuhua (Fudan University)

To promote the transformation of scientific and technological achievements, the *State Economic and Trade Commission and the Ministry of Education* established national technology transfer centers in major colleges and universities with high-tech advantages.

Xiaodong Zhou and Ye Liu⁵⁸ write:

“The entrepreneurial university is an exotic flower growing at the balance point between market demand and academic transition ... However, does the entrepreneurial university model really exist in China, while lacking the true sense of academic tradition of the West? ...”

The answer can be found, among others, in the entrepreneurial practices of *Zhejiang University, Tsinghua University and Huazhong University of Science and*

⁵⁸ Xiaodong Zhou, Ye Liu, 2015. Towards an ‘Entrepreneurial University Model’ – The Chinese way. Evidence from three top research universities in China. <https://www.triplehelixassociation.org/helice>

Technology. Since the mid-1980s these three universities made strategic adjustments in accordance with the market needs: they utilized technological achievements to establish university-run enterprises.

With time other universities and Public Research Institutes (PRI), as the Chinese Academy of Sciences, joined, all together constituting the driving force to conduct projects nationwide. In 2011 the Ministry of Science and Technology established the *China International Technology Transfer Center (CITTC)*, providing comprehensive promotion services in high technology. The UREs were separated from the universities, becoming independent, as university-affiliated enterprises: at the same time the institutional funding to universities and PRIs were reduced, in such a way that they were forced to earn extra money from the market.

Concerning the three top universities Tsinghua, Huazhong, and Zhejiang, from 1998 to 2009 the technology export turnover jumped from 86 million RMB (about 13 million USD) to 814 million RMB (about 122 million USD), signing more than 3000 contracts with enterprises, with nearly 5 billion contract funding. The social and economic benefits from technology export rose from 18 billion RMB (about 2.7 billion USD) in 1998, to 200 billion RMB (about 30 billion USD) in 2009, and effectively supported the construction of national and local technological innovation system. Tsinghua University signed 89 patent cooperation projects, with approximately 115 million RMB (about 17 million USD) in contract funding. In 2011, Huazhong University of Science and Technology made a net profit of 384 million RMB (about 58 million USD) from the transformation of scientific and technological achievements. In the output technology turnover rankings from universities launched in the “National Technology Market Statistics Annual Report”, the Zhejiang University ranked first in five consecutive years.

As a conclusion, the European Report quoted above observes that in relation to university spin-offs in China there is a gap between the development status and the expected results: compared to other high-tech start-ups, the university spin-off does not show a competitive advantage. The reasons should be the following:

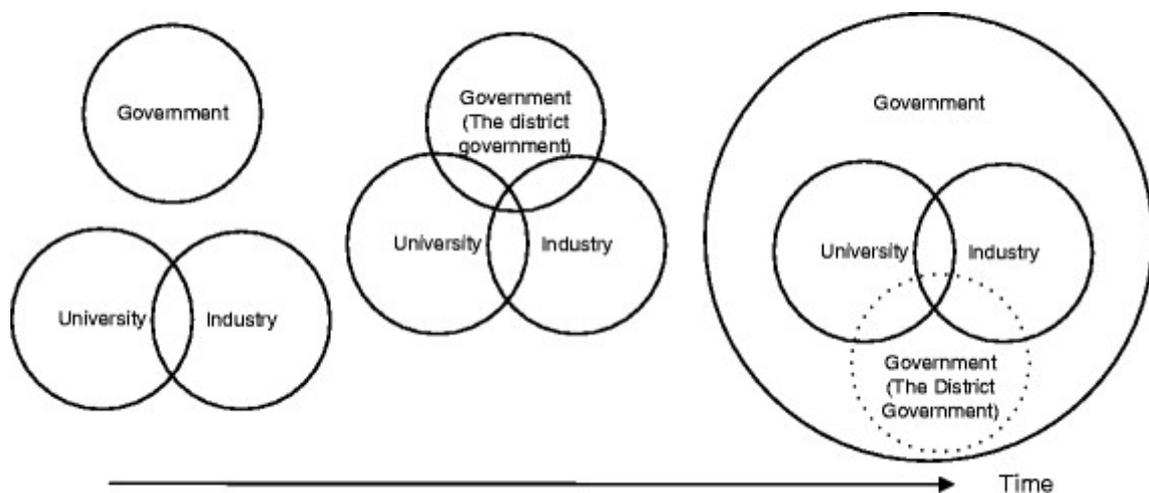
to encourage university innovation and university entrepreneurship are two completely different research themes, requiring different research paths and a different policy guidance.

Academic staff easily misses the entrepreneurial opportunities due to the weak sense of academic entrepreneurship: they are lacking interests and attention on starting a business. The research itself is in the prototype stage, and this obscures their awareness and recognition of entrepreneurial opportunities: they look for good research conditions, an excellent research team and, possibly, multi-disciplinarity. If the entrepreneurship means that they need to abandon these favorable conditions provided to them currently, they are not willing to start a business and give up everything, being afraid of unpredictable risks generated from market operations.

- a) The development of university spin-off companies heavily relies on state and local entrepreneurship support policies, with the supply of professional managers.

Much academic staff is familiar with the scientific research resources but they are lacking capability to access to other useful resources such as political or financial supports. They also lack marketing skills (including communication, negotiation, customer confidence etc.) and the ability to adapt the new role as an entrepreneur, insisting on positioning themselves as researchers rather than entrepreneurs.

As for Chinese “*knowledge and industry clusters*”, the “*Triple Helix Model*” by Etzkowitz et al. and its “*Quadruple Helix*” derivation⁵⁹ can help us to better understand the dynamic interaction between university, industry and the central/provincial/municipal governments taking place in such clusters(see Fig. 2.3, to the right) the sketch of the “triple/quadruple helix models”.



⁵⁹ Cai Y. and Liu, C., 2014. *The roles of universities in fostering knowledge-intensive clusters in Chinese regional innovation systems*. Science and Public Policy, Vol. 42, No. 1, pp. 15-29; Zhao Qingxin “*The personnel system reform in Chinese universities*”. Robotics and Applications (ISRA), 2012 IEEE Symposium.

Fig. 2.3 Sketch of various academic entrepreneurship models (from Cai Y. and Liu C., 2014)

A relevant example is offered by the *Tongji Creative Cluster* in Shanghai, where is in place a transition from an *investment-driven* to an *innovation-driven* economic growth. Shanghai has the greatest concentration of higher education institutions, including some top research universities, as the Tongji University. The Shanghai Municipal Government put these universities into regional development plans. It also provided generous financial incentives to stimulate and encourage the achievement of knowledge innovation. A series of legislative measures and favorable policies on tax relief and intellectual property rights were enacted. In return, the universities oriented their research plans toward regional needs.

Correspondingly, there has been a rapid university expansion. In the period 2000-2010, the number of higher education institutions in Shanghai increased from 37 to 66. At the same time, the university-industry linkages were intensified: in 2009 the investments from the industrial sector became the second largest source of R&D funds (34%), next to the governmental R&D investments (59%). At the Tongji University, substantial investments were devoted to Architecture, Urban Planning and Civil Engineering. Given the advantages of the Tongji University, the cluster incubated small and medium sized start-ups.

With the support of the central government, the *Tongji Creative Cluster* was able to establish collaborations with governments and enterprises in other regions beyond the Shanghai Municipality: its upgrading to the national level brought new demands and challenges for its development. We can conclude that a “*quadruple helix*” is active in the *Tongji Creative Cluster*:

The Tongji University, the national industry world, and the district government interact at “equal level”, while the Ministry of Science and Technology and the municipal governments integrate the university, industry and local government into the national innovation system.

Before concluding this Section, it seems to us worth mentioning a special issue concerning the Chinese approach to *Human Resource Management*: Zhou, Zhang & Liu⁶⁰ observe that a type of hybrid archetype (called *strategic human resource management, SHRM*) is developing, which combines the new and old ways of Chinese personnel management and cannot be described or explained from either a Western or Eastern

⁶⁰ Zhou, Y., Zhang, Y.Y. & Liu J. (2012) *A hybridism model of differentiated human resource management effectiveness in Chinese context*. Human Resource Management Review 22 (2012) 208–219

framework: this is particularly true when business managers are concerned, and consequently the top managers of the academic spin-offs.

One of the foremost business school academics, P. Lorange⁶¹, *Chairman of the Lorange Institute of Business, Zurich*, writes that “*Effective strategic human resource management is particularly important in China given its strong, sustainable economic growth and the sheer size of its economy and population. . . The well-known shortage of certain competencies and the fierce competition for good, available human talents are making the strategic human resources management task even more challenging.*”

2.5 The culture of innovation in Chinese public universities

Two topics deserve our special attention:

- 1) the creation, by the central government, of “*national universities*”, granting them a high degree of managerial autonomy, and the very innovative personnel reform actions autonomously introduced by those elite higher education institutions;
- 2) the gradual adoption of the principles of the “*human resources management*” by the comprehensive (teaching and research) universities and the consequent improvement of their teaching and research activities.

As for the first topic, the decision of the Chinese government to consider the development of higher education institutions as one of its priorities should be considered, in my opinion, as a very positive one: it made possible the creation of an impressive network of “elite universities” (see Section 2.2.2), directly supported by the Ministry of Education and enjoying a high level of autonomy in their governance and management: the network of those “national universities”, devoted to research and to specialized teaching, extends from Harbin (in the northern Heilongjiang Province), to Peking, Xi’an, Shanghai, Nanjing, Hangzhou, Changsha, Guangzhou (in the South-eastern Guangdong Province), while the utmost western provinces (Outer Mongolia, Xinjiang, Tibet) remained unfortunately behind. Those “research universities” adopted personnel reforms inspired by the principles of efficiency, evaluation of performance, partly inspired by the “*New Public Management*

⁶¹ Lorange, P. (2015) *Strategic Human Resource Management in the Chinese context*, Swiss RE, Centre for Global Dialogue
http://cgd.swissre.com/risk_dialogue_magazine/Talent_in_China/Strategic_Human_Resource_Management_in_the_Chinese_Context.html

Paradigm (mitigated by a “*search for equity*”) well in advance with respect to Li Keqiang’s reform law of 2014 (see Section 2.3.1).

Their personnel reforms created a culture of innovation in the governance and personnel management, which allowed the development of a noticeable research activity in technological areas, in cooperation with foreign universities from the most advanced countries and the rising of an academic entrepreneurship, enjoying the strong support of the central/regional governments, in light of Etzkovitz’s “*triple or quadruple helix model*”.

As for the “*human resource management*”, which found its explicit enunciation in the Premier Li Keqiang’s reform law of 2014 (see Section A1 of the Appendix), its implementation is still in progress, as confirmed by the words of Mr. Li Zhong, spokesman of the *Human Resources and Social Security Ministry* (see Section A2 of the Appendix). The innovation efforts of “comprehensive universities” (devoted to teaching and research), which are economically supported by regional (provincial and municipal) governments, are strong and successfully moving those institutions toward high quality teaching and research activities, as we will see in greater detail in the next Chapter, with reference to Guangzhou University.

Some critics object that, unlike the practice of most western universities, where (at least to some extent) researchers are free to choose their research topic and are entitled to apply for research funding by the government, Chinese researchers in science and technology in national and comprehensive universities are usually guided, at various institutional levels, toward specific investigation topics, such as applied computer science, bio-engineering and others, according to the national economic and social development’s needs. That can be true, but in my opinion, these top-down pressures are soon destined to progressively decrease, given the strong competition for excellence existing among Chinese universities and among the higher education institutions all over the world. Many scholars think that China has to recapture its creativity: indigenizing innovation is at the core of China’s enormous developmental efforts, as indicated by E. Kennedy⁶².

A culture of innovation starts to become reality also in the area of Humanities, as evidenced by the recent international congress on the “*Silk Road*”, held in September 2016

⁶² Kennedy, E. (2013) *China’s National Innovation System: Learning from a Holistic National Approach to Innovation*.

in Dunhuang, in the Gansu Province (where the Buddhist *Mogao Caves* are located): academicians from Chinese universities and from all over the world congregated to discuss the contributions to Chinese cultural heritage by other Cultures, such as the Hellenistic World (through the exchanges with the *Gandhara Kingdom*, following Alexander the Great's expedition to Central Asia in the 4th century B.C.), India (through the pilgrimages of Buddhist monks and the establishment of monasteries in the North-West of China, starting with the 1st century a.D.), the Islamic (Arabic and Persian) World.

Chapter 3 - Institutions of Higher Education in the Guangdong Province

For centuries, the coastal side of the Guangdong Province has been China's main portal for contacts with the West and the region is expanding these intercontinental connections.

As already mentioned in Section 2.1.2, it has been a pioneer province in implementing the economic reforms and has rapidly developed since the opening up its economy to the outside world; it is also one of the leading Chinese provinces in Higher Education.

Its higher education institutions can be subdivided into *National Universities* (directly supported by the Chinese Ministry of Education, which designates the university's President), *Provincial Universities* and *Municipal Universities*.

The National Universities are the following:

- 1) Sun Yat-Sen University, called also *Zhongshan University* (中山大学, *Zhōngshān Dàxué*),
- 2) South-china University of Technology (华南理工大学 *Huánán Lǐgōng Dàxué*),
- 3) Jinan University (暨南大学 *Jinán Dàxué*).

The universities supported by the Guangdong Province or by its Municipalities are the following:

- 1) in Guangzhou City
 - Guangdong Technical College of Water Resources and Electric Engineering (广东水利电力职业技术学院 *Guǎngdōng shuǐlì diànlì zhíyè jìshù xuéyuàn*)
 - Guangdong University of Finance and Economics (广东财经大学 *Guǎngdōng Cáijīng Dàxué*)
 - Guangdong University of Foreign Studies (广东外语外贸大学 *Guǎngdōng Wàiyǔ Wàimào Dàxué*)

- Guangdong University of Science and Technology (广东科技学院 *Guǎngdōng Kējì Xuéyuàn*)
 - Guangdong University of Technology (广东工业大学 *Guǎngdōng Gōngyè Dàxué*)
 - Guangzhou Institute of Fine Arts (广州美术学院 *Guǎngzhōu Měishù Xuéyuàn*)
 - Guangzhou Medical University (广州医科大学 *Guǎngzhōu Yīkē Dàxué*)
 - Guangzhou University (广州大学, *Guǎngzhōu Dàxué*)
 - Guangzhou University of Chinese Medicine (廣州中醫藥大學 *Guǎngzhōu Zhōng Yīyào Dàxué*)
 - South China Agricultural University (华南农业大学 *Huánán Nóngyè Dàxué*)
 - Southern Medical University (南方医科大学 *Nánfāng Yīkē Dàxué*)
 - Southern Normal University (华南师范大学 *Huánán Shīfàn Dàxué*)
- 2) In Foshan City:
- Foshan University (佛山科学技术学院 *Fúshān Kējì Xuéyuàn*)
- 3) In Huizhou City:
- Huizhou University (惠州学院 *Huìzhōu Xuéyuàn*)
- 4) In Zhaoqing City :
- Zhaoqing University (肇庆学院 *Zhàoqìng Xuéyuàn*)
 - *Guangdong Polytechnic College (广东理工学院 Guǎngdōng Lǐgōng Xuéyuàn)*
- 5) In Meizhou City:
- Jiaying University (嘉应大学 *Jiāyīng Dàxué*)
- 6) In Shantou City:
- Shantou University (汕头大学 *Shàntóu Dàxué*)
- 7) In Shenzhen City:
- Shenzhen University (深圳大学 *Shēnzhèn Dàxué*)
 - South University of Science and Technology of China (南方科技大学 *Nánfāng Kējì Dàxué*)

- Chinese University of Hong Kong at Shenzhen (香港中文大学(深圳) *Xiānggǎng Zhōngwén Dàxué Shenzhen*)
 - Tsinghua-UC Berkeley Shenzhen Institute (清华-伯克利深圳学院 *Qīnghuá-Bókèlì Shēnzhèn Xuéyuàn*)
 - Shenzhen BIT-MSU (Beijing Institute of Technology- Moscow State University) (深圳北理莫斯科大学 *Shēnzhèn Běilǐ Mòsīkē Dàxué*)
 - Shenzhen Graduate School of Peking University (北京大学深圳研究生院 *Běijīng Dàxué Shēnzhèn Yánjiūshēng Yuàn*)
 - Shenzhen Graduate School of Tsinghua University (清华大学深圳研究生院 *Qīnghuá Dàxué Shēnzhèn Yánjiūshēng Yuàn*)
 - Shenzhen Graduate School of Harbin Institute of Technology (哈尔滨工业大学深圳研究生院 *Hā'ěrbīn Gōngyè Dàxué Shēnzhèn Yánjiūshēng Yuàn*)
 - Shenzhen Polytechnic (深圳职业技术学院 *Shēnzhèn Zhíyè Jìshù Xuéyuàn*)
 - Shenzhen Institute of Information Technology (深圳信息技术学院 *Shēnzhèn xìnxi jìshù xuéyuàn*)
- 8) In Zhanjiang City:
- Guangdong Ocean University (广东海洋大学 *Guǎngdōng Hǎiyáng Dàxué*)
 - Guangdong Medical College (广东医学院 *Guǎngdōng Yīxué Yuàn*)
 - Zhanjiang Normal University (湛江师范大学 *Zhànjiāng Shīfàn Dàxué*)
- 9) In Zhuhai City:
- Sun Yat-Sen University (Zhuhai Campus) (中山大学.- 珠海校区 *Zhōngshān Dàxué - Zhūhǎi Xiàiqū*)
 - United International College (联合国国际学院 *Liánhé Guójì Xuéyuàn*)
- 10) In Zhongshan City:
- University of Electronics and Technology of China – Zhongshan Institute(电子科技大学中山学院 *Diànzǐ Kējì Dàxué Zhōngshān Xuéyuàn*)
 - Zhongshan Polytechnic (中山职业技术学院 *Zhōngshān Zhíyè Jìshù Xuéyuàn*)

- Zhongshan Torch Polytechnic (中山火炬职业技术学院 *Zhōngshān Huǒjù Zhíyè Jìshù Xuéyuàn*)

The number of Higher Education Institutions in the Guangdong Province is really impressive! The first three universities of this list, the *Sun Yat-Sen University*, the *South-China University of Technology* and the *Jinan University*, belong to the group of “excellence universities”. As Kevin Holden wrote in an article⁶³ published in *Science* on June 26, 2015: “Universities in South China are taking the lead in an array of reforms aimed at making academic centers and scientific collaboration more international and more dynamic. Leaders of universities across southern Guangdong Province are expanding award schemes designed to recruit researchers and scientists who have obtained advanced degrees or taught in the United States or Europe. In the process, China is strengthening its position as a world power in science.”

The *South-China University of Technology* is a multidisciplinary university focusing on Science and Engineering, also promoting the development of disciplines such as Economics, Management, Humanities, and Law. Its Engineering School ranks top 50 among world universities according to “Academic Ranking of World Universities”.

The *Jinan University*’s research activity focuses on a wide spectrum of biological and biomedical areas, ranging from aquatic ecology and biotechnology to medical bioengineering and traditional Chinese medicine.

In the city of Shenzhen, which borders the former British enclave of Hong Kong, over 95% of the faculty members of the *South University of Science and Technology of China* are Chinese scholars returning from abroad. It is also making a huge effort to increase the level of globalization by recruiting more high-quality non-Chinese professors and international students to its campus.

The *South University of Science and Technology of China* is co-founding a new college in union with the University of Copenhagen (Denmark) and with the Shenzhen-based *Beijing Genomic Institute (B.G.I.)*, one of the world’s leading Genome Research institutes.

⁶³ Kevin Holden (2015). “*The globalization of universities and science in Southern China*”. *Science*. <https://www.sciencemag.org/careers/features/2015/06/globalization-universities-and-science-southern-china>

3.1 Sun Yat-sen University (SYSU)

The *Sun Yat-sen University*⁶⁴, called in Chinese *Zhongshan University* (中山大学), was originally called *Guangdong University*: it was founded in 1924 by Dr. Sun Yat-sen, a democratic revolutionary leader and first provisionally president of the Republic of China in 1911.

Ranked among the top 10 universities in mainland China, it provides undergraduate and graduate teaching in natural sciences, technology, medical sciences, pharmacology, social sciences, managerial sciences and humanities. It is worth mentioning its motto: “*Study, enquire, discern, be honest*” (博学审问慎思笃行).

The Sun Yat-sen University owns one of the world’s fastest supercomputers, the *Tiānhé -2* (天河-2) (*Milky Way-2*), developed in 2013 by a team of 1,300 scientists and engineers and located in the National Supercomputer Center in Guangzhou. It is attracting scientists worldwide to the university’s *School of Advanced Computing*, *School of Engineering* and *School of Life Sciences*.

3.1.1 University Structure and Governance

SYSU has 4 Campuses:

- 1) the *South Campus*, located in the Haizhu District of Guangzhou City,
- 2) the *New East Campus*, located in Guangzhou City, located in the *Higher Education Mega Center* of Guangzhou City,
- 3) the *North Campus*, located in Guangzhou City and devoted to Medical Studies,
- 4) the *Zhuhai Campus*, which is the largest one and is located in the neighboring city of Zhuhai.

The Departments and Schools (Faculties) located on the 3 campuses of Guangzhou City are the following:

- 1) Department of Chinese
- 2) Department of History
- 3) **Department of Philosophy**

⁶⁴ See <http://www.sysu.edu/2012/en/about01/index.htm>

- 4) Department of Physical Education
- 5) Department of Psychology
- 6) Guanghua School of Stomatology
- 7) Liberal Arts College (or *Institute for Advanced Studies in Humanities*,
University General Education Unit)
- 8) Lingnan College
- 9) School of Chemistry and Chemical Engineering
- 10) School of Communication and Design
- 11) School of Data and Computer Science (or *School of Software*)
- 12) School of Electronics and Information Technology (or *School of
Microelectronics, SYSU-CMU Joint Institute of Engineering*)
- 13) School of Engineering
- 14) School of Environmental Science and Engineering
- 15) School of Foreign Languages
- 16) School of Geography and Planning
- 17) School of Government
- 18) School of Information Management
- 19) School of Law (School of Intellectual Property)
- 20) School of Life Sciences
- 21) School of Marxism
- 22) School of Materials Science and Engineering
- 23) School of Mathematics
- 24) School of National Security
- 25) School of Nursing
- 26) School of Pharmaceutical Sciences
- 27) School of Physics
- 28) School of Public Health
- 29) School of Sociology and Anthropology
- 30) Sun Yat-sen Business School (Academy of Entrepreneurship)
- 31) Zhongshan School of Medicine
- 32) Yat-sen School

The Departments and Schools a located in the *Zhuhai Campus* are the following:

- 1) Department of Chinese (Zhuhai)
- 2) Department of History (Zhuhai)
- 3) Department of Philosophy (Zhuhai)
- 4) International School of Business & Finance
- 5) School of Atmospheric Sciences
- 6) School of Chemical Engineering and Technology
- 7) School of Earth Science and Geological Engineering
- 8) School of International Relations
- 9) School of International Studies
- 10) School of Marine Engineering
- 11) School of Marine Sciences
- 12) School of Mathematics (Zhuhai)
- 13) School of Physics and Astronomy
- 14) School of Tourism Management
- 15) Sino-French Institute of Nuclear Engineering and Technology

The Sun Yat-sen University has also 6 “Affiliated Hospitals” and a Stomatology Hospital:

- 1) The First Affiliated Hospital
- 2) Sun Yat-sen Memorial Hospital (The Second Affiliated Hospital)
- 3) The Third Affiliated Hospital
- 4) The Zhongshan Ophthalmic Center
- 5) Cancer Center
- 6) Hospital of Stomatology
- 7) The Fifth Affiliated Hospital
- 8) The Sixth Affiliated Hospital (Gastrointestinal Hospital)

Faculty and staff

Total units (affiliated hospitals included)

Total units 16,309

Full-time teachers 3,501

International teachers 540

The university President is designated by the central government and possesses a high degree of decisional autonomy.

Students

The total number of students amounted in 2014 to 82,506 units, subdivided into

- 1) 32,660 Undergraduate students,
- 2) 12,871 Master Degree students ,
- 3) 21,973 Postgraduate specializing students,
- 4) 5,338 Ph. D. students ,
- 5) 3,764 “part-time” Master Degree Students,
- 6) 17,830 “network students”,
- 7) 6,604 Adult Education students,
- 8) 3,348 International students.

3.1.2 Personnel Reform at SYAU⁶⁵

The tenure position system was abolished on May 29th, 2005, with the enacting of the *Regulations for the Authorization of Teaching Staff, the Establishment of Posts and the Recruitment of Sun Yat-Sen University*, formally launched by the “*Standing committee of School of the Communist Party of China*”.

Li Ping, the vice president of SYSU, said on that occasion: “*As for the old personnel system, no matter how your teaching quality and research result were, as long as you were conferring the title of professor or associate professor, or even if you were hired by the university, you had a life-long job, which means that you could be a teacher for the rest of your life. For a tenured teacher, his workload didn’t relate to his performance evaluation. As a result, tenure system failed to give our teachers impetus to promote a sustainable development. The reform of the old personnel system is to inspire the potentials and stimulate the initiatives of the teaching staff.*”

According to the Regulations, each School or Faculty should conduct its personnel recruitment during each academic year and a *Teaching Staff Recruitment Committee* would publicly recruit teaching staff at home and abroad in accordance with the

⁶⁵ See Sections A3 and A4 of the Appendix.

number of the teaching posts authorized by the university and the demand of the discipline's development.

The employment term of the teaching posts can be divided into two types, fixed time employment, and non-fixed time employment:

- 1) *Assistant* is a fixed-time employment post, with an initial employment contract for three years at maximum and one renewal from one to three years.
- 2) *The lecturer* is also a fixed-time employment post, with a three-year initial employment contract and three-year continuing contract. A lecturer can be further employed twice at the utmost.
- 3) *The Associate professor* is generally a fixed-time employment post, with each employment term of three years. An associate professor can be consecutively employed and can apply for a non-fixed time contract when coming to an agreement with the university for a further employment after the first three-year employment.
- 4) *Professor* is a non-fixed time employment post (also known as *long-term employment post*). It means that the yearly professional title evaluation will no longer be conducted and the tenure system will be taken place by the teacher appointment system.

If a teacher fails to fulfill the terms the contract during the assessment period, he or she can be dismissed.

3.2 Research and Internationalization at SYSU⁶⁶

In the areas of Science and Technology (ranging from Agricultural Sciences to Aquatic Economy, Architecture and Urban Planning, Biology, Bioengineering, Biotechnologies, Chemistry and Biochemistry, Computer Science, Electronics, Materials Science, Physics, Pure and Applied Mechanics, Environmental Sciences, Geosciences, Pure and Applied Mathematics, Molecular Biology and Genetics, Nanotechnologies, Oceanography, Pharmaceutical Sciences, Physics, Physical Chemistry, Remote Sensing,

⁶⁶ See Section A3 of the Appendix

Solar Energy Solid State Physics, Space Science and Technology etc.) the research institutes amount to 80 units.

The Medical Research Centres amount to 98 units, while the research institutes in the area of Humanities and Social Sciences (ranging from Accounting to Anticorruption Studies, Chinese Teaching, Classic Studies, Contemporary Literature, Corporate Governance, Economy and Finance, Foreign Languages and Cultures, History and Historical Anthropology, Industrial and Regional Development, Law, Logic and Cognition, Marxist Philosophy, Management, Marketing, Migration and Ethnicity Studies, Overseas Chinese Affairs, Paleography, Philanthropy, Practical Philosophy, Public Administration Research, Religion Studies, Social Sciences, Teaching and Teacher Training, Virtual World Research etc.) amount to 120 units.

Several international cooperation agreements⁶⁷ in the areas of Science and Technology (amounting to 155 units) have been established with the following Countries: Australia, Belgium, Canada, Denmark, Fiji, France, Germany, Italy, Japan, Jordan, Kuwait, Malaysia, Mexico, Netherlands, Philippines, Poland, Russian Federation, South Korea, Spain, Singapore, South Africa, Sweden, United Kingdom, United States of America, Vietnam.

The greatest number of cooperation agreements is with the United States of America (28 units), followed by France (24 units), Japan and South Korea (19 units with each one) Australia (9 units) etc.

3.3 The Guangzhou University (GZHU)

The *Guangzhou University* (广州大学 *Guǎngzhōu Dàxué*) is a comprehensive (teaching and research) university. It was re-established on July 2000 by the Chinese Ministry of Education through a merging together of five tertiary institutions, previously known as the *Guangzhou Normal University* (广州师范学院), the South China Institute of Constructions (华南建设学院), the Guangzhou University (广州大学), the Guangzhou Junior Teachers College (广州高等专科学校) and the Guangzhou Institute of Education (广州教育学院).

⁶⁷ See Section A 3 of the Appendix

3.3.1 University Structure, Governance, and Management

Its academic staff is composed of 1480 members, of whom 130 are full professors and 567 associated professors; the remaining ones are assistants, researchers, and others.

The University is subdivided into the following Schools and Departments:

- 1) School of Architecture and Urban Planning (Architecture, Environment Design Orientation, City Planning, Landscape Orientation)
- 2) School of Basic Education
- 3) School of Business (Business Administration , Electronic Commerce, Engineering Management, Human Resource Management, Logistics Management, Marketing)
- 4) School of Chemistry and Chemical Engineering (Chemical Engineering, Chemistry, Food Science and Engineering)
- 5) School of Civil Engineering (Building Environment and Energy Utilization Engineering, Civil Engineering, Traffic Engineering, Water supply and Drainage Science, and Engineering)
- 6) School of Computer Science and Education Software (Computer Science and Technology, Network Engineering, Software Engineering)
- 7) School of Continuing Education
- 8) School of Economics and Statistics
- 9) School of Education (Teachers School) (Applied Psychology, Educational Technology, Pedagogy & Chinese Teaching in Primary School, Pre-school Education, Teacher Education)
- 10) School of Electro-Mechanical Engineering (Mechanical Design, Manufacture, and Automation, Mechanical Design, Manufacture, and Automation, Electronic Information Engineering, Electrical Engineering and Automation)
- 11) School of Environmental Engineering (Environmental Engineering, Environmental Science)
- 12) School of Fine Arts and Artistic Design (Visual Communication Design, Painting, Environmental Design, Fine Arts, Product Design, Clothing and Fashion Design, Animation)

- 13) School of Foreign Studies (French Language, English Language, Japanese Language)
- 14) School of Geographic Sciences (Geographic Information Education, Geographic Science Education, Human Geography & Urban and Rural Planning, Physical Geography and Resource Environment)
- 15) School of Humanities (Chinese Language and Literature, History, Teaching Chinese as a Foreign Language)
- 16) School of International Education
- 17) School of Journalism and Communications (Advertising, Broadcasting Science, Radio and Television Broadcasting, Radio-TV Program Production and Direction)
- 18) School of Law
- 19) School of Life Sciences (Biological Engineering, Biological Sciences, Biotechnology)
- 20) School of Mathematics and Information Sciences (Information and Computing Science, Information Security, Mathematics and Applied Mathematics)
- 21) School of Modern Industry
- 22) School of Music and Dance (Choreography, Musicology)
- 23) School of Physical Education
- 24) School of Physics and Electronic Engineering (Electronic Information Science and Technology, Optoelectronic Information Engineering, Physics)
- 25) School of Politics and Civic Education
- 26) School of Public Administration (Administrative Management, Management of Public Services, Social Work)
- 27) School of Teacher Training.

There are also the following two international institutions:

- 1) *CIBT International College* (it is an international educational institution responsible for Guangzhou University students who are willing to study abroad)

- 2) *Wesleyan College/Guangzhou University American Cultural Center* (established in June 2013, it is an extension of the partnership between the Wesleyan College in the U.S. and the Guangzhou University, that began with the establishment of the Confucius Institute at Wesleyan College)

The Office of Personnel Affairs is responsible for the administrative affairs of recruitment, training, mobility, academic titles, salary, reward and punishment of faculty and staff. The office is divided into 8 *Divisions*:

- 1) Division of General Affairs,
- 2) Division of Development,
- 3) Division of Personnel Affairs,
- 4) Division of Labor Resources,
- 5) Division of Faculty,
- 6) Division of Records and Files,
- 7) Division of Personnel Exchanges
- 8) Division of Family Planning.

The structure of the *Administrative Department* is composed of the following Offices, exerting the university's management:

- 1) President and President's Office,
- 2) International Office,
- 3) Office of Students Affairs,
- 4) Office of Science and technology,
- 5) Office of Social Science,
- 6) Office of Graduate Affairs,
- 7) Office of Personnel Affairs,
- 8) Office of Laboratory and Equipment Management,
- 9) Office of Security,
- 10) Office of Logistics Services and Construction,
- 11) Office of Enrollment and Job Hunting Service,
- 12) Office of Economic and Social service Work,
- 13) The Labor Union.

Students

The total number of undergraduate and graduate students amounts to about 17,000 units. The teaching activity is subdivided into:

- 1) Undergraduate Programs (4 years),
- 2) Master Degree Programs (3 years)
- 3) Doctoral Degree Programs in Mathematics, Statistics and Civil Engineering

The university is made up of two campuses. The major campus is located in the *Guangzhou Higher Education Mega Center* (HEMC), called “*Xiaoguwei Island*”, while the another campus is located downtown.

3.3.2 Personnel Reform at GZHU

As for the Personnel Management System, it has gone through a changing course, as it happened to all universities in China: previously secured positions, jobs and wages are not ensured anymore.

The implementation of the decree of Premier Li Keqiang in 2014, concerning the “*Personnel Management Regulations for Public Institutions*”⁶⁸ has provided the basic managing rules.

The Personnel Reform ⁶⁹ took place according to the following steps:

- starting with September 2004, GZHU undertook a “Posts Competition”;
- in 2006, as a country-wide wage reform of public institutions started, the basic wage reform of the university was completed;
- in September 2011 took place the personnel recruitment according to the new post setting law of public institutions;
- in 2012 the “*post-doctoral research station*” was approved by the Ministry of Human Resources and Social Security (MHRSS) and GZHU began to recruit the first batch of post-doctoral people. In the same year, the university received, by the Ministry of Education, the qualification to deliver the title of University Professor;
- in September 2013 the reform of the “*Income Distribution System of Public Institutions*” was implemented, and a *Merit Pay System (Post Performance Salary System)* started;

⁶⁸ See Section A1 of the Appendix

⁶⁹ See “Guangzhou University Yearbook for the Academic Years 2001-2015”, Section A4 of the Appendix

- during the biennium 2014-2015 the University undertook a project of building up a “talent team “, optimizing the procedures of hiring young and middle-aged high level scientists, increasing the training efforts among the junior staff and encouraging them, through a fellowship program, to spend training periods overseas in order to get a highly qualified Ph.D.;
- in 2016 it completed the *pilot project* of an “*employment system reform*” of the Guangzhou public institutions according to the *College Teachers Professional Title Reform* enacted by the government of the Guangdong Province ;
- since in September 2016 the university is implementing the *Pension System of Public Institutions*, enacted by the government of the Guangdong Province.

3.3.3 Research and Internationalization at GZHU

The Guangzhou University, with its 57 research institutes, in recent years, is actively undertaking national and provincial research programs, such as the national “973”and “863” projects. To that purpose, it established, among others, the *Earthquake Engineering Research and Test Center* and the *Institute of Advanced Manufacturing Technology*. GZHU. The University established also more than 13 Research Centers in the area of Higher Education, History, Local Culture and Art, Sociology: among them, let us mention the *Human Right Research Center*.

University Research Funding

The research projects were supported by the *Natural Science Foundation Committee (NSFC)*, the *Ministry of Science and Technology (MOST)*, the *Ministry of Education (MOE)*, the *Guangdong Provincial Department of Science and Technology*, the *Guangdong Provincial Department of Education* and other funding agencies of Guangzhou City.

The funding for scientific research amounted in 2016 to 390 Million RMB, corresponding to 56 Million USD approximately. To offer an example of the research funding, in Figure 3.1 a pictorial representation of the funding in the area of Natural Sciences among Guangzhou City, Guangdong Province, National Research Projects and

Corporations, during the period 2006-2010 (Source of National, Provincial, Municipal and Corporation projects in of GZHU)

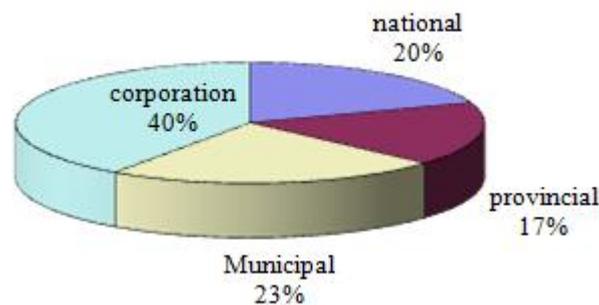


Figure 3.1 – Subdivision of funds of Guangzhou University in the area of Natural Sciences during the period 2006-2010

International Partnerships

GZHU has established partnerships in a wide range of disciplines with universities and research institutes in Australia, Japan, Russia, South Korea, Taiwan, Western Europe (France, Italy, Sweden), the United States.

Let us mention the *Sino-French School of Tourism*, established in 2001 and located in the Guangzhou Higher Education Mega Center (also known as Guangzhou University City) under the agreement between Guangzhou municipal government and the Education Ministry of France.

Another important cooperation agreement was established in 2016 with the University of Padova in the area of *Preservation of the Cultural and Archeological Heritage*. In the frame of the this agreement an international meeting took place in Padova in September 2016, which concerned, among others, the grand repair of Guangzhou’s *Sacred Heart Cathedral* (a Church build toward the middle of the 19th century by French missionaries in Gothic style, along the lines of Notre Dame Cathedral), under the direction of Professor Tang Guohua (of the School of Architecture and Urban Planning of *GZHU*).

3.4 The pursuit of excellence in SYSU and in GZHU

The development of the SYSU and of GZHU are two very significant examples of the efforts of the Chinese central and regional governments in their policy of *Knowledge creation and transmission*, both in the national “*research universities*” and in the regional “*teaching and research universities*” as well.

As underlined in Section 3.1, the Sun Yat-sen University was one of the first to adopt, shortly after the beginning of the new millennium, an efficient Personnel System Reform, drawn up in the spirit of the New Personnel Management Paradigm with Chinese characteristics, i.e. according to the principles of *selectivity* and *equity*.

That reform was also adopted by other Chinese national universities, what constituted a relevant change of direction in the academic policy with respect to the past.

As for the research activity of SYSU, it was and still is very innovative in the scientific-technological area (see Section A3 of the Appendix): let us recall, as an example, the building up, by the staff of the Computer Science Department, of the speediest supercomputer in the world in 2013, utilizing for that task a team of over 1,300 scientists.

Let us recall also the relevant number of Medical Research Centers of SYSU, amounting to 98 units, with 6 “affiliated hospitals”: those Centers work to the highest international standards, in cooperation with the most advanced medical centers of the world.

The internationalization efforts of SYSU, with its 150 cooperation agreements with universities and research centers (ranging from the Russian Federation to the European Community Countries, North and South America, Australia, Far East, South and South-East Asia) are partly responsible for those achievements, together with the policy of attracting Chinese scientists of high level who studied and graduated abroad: their number amounted to over 500 units in 2015.

As for the Guangzhou University, its personnel system structure is successfully following the guidelines of the “*human resources management*” and actively pursuing the policy of “*strengthening the construction of high-level personnel*” (see Section A4 of the Appendix). The spectrum of its teaching and research activities ranges from the scientific-technological area to that of Humanities and is receiving encouragement and cooperation from international partners: it must be highly praised for instance the recent cooperation agreement signed in September 2016 by the Guangzhou University with the University of Padova in the area of the “*Preservation of the Cultural and Archeological Heritage*”.

Chapter 4 - The Italian Public Administration and University Reforms

4.1 The New Public Administration Paradigm in Italy

In Italy, the New Public Administration Paradigm (NPA) has given life to experiences of decentralization of the administrative functions of public institutions, simplification of the procedures, separation of “management” from the control organs, according to the logics of management accountability of goals and results. The NPA promoted the adoption of new planning, control and accounting systems, and instruments of transparent communication such as the “*social report*” (*Bilancio Sociale*)⁷⁰; it also allowed the introduction of competitive mechanisms between public service providers.

In the spirit of NPA, the main systemic reforms of public institutions started with the so-called *Bassanini Law* (Law no. 59 of 15th March 1997, entitled “*Delegation to the Government for the assignment of functions and tasks to the Regions and local authorities, for the reform of Public Administration and administrative simplification*”) and the “*Bassanini-bis Law*” (Law no.127 of 15th March 1997), both aiming at the simplification of the administrative procedures and the introduction of an administrative federalism. The goal of those laws was also, in perspective, the harmonization of the Italian administrative apparatus with that of the various member states of the European Community.

The *Bassanini Laws* were followed in 2009 by the so-called *Brunetta Law* (Legislative Decree no. 150 of 4th May 2009, entitled “*Delegation to the Government, designed to optimize the productivity of labor the public and the efficiency and transparency in Public Administrations etc.*”), whose main character was the granting of autonomy to the various public administrations, together with the requirement to present a “*Performance Plan*” and a “*Management Accounting Report*” to the central government . There was also a strong emphasis on selectivity in the allocation of economic and career incentives, based on the “*evaluation of performance*” of the employees, according to the “*customers’ satisfaction*”.

⁷⁰ The “*social report*” is a document providing all stakeholders with a comprehensive picture of the company’s performance and offering relevant informations on the company’s operations. Although there is no mandatory requirement for Italian universities to report beyond a financial report, several universities have produced a social report.

However, the expected results have not been fully achieved, due to the considerable difficulties in accepting changes in the public sector, by the employees and by the citizen as well, a situation that increased the level of dissatisfaction with public affairs among the population, finally leading to a crisis of legitimacy within the institutions⁷¹.

In fact, many of the tools for the *Management Accounting* have failed up to now⁷², especially in complex organizations not exclusively guided by the principles of economy. Very often the implementation of autonomy criteria has been united in Italy from any system of “*sanctions/rewards*”: for this reason the autonomy of the Administration has not been really empowered, with the consequence of not curbing the problem of the inefficient distribution and management of resources.

The main limitation of those reforms was indeed the lack of consideration of the socio-political context and of the possible impact of the reforms on that context. The last reform of the PA was enacted by the *Ministry of Public Administration and Simplification* Maria Anna Madia on June 26, 2014, with a decree bearing the title of “*Urgent Measures for the Simplification and Transparency of Administrative Procedures*”. The problems addressed were those of equity, public compensation, anti-corruption, personnel’s mobility, simplification of procedures”⁷³.

The law provides for the mandatory “early retirement” of employees who have reached the maximum pension contributions (42 years and 6 months for men and 41 years and 6 months for women, with the exclusion of university professors and magistrates), the personnel mobility and the prohibition of paid consulting assignments to people in retirement.

4.2 The Reforms of Italian Public Universities

4.2.1 Historic overview

The oldest European university is the *University of Bologna* (also called *Alma Mater*), founded in 1088 a.D.; it was followed by the *Oxford University* (founded in 1096), the *University of Paris* (founded in 1170), the *Cambridge University* (founded in 1208). In

⁷¹ Vann, J. L., 2004, *Resistance to Change and the Language of Public Organizations: A Look at “Clashing Grammars” in Large-Scale Information Technology Projects*, I, 2004, 4(1), pp. 47-73; Thomas R., Davies, A., 2005, *Theorizing the Micro-politics of Resistance: New Public Management and Managerial Identities in the UK Public Services*, *Organization Studies*, 2005, 26(5), pp. 683–706.

⁷² Sevic, Z., 2015, *Accounting Aspects of ‘New Public Management’: Accrual Accounting in the Public Sector* *Journal of Finance and Management in Public Services*, Vol. 4, n. 1, pp. 58-59.

⁷³<http://www.governo.it/approfondimento/riforma-della-pubblica-amministrazione-il-decreto-madia-legge/3114>

1222 the *University of Padua* was founded by students and professor coming from the University of Bologna. Other Universities were successively created in Italy and in the rest of Europe, as for instance the University of Napoli, established in 1224 by the German Emperor and King of Sicily Federico II.

It is worth to be underlined that the two oldest Italian public institutions of higher education, the Bologna, and Padua Universities had an associative nature and were established on the initiative of students (*universitas scholarium*) and professors (*universitas magistrorum*). Those universities were structured as a *Confederation of Schools* responsible for the teaching of specialized disciplines (as the Universities of Oxford and Cambridge are still now). In the 13th century, the political and ecclesiastical authority began to develop an interest in universities, in certain cases attributing the funding and defining their operational profiles. The Italian universities have preserved for the great part of their existence a certain level of freedom of government in what refers to the selection of teachers and disciplines. It must be nonetheless recalled that starting with the late Middle Ages, the life of universities was closely tied to the political and legislative changes of the ruling power.

Coming to more recent times, the so-called *Casati Law*⁷⁴ was promulgated in 1859 by the Minister of Education of the *Kingdom of Sardinia (Regno di Sardegna)*⁷⁵, and after the Italian unification, it was extended to the rest of the new-born *Kingdom of Italy (Regno d'Italia)*. The *Casati Law* marked the centralization of the Italian educational system, focused on the formation of the so-called “*ruling class*” (*classe dirigente*) while safeguarding the *Humboldtian*⁷⁶ principle of the “*freedom of teaching*”.

However, the teaching of technological application of scientific and professional disciplines was strictly controlled by the *Academic Senate*⁷⁷, owing to the conservative attitude of the academic world “*not to enslave science to the needs of the productive world*”.

In spite of that attitude, higher technical education was introduced in Italy through the foundation, in 1906, of the *Polytechnic University of Turin (Regio Politecnico di Torino)*, originated from the *Scuola di Applicazione per Ingegneri* (established in 1859),

⁷⁴ The Casati law - from the name of the then Minister of Public Education Gabrio Casati- was created through the Royal Legislative Decree n. 3725, launched on November 13, 1859 in the *Kingdom of Sardinia*.

⁷⁵ The *Kingdom of Sardinia* included the Italian regions of Piedmont (Piemonte), Val D'Aosta, Liguria, Sardinia (Sardegna) and the French region of Savoy (Savoia): its capital city was Turin (Torino). In 1861 its rulers succeeded in creating the Kingdom of Italy, while ceding Savoy to France.

⁷⁶ See note 18, Chapter 1

⁷⁷ Academic Senate, composed by a restricted group of elected full professors and presided by the Rector, was the only university's governance body until the *Gelmini Reform* (see Section 4.3).

and the *Milan Polytechnic University (Regio Politecnico di Milano)*, established in 1863 as *Regio Istituto Tecnico Superiore*: both Polytechnics were partially funded by the State and partially by private investors. In 1868 the Ca' Foscari University, devoted to commerce, was established in Venice as "*Scuola Superiore di Commercio*" by the economist Luigi Luzzatti and another private citizen; in 1910 the *Bocconi University*, devoted to economic studies, was established in Milan by the Italian industrialist Ferdinando Bocconi.

Another important private university, the "*Catholic University of the Sacred Heart*" (*Università Cattolica del Sacro Cuore*), was established in Milan in 1921 by the initiative of the catholic priest Agostino Gemelli: it was partially supported by Italian catholic associations and partially by the Italian State.

After the *First World War*, in 1923, the *Casati Law* was replaced by the *Gentile Reform*⁷⁸, which kept the conception of higher education as a state monopoly, fully in charge of the State and organized around the figure of an almighty *full professor (professore ordinario)*. The admission to the public universities was granted, as before, only to students from *Classical High Schools (Licei Classici)*, attended in greater part by the offspring of the Italian middle and upper class.

During the authoritarian "*Fascist Regime*" (1922-1943) the freedom of teaching was abolished and, since 1931, the professors were obligated to pronounce an "*oath of allegiance*" (*giuramento di fedeltà*) to the government.

After *World War 2* the centralized bureaucratic model remained in place, although the *principle of constitutionality* i.e. the obligation, by the public university system, to comply the democratic principles of the new Italian Constitution (promulgated on June 2nd, 1946) which granted *freedom of thought, freedom of expression and the right to education to all its citizen*, helped the governments to ensure, through state support, the delivery of higher education to a much greater number of citizen than in the past, for reasons of social equity.

This government's effort to facilitate the access to University to the citizen of "lower classes" was linked to the objective of expanding the level of higher education in the community, in order to promote the national economic growth. The central government

⁷⁸ It was enacted with several royal decrees: r.d. Dec. 31, 1922, n. 1679; r.d. May 6, 1923, n. 1054 (school of 1st and 2nd degree); r.d. July 16, 1923, n. 1753 (school administration); r.d. September 30, 1923, n. 2102 (university) and 1 October 1923, n. 2185 (primary school).

fixed the regulations of the educational curricula (extending the access to scientific and technical faculties to students from the newly created *Scientific High Schools (Licei Scientifici)*) and disciplining the criteria of recruitment and career of personnel.

A new era started in 1968 with the birth of the political spontaneous group called “*Student’s Movement*” (*Movimento Studentesco*), originated in France and propagating in many countries of Western Europe (Italy included) and North America (as a by-product of the strong students’ opposition to the American intervention in the *Vietnam war* (1961-1975)).

Under the pressure of the *Student’s Movement* the Italian government enacted in 1969 the so-called *Codignola Law* (Law n. 910 of 11th December 1969), which abrogated the *Gentile Law*: the access to higher education was allowed to all candidates possessing any type of *High School Diploma (Diploma di Maturità, later Diploma di Stato)*, included those delivered by the *Technical High Schools*. It was the advent in Italy of the “*mass university*” (*università di massa*), with the number of student registrations drastically increasing in the course of time. That phenomenon determined an expansion in the number of public universities⁷⁹, however not supported by a parallel increase in public funding, what resulted in a negative impact on the quality of knowledge production. It was time for a new competitive process between academic institutions to start, in order to get external funds⁸⁰ from the industrial and business world, in addition to the funds granted by the central government.

The main legislative initiatives started toward the end of the Eighties of last century, with the Law no. 168/89 of May 9, 1989, creating the *Ministry of University and of Scientific and Technologic Research (MURST)*: through that law the principle of “autonomy” of universities and of other research institutions, as for instance the *National Research Council*, the *National Institute of Nuclear Physics* and others, was introduced. The *MURST* became in 2001 the *Ministry of Education, University and Research (MIUR)* (*Ministero dell’Istruzione, dell’Università e della Ricerca*), which was also responsible for the Public High School System.

As already said, the increasing number of public higher education institutions was a consequence of the increased number of students, but those institutions were not

⁷⁹ Nowadays (in 2016) there exist in Italy 69 public universities and over 16 private universities.

⁸⁰ Adinolfi, R., 2007, *La gestione manageriale dei processi di istruzione e formazione: scuole, università, enti di formazione*, Wolters Kluwer Italia, 13-14.

subdivided into “research universities” and “comprehensive universities” as it happened in China. Higher education remained in greater part the privilege of public universities, regulated by common rules which were defined by the central government. The intent to improve the quality of these state universities has been pursued with numerous and sometimes conflicting rules, sometimes inspired by North American models or dictated by the European Community. The drivers of change largely descended from the already cited *New Public Management Paradigm*, according to which a greater autonomy was granted to the academic institutions, together with an increased request for accountability reports and a downsizing of government’s funding.

The public universities had now the necessity of financial support by private stakeholders for their research projects. In simple words, universities had to become able to transfer research products to the market in order to get more financial resources to invest in further initiatives.

The financial autonomy of universities with respect to the central government had to be based on the following principles: costs management, evaluation of results, accountability, and transparency. The first decisive governmental reform action took place with the law No. 537 of 1993⁸¹, which changed the allocation mechanism, introducing the *Ordinary Financing Fund (Fondo di Finanziamento Ordinario, FFO)*. The *FFO* introduced an element of internal control, the “*Evaluation Unit*”, which had the task of verifying the achievement of the objectives and assessing the conduct of the economic management, comparing the costs with income and yields.

However, the desired transformation obtained through the inclusion of internal and external “*Auditors*” (*Revisori*), did not lead to the desired effects, what pushed the government to repeatedly intervene, changing patterns of the accounting systems of the universities.

In 1997, a new process of allocation of financial resources was introduced through the definition of the *Research Projects of National Interest (PRIN)*: these projects had to be based on a competition between research groups and their evaluation had to be performed by independent referees. In 1999 a *Committee for the Evaluation of Research (CIVR)* was established, which later became the *National Agency for the Assessment of the University System and the Quality of Research (Agenzia Nazionale di Valutazione dell’*

⁸¹ <http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:1993-12-24;537>

Università e della Ricerca, ANVUR), created through the Law no. 537 of 24th December 1993: this Agency is composed of 7 members, external to the University.

4.3 The Gelmini University Reform

On December 30, 2010, the Italian *Minister of Education, University and Research (M.I.U.R.)* Maristella Gelmini enacted the Law no. 240, entitled “*Rules on the organization of [public] universities and on the recruitment of their personnel. Measures to stimulate the quality and efficiency of the university system*” (*Norme in materia di organizzazione delle università, di personale accademico e reclutamento, nonché delega al Governo per incentivare la qualità e l'efficienza del sistema universitario*) and published in *Gazzetta Ufficiale* on the 14th January 2011.

4.3.1 University governance and management

In Italy, as in all state members of the European Union, the funding mechanisms of public universities is decided by the central government, while the universities, as autonomous entities, are assuming many of the governance responsibilities previously held by the government, but they are held accountable for their decisions: they must show that they are responding appropriately to the needs of society, maintaining standards of excellence in teaching and research.

The increased autonomy and the accompanying accountability dictated by the Gelmini Law created “*new models of governance that redistribute responsibility, accountability and the decision-making power among the respective external and internal stakeholders.*”

The institutions of the *Rector* and of the *Academic Senate* have been maintained as “advisory bodies”. More specifically the *Rector*, chosen among the University “*ordinary professors*” (i.e. the *full professors*), is the legal representative of the University and detains a function of guidance and coordination of the teaching and research activities, assisted by the Academic Senate: both are elected by the university’s personnel according to specific proportions among the various components of the university staff (established by the *University Statute*). The duration of the mandate of the *Rector* is of only

one term, for a maximum of 6 years. The number of members of the *Academic Senate* amounts to 35 units at most, of which at least 2/3 must be “*ordinary professors*” (of whom 1/3 *Department’s Directors*), and must contain a students’ representation. The duration of the *Academic Senate* is of 4 years, with possible extension of the mandate of its members by another term.

The reform presents the following important changes with respect to the past:

- 1) the introduction of a “*General Manager*” (*Direttore Generale*), replacing the former “*Administrative Director*” (*Direttore Amministrativo*) (who detained only administrative duties, while the managing functions were detained by the *Rector* and the *Academic Senate*);
- 2) the introduction of a *Managing Board* (*Consiglio di Amministrazione*), composed by 40% of people external to the university, chosen by local economic institutions, and with the mandatory presence of the *University Rector* and of an elected students representation. The total number of its members is 11;
- 3) the adoption of a *Unified Economic-Accounting System* (*Sistema di Contabilità Economico-Patrimoniale*, the so-called *C.E.P. System*);
- 4) the introduction of a “*Management Control System*” (*Sistema di Controllo di Gestione*).

The Gelmini Reform foresees also:

- the creation of a *College of Auditors* (*Collegio dei Revisori dei Conti*), composed of 3 “*effective members*” (*membri effettivi*) and 2 “*alternate members*” (*membri supplenti*): the President of this College must be chosen among the “*Administrative and Accounting Magistrates*” or *State Attorneys*. Other members are chosen by the Ministry of Economy and Finance among its functionaries. No member can be chosen among the personnel of that university. The duration of the College is of 4 years, with a possible extension of another mandate;
- the confirmation of a *University Evaluation Board* (*Nucleo di Valutazione di Ateneo*), created by the Law no. 537 of 24th December 1993 and nominated by the university’s *Managing Board*. Its functions consist in checking and evaluating not only the quality of the university teaching and research activity but also the proper management of public resources and the efficiency of the administrative activity;

- the confirmation of the *Agency for the Evaluation of the University System and Scientific Research (ANVUR)* as an independent evaluation body at the national level.

After the enactment of the *Gelmini Law*, an additional *Quality Supervision Board (Presidio della Qualità di Ateneo)*, composed by university professors, has been created on the 20th December 2013 (Ministerial Decree no. 47/2013), detaining a guaranty function in what refers to the teaching activities of the University.

The old *Faculties* have been abolished and their institutional functions have been attributed to the *Departments* and to so-called “*Connecting Organs*” (*Organi di Raccordo*), such as the *School of Science*, the *International School*, the *Clinical Specialization Schools* etc.

The *Departments* occupy a central role inside the reformed university, with teaching, research, financial and administrative autonomy, within the constraints imposed by the university’s *Administrative Board*. The *Department’s* ruling organs are the *Department’s Director* and the *Department’s Administrative Secretary*, detaining equal decision powers in what refers the management. The *Department’s Director* is assisted by a governing body called *Department’s Committee (Giunta di Dipartimento)*, composed of a *Deputy Director (Vice-Direttore)* chosen by the *Department’s Director*, the *Director of the Ph. D. School*, 4 professors or researchers with tenured contract (3 of them elected by the *Department’s Council* and one chosen by the *Director*) and by 2 students, chosen among the students’ representatives elected by the students’ body.

The *Department’s Director* is elected by the *Department’s* staff among the *Department’s* full professors and remains in charge for a period of 3 years: he can be re-elected for only an additional (and subsequent) term. The *Administrative Secretary* is nominated by the University’s *Managing Board* and is chosen among the administrative university’s staff external to the *Department*: he stays in charge 6 years and cannot be nominated for a second term.

The main duty of this body is to assist the *Department’s Director* in the preparation of the annual and triennial *Department’s* budgets and of the annual *balance sheet*.

Another important institution is the *Department’s Council (Consiglio di Dipartimento)*, whose members are the *Department’s Director* (who is its chairman, with the

power of convening the Council's meeting), the Administrative Secretary, all professors and researchers of the Department, the representatives of the technical/administrative staff (in the proportion of 10% of the teaching and research staff) and the representatives of the Ph.D. students (1 per cycle).

The main duties of the *Department's Council* are those of coordinating the Department's research activities, participating in the organization of the teaching activities, entering into agreements with public and private agencies in what refers to the research and approving the annual and triennial Department's budgets and the annual budget balance, transmitting them afterwards to the Academic Senate. We recall that the *teaching* and *scientific research* are the so-called '*institutional missions*' of a university, to which must be added the *administrative function* for the managing of the available resources.

Within the new operating model foreseen by the *Gelmini Reform*, a central role is assigned to the measurement and evaluation of the individual and collective performance of teachers, technicians and administrative employees. This evaluation will be then utilized by the governing bodies of each university, by the Ministry of Education and by the various stakeholders of the institution as the instrument for their control function⁸².

4.3.2 University Personnel Reform

As for the university personnel, this can be subdivided into "*members of the administrative/technical area*" and "*members of the teaching/research staff*".

The first group is subdivided into the following sectors:

- *Managerial Sector (Area Tecnico-Gestionale)*,
- *Technical/Scientific and Data-processing Sector (Area Tecnico-Scientifica e di Elaborazione dei Dati)*,
- *Clinical and Public Health area (Area Clinica e Socio-Sanitaria)*
- *Libraries (Biblioteche)*.

Its employment levels (with exception of the *Clinical and Public Health area*) are, roughly speaking, the following:

technical/administrative operators,

⁸² Gori, E., 2000, *La valutazione del Sistema di istruzione: il caso dell'Università*, in CRISP, 2000, *I servizi di pubblica utilità alla persona*, Franco Angeli, pp. 240 ff.

*technical/scientific or administrative assistants,
experienced professionals,
executive managers.*

Besides the *General Manager* and the *Deputy-General Managers*, whose duties were affected by the *Gelmini Reform*, no noticeable variations have been introduced with respect to the past.

The most significant changes have been introduced in the area of the teaching/research staff, subdivided into *Ordinary Professors*, *Associated Professors*, *Researchers*.

As for the recruitment of the *Associate Professors* and *Full Professors*, the new law⁸³ establishes that the candidates have preliminarily achieved the “*National Scientific Habilitation*” (*Abilitazione Scientifica Nazionale, ASN*), delivered by a special *National Examination Committees*: the validity of this *Habilitation* is of 4 years.

To become a “*Researcher*”, one must pass an open competition. Public calls are regularly published on the website of the University, of the *MIUR* and of the European Union. Procedures are open to all members of the European Union holding a Ph. Degree.

The *Researchers* enter into a contractual agreement with the University. Contracts are of two distinct types:

- *A type*: the *Researcher* draws up a *three-year contract*, which may be extended for only two years once, after the successful evaluation of the teaching and research activities of the candidate.
- *B type (Tenure Track Researchers)*: The winner draws up a *three-year non-renewable contract*, reserved for candidates who have already been awarded *A-type contracts*, or, under certain conditions, research grants or equivalent fellowships. Researchers who benefit from *B-type contracts* and possess the *National Scientific Habilitation* (see below), will be evaluated by the University in the third year of their contracts, and, in the case of positive evaluation, will be upgraded to the role of Associate Professor.

⁸³ *Presidential Decree 222 of 14th September 2011*, published in *Gazzetta Ufficiale no. 12 of 16th January 2011* and entitled “*Regolamento concernente il conferimento dell’abilitazione scientifica nazionale per l’accesso al ruolo dei professori universitari*”

Unfortunately, because of budgetary reasons, the turnover of the personnel of the Italian State Universities has been reduced by 80% (see the “*Tremonti Law*” no. 133/2008, the “*Monti Law*” no. 14/2012 and the “*Letta Law*” no. 98/2013). As a consequence, the available teaching and research positions are presently insufficient to fulfill the needs of Italian the teaching/research activities and a high number of teaching classes (around 40%) are held by temporary teachers with *Short Term Contracts (Contratti a tempo determinato)*: the persons composing this teaching/research staff with temporary contract can be dismissed at the end of their work contract, independently of the quality of their teaching/research activity and independently of their often prestigious curricula.

The present government (Stability Law 2016, no. 208, 285 December 2015) slightly improved the situation of part of the *Type B Researchers*: in this case the turnover reduction should amount to 50% instead of 80%.

4.3.3 New Accounting Practices

The university’s accounting practices have been traditionally fragmented into various procedures and this fact has caused uncertainty in the evaluation by the government’s evaluation bodies and lack of transparency. In order to improve the degree of comparability with the university’s financial statements of previous periods and with the financial statements of other institutions (e.g. regional governments), the central government has issued, through the *Gelmini reform*, legal prescriptions to homogenize the accounting criteria of universities, with the introduction of the “*Accruals Accounting*” (*Contabilità per Competenza*).

What is an *Accrual Accounting*? It is an accounting system based on the “*Income Statement*” (*Lista delle Entrate*) reporting all revenues that have been assigned to the university for a certain period of time, even before the money is actually received, while the expenses are reported according to the “*Expenditure Commitment*” (*Impegno di Spesa*), even if the expenditures take place in a delayed period. This “*Accrual Accounting*” is completed with an accounting of all university assets (buildings, equipment, etc.).

The university must present to the Ministry a “*Unified Financial Plan*”, called *Triennial Strategic Plan (Piano Strategico Triennale)* (similar to a program of activities in the medium term in private enterprises) which must contain a single *Economic and*

Investment Budget known as “*Single Budget*” (*Bilancio Unico*), collecting all of the various *Departmental Budgets*.

Other indicators of efficiency must be presented, such as the “*Standard Cost per Unit*” (*Costo Standard per Studente*), from which depends the variable portion of Ordinary Funds (FFO) assignable by the Government.

The calculation of the *Standard Cost* takes into account various factors. The first of these factors relates to the activities of research and education, in terms of provision of teaching and research staff for the student's education. The second factor takes into consideration the costs of the technical and administrative staff, aimed at ensuring adequate support services. The third factor takes into account the costs of infrastructures (as buildings, equipment etc.) and the management of educational and research facilities. The fourth factor refers to the costs of personnel required to satisfy the “*Reference Standards*” (for example, the number of linguistic experts or the number of tutors for the courses of study for the “*remote learning*”).

In order to take into account the differences between universities, an equalization index is utilized by the Ministry, which is identical for all universities established in the same area (a *Region* or an *Autonomous Province*): this is defined on the basis of the average family income, as obtained from the *National Statistics Institute* (*Istituto Nazionale di Statistica, ISTAT*).

The Ministry requires also the yearly presentation of a “*Preventive Unified Budget*” (*Bilancio Preventivo Unificato Annuale*), and an *Annual Unified Statement of Costs* (*Bilancio Consuntivo Unificato Annuale*)

The economic framework is completed by a “*Consolidated Financial Statement*” (*Bilancio Consuntivo di Esercizio*) that shows the economic and financial contributions by all organizations and companies linked to the university, as well as Foundations and other economic entities.

The need to ensure the management's autonomy of the university imposes the necessity of a precise definition of its plans and programs, the management control, the quality and performance verification and the reporting from various information systems. The economic analysis allows a managerial control of the university as a whole, included the various Departments and Schools.

It is possible, though it is not an easy task, to define a system of indicators of the educational and research activities. Preliminarily, it should be underlined that the production of services related to higher education could be summarized in terms of use of resources (personnel, technologies, services, etc.) to carry out specific activities. The products of those activities, in turn, develop a particular impact on users, the so-called “outcomes”⁸⁴: the main factor is the so-called ‘*educational outcome*’, composed of elements including employment opportunities, location, and condition of employment, patents, intellectual property, contracts, etc. This constitutes the *university output*.

Suitable “indicators” should possess the following properties:

- *specificity and simplicity*, such as the ability to capture only the phenomenon that interests;
- *sensitivity*, that is the ability to detect even small changes;
- *correspondence between the indicator values and the decisions* taken through them.

As already mentioned, for the institutional activities of the university (research, teaching, technology transfer from universities to external users) many indicators already exist, specifically defined by two independent valuation agencies: the *Agency for the Assessment of the Quality of Research (Valutazione della Qualità della Ricerca, VQR)* and the *Agency for the Self-evaluation, the Periodic Assessment and the Accreditation (Autovalutazione, Valutazione Periodica ed Accreditamento, AVA)*, set up by the *National Agency for the Assessment of the University System and the Quality of Research (Agenzia Nazionale di Valutazione dell’Università e della Ricerca, ANVUR)*.

The path toward “*autonomy with accountability*” has narrowed the distance between universities and public companies, whose core activities must take into account the demands coming from the socio-economic world⁸⁵.

The overall reform’s design defines a public university as divided into subsystems. At the governmental level the educational criteria are defined and the resources allocation from the State are assigned, but it is the university that has the autonomy to establish operative guidelines and programs, through which its educational/research

⁸⁴ Tremblay, K., Lalancette, D., Roseveare, D., *Assessment of Higher Education learning outcomes*, OECD AHELO Feasibility Study Report - Volume 1, pp. 126 ff., and Coran, G., Sostero, U., 2008, *I sistemi contabili universitari come strumenti per il monitoraggio dell’economicità: un’evoluzione possibile?*, in Cugini, A. (editors), *La misurazione della performance negli atenei*, Franco Angeli, pp. 234 ff.

⁸⁵ Miolo Vitali, P., 2001, *I sistemi di misurazione economico-finanziaria nelle Università italiane: problemi e prospettive*, a cura di, Volume Quarto, CEDAM; Strassoldo, M., 2001, *L’Università e l’impresa nelle loro mutate relazioni sistemiche*, in *Rivista Italiana di Ragioneria e Economia Aziendale*, pp. 7-8.

activities are actually carried out through the articulation into Departments, Schools, Foundations, etc.

Universities take the move from the goals and the resources allocated to them to define the organizational structures and operating methods best suited to the attainment of the goals in the new competitive environment, given the operating conditions laid down by laws and regulations. In this regard, it should be remembered that in the field of higher education the goal is not based on the achievement of certain profit rates, but on the accomplishment of the training and knowledge needs of the community. University education belongs to the category of ‘*experience goods*’⁸⁶, i.e. services whose qualitative characteristics cannot be identified in advance, as they depend on the particular *user-student*. The assessment of such goods and services is therefore peculiar and must be developed through appropriate measurement tools.

4.4 Academic Entrepreneurship in the Western World

As mentioned before, during the nineteenth the paradigm of higher education in the West (officially supported by in practice thwarted by governments and corporations) was the *Humboldtian* principle of “*academic freedom*”⁸⁷ to which, toward the middle of last century, the so-called “*Mertonian norms*” had been added: these norms had been enunciated in 1942 by the American sociologist Robert K. Merton (1910-2003) in his book “*The sociology of Science*”:

- *universalism* (this means that the scientific validity is independent of the sociopolitical status and personal attributes of its participants),
- *communism* (this means that all scientists should have common ownership of scientific discoveries),
- *disinterestedness* (this means that scientific institutions should act for the benefit of the community rather than for the personal gain of individuals),
- *organized skepticism* (this means that all scientific claims should be exposed to critical scrutiny).

⁸⁶ Gori, E., and Vittadini, G. 1999, *La valutazione dell'efficienza ed efficacia dei servizi alla persona. Impostazione e metodi*, in *Qualità e valutazione nei servizi di pubblica utilità*, ETAS Libri, pp. 121-241.

⁸⁷ *ibidem*

The profound political, economical, social and technological changes taking place in the world toward the end of last century pushed toward a knowledge privatization, what is known as “*academic capitalism*”⁸⁸, meaning a shift toward an increasing corporatization, a top-down style of decision making and management in higher education, restricting the academy to short-term economic priorities instead of providing access to a broader proportion of the population and preparing citizens for a democracy in a new, high-tech, global world.

A “third way” is offered by the “*academic entrepreneurialism*”: the members of the academic staff participate to “*academic spin-offs*”, i.e. they take active part to knowledge-based business enterprises where the university itself is the entrepreneur, in cooperation with industries.

The *academic spin-offs* are part of the “*research spin-offs*”, of which Schumpeter gave in 1932 the following definition⁸⁹: “*they are innovative firms that aim to commercialize research results starting from R&D (Research and Development) activities and reaching the markets and consumers*”.

Innovations are important drivers of the economic growth: partnerships between academics and entrepreneurs can produce excellent economic results.

Academic spin-offs usually concern high-tech activities, such as biotechnology, medical technologies, information technologies, and their main activities are related to the transfer of knowledge and technology from university to industry. Scholars often highlighted the importance of the creation and dissemination of knowledge at universities as an important driving force for technological innovation and economic growth.

In a very interesting paper Etzkowitz, et al.⁹⁰, analyzing the increasing contribution to the development of private enterprises and to the economy of their countries offered by universities all around the world through the commercialization of knowledge,

⁸⁸ Rhoades, G., and Slaughter, S., 2004, *Academic Capitalism in the New Economy: Challenges and Choices*. American Academic, 1,1, pp. 37-60, firgoa.usc.es/drupal/files/Rhoades.qxp.pdf

Rubins, I. (2007). *Risks and rewards of academic capitalism and the effects of presidential leadership in the entrepreneurial university*, pp. 3-18. Perspectives in Public Affairs, Arizona State University, Vol. 4 <http://www.asu.edu/mpa/Entre%20University.pdf>

⁸⁹ Schumpeter, J., 1934. *The Theory of Economic Development*. Harvard University Press

⁹⁰ Etzkowitz, H., Webster, A., Gebhart, C., Terra, B., 2000. *The future of the university and the university of the future: evolution of ivory tower to entrepreneurial paradigm*. Research Policy, 29, pp. 313-330

presented the so-called model of the “triple-helix” of *university- industry – government* (also known as the *Etzkowitz - Leydesdorff model*⁹¹).

This model is based on the following three statements:

- knowledge constitutes an increasingly important part of innovation,
- higher education institutions produce and disseminate knowledge,
- the government creates the conditions for an effective cooperation among the two,

from which the entire community benefits.

In addition to that, “*scientists are encouraged to secure formal rights on their intellectual property as a key step toward a successful commercialization of their research. The patents held by academics should be regarded as evidence of “quality research”, equivalent to conventional academic output such as journal papers... ”*

Two major trends can be identified in the development of “academic entrepreneurship”:

- 1) a shift of the economy toward an ever greater dependence on knowledge production;
- 2) a shift of the economy from a “production system” toward an “innovation system”, where the universities are part of a new knowledge infrastructure.

In a recent report by OECD⁹² (2016), Benedicte Callan (Arizona State University) observes that university administrators and governments in industrialized countries are extremely interested in supporting the creation of “*academic spin-offs*”:

“Research-based spin-offs are generally understood to be small, new technology-based firms whose intellectual capital originated in universities or other public research organizations. These firms are thought to contribute to innovation, growth, employment, and revenues. They are perceived to be flexible and dynamic, giving rise to novel fields and markets, and playing a critical role in the development of high-technology clusters.”

Universities and research institutions are far more entrepreneurial than they used to be, especially in the fields of *biomedical* and *information technology*, given also an increasing budgetary pressure which has forced laboratories to look for alternative sources of funding, on the other.

⁹¹ Henry Etzkowitz (Newcastle University) and Loët Leydesdorff (Amsterdam School of Communications Research)

⁹² <http://www.oecd.org/sti/sci-tech/introductionthenewspinonspin-offs.htm>

However, in order for a typical OECD Country to see its spin-off performance jump by an order of magnitude, significant new political commitments would be necessary. But the idea of an entrepreneurial university is triggering bitter controversies inside the academic world.

Paul David, Professor of Economics at Stanford University (U.S.A.) at a seminar on the “Triple Helix”, held in Turin at *Fondazione Rosselli* in 2006, declared the following: “*I believe that in Europe there is too much enthusiasm in wanting to transform universities into companies.*” According to him, the university should aim at the transmission of knowledge, disconnected from profit: he raised doubts about the real ability of the Triple Helix to trigger a virtuous cycle of economic development.

I rather follow the Confucian “middle way”, justified by the successes of some academic spin-offs and start-ups in North-America, in Western Europe and in China, as it will be illustrated in the next Chapters.

Strictly related to the academic spin-offs are the “*technology incubators*”, the “*science and technology parks*”⁹³ and the “*knowledge-industrial clusters*”⁹⁴.

“*Technology incubators*” are a special kind of “*business incubators*”, i.e. business ventures providing services to technology-based firms, as it is the case with the university spin-offs.

Public support for business and technology incubators is generally provided at the local, regional and also central government’s level, with the purpose of helping small technology-based firms to survive and the entrepreneurs to overcome the uncertainty and obstacles associated with the early stages of a firm creation.

“*Science and Technology Parks*” are physical areas in which universities and private companies cooperate, fostering *R&D (Research and Development)* and commercialization of technology.

The world's first “*university science and technology park*” started in the early 1950s in the United States near Stanford University: it is known as “*Silicon Valley*”.

⁹³ Bolton, William K., 1996. Technological development & globalization: the importance of incubators & science parks for the generation of new enterprises”.Prod. vol.6 no.2 São Paulo July/Dec. 1996 <http://dx.doi.org/10.1590/S0103-65131996000200005>

⁹⁴ Huggings, Robert, 2008. The evolution of knowledge clusters. *Economic Development Quarterly*, 20, No. 10 http://www.klaster.lt/uploads/documents/Huggings_EVOLUTION_OF_KNOWLEDGE_CLUSTERS_2008.pdf

In Europe, the French politician Pierre Laffitte founded in 1984 in the Midi (South of France, between Antibes and Nice) the “*Sophia Antipolis Science Park*”, with the purpose of “*cross-fertilization of science and the creative arts*” not only in economic terms but also on a social and cultural level. He provided a location in which government, universities and private companies could successfully collaborate.

From the “*science and technology parks*” later developed “*knowledge and industry clusters*”, i.e. regional *knowledge-intensive* industrial clusters, where a leading role is attributed to university or research centers, not to forget the essential intervention of central or regional governments (according to the *triple helix model*) to stimulate the first stages of the aggregation. In the Western world relevant examples of these clusters are the already quoted Silicon Valley cluster in the United States, active in the Information and Communication Technology and in the biomedical sectors (with the participation of 13,000 firms and 340,000 employees), the Ottawa cluster in Canada, with the leading role of the Canadian National Research Council and the Communications Research Centre, active in the ICT, Life Sciences, Photonics and Professional Services sectors (with the participation of 1,000 firms and about 50,000 employees), the Helsinki cluster in Finland, with the leading role of the University of Helsinki, active in the ICT and Life Sciences sectors (with the participation of 1,100 firms and about 66,000 employees), the Cambridge cluster in the U.K., with the leading role of the Cambridge University, active in the ICT and in the Life Sciences sectors (with the participation of 900 firms and about 30,000 employees).

4.4.1 Academic Entrepreneurship in Italy

In Italy, as in rest of the Western World, the growth in the size of the academic organizations and the opening of scientific research to the international markets triggered competitive mechanisms in finding financial resources. In addition to that, there was a need to establish new and intense relations with the professional and business world, in order to contribute to the acquisition of a social and economic legitimization of the university services.

Out of its 94 public universities, 64 are conducting research in the areas of Science, Technology, Engineering and Mathematics (STEM). In 1999 the *Decree Law No.*

297/1999, concerning the “technology transfer”, was issued by the central government. This law fostered the creation of research spin-offs, by introducing the possibility for public researchers to be formally involved in technology transfer projects. As the consequence of the introduction of university’s autonomy, the practical implementation of the law has been left to each institution.

The scholars Baldini, Fini and Grimaldi⁹⁵ write that in the decade (2005-2015) the commercialization of academic research in the form of spin-offs, university patents and consultancies in the STEM fields was successfully undertaken by the corresponding University Departments, in order to ensure additional funds for scientific research.

To help this commercialization, *Technology Transfer Offices (TTO)* have been established in the universities and the *Italian Network for the Valorization of the University Research (NETVAL)*, an association of Italian public universities, has been created in 2001 by the initiative of the Milan Polytechnic.

Those technology transfers reflect a general tendency of public sources to decrease the funding of academic research, as it happens in all major industrialized countries of the West.

All main universities and research centers in Italy are now spinning out a growing number of innovative companies.

The major operating field of academic entrepreneurship are constituted by Information and Communication Technologies) (ICT) applications, which absorb around 70.8 % of Italian start-ups, while only 4.8% is concentrated on consumer products and around 3.6% on electronics & machinery. A minor role is played by companies operating in clean technologies and in the biotech/life sciences field. The remaining 19% (approximately) operate in other sectors, particularly services. In the web or ICT fields, the investment required at the early stage is minimal, contrary to what happens to the development of technologies in the biomedical or biotechnological sector or to devices and hardware. The majority of startups already established as companies is localized in the North (52%) and in the Center of Italy (21%), whereas the presence in the South and in the Isles (16%) is limited, although it is growing compared to last years.

⁹⁵ Baldini, N., Fini, R., Grimaldi, R. (2015). *The transition towards entrepreneurial universities: an assessment of academic entrepreneurship in Italy*, in Link, A.N., Siegel, D.S. & Wright, M. (eds), *Chicago Handbook of University technology Transfer and Academic Entrepreneurship*, pp. 218-244, University of Chicago Press.

As for the Italian *Science and Technology Parks (STP)*, over 30 parks are active all over Italy. We just mention the following ones⁹⁶:

- *Science and Technology Park “Kilometro Rosso” (Bergamo)*: created in 1968 by the initiative of the University of Bergamo with a total of 12 departments in 6 faculties, it is located across three campuses in Bergamo, Dalmine and Treviglio. Its activities encompass:
- an ‘*Entrepreneurial Lab*’, containing an *Observatory on Business Performance* in collaboration with the Bocconi University of Milan and a ‘*Business Incubator*’ for academic spin-offs in collaboration and synergy with the incubation activities of the Park;
- a ‘*Mechatronics Lab*’, where basic research and simulations are performed, aiming towards the integration and completion of the activities of the *Mechatronics* center of excellence that was launched by the Intellimech Consortium;
- a ‘*Bioengineering Lab*’, focusing on research on innovative biomaterials, artificial prosthetics, and surgical support systems.

- 1) *Area Science Park (Trieste)*: it was created in 1982 by the initiative of the *University of Trieste*, with the purpose of creating a link between the University, the *International School for Advanced Studies (SISSA)* and the *International Center for Theoretical Physics (ICTP)* and the business community. Located on the Kars Plateau, it extends over 23,000 sq meters of laboratory space with advanced research equipment, it is subdivided into 2 campuses.
- 2) *VEGA-Venice Gateway for Science and Technology*: it was created in 1993 with the EU’s sponsorship and today it covers 35 hectares. Vega’s Park is situated outside Venice, in Porto Marghera. Its main activities are ICT (software for SMEs); Biotechnologies (cancer research, diagnostics, identification of molecular markers); Restoration and architectural conservation (nanotechnologies, high-tech measuring instruments, and development of new materials and use of lighting);

⁹⁶ Report of the European Association for the Study of Science and technology (EASST), by M. Cozza, Department of Sociology and Social research, University of Trento. <https://easst.net/science-and-technology-parks-in-italy/>

Environmental research (research into the reduction of CO2 emissions, development of photovoltaic solar modules, use of new technologies for the draining of fallow land, disposal, and recycling of waste and sewage).

- 3) *Toscana Life Sciences (Siena)*: it is a non-profit organization established in 2005 by the initiative of the Tuscan Region and located in the neighborhood of the city of Siena. It offers public and private funding for biotechnology projects and provides a modern incubator for bioinformatics and proteomics, suitable for pharmaceutical-industrial research.
- 4) *Parco Tecnologico Padano (PTP)*. it was established in 2006 in the proximity of the *Agro-Biotech Cluster* of Lodi (Pavia) by the initiative of the Faculties of Veterinary Medicine and Agricultural Sciences of the University of Milan and public and private research organizations active in the agro-biotech sector.
- 5) *Parco Tecnologico di Navacchio (Pisa)*: it was promoted in 1996 by the Province of Pisa and the Municipality of Cascina (Pisa). It extends over more than 10,000 square meters and constitutes an important reference point for the technological development and for the qualification of innovative small and medium enterprises. The sectors of activity are:
 - Information communication technology
 - Microelectronics optoelectronics-robotics-
 - Bio-Medical sector -
 - Energy and environment.

Over 80 high-tech companies are already present.

- 6) *Incubatore Universitario Fiorentino (IUF)*: active since the end of 2010, it promotes and supports the birth and the first phase of development of start-ups and spin-off of the University of Florence. Among its more promising innovations, let us mention the so-called “jelly barge” of Professor Stefano Mancuso, director of the *International Laboratory of Plant Neurobiology (LINV)*: it’s a floating module for the cultivation of vegetables, able to generate freshwater through solar distillation.

4.5 Research and Development in Italian Universities

This *Gelmini Reform* has deeply affected the organizational structure of the Italian public universities: the administrative component is called to a greater specialization than in

the past, while the professors detaining institutional functions are subject to a strong pressure to become university managers.

Unfortunately, the public research funding is still the weak side of the Italian university system: the contraction of ministerial funds for research could push some universities to adopt a behaviour of mere subsistence, without actually developing tools to improve their performance, in spite of the existence of the so-called “*block grants*” (in Italian “*Fondi Discrezionali per la Ricerca*”) ⁹⁷, which are insufficient to adequately support research and development.

A recent study, comparing Italy and United Kingdom (U.K.), indicates that in the latter Country the research funds amount to 47% of the *block grant*, while in Italy the share is only 21%. In particular, the amount of public funds available for research in U.K. is 12.5 times higher than in Italy, a huge difference. More importantly, 2/3 of the total research funds are awarded through “*peer review*” and open competition, compared to Italy’s 1 / 4.

Independently of the *Gelmini University Reform*, the “*block of the turn-over*”, introduced in Italy 2008 through the *Tremonti Law* No. 133/2008, and enacted under the pressure of the economic crisis that invested the Southern- European Countries, reduced the personnel turn-over by 4/5 and this block continues in present times, in such a way that an insufficient number of tenured positions is available for the younger post-graduated people. Many aspiring researchers are held in a position of precarious work for years, with temporary, one-year long, working contracts, even in the presence of excellent performance in their academic activity. This situation has caused a “*brain drainage*” of great proportions among the Italian young generations. Unfortunately, Higher Education does not seem to have been considered a top priority by the various Italian governments in the most recent years.

In spite of all that, the quality of research in most Italian universities, both in the scientific as in the “*liberal areas*”, is of high quality, even in the presence of that persistent shortage of funds.

The Decree Law No. 297 (1999) concerning the technology transfer and allowing researchers from public universities to take part in technology transfer projects has been

⁹⁷ Cimini, S., 2013, *Potere sanzionatorio e competitività del sistema universitario italiano*, in VV.AA., 2013, *Competizione e governance del sistema universitario*, Giappichelli, pp. 228 ff.

fundamental in stimulating the development of *Academic Spin-offs, Science and Technology Parks* and *Technology Incubators*.

It must be appraised also the intervention of regional authorities, providing areas and infrastructures (communication and services) in their territory in order to allow the implementation of the so-called *Etzkovitz' triple-helix model*⁹⁸.

What is still insufficient is, in my opinion, the intervention by the Italian central government, whose active presence could, on the contrary, stimulate the academic entrepreneurship, in the spirit of the "*quadruple-helix model*" that seems to be greatly beneficial to Chinese universities.

⁹⁸ See Section 2.4

Chapter 5 Two Italian Case Studies: the Ca' Foscari University and the University of Padova

5.1 The Public Universities in the Veneto Region

The North-East of Italy, with a surface of about 83,775 Km² and a population of over seven million people, is subdivided into the following *Regions* (see Fig. 5.1):



Fig. 5.1 – Map of the Italian North-East

- the Venetian Region (with Venice as the seat of the Regional Parliament),
- the Autonomous Region of Trentino – Alto Adige/South Tirol (subdivided into the Autonomous Province of Trento and the Autonomous Province of Alto Adige/South-Tirol),
- the Autonomous Region of Friuli-Venezia Giulia (with Trieste as the seat of the Regional Parliament).

The Italian North-East has a relevant distribution of high-quality universities and research centers, extending from Verona to Trieste.

In the Venetian Region are located the following universities:

- *University of Padua (Università degli Studi di Padova)*
- *Ca' Foscari University*
- *Venice University of Architecture (Istituto Universitario di Architettura Venezia ,IUAV)*
- *Venice International University* (a postgraduate teaching and research Institution)
- *Verona University (Università di Verona)*

In the Autonomous Region of Trentino-Alto Adige/South Tirol are located the following universities:

- *Università di Trento*
- *Libera Università di Bolzano / Freie Universitaet Bozen*

In the Friuli-Venezia Giulia Autonomous Region are located the following H.E. institutions:

- *Udine University*
- *Trieste University*

In addition to the above-mentioned universities, we must mention also the following research centers, located in Miramare, near Trieste:

- *International School of Theoretical Physics (I.S:T.P.),*
- *the International School for Advanced Studies (I.S.A.S.).*

Both research centers have Ph. D. Schools.

The personnel reforms in force in the comprehensive public universities of the Italian North-East are those enacted by the Italian Ministry of Education.

5.2 The Ca' Foscari University⁹⁹

It was firstly established in Venice in 1868 as a *Royal High School of Commerce (Regia Scuola Superiore di Commercio)* and was promoted the politician Luigi Luzzatti (later Prime Minister of the Italian Government), Edoardo Deodati, Senator and Vice-

⁹⁹ see the web page www.unive.it

President of the Province of Venice, and by the Economist Francesco Ferrara, director of the School in its first 30 years of life.

The School was the first institute of higher education in commerce in Italy, modeled after the *Institut Superieur de Commerce d'Anvers*, in Belgium, and in 1935 it became the *Istituto Superiore di Economia e Commercio di Venezia* and finally, in 1968, the *Università degli Studi di Venezia*.

5.2.1 University Structure, Governance, and Management

The University is subdivided into the following Departments:

- *Department of Economy,*
- *Department of Management,*
- *Department of Environmental Sciences,*
- *Department of Computer Science and Statistics,*
- *Department of Molecular Sciences and Nano-Systems,*
- *Department of Human Sciences,*
- *Department of Linguistic Studies,*
- *Department of Studies on Asia and Mediterranean Africa,*
- *Department of Philosophy and Cultural Goods.*

The Departments are grouped into the following Schools:

- *School for the Preservation and the production of Cultural Goods,*
- *School of International Business;*
- *School of Asian Studies and Business Management,*
- *School of Cultural Production and Conservation of the Cultural Heritage,*
- *School of International Relations, School of Social Work and Public Policies,*
- *School of Economics, Languages and Entrepreneurship,*
- *Ca' Foscari School for International Education (CFSIE),*
- *Ca' Foscari Graduate School (coordinating the Ph. D. Programs),*
- *Ca' Foscari Challenge School (School of Continuing Education).*

The Academic Staff

The academic staff is subdivided into “*academic staff with tenure*” (full professors, associated professors and researchers).

In the academic year 2014-15, it amounted to 506 units, of whom 25% were full professors, 36% associated professors, 35 % researchers with tenure and 4% researchers with a fixed-term employment contract. The “*project contract academic staff*” (*CO.CO.PRO.*) (professors and researchers) amounted to 812 people. The administrative-technical staff is subdivided into “Central Administration Staff” and the “Departmental Administrative/Technical Staff”. In the academic year 2014-15 the “structured staff” amounted to 667 people, to which must be added the “Temporary Administrative/technical Staff”, which amounted to 71 people (13% of the total Administrative Staff) .

The Students

In the same academic year the total number of students amounted to 19,852 students, subdivided into Undergraduate Students (about 70%) , Master Degree Students, (around 25 %) , Doctoral Degree (Ph.D) students (amounting to 333 units, corresponding to about 1.7%) and students registered in specialization courses, improperly called in Italian “*Corsi di Master di 1.o e 2.o Livello*” (amounting to 793 units, over 3%), The total number of Undergraduate and Master Degree students who graduated in 2014/15 amounted to 4,340 units. The total number of foreign students amounted to 1020 units.

The Governance

The governing bodies of the University are the following:

- the *Rector (Rettore)*, chosen among the university’s full professors and elected by all academic staff members, by a group of technical and administrative staff elected by their peers in the proportion of 25% of the academic staff, and by the students representatives;
- the *General Director (Direttore Generale)*, elected by the *Board of Directors* (see below) on the proposal of the *Rector*, after consultation with the *Academic Senate*. He is responsible for the overall economic and financial management, the organization of processes and administrative and technical services of the Administration, the instrumental and financial resources and staff technical and administrative staff of the University.
- *Pro-Rectors*;

- *Academic Senate*, chaired by the Rector and composed of 22 additional members (of whom 12 are university professors): it exerts a coordination and control of the educational activities;
- the *Board of Directors (Consiglio di Amministrazione)*, composed of the Rector, the General Director, and 9 additional members: it performs the university's strategic planning and controls the administrative, financial and patrimonial activities of the University. It is responsible for the University's *Estimated Annual and Three-year Budgets (Bilanci di Previsione Annuali e Triennale)* and for the *Annual and Three-year Final Balances (Bilanci Consuntivi Annuali e Triennali)*, to be transmitted to the Ministry of Education, University and Research of the Italian Government;

The governing bodies of the University are assisted by the following supervisory bodies:

- the *College of Auditors (Collegio dei Revisori dei Conti)*, for the supervision of the University's financial, accounting and patrimonial activities. It is composed of 5 members;
- the *Evaluation Team (Nucleo di Valutazione)*, for the evaluation of the University's scientific, teaching and administrative activities. It is composed of 5 member, of whom one is a representative of the students;
- the *Disciplinary College (Collegio di Disciplina)*, composed of 5 university professors (3 of whom are full professors),
- The 'warranty organs' (*organi di garanzia*) are the following:
 - Assembly of Student Representatives (*Assemblea dei Rappresentanti degli Studenti*), composed of 34 members;
 - Council of the Ph. D. students (*Consulta dei Dottorandi*), composed of 21 members;
 - Student Defender (an independent lawyer);
 - Guarantee Committee for Equal Opportunities (*Comitato Unico di Garanzia per le Pari Opportunità*), composed of 11 members (of whom 6 are ladies).

There are also:

- an Advisory Board, composed of 7 members, having an advisory role in the preparation of the Strategic Plan of the University, including the definition of the areas of research, the recruitment policies and criteria for the *Research Quality Evaluation*;
- a *Data Monitoring Board*, composed of 8 members, having an advisory role in what refers to the privacy in the computerized management of sensitive data or to the Pilot Action entitled "Open access to research data" by the European Horizon 2020 Program;
- a Presidium of the University Quality (Presidio della Qualità di Ateneo), composed of 12 members, with the function of supervising the quality of the teaching, research and "third mission" activities of the University.

The Budgeting

In Table 5.1 is shown a list of the various elements composing the budgeting of Ca' Foscari University for the triennium 2012-2014.

Budgeting documents

Yearly single and authorizing budget	1. Economic budget
	2. Investments budget
	3. Prospect of expenses for missions and programs
Three-years single budget	4. Economic budget
	5. Investments budget
Single and non-authorizing budget	6. Annual budget in cash accounting system
Financial	

statements	
Yearly single financial statements	1. Balance sheet
	2. Income statement
	3. Cash flow statement
	4. Notes
	5. Management report
	6. Prospect of expenses for missions and programs
	7. SIOPE ¹⁰⁰ report
	8. Auditing Committee report
Consolidated financial statements	1. Balance sheet
	2. Income statement
	3. Notes
Single budget accounts	1. Budget accounts in cash accounting system

Table 5.1 Budgeting of Ca' Foscari University for the triennium 2012-2014.

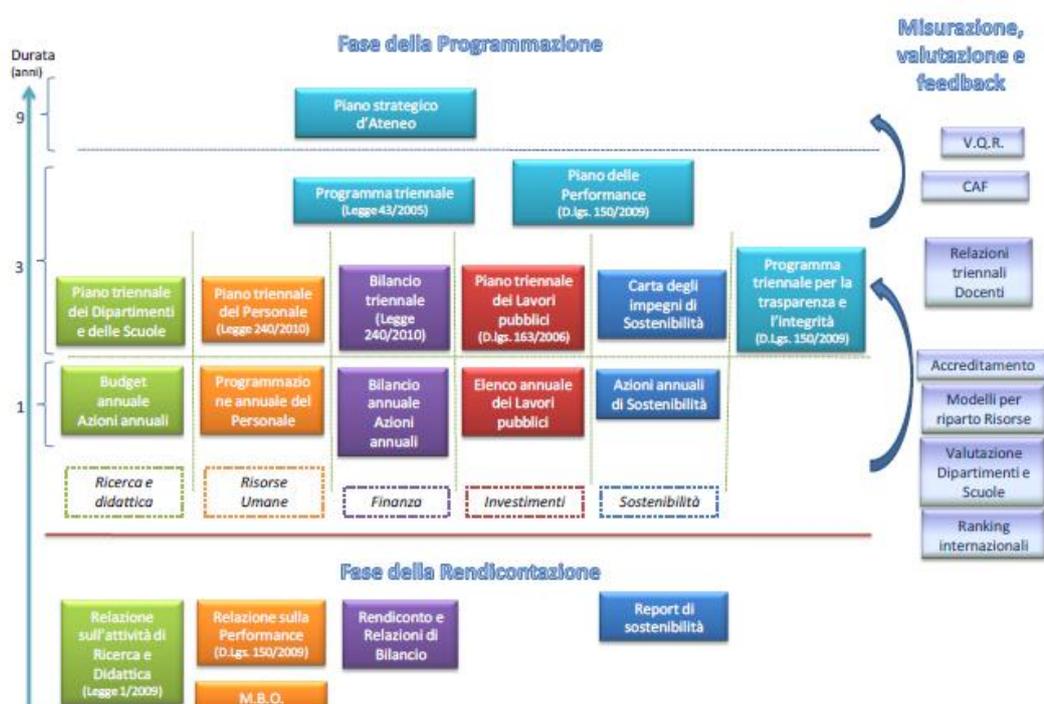
¹⁰⁰ **SIOPE** (Sistema Informativo nelle Operazioni degli Enti Pubblici): it is an electronic detection system of receipts and payments by the Treasurers of all Public Administrations (central and local governments, universities, health authorities and other public bodies).

Triennial Strategic Plan and Control

The Integrated Planning and the Monitoring and Evaluation System

The Ca' Foscari University has adopted an integrated '*Planning, Monitoring and Evaluation System*' to obtain a satisfactory organizational performance. This system has undergone an adaptation process of internal evaluation that took into account the following four subsystems developed over the years for the different operational macro-areas of the university: teaching, research, support activities, and administrative back-office¹⁰¹.

The University considers as “centrally delivered management centers” the *Schools* and the structures assimilated to them by constitutive acts, and as “independent management centers” the Departments (instituted by the law n. 240/2010), each one building its own budget. All of them are to be considered “*responsibility centers*”: each School and Department takes decisions about resources (administrative staff, spaces management, etc.). A triennial *Strategic Plan and Control* for the period 2012-2014 has been set up by the University Ca' Foscari, whose *flux diagram (diagramma di flusso)* is shown in Figure 5.2: it consists of a set of blocks indicating processes linking the various activities.



¹⁰¹ Cosenz, F., 2011, *Sistemi di governo e di valutazione della performance per l'azienda «Università»*, Giuffrè, pp. 13-14.

Fig. 5.2 Strategic Planning Flux scheme of Ca' Foscari for the triennium 202-2014.

University Quality System Assessment

The Quality System of the University is structured as follows¹⁰²:

- Teaching evaluation and quality of services;
- Evaluation of the Quality of Research;
- Three-year rating of Professors and Researchers;
- Evaluation for the allocation of resources;
- Rating of Departments and Schools;
- CAF (Common Assessment Framework) adapted to the university's real context;
- Measuring System of individual performance.

It is worth mentioning that the current system of *performance evaluation* of the personnel consists of two areas having the same weight of 50%, respectively the area of the '*results*' (modulated on the basis of the set of strategic and operational objectives) and the area of '*organizational behavior*' (articulated in a battery of fixed behavioral indicators). The evaluation consists in a self-assessment to be presented to the *General Director* (or to the Rector), on the basis of which the latter reformulates the evaluation that will be made public in an aggregated form through the use of statistical average functions.

On the other hand, the performance evaluation of the *Technical/Administrative staff*, implemented by the *Supplementary Collective Labour Agreement*, is aimed at establishing a closer correlation of the results of the assessment to the actual productivity gains and improvements of services and the relationship between productivity indicators of the structure and the employee's productivity.

The assessment is carried out by an evaluator that may be the Rector, the General Director, the Director of the Department or of the Faculty, or other managers. The single member of the staff can file an appeal to a Committee for the evaluation of the observations, appointed by the General Director¹⁰³.

¹⁰² See http://www.unive.it/nqcontent.cfm?a_id=135358

¹⁰³ See "*Relazione sui risultati delle attività di ricerca, di formazione, di trasferimento tecnologico e sulla Performance*" http://www.unive.it/media/allegato/ateneo/trasparenzaamministrativa/2012/Relazione_attivita_didattica_ricerca_performace_2011_DEF.pdf, pp. 100-103.

The advantages of the *Measuring System of Individual Performance* is the recognition of the merits of the individual, thereby contributing to the improvement of the results of the entire organization. The improvement in behavior, the perception of belonging to a shared mission, can only have a positive effect on the products and outcomes of the university's activities.

From the organizational point of view, the results are monitored through the analysis of activities, skills, and experience (the so-called '*ACE Analysis*' i.e. the '*Activity, Competence and Experience Analysis*'), in order to create a close connection between the processes carried out within the university and offices or sectors that oversee those processes. The ACE analysis, activated at Ca' Foscari by the General Directorate since May 2012, is specifically designed to map the processes of the University and the skills possessed by and requested to the staff in charge.

The analysis is divided into two different stages, each one of which providing the following two or more sub-stages:

- 1) the mapping of the relevant processes united by the pursuit of the same goal;
- 2) competence analysis (where "competence" means the set of three different factors, each of which, individually, is a necessary but not sufficient provision of expected performance, necessitating it in fact also the simultaneous presence of the other two: the ability, knowledge and experience).

The regular monitoring and verification of the results allows to appreciate the performance of the Sector and the degree of improvement of the Process, in terms of efficiency, effectiveness or outcome.

Moreover, through the identification of the individual activities that make up each Process, it is also possible to verify the compliance with the individual targets assigned to each employee of each Sector.

One key element in the Cycle of Planning and Control adopted by Ca' Foscari is the close interrelation between '*goals planning*' and '*resource planning*'.

Taking as an example the Departments, the *Performance Evaluation Model* is structured in sections and scores as shown in Table 5.2.

The formula used to distribute the scores emerging from the model, based on the results of individual indicators, is the following:

Score = [(Value of the Department's indicator - Minimum value of the indicator) / (Maximum value of the indicator - Minimum value of the indicator)] * Maximum score attributed to the indicator.

Evaluation element / detail		max points	
Teaching			
1a. Credits (CFU) issued by teachers of the department	10%	35%	35%
1b. Credits issued to students of the courses of the department	10%		
2. Number of graduates in time	10%		
3. Credits (CFU) issued in English	5%		
Research			
4. Results of VQR (Evaluation of research quality) - ANVUR-CRUI Indicators	20%	20%	35%
5. Excellence of publications	0%		
Ability to attract external funding to research			
6. Ability to attract funding – UE funding / FIRB / ...	10%	15%	
7. Ability to attract other funding	5%		
Recruitment quality			
8a. Evaluation of the research of new hires and newly promoted	25%	30%	30%
8b. Evaluation of the teaching of new hires and newly promoted	5%		

Table 5.2 Ca' Foscari Quality System Assessment for the triennium 2012-2014.

Starting from the goals outlined in the *Strategic Plan* and articulated in the three-year program, the operational goals are detailed and assigned to the structures through the *Performance Plan*, which sets the parameters for the subsequent measurement of the degree of achievement of the same objectives.

(Bilancio Consuntivo Annuale Consolidato) at December 31, 2014

1) Yearly Revenues at December 31, 2014 :

Total Revenues: 169,016 million Euros, subdivided into:

- State Contributions: about 81,618,000 Euros (FFO : 76,989,000Euros, PRIN: 4,629,000 Euros)
- Students Contributions: about 35,695 Mn Euros
- Regional Contributions: about 10.892 Mn Euros
- U.E. Contributions: about 6,387 Mn Euros
- Other contributions: about 7,398 Mn Euros
- Commercial Sales : about 2,150 Mn Euros

2) Total Yearly Costs at December 31, 2014:

Total costs amounted to 145,946,000 Euros,subdivided into:

- Structured Staff: about 66,564 Million Euros
- Project Contract Staff: about 11,869 Million Euros
- Fellowships: about 23,803 Million Euros
- Purchase of Goods : about 24,771 Million Euros
- Operating Costs: about 4,277 Million Euros
- Passive Transfers to Third People: about 4,706 Million Euros
- Passive Interests: about 1,198 Million Euros
- Provisions for Risks and Charges: about 1,321 Million Euros
- Depreciations and Write-downs: 7,436 Million Euros

5.2.2 Research Activities at Ca' Foscari University

The academic staff of the various Departments is engaged in research, in addition to its teaching activities.

We limit ourselves to briefly illustrate the international research projects , grouped under the collective title “*Research for Global Challenges*”, which are being developed or

have been developed in recent times through an international partnership and are supported by the European Union. These projects are sub-grouped into 6 main areas:

1) *The science of Complex Economics, Human and Natural Systems.*

Projects: “Discovering the human impact on climate”, “Linkages and Vulnerabilities of the Financial System”, “Sustainable Remediation”, Developing Mathematical Tools for Information and Dynamic System Theories”, “Predicting Tropical Atlantic Climate and its Impacts”.

2) *Environmental Technology and Green Economy.*

Projects: “Nano-material Fate and Speciation of the Environment”, “Sustainable Fish Production Under Climate Change”, “Winning Strategies for a Sustainable Climate Action”, “Safe Nanoscale Product and Process Design”, “Sea Grass Recolonization in the Venetian Lagoon”, “Ecological Risk Assessment”.

3) *Economics and Management of Innovation and Entrepreneurship.*

Project: “Smart Manufacturing for the EU Growth”.

4) *Public Governance, Welfare and Social Innovation.*

Projects: “Survey of Health, Ageing and Retirement in Europe”, “Making the Most of Social Sciences to Build Better Policies”, “The Impact of Drama Teaching on Second Language Acquisition”, “Preserving European Deaf Signing Communities”, “Sustainable Groundwater Management in Rural Areas”.

5) *Creative Arts, Cultural Heritage and Digital Humanities.*

Projects: “Bilingualism in Florentine and Tuscan Works”, “Artificial Intelligence Applied to Archaeology”, “Aristotle in the Italian Vernacular”, “Nanomaterials for the Restoration of Works of Art”, Re-evaluating Minor Rivers as Cultural Landscapes”, “European Space”.

6) *Cross Cultural and Area Studies.*

Projects: “Chinese Labour in a Global Perspective”, “Mental Mapping and Historical Imagination in the Baltic Sea and the Mediterranean Region”.

In addition to the International Projects, there are also the *Relevant National Interest Projects (PRIN Projects)*, financed by the National Government, and the *Regional Research Projects* financed through the European Social Funds (*FSE projects*).

5.2.3 Academic Entrepreneurial Activities at Ca’ Foscari University

The Ca’ Foscari University has established the following spin-offs:

- GLURES, established in 2008 by the initiative of the *Department of Molecular Systems and Nanotechnologies*. The line of business: research and development of natural and semi-synthetic molecules having biological properties exploitable as drugs, skin cosmetics, nutritional and pharmaceutical (nutraceutical) properties in human and veterinary medicine.
- DIGITALVIEWS established in 2010 by the initiative of the *Department of Environmental Sciences, Computer Science and Statistics*. The line of business: artificial vision and man-machine interaction and in the marketing of 3D scanners and related software.
- VEASYT established in 2012 by the initiative of the *Department of Languages and Comparative Cultural Studies*. The line of business: design and development of software, websites and mobile applications in the cultural, tourism and healthcare areas; linguistic research on language disorders.
- BLUEFARM established in 2012 by the initiative of the *Department of Environmental Sciences, Computer Science and Statistics*. The line of business: consultancy in the environmental field, environmental chemistry, applied ecology, optimization of aquaculture practices, field collection of environmental data and management, development of mathematical models, industrial production and marketing of animal and plant species from aquaculture.
- SOLWA, established in 2012 by the initiative of the *Department of Environmental Sciences, Computer Science and Statistics* and the *Department of Molecular Systems and Nanotechnologies*. The line of business: development of innovative solutions

with low environmental impact for the purification of waters, the management of sludges and the drying of foods.

- CRYPTOSENSE established in 2013 by the initiative of the *Department of Environmental Sciences, Computer Science and Statistics*. The line of business: development of testing tools and automatic validation of the security of computer systems. Production of validation software tools and verification of security requirements of IT systems, including hardware devices such as smart cards, hardware security modules (HSM), RFID devices, smartphones.
- ANTEO established in 2014 by the initiative of the *Department of Management*. The line of business: development of measurement and analysis tools in the area environmental sustainability.
- CROSSING, established in 2014 by the initiative of the *Department of Molecular Systems and Nanotechnologies*. The line of business: support services for the large-scale industrial production of molecules used as activating agents of "cross-linking", the ACLs.
- ARIES, established in 2015 by the initiative of the *Department of Molecular Systems and Nanotechnologies*. The line of business: development of anti-counterfeiting technologies based on synthetic DNA, to authenticate artistic and industrial products.
- GREEN DECISION, established in 2015 by the initiative of the *Department of Environmental Sciences, Computer Science and Statistics*. The line of business: decision-making support services in the environmental sector for the development and validation of new materials and products.
- STRATEGY INNOVATION established in 2015 by the initiative of the *Department of Management*. The line of business: consulting services for the renewal of the business models of individual companies or groups of companies.
- HEAD UP, established on February 10, 2016, by the initiative of the *Department of Environmental Sciences, Computer Science, and Statistics*. The line of business: support services in the field of prevention and safety techniques in the iteration between man, plant and work environment.

5.3 The University of Padova¹⁰⁴

This university was firstly established in Padova in 1222 a.D. as a *School of Law* by the initiative of a group of students and professors coming from the University of Bologna: it is one of the oldest universities in Europe and the second oldest in Italy. Its motto was, and still is: “*Universa Universis Patavina Libertas*”, equivalent to the English expression: “*Academic Freedom*”.

5.3.1 University structure and governance

The University is subdivided into the following Departments:

- Department of Agronomy, Food, Natural Resources, Animals, and the Environment
- Department of Biology
- Department of Animal Medicine, Production and Health
- Department of Biomedical Sciences
- Department of Cardiac, Thoracic and Vascular Sciences
- Department of Chemical Sciences
- Department of Civil, Environmental and Architectural Engineering
- Department of Comparative Biomedicine and Food Science
- Department of Cultural Heritage: Archaeology and History of Art, Cinema, and Music
- Department of Developmental Psychology and Socialization
- Department of Economics and Management
- Department of General Psychology
- Department of Geosciences
- Department of Historical and Geographic Sciences and the Ancient World
- Department of Industrial Engineering
- Department of Information Engineering
- Department of Land, Environment, Agriculture, and Forestry
- Department of Linguistic and Literary Studies
- Department of Management and Engineering
- Department of Mathematics

¹⁰⁴ see the web page www.unipd.it

- Department of Medicine
- Department of Molecular Medicine
- Department of Neurosciences
- Department of Pharmaceutical and Pharmacological Sciences
- Department of Philosophy, Sociology, Education, and Applied Psychology
- Department of Physics and Astronomy
- Department of Political Science, Law and International Studies
- Department of Private Law and Critique of Law
- Department of Public, International and Community Law
- Department of Statistical Sciences
- Department of Surgery, Oncology and Gastroenterology
- Department of Women's and Children's Health

The Departments are grouped into the following Schools, delivering *Bachelor Degree* (BDC), *Master Degree* (MDC) and Ph Degree Courses:

- School of Agricultural Science and Veterinary Medicine
- School of Economics and Political Science
- School of Engineering
- School of Human and Social Sciences and Cultural Heritage
- School of Law
- School of Medicine and Surgery
- School of Psychology
- School of Sciences

A special Institution is the *Galilean School of Higher Education*, divided into three categories (Humanities, Natural Sciences, and Social Sciences), which offers special in-house courses, personal tutoring, board and lodging to a small group of 30 of excellent students, who passed an entrance examination.

The Academic Staff

The staff is subdivided into “*academic staff with tenure*” (full professors, associated professors researchers).

In the academic year 2014-15, it amounted to 2,057 units, of whom 24% were full professors, 43% associated professors, 29 % researchers with tenure, 4.0% researchers with a fixed-term employment contract. The administrative-technical staff is subdivided into “Central Administration Staff” and the “Departmental Administrative/Technical Staff” . In the academic year 2014-15 the “structured staff” amounted to 667 people, to which had to be added the “Temporary Administrative/technical Staff”, which amounted to 71 people (13% of the total Administrative Staff) .

University Governing Bodies

The governing body is made up as follows:

- the *Rector (Rettore)*,
- the *Deputy Rector*,
- the *General Manager (Direttore Generale)*,
- 12 *Vice-Rectors*;
- the *Academic Senate*, chaired by the *Rector* and composed by the following 26 additional members: 9 Department Deans, 6 elected full professors, 3 elected researchers, 3 administrative/technical staff representatives, 5 elected Ph.D. students’ representatives
- the *Administration Board (Consiglio di Amministrazione)*, composed of the Rector, the General Director, 4 academic representatives, 3 external representatives, 2 Ph. D. students representatives: it performs the university’s strategic planning and controls the administrative, financial and patrimonial activities of the University.

The governing bodies of the University are assisted by the following ‘*supervisory bodies*’:

- the *College of Auditors (Collegio dei Revisori dei Conti)*, composed of 5 members;
- the *Evaluation Team (Nucleo di Valutazione)*, composed of 8 members, of whom 1 is a representative of the students;
- the *Disciplinary College (Collegio di Disciplina)*, composed of 5 university professors (3 of whom are full professors).

The *Warranty Organs (Organi di Garanzia)* are the following ones:

- Assembly of Student Representatives (Assemblea dei Rappresentanti degli Studenti), composed of 38 members;
- Student Defender (an independent lawyer);
- Guarantee Committee for Equal Opportunities (Comitato Unico di Garanzia per le Pari Opportunità), composed of 8 members (of whom 7 are ladies).
- *Data Monitoring Board*, composed of a group of 8 members
- Presidium of the University Quality (Presidio della Qualità di Ateneo), composed by the Rector and by the Directors of the University Schools with the function of supervising the quality of the teaching, research and “third mission” activities of the University.

The students

In the 2014/15 Academic Year the total number of students amounted to 57,646 units, subdivided into *Undergraduate Students (Lauree Triennali)* (about 58.40 %) , *Master Degree Students, (Lauree Magistrali)* around 38.10 %) , *Specialization Schools (Corsi di Specializzazione, Corsi di Perfezionamento* and “*Master Courses of 1st and 2nd Level*)(4.43 %) and *Ph. Degree Schools* (amounting to 415 units, approximately corresponding to 3.5 %) .

The distribution of students (Bachelor and Master Degree Courses) among the various Schools is the following:

- School of Agricultural Science and Veterinary Medicine : 6.76 %
- School of Economics and Political Science: 9.46 %
- School of Engineering: 19.92 %
- School of Human and Social Sciences and Cultural Heritage: 20.64 %
- School of Law: 6.64 %
- School of Medicine and Surgery: 16.06 %
- School of Psychology: 9.87 %
- School of Sciences: 10.64 %

As for the Ph.D. Schools, subdividing them into 3 main groups. The students distribution is the following:

“Mathematics, Physics Computer Science, Engineering” (40.72 %), “Life Sciences” (34.94 %), “Human and Social Sciences & Earth Sciences” (24.34 %).

As for the various denominations of the Specialization Schools, the students distribution is the following:

- Specialization Schools (Scuole di Specializzazione) : 1467 students, subdivided into “Specialization Schools in Health Sciences” (87.80 %), “Scientific Specialization Schools” (12.20 %);
- Advanced Courses (Squole di Perfezionamento) : 507 students, subdivided into the areas of
 - a) Architecture and Civil Engineering (2.96 %)
 - b) Teachers Training (16.57 %)
 - c) Law (11.24 %)
 - d) Social Sciences (17.36 %);
- 1st level “Masters” (MASTER DI 1.o LIVELLO): 665 students, subdivided into the areas of
 - a) Environmental Sciences (5.41 %)
 - b) Economics (15.79%)
 - c) Teachers training (18.20 %)
 - d) Communication Sciences (2.56 %)
 - e) Industrial Engineering (0.8%)
 - f) Paramedical Sciences (37.74 %)
 - g) Security Services (2.26%)
 - h) Social Services (17.29 %);
- 2nd Level Masters (MASTER DI 2.o LIVELLO): 421 students, subdivided into the areas of
 - a) Paramedical Sciences (47.03 %)
 - b) Environmental Sciences (8.55 %)
 - c) Social Sciences (38.24 %)
 - d) Judicial Services (5.46 %)

**Yearly Consolidated Final Balance Sheet (Bilancio Consuntivo Annuale
Consolidato) at December 31, 2014**

1) Yearly Revenues (Entrate Annuali) at December 31, 2014

The Total Revenues amounted to 977,429,000 Euros, of which

- 298,318,000 Euros came from the Italian Government's FFO funds (Fondo Finanziamento ordinario),
- 5,459,000 Euros came from Government's Research Funds (PRIN),
- 105,692,000 came from student fees,
- 72,383,000 came from private project financing,
- 45,297,000 from Health Services and Services for third parties, and E.U. research contributions,
- 69,698,000 from other registered sources.

The remaining part of the revenues was due to budget surplus from previous years.

2) Yearly Costs at December 31, 2014

The total costs amounted to 600,914,000 Euros, mainly subdivided into:

- 305,092,000 Euros for Personnel wages,
- 135,376,000 for the independent management of peripheral structures (Departments etc.)
- 88,245,000 Euros for the central structure's management,
- 28,257,000 Euros for purchase of goods and services,
- 13,418,000 for the maintenance and expansion of the housing stock
- 1,169,000 for Operating Costs
- 10,221 for Passive Transfers to Thirds

5.3.2 Departmental Research and International Cooperation

The research activity can be subdivided into "Ordinary Departmental Research" and "International Research Projects".

As for the Departmental Research, let us quote the following "Interdepartmental Research Centers":

- **Centro di Ricerca Interdipartimentale per le Biotecnologie Innovative – CRIBI**
- **Centro interdipartimentale di ricerca "Centro di Neuroscienze Cognitive" CNC**

- **Centro interdipartimentale di ricerca "Centro di Idrologia Dino Tonini**
- **Centro interdipartimentale di ricerca "Centro studi di economia e tecnica dell'energia Giorgio Levi Cases"**
- **Centro interdipartimentale di ricerca di meccanica dei materiali biologici**
- **Centro Interdipartimentale di Ricerca in "Pedagogia dell'Infanzia" – CIPPI**
- **Centro Interdipartimentale di Ricerca e Studio per i Servizi alla Persona – CISSPE**
- **Centro Interdipartimentale di Ricerca sul Disagio Lavorativo – CIR**
- **Centro Interdipartimentale di Ricerca sulla Famiglia – CIRF**
- **Centro Interdipartimentale di Ricerca di Filosofia Medievale "Carlo Giacon" – CIRFIM**
- **Centro Interdipartimentale di Ricerca per gli Studi Interculturali e sulle Migrazioni – CIRSIM**
- **Centro interdipartimentale di ricerca per le decisioni giuridico-ambientali ed etico-sociali sulle tecnologie emergenti – CIGA**
- **Centro interdipartimentale di ricerca sul Nordest "Giorgio Lago" – CIRN**
- **Centro Interdipartimentale di ricerca in Miologia, biologia, fisiopatologia, clinica e biotecnologie del muscolo scheletrico - CIR-Myo**
- **Centro interdipartimentale di ricerca per lo studio dei materiali cementizi e dei leganti Idraulici – CIRCE**
- **Centro interdipartimentale di ricerca Studi di genere – CIRSG**
- **Centro interdipartimentale di ricerca "Studi Liviani"**
- **Centro interdipartimentale di ricerca studio e conservazione dei beni archeologici, architettonici e storico-artistici – CIBA**
- **Centro Interdipartimentale di ricerca sulla modellistica delle alterazioni neuropsichiche in medicina clinica – CIRMANMEC**
- **Centro interdipartimentale di ricerca sulle Cefalee ed Abuso di Farmaci – CIRCAF**
- **Centro interdipartimentale di ricerca di Chirurgia sperimentale**
- **Centro interdipartimentale di storia della medicina – CISM**
- **Centro interdipartimentale di Ricerca di Geomatica – CIRGEO**
- **Centro Interdipartimentale per la Ricerca in Viticoltura ed Enologia – CIRVE**

- **Centro interdipartimentale di ricerca "Human Inspired Technologies Research Center - HIT"**
- **Centro interdipartimentale di ricerca "Centro di Idrodinamica e Morfodinamica Lagunare" – CIMoLa**
- **Centro interdipartimentale di ricerca in Storia e Filosofia della Scienza - CISFIS**

As for the international cooperation projects, they are mainly devoted to the scientific and technological cooperation inside the European Community.

Let us quote the “FP7 Cooperation Project, active during the period 2007-2013 and the “HORIZON2020 Cooperation Project” for the period 2014-2020.

The latter is structured into 3 “*Pillars*” (“Excellent Science”, “Industrial Leadership”, “Societal Challenges”) and 4 “*Transversal Programs*” (“Spreading excellence and widening participation”, “Science with and for Society”, “European Institute of Innovation and Technology (EIT)”, “EURATOM”).

5.3.3 Academic Entrepreneurial Activities

The University of Padova has already established 46 “spin-offs” with business enterprises from the Veneto Region: their sectors of activity range from the “Information Technology and Data Management” to Genomics, Nanotechnologies and Robotics, Environmental Engineering and Agro-forestry Systems, Geosciences, Astronomy, Biomedicine, Food Science, Pharmacology and others.

The University of Padova created also a “*University Business Incubator*”, called *Start Cube*, in cooperation with a Bank Foundation (the Fondazione Cassa di Risparmio di Padova e Rovigo) with the purpose of supporting the building up of new enterprises. It is a member of the European Association of Technology Incubators, called *Incubator Forum*.

As for the “Technology Transfer”, the University of Padova is partner of the “*PoCN Project*” created and coordinated by the Area Science Park, which promotes the commercial exploitation of scientific research performed in universities and cooperates with the group “Enterprise Research Planning” (ERP) in creating prototypes of products of business interest.

5.4 The pursuit of excellence at Ca' Foscari and Padova Universities

The Ca' Foscari and Padova Universities are, in my opinion, two valid examples of “virtuous universities”, combining an intense teaching and research activity, in cooperation with a wide network of academic institutions of the European Union and of other parts of the World.

The University of Padova has been for centuries, since its foundation, the only university of the Venetian Republic, serving a vast territory extending to Bergamo and province in the Nord-West, to Trento in the North, to Istria and the Dalmatian coast (nowadays parts of Slovenia and Croatia) in the East and to the Greek territories in the Ionian and Aegean Seas, in the Mediterranean South-East. After the fall of the St Mark Republic, it continued in this role: that explains the “dominance” of the University of Padova in the North-East, in the areas of Law, Medicine, Science and Technology, Humanities. The great number of Departments and Schools, and the excellent performance in its teaching and research activities testify that.

As for Ca' Foscari University, it was for a long time complementary to Padua in its educational and research activities. Economy, Modern Languages, Preservation of Cultural Heritage are the object of an intense and very innovative teaching and research activity in this University, attracting students and scholars from all around the world, especially through the *Erasmus* and *Erasmus Mundus* academic exchange programs. The advent of the era of nano-technologies is opening a new, promising scenery in the research activities of this university.

As for the governance, management and the accounting rules of these two universities, they are the same as those of all Italian public universities, having been enacted by the central government. The Padova and Ca' Foscari Universities are very diligent in implementing them, especially in what refers to budgetary transparency thus offering a good example to other Italian Higher Education Institutions.

The private financial investments in “technology incubators”, “science and technology parks” and “knowledge-industrial clusters” are rather modest up to now, in spite of the great enthusiasm by the academic staff, but this situation could change in a near future if the central government would decide to consider the development of higher education as a motor of change for the Country.

Conclusions

In the Introduction of this Dissertation, the following question had been posed: “*Were the Recent Chinese government’s reforms successful in laying the foundations of an efficient higher education system and the premises for a competitive ‘knowledge production’ activity?*”

To give an appropriate answer to this question, we should firstly underline that we took into consideration not only the national “*research universities*” but the regional (provincial/municipal) “*comprehensive (teaching-and-research) universities*” as well.

In both cases, the answer is without doubt extremely positive. The great financial investments by the government to the national universities, together with the large managerial autonomy granted to them, allowed the modernization of those “*elite higher education institutions*”.

The Sun Yat-sen University, which we analyzed in great detail in Chapter 5, offers significant elements for our positive judgment.

The managerial autonomy of national universities helped the introduction of selective personnel reforms, which attracted some of the best scholars and the best managers from inside the Country and also among Chinese scientist and young Chinese “talents” (人才 Réncái), who had studied and worked in the most prestigious research centers of the World.

As a result, the research activity in the scientific-technological areas has already reached or is in the process of reaching very competitive standards of Excellency. Some scholars manifested perplexity in what refers to the nature of the research activity in those Chinese elite Universities, whose success has been mainly obtained in the scientific/technological areas, while basic scientific research or the research in Humanities still lag behind. They observed that the development of those elite universities had been obtained according to a *top-down* strategy, which deprived talented scientists of the faculty of freely choose their research field.

It seems to me that that could be true, but it should also be taken into account the enormous scientific-technological gap that had to be filled in a relatively short period of time, in the presence of other equally urgent necessities of the Country.

It should be also remembered that the reform process of those universities has not yet been concluded. All in all, it seems appropriate to conclude that the elite universities of the *C9 League* are successfully moving from the stage “*knowledge transfer*” toward the stage of “*knowledge creation*”, at least in what refers to the scientific-technological areas.

As for the comprehensive universities, which constitute a major group of Chinese higher education institutions, a very positive influence on their modernization efforts has been exerted by the legislative action of the central government, in particular through the law enacted in 2014 by Premier Li Keqiang¹⁰⁵, which was inspired by the principles of the *Human Resource Management*, aiming to maximize the academic productivity in teaching and research through continuous training, performance evaluations and reward programs.

Let us recall, among others, an important step of reforms undertaken by the Guangzhou University, as mentioned in Section 3.3.2:

“during the biennium 2014-2015 the University undertook a project of building up a ‘talent team’, optimizing the procedures of hiring young and middle-aged high level scientists, increasing the training efforts among the junior staff and encouraging them, through a fellowship program, to spend training periods overseas in order to get a highly qualified Ph.D.”

A special praise should be attributed to Guangzhou University, for its international cooperation activity with the University of Padova in the area of the “*Preservation of the Cultural and Archeological Heritage*”.

All in all, it seems to me that the great effort undertaken by the Chinese leadership to develop the public higher education system in the Country is paying off.

What about the Italian university system? In the Introduction, it had been clearly stated that it was not the purpose of this Dissertation to perform a one-to-one comparison between the Chinese and the Italian institutions of higher education, but this cannot prevent us from expressing some conclusive remarks concerning the different ways of approaching similar problems in the two realities.

The most relevant problem that the higher education systems were facing on the eve of the new millennium, in China and in Italy as well, was the necessity of adapting the old academic institutions to the new requirements posed by the global market economy, making

¹⁰⁵ See Section 1 of the Appendix

them “*capable of establishing a competitive ‘knowledge production’ activity inside the World community.*”

We saw that the CPC considered the reform of the higher education system as its first priority and acted consequently, investing relevant financial resources in the national university system, while granting to it a large managerial autonomy. It also performed an intense legislative action to stimulate the regional governments to do the same.

As for Italy, the two case studies examined in this Dissertation, the *Ca’ Foscari* and *Padova Universities*, evidence a great vitality of the two academic institutions.

The *Humboldtian model* still inspires, according to my opinion, the University of Padova, while the *Ca’ Foscari University* seems more sensitive to the spirit of the *New Management Paradigm*. In both universities, the teaching and research activities are of high quality, both in the scientific and technological areas as in the areas of Humanities, Economics, Law and Social Sciences. The University of Padova has a very large number of international cooperations, predominantly oriented toward the Countries of the European Community, while the *Ca’ Foscari University* has a still small international cooperation network, what is understandable, given the reduced number of Departments and Schools of this University, but it is very dynamical and will undoubtedly extend its international cooperation network.

As for the Italian government, it, unfortunately, confined itself, through the *Gelmini Reform*¹⁰⁶, to introduce a set of reasonable administrative rules, but did not accompany them with an adequate financial support to the teaching and research activities of its Higher Education System.

The government’s alleged reasons for this weak financial support of public universities are the persistent economic stagnation, together with the existence of a huge Italian Public Debt, mainly caused by the mismanagement of past governments, but all that cannot justify, in my opinion, the absence of a radical intervention to invigorate the Italian university research system, which should constitute a guarantee of social and economic progress for the entire Country.

¹⁰⁶ See Section 4.3

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Appendix

A1. Decree of State Council of the People's Republic of China No. 652 "Personnel Management Regulations of Public Institutions"

by Premier Li Keqiang - April 25, 2014

Chapter I General Provisions

Article 1 This set of regulations is formulated with the purpose of regulating the personnel management of public institutions, a safeguard of the legitimate rights and interests of the institutions' staff, the construction of a high-quality workforce and the promotion of the development of public services.

Article 2 The personnel management of public institutions upholds the principles of the Party, assuming the responsibility for cadres' and talents' affairs and the full and accurate implementation of a democratic, open, competitive and merit-based approach. The country practices a classified management of the institution staff.

Article 3 The Central Department for the Integrated Personnel Management of public institutions is responsible for the personnel integrated management of public institutions nationwide.

The local public institutions in an area above the county level are managed by local Personnel Integrated Management Departments.

The competent authorities of public institutions are responsible for the personnel management of affiliated institutions.

Article 4 The public institutions shall improve and optimize their personnel management system. When making or revising the Personnel Management System, the competent department should listen to the opinions of the staff through an Employee Representative Assembly or through other forms.

Chapter II Posts Setting

Article 5 The State shall establish a working positions management system of public institutions and also clear job categories and levels.

Article 6 Public institutions set up working positions according to the work requirements, on the basis of the provisions of the State.

All working positions should have clear names, duties and tasks, work standards and working conditions.

Article 7 Public institutions formulate the program of the working positions, which must be submitted to the personnel integrated management department.

Chapter III Open Recruitment and Competition for Posts

Article 8 The newly hired staff of public institutions shall be recruited through recruitment procedures open to the society, except for working positions of political nature, or for positions with superior administrative privileges or else secret services working positions.

Article 9 Public institutions shall recruit staff in accordance with the following procedures:

- (A) make the open recruitment programs;
- (B) publicly announce the recruitment information for posts and qualifications, etc;
- (C) review the qualifications of candidates;
- (D) examination, inspection;
- (E) physical examination;
- (F) publish the list of to be employed staff;
- (G) make employment contracts and execute the employment procedure.

Article 10 For the internal job candidates of the public institution, the procedure of competition for the posts is as following:

- (A) make the employment programs of competition for the posts;
- (B) announce the information of posts, qualifications, and duration of employment, etc in the institutions;
- (C) review the qualifications of the candidates;
- (D) evaluation;
- (E) publish the list of to be employed staff in the institutions;
- (F) execute the appointment procedure.

Article 11 The staff of public institutions can communicate in accordance with the state regulations.

Chapter IV Employment Contract

Article 12 The period of the employment contract between public institutions and their staff is in general not less than 3 years.

Article 13 The probation period is 12 months for the initial employment of more than 3 years.

Article 14 After the public institution staff worked continuously for 10 years and arrived less than 10 years from the statutory retirement age, the public institutions should sign a contract with them until their retirement on their personal requirements.

Article 15 The public institutions can terminate the employment contract with the staff who has been absented over 15 workdays, or more than 30 workdays of absenteeism in a year.

Article 16 The public institutions can write a notice 30 days in advance and terminate the employment contract with the staff who did not pass the annual assessment and refused to adjust his post, or failed to pass the annual assessment for two consecutive years.

Article 17 The public institution staff can terminate the employment contract by noticing the institutions 30 days in advance, except the ones that have signed a special agreement on terminating the contract.

Article 18 Public institutions can terminate the contract with staff who has been expelled.

Article 19 The human relations between public institutions and staff are terminated on the date when their employment contracts are legally released.

Chapter V Assessment and Training

Article 20 The public institutions shall, in accordance with the provisions of the employment contract of job duties and tasks, give a comprehensive assessment of the performance of staff, especially assessing Work Performance. When doing Assessment and Evaluation Services, the views of the objects who have received the service before should be considered.

Article 21 The assessment has been divided into the usual assessment, annual assessment, and assessment of term employment period.

The results of the annual assessment can be divided into different grades such as good, qualified, basically qualified and unqualified. Assessment of term employment period can be divided into qualified and unqualified grades.

Article 22 The assessment result is a basis for adjusting the positions of the staff in public institutions, wages, and renewal the employment contract.

Article 23 Depending on the job requirements, the public institutions shall make staffing training programs, and give staff training of different grades and classifications.

In accordance with the requirements of the requirements of the institutions, the staff should participate in pre-job training, job training, transferring training, and special training for specific tasks.

Article 24 The training expense is disbursed in accordance with relevant state regulations.

Chapter VI Rewards and punishment

Article 25 The individuals of public institutions or groups of the following circumstances may be awarded:

- (A) long-term serve for grassroots with dedication and outstanding performance;
- (B) outstanding performance in the implementation of the important national tasks, or in response to major emergencies;
- (C) significant inventions, technological innovations in their work;
- (D) have made outstanding contributions in cultivating talented personnel, or spreading advanced culture;
- (E) other outstanding contributions.

Article 26 Adhere to the principle of both spirit and material rewards, and mainly spirit-based rewards.

Article 27 The rewards are divided into awards, merit, great merit, and the honorary title.

Article 28 The staff of public institutions who has the following acts shall be punished:

- (A) harm national honor and interests;
- (B) dereliction of duty;
- (C) to seek illegitimate interests by using the work;
- (D) to squander and waste the financial resources of the State;
- (E) serious against professional ethics or public morality;
- (F) other serious violations of discipline.

Article 29 The sanctions include a warning, demerit, reduce post grades or dismissal, expulsion.

The periods of punishment are as follows: Warning, 6 months; demerit, 12 months; reduce post grades or dismissed 24 months.

Article 30 The punishment to the staff should be decided with clear facts, conclusive evidence, qualitative accuracy, appropriate processing, legal procedures and complete formalities.

Article 31 Other than dismissal, staff punishments will be removed by the units by sending a written notice to the staff if there is no recurrence of misconduct after the expiration of the punishment.

Chapter VII Wages and welfares, and social insurance

Article 32 The State shall establish a Wage System of Public Institutions combined with excitation and restriction.

The salaries of public Institution staff include basic salary, performance payment, and allowances subsidy.

The wage distribution of public institutions should be combined with the characteristics of different institutions, reflecting factors job responsibilities, job performance, and other practical contribution.

Article 33 The state establishes a normal growth mechanism of wages of public institutions' staff wages.

The level of wages of public institutions' staff should be coordinated with national economic development and social progress.

Article 34 The staff of public institutions enjoys benefits of the state.

The public Institutions carry out working hour system and vacations stipulated by the state.

Article 35 The public institutions and their personnel shall participate in social insurance, the workers enjoy social insurance benefits in accordance with law.

Article 36 In line with the provisions for retirement, the staff of public institutions should retire.

Chapter VIII Personnel Disputes

Article 37 When there occurs the personnel dispute between the public institutions and the staff, it should be solved in accordance with relevant provisions of the "People's Republic of China Labor Dispute Mediation and Arbitration Law" and other treatments.

Article 38 When the staff of public institutions refuses to accept the assessment results or the punishment decision, he may apply for a review or appeal.

Article 39 The personnel who is responsible for recruitment, appraisal, reward, discipline and other personnel dispute settlement, should avoid any of the following circumstances:

- (A) have interests with himself;
- (B) have interests with his close relatives;
- (C) that may affect his impartiality.

Article 40 For any violations of the law in the personnel management of public institutions, any unit or individual may complain or report to the department of integrated management of personnel in public institutions, administrations or supervisory authorities, and the related departments or agencies should promptly investigate and deal with it.

Chapter IX Legal Liability

Article 41 In public institutions, who violates the provisions of this Ordinance will be instructed to rectify his behavior by the department of integrated management of personnel above the county level, or by administrations; for the people who fails to rectify in time, the supervisors who directly in charge or the personnel who is directly responsible shall be published too.

Article 42 The wrong treatment to the personnel that against this Ordinance, which caused the reputational damage to the person, should be apologized, rehabilitated in order to eliminate the influence, and to compensate the economic losses according to law.

Article 43 The staff in the department of integrated management of personnel or of the administration's who abuses his power, fails to perform his duties, or frauds, shall be punished; when dereliction of duty, and shall be punished; be held criminally responsible if he constitutes a crime according to the law.

Chapter X Supplementary Provisions

Article 44 These Regulations begins to take effect from July 1, 2014.

A2. Press conferences by Mr. Li Zhong, spokesman of the Human Resources and Social Security Ministry, concerning the Personnel System Reform of Public Institutions (*delivered to the press during the period 2015-2016*)

i) Press conference of January 23th, 2015

Work in progress: the “Regulation on Personnel Management in Public Institutions” has been implemented. The “Regulation on Complaint Making by Public Institution Employees” has been put in place with the concerted efforts from relevant departments. Progress has been made in posts setting. We have also put forward suggestions on the classification of 116 public institutions which are all affiliated to central governmental organs, and pressed ahead with the implementation of the employment system in public institutions. The implementation rate was 93% at end of 2014. An open recruitment system has been fully implemented and standardized with an implementation rate of 91% on a national basis. Special actions have been carried out to deal with outstanding problems incurred in the open recruitment process in public institutions, in particular, the problem of “*chi kong xiang*”, [which means “*getting a salary without working*”].

Next to be done:

- further implement the “Regulation on Personnel Management in Public Institutions” ;
- issue the interpretation of the “Regulation on Personnel Management in Public Institutions” ;

- formulate supportive regulations, such as the “Regulation on Staff Assessment and Competition for Employment” ;
- formulate an “Employment Contract Regulation”;
- develop a dynamic post adjustment plan;
- make sure all the public institutions will have their posts set;
- promulgate guidelines for post setting and management of public institutions;
- improve and start Staff System pilot;
- vigorously promote the open recruitment system;
- put in place a “Regulation on Avoidance in Open Recruitment” and “Temporal Measures on Discipline Violations” ;
- continue to carry out special actions to deal with outstanding problems in open recruitment;
- further tackle the problem of “chi kong xiang” ;
- further strengthen and improve the guidance on primary and middle school teacher recruitment.

The third characteristic is to further enhance the wages for those working at the grassroots level. Currently, there are nearly 40 million people working at public institutions. Among them, nearly 8 million people work at the township level. They work at the front, but their working conditions are poor and their wages are generally low. To implement the central government’s call on strengthening the cadres at the grassroots level for the stable grassroots workforce, and to encourage staff mobility to the grassroots, we have to establish, appropriately increases of the wage for township-level public institution employees by establishing a township work subsidy system.

By what margin does the salary rise at all? Firstly, since some basic subsidies and allowances have been incorporated into the basic salary, while we see a rise in the basic salary, there is a decline in subsidies and allowances by the same amount. Second, since the basic salary adjustment has been carried out simultaneously with the reform of the pension insurance system, the increased part in the basic salary will actually be handed in as individual contributions for a pension. Considering these factors, the actual salary

increase is not significant. On a national basis, the monthly average per capita salary increase amounts to 300 yuan. It should be noted that, due to the implementation of a unified national basic salary standard, and due to different individual pension contributions, based on the amount of salary, in areas with a higher wage level, the increased part of the salary may not be enough to fully cover individual contributions needed for the pension. Thus, people will actually see a decrease in their current income.

There are two ways to increase the proportion of the basic salary: firstly, by gradually raising the standard basic salary; secondly, by incorporating part of the subsidies and allowances or the performance-related pay (PRP) into the basic wage. In this action of improvement of the wage system, the basic wage will be adjusted and part of the subsidies and allowances or PRP will be incorporated into the basic salary to appropriately increase the proportion of basic salary in the final salary. While the salary system is being improved, growth in subsidies and allowances will be frozen and regulated. All localities and departments shall not raise or adjust the level of subsidies and allowances on their own will. On the contrary, they shall strictly implement the national reform policies on the subsidies and incentives. In the future, normal basic salary adjustment mechanisms and other measures should be established so that the basic salary will gradually become the main component of the final salary.

The second feature focuses on optimizing the wage structure. Under the current wage system, the civil service wage consists of three parts, which are a basic wage, allowance subsidies, and bonus. The institution staff wage is also composed of three parts, including base salary, performance pay, and allowance subsidies. These three parts have different functions. In accordance with the functions of different components of wages, the dominant part of a reasonable wage structure should be the basic wage, with other wages as supplements. However, in the reform of the wage system in 2006, the pay rate of the basic wage was not adjusted, resulting in the decline of its proportion in the whole wage system and then an unreasonable wage structure. It is not conducive to giving full play to the role of the basic wage, as well as to strengthening the regulations and control of central government to the relationship of the wage distribution.

This improvement of the wage system of the organs and institutions has three main features: The first feature is that it is carried out simultaneously with the reform of the old-age pension insurance system of the organs and institutions. Before the pension

reform, the retirement pension system was adopted, with no the individual payment needed. After the pension reform, the combination of social account and the personal account was adopted, same as the urban employees in enterprises with individual payment needed. However, the existing wage system of organs and institutions do not consider the individual payment as a factor, and the pay rate of the basic wage at organs and institutions has not been adjusted for years. Thus, to create conditions for the smooth progress of the pension reform, the state decided to appropriately raise the pay rate of the basic wage, in order to avoid the decrease of the current income of the organs and institutions staff after their individual payment as much as possible.

We also noticed a related report some time ago, in which the improvement of the wage system was partially misunderstood. To help the public accurately understand our improvement policy of wage system, I would like to spend some time introducing the situations related to the reform of the wage system to you.

The existing wage system of the organs and institutions is established in the reform of the wage system in 2006, in which a uniform national wage system combining the positions and professional titles of public servants was set and a performance-based pay system for the institution staff was implemented. Since the implementation of the wage system reform in 2006, the basic wage system has been successfully launched, the regulation of the civil servant's allowances and subsidies has been orderly carried out, and the performance-based pay system has been steadily implemented. But at the same time, in the part of salary distribution system of the organs and institutions, outstanding contradictions and problems still exist, including unreasonable wage structure, unsound normal wage adjustment mechanism, the imperfection of the adjustment mechanism of wage gap, the relatively low payment standard of the primary level worker, which need gradually deepen reform to be solved.

ii) Press conference of April 22nd, 2015

Work in progress: The policies and measures to encourage the innovation and entrepreneurship of the scientific research institutions staff were studied.

The employment system was fully implemented and the policies and measures to solve the employment problem of the organs and institutions' unofficial personnel were

researched. Post setting management was gradually improved, and open recruitment system was further standardized. Besides, with the strengthening of the investigations and researches, a research report of the open recruitment of the counties and township in the remote areas was completed.

Work next to be done: a policy explanation to the regulations of institution staff bonus, the rules of handling appealing cases and the rules of the punishment should be worked out. And at the same time, an industrial rule of punishment should be worked out. The regulations of job bidding and job assessment should be studied and improved. The results of controlling "freeloading" should be consolidated by carrying out an opinion on the long-term mechanism to prevent "freeloading" of the organs and institutions. The opinion on guiding the setup of the ad hoc job should be formulated. The guiding opinion on strengthening and improving the open recruitment of organs and institutions in counties and township in the remote areas should be made, and filing work of the open recruitment of the organs and institutions should be promoted.

iii) **Press conference of July 24, 2015**

Work in progress: The policies and measures to encourage the innovation and entrepreneurship of the scientific research institutions staff were studied. The employment system was fully implemented and the policies and measures to solve the employment problem of the organs and institutions' unofficial personnel were researched. Post setting management was gradually improved, and open recruitment system was further standardized. Besides, with the strengthening of the investigations and researches, a research report of the open recruitment of the counties and township in the remote areas was completed.

Next to be done: a policy explanation to the regulations of institution staff bonus, the rules of handling appealing cases and the rules of the punishment should be worked out. And at the same time, an industrial rule of punishment should be worked out. The regulations of job bidding and job assessment should be studied and improved. The results of controlling "freeloading" should be consolidated by carrying out an opinion on the long-term mechanism to prevent "freeloading" of the organs and institutions. The opinion on guiding the setup of the ad hoc job should be formulated. The guiding opinion on strengthening and improving the open recruitment of organs and institutions in counties and

township in the remote areas should be made, and filing work of the open recruitment of the organs and institutions should be promoted.

iv) Press conference of October 27, 2015

Work in progress: *Regulations on personnel management of public institutions* was thoroughly applied and corresponding regulations and laws were smoothly established. Centralized management of “freeloading” in organs and institutions achieved stage results. Post setting management of institutions was gradually improved. The open recruitment system of institutions was further disciplined.

Next to be done: First, the improvement of corresponding policies of public institutions' personnel management should be accelerated. The policy explanation to the regulations of institution staff bonus, the rules of handling appealing cases and the rules of the punishment and the regulations of job bidding and job assessment should be worked out. Second, the post setting management should be constantly improved. The institution staff pilot areas should be launch, and the opinion on guiding the setup of the ad hoc job should be formulated. Third, the open recruitment should be further disciplined. The open recruitment pilot projects of organs and institutions in counties and township in the remote areas should be launched and *the Provisions on Handling Violations of the Disciplines and Regulations in the Open Recruitment of Organs and Institutions (Interim)* should be published and the *Opinions on Further Efforts Relating to the Open Recruitment of Organs and Institutions* should be issued.

v) Press conference of January 22, 2016

Work in progress: personnel management regulations of institutions were implemented, and policies and regulations of institutions personnel management were continuously improved. National special projects to address open recruitment of institutions were continuously organized and open recruitment system of institutions was further disciplined. Centralized management of "freeloading" in organs and institutions achieved prominent results. Post setting management of institutions was gradually improved. The *Opinions on Guiding the Post Setting Management of State-owned Forest Farms* were jointly issued by the Ministry of Human Resources and Social Security and the State

Forestry Administration. And the national filing rate of post setting approval in institutions was over 95%.

Work next to be done: First, the reform of the personnel system should be deepened. The opinions on encouraging the innovation and entrepreneurship of the scientific research institutions staff and on a long-term mechanism to prevent the “freeloading” in institutions should be formulated. Second, policies of personnel management in institutions should be quickly optimized. The regulations of job bidding, job assessment, and award of institution staff should be worked out. Provisions for handling violations of the disciplines and regulations in the open recruitment should be formulated and the evaluation and promotion system of institutions should be improved. The opinion on guiding the setup of the ad hoc job should be formulated. The guiding opinion on strengthening and improving the open recruitment of organs and institutions in counties and township in the remote areas should be made, and filing work of the open recruitment of the organs and institutions should be promoted.

vi) Press conference of April 22, 2016

Work in progress: The policies and measures to encourage the innovation and entrepreneurship of the scientific research institutions staff were studied. The employment system was fully implemented and the policies and measures to solve the employment problem of the organs and institutions’ unofficial personnel were researched. Post setting management was gradually improved, and open recruitment system was further standardized. Besides, with the strengthening of the investigations and researches, a research report of the open recruitment of the counties and township in the remote areas was completed.

Work next to be done: a policy explanation to the regulations of institution staff bonus, the rules of handling appealing cases and the rules of the punishment should be worked out. And at the same time, an industrial rule of punishment should be worked out. The regulations of job bidding and job assessment should be studied and improved. The results of controlling "freeloading" should be consolidated by carrying out an opinion on the long-term mechanism to prevent “freeloading” of the organs and institutions. The opinion on guiding the setup of the ad hoc job should be formulated. The guiding opinion on strengthening and improving the open recruitment of organs and institutions in counties and

township in the remote areas should be made, and filing work of the open recruitment of the organs and institutions should be promoted.

vii) Press conference of July 22, 2016

Li Zhong, the spokesman of the Ministry of Human Resources and Social Security, said that the achievement of their work was the promotion of the employment system and the open recruitment system of institutions. The filing of approvals and modifications of post setting in institutions was orderly carried out. The reform of the management institutions and the reform of the management of the establishment in the top three public hospitals in some cities carried out by related departments co-operated.

He added that the next step is to establish and improve the employment mechanism based on contract management, to continuously promote the implementation of employment system, and to work out the policy to solve the problem of the organs and institutions' unofficial personnel. Post setting management system should be improved, and the pilot of hierarchical promotion of management positions in the institutions should be started. The open recruitment system should be further improved, and the open recruitment system of different industries should be made. The guiding opinions on promoting entrepreneurship and innovation in institutions should be issued. Opinions on establishing a long-term mechanism to prevent "freeloading" in institutions should be formulated. And the personnel connecting plans after the universities and public hospitals staff were not included in the institutional formation should be worked out.

The so-called "not included in the institutional formation" is to cancel the institutions' establishment while retaining the characters of institutions. The main reason to retain the characters of institutions is that colleges and universities, and public hospitals, which have public welfare characters and cannot be applied to marketization, rely on financial balance allocation. After the cancellation of all institutions establishment in future, universities, and public hospitals will adopt the contract employment system.

The national classified reform of institutions began in 2011 and has been basically completed the first phase of the task. The main contents are the allocations and transformations of the institutions, which have the administrative functions, into administrative agencies, the transformations of institutions engaged in production activities in enterprises. Institutions engaged in public service remain in the lists of institutions while

strengthening their public property. Retained institutions are divided into two categories. Those whose duties are related to compulsory education, basic scientific research, public culture, public health, primary health care and other basic public service and whose resources cannot or should not be allocated by the market, are identified as the first class of public welfare. Those whose duties are related to higher education, and non-profit medical and whose resources can be partly allocated by the market are classified into the second class of public welfare. The institution's establishment of the second class of public welfare, such as public hospitals and universities, are to be canceled. They will develop in consideration of both the "public good" and the "market". This will be the main focus of the next stage of the reform of the institutions.

With the expansion of the institution's establishment and the increase of the staff number, the pressure of the national-unit-like institutions in the traditional sense, with financial support from government agencies, constantly increases. However, their efficiency of public service is decreasing. A fundamental purpose of the reform of institutions is to streamline the institution establishment, to alleviate the pressure of financial support, as well as improving the efficiency and level of public service. The first stage of classified reform of the institutions basically reached the goal of increasing efficiency while reducing the staff.

The goal of the second stage of the classified reform is also to downsize staffs and improve efficiency during the cancellation of the institution establishment of public hospitals and universities.

The institution's establishment of public hospitals and universities are about to be canceled, but their functions and characters related to public services cannot be canceled. On the contrary, their functions and characters should be strengthened and optimized. This inherently requires that public finance investment to the second class of public welfare must not be weakened. The government cannot treat the cancellation as an opportunity to cast off a burden.

The investment in the security role of public finance is reflected in that when the public service is undertaken by the second class of public welfare institutions but cannot be allocated by the market, the public finances should still fully allocate funds, and should not leave them to the market. When the public service is undertaken by the second class of public welfare institutions and part of the resource of this public service can be allocated by the market, some can be charged to the public to maintain a non-profit operation, and

some can be brought by the government to provide to the public. Either way, public finance is needed to subsidize and secure. If the public finances investment is inadequate, public hospitals and universities will increase their charging standards, thereby aggravating the situations of the expensive medical care and expensive education. Even in the way of government buying medical and educational services to provide to the public, the qualities of the service will be negatively influenced by the low price offered by the government. These negative influences will finally be transformed to the public, who becomes the sufferer of actions of the government.

A3. Research Institutes and Internationalization at SYSU

I) Research Institutes in the Areas of Science and Technology

<i>Level & Category</i>	<i>Research Institute</i>
State Key Laboratory	State Key Laboratory of Optoelectronic Materials and Technologies State Key Laboratory of Biocontrol
National Engineering Research Center	National Engineering Center for Marine Biotechnology of South China Sea
National Engineering & Technology Research Center	National Engineering Research Center of Digital Life
State-Province Joint Engineering Laboratory	State-Province Joint Laboratory of Digital Home Interactive Applications Guangdong provincial engineering lab of IOT IC and system technologies

State Specialized Laboratory	State Specialized Laboratory for Reproduction Nutrition and Diseases Control of Aquatic Economic Animals
	National Specialty Laboratory of Plant Gene Engineering
	Institute of Material Chemistry, Sun Yat-sen University
	Key Laboratory of Gene Engineering of the Ministry of Education
Key Laboratory, Ministry of Education	MOE Key Laboratory of Bioinorganic and Synthetic Chemistry
	Key Laboratory of Digital Life, Ministry of Education, P. R. China
	Key Laboratory of Information Technology, Ministry of Education, P. R. China
	MOE Key Laboratory of Aquatic Product Safety
Engineering Research Center, Ministry of Education	Food and Health Engineering Research Center of State Education Ministry
	Engineering Research Center of Digital Life, Ministry of Education
	<u>Guangdong Province Key Laboratory for Display Material and Technology</u>
Key Laboratory, Guangdong Province	Engineering Research Center of Digital Life of Guangdong Higher Education Institutes
	Guangdong Key Laboratory of Improved Variety of Aquatic Economic Animals
	Research Center of Intelligent Transportation System

Guangdong Province Key Laboratory For Pharmaceutical Functional Genes

Guangdong Provincial Key Laboratory of Environmental Pollution Control and Remediation Technology

Guangdong Provincial Key Laboratory of Marine Resources and Coastal Engineering

Guangdong Provincial Key Laboratory of Mineral Resources & Geological Processes (GDMine)

The Key Laboratory of Low-carbon Chemistry & Energy Conservation of Guangdong Province

Guangdong Key Laboratory of Plant Resources

Guangdong Province Key Laboratory of Computation Science

Guangdong Provincial Key Laboratory of Fire Science and Technology

Guangdong Key Laboratory for Urbanization and Geo-simulation

Guangdong Provincial Key Laboratory of Sensing Technology and Medical Instrument

Guangdong Provincial Key Laboratory of Photovoltaic Technologies

Guangdong provincial engineering R&D center of IC design and RFID technologies

The Project Technology Research Exploitation Center of Compound Semiconductor Material

**Guangdong Provincial
Engineering
and Technology R & D
Center**

and Devices of Guangdong Province

Guangdong Province Industry Technology R&D Center
for Swine Improvement & Breeding

Guangdong Engineering Laboratory of Digital Home
Interactive Applications

**Guangdong Provincial
Engineering Laboratory**

Guangdong Provincial Engineering Lab of IOT IC and
System Technologies

Guangdong New Lightweight of Electric Vehicle
Laboratory of Engineering

Key Laboratory of Software Technology, Education
Department of Guangdong Province, P. R. China

Guangdong Universities Key Laboratory of Aquatic
Animals

Institute for Solar Energy Systems

**Key Laboratory of
Department of Education,
Guangdong Province**

SYSU-BP Center for LNG Education, Training and
Research

Design and Synthesis of New Polymer Materials and
Application Laboratory

Key Laboratory of Environment and Energy Chemistry of
Guangdong Higher Education Institutes

Guangdong Key Lab of Water Cycle and Water Security in
Southern China

**Engineering Research
Center of Department of**

Engineering Research Center of Digital Life of Guangdong
Higher Education Institutes

**Education, Guangdong
Province**

Guangdong Higher Education Engineering Research
Center of IC Design and RFID Technologies

Center for Urban and Regional Studies

Biotechnology Research Center, Sun Yat-sen University

Research Center of Complex Systems

Center for Remote Sensing

information and communication technology research
center

Center of Coastal Ocean Science and Technology, Sun
Yat-sen University

Grassland Science and Urban Greenspace Research Center

**Scientific Research Institute
(Research Center) of SYSU**

Research Center of Enterprise Information Technology
and Engineering Software

Center for Tourism Planning

Research Center of Yi Da Zhou Marine Biotechnology

Center for Monsoon and Environment Research (CMER)

ASIC Design Center of Sun Yat-sen University

Center for Water Resource and Environment

Center for Earth Environment & Resources, Sun Yat-sen
University

Center For Parasitic Organisms

Center for Environmental Technology and Engineering

Solid-state Light System Research Center of Sun Yat-sen University

Center for Land Research

Research Center for Petrochemical Products and Technology, Sun Yat-sen University

Center for Space Technology, Sun Yat-sen university

Research Center for Geotechnical Engineering and Information Technology, Sun Yat-sen University

Center for Natural Hazard Research

Research Center of Nuclear Engineering & Technology, Sun Yat-sen University

Software Research Institute of ZSU

Institute of Material Chemistry, Sun Yat-sen University

Institute of Mathematics

Institute of Estuarine and Coastal Research, Sun Yat-sen University

**Scientific Research Institute
(Research Institute) of SYSU**

Institute of Aquatic Economic Animals

Institute of Physical Chemistry, Sun Yat-sen University

Institute of Condensed Matter of Physics, Sun Yat-sen University

Institute of Computational Science and Computer Applications

Institute of Computer Application, Sun Yat-sen University

Institute of Engineering Mechanics

Institute for Information Security Technology

Institute of Power Electronics & Control Technology

Institute for Solar Energy Systems

Institute of Environment Science

The Institute of Entomology, Sun Yat-sen University
(IESYSU)

Institute of Environment Materials

Institute of Agricultural Biotechnology

**Scientific Research Institute
(Research Academy) of
SYSU**

Electronics and telecommunication institute of SYSU

II) Research Centers in the Medical Area

State Key Laboratory of Ophthalmology of the Ministry of Education, P.R.C.

State Key Laboratory of Oncology in South China

Key Laboratory of Tropical Diseases Control, Ministry of Education of China

Key Laboratory of Stem Cell Biology and Tissue Engineering (Sun Yat-sen University), Ministry of Education of China

Engineering Research Center of Gene Vaccine, Ministry of Education

Laboratory of Ophthalmology Ministry of Health, China

Key Laboratory of Nephrology, Ministry of Health, China

The Key Laboratory of Assisted Circulation, Ministry of Health of the P.R.C.

Research Center of Medical and Pharmaceutical Bioengineering, Ministry of Health

Laboratory of Cell Molecular Biology

State Key Laboratory of Oncology in South China

Guangdong Provincial Key Laboratory of Ophthalmology and Visual Science

Key Laboratory of Nephrology, Guangdong Province

Key Laboratory for Liver Research

Guangdong Provincial Key Laboratory of Food, Nutrition and Health

Guangdong Key Laboratory for the Diagnosis and Treatment of Major Neurological Diseases

Guangdong Province Key Laboratory of Gastrointestinal Disease

Guangdong Provincial Key Laboratory of New Drug Design and Evaluation

Guangdong Provincial Key Laboratory of Stomatology

Key Laboratory for Diabetes Care of Guangdong Province

Key Laboratory of Reproductive Medicine of Guangdong Province

Guangdong Province International Science and Technology Cooperation Base of Sun Yat-sen University Cancer Center

Guangdong Technology Research Center for Advanced Chinese Medicine, GDACM

Guangdong Research Center for Drug Delivery Systems

Center for Organ Transplantation

Medical Research Center for Viral Hepatitis, Guangdong Province

Guangdong Provincial Diabetes Center

Vascular Surgical Disease Research Center of Guangdong Province

Research Center of Diagnostic and Interventional Ultrasound of Guangdong Province

Center for Spine and Spinal Cord Disease of Guangdong Province

Guangdong Esophageal Cancer Research Institute

Guangdong Clinical Molecular Diagnostic Engineering Laboratory

Guangdong Provincial Engineering Laboratory of Druggability and Assessment and Evaluation

Engineering Laboratory for Vascular Disease Diagnosis and Treatment of Guangdong Province

Key Laboratory of Nephrology, Department of Education, Guangdong Province

Key Laboratory of Ophthalmology and Visual Science, Guangdong Provincial Department of Education

Key Laboratory of Stem Cells and Tissue Engineering, Department of Education of Guangdong Province

Key Laboratory of Functional Molecules from Marine Microorganisms, Department of Education of Guangdong Province

Key Laboratory of malignant tumor gene regulation and target therapy of Guangdong Higher Education Institutes, Sun Yat-Sen University

Key Laboratory for Liver Research

Laboratory of Proteomics Translational Medicine of Guangdong Higher Education Institutes, Sun Yat-sen University

Model Unit for the Research, Development and Manufacture of Assisted Circulation Devices, Guangdong

Guangdong Research Center for Innovative Pharmaceutical Formulations and Drug Delivery Systems

Engineering Research and Development Center for Stem Cells and Regenerative Medicine of Guangdong Province

Guangdong Engineering Research Center of Chiral Drugs

Engineering Research Center for Department of Guangdong Institutes for Diagnosis and Treatment of Eye Diseases

Sino-US Collaborative Center for Genetic Eye Disease(Genome-wide association studies (GWAS) on high myopia)

Liver cancer research center for China and America

Guangdong Key Laboratory of Medicine, Laboratory of Health Informatics

Scientific Research Base for Endocrinology (Guangdong Provincial Key Laboratory of Endocrinology)

Guangdong Province Key Laboratory of Pituitary Neoplasms Research

Guangdong Province Key Laboratory of Arrhythmia and Electrophysiology

Guangdong Provincial Key Laboratory for Prevention and Control of Dental Diseases

Guangzhou Key Laboratory of Gene Vaccine

Guangzhou key laboratory of gastrointestinal disease

Guangzhou Key Laboratory of Druggability Assessment for Biologically Active Compounds

Key Laboratory of Nasopharyngeal Carcinoma Multidisciplinary Management in
Guangzhou

Institute for Medical Information

Lung Cancer Institute, Sun Yet-sen University

Center for Stem Cell Biology and Tissue Engineering, Sun Yat-sen University

Otorhinolaryngology Institute, Sun Yat-sen University

Gastric Cancer Center of Sun Yat-sen University

Vascular Surgical Research Center of Sun Yat-sen University

Institute of the combination of Traditional Chinese Medicine and Western Medicine

Ocular Surface Disease Center, Sun Yat-Sen University

Research Center of Clinical Standardization, Sun Yat-Sen University

Cardiovascular Research Institute of Sun Yat-Sen University

Center for Organ Transplantation

Cranio-maxillofacial Surgery Center of Sun Yat-Sen University

Institute of Preventive Medicine

Institute of Clinical Pharmacology

Bio-technology Institution of Sun Yat-Sen University

The Spinal Cord Injury Institute of Sun Yat-Sen university

Uveitis Study Center, Sun Yat-sen Univertisy

Research Center of Health Informatics

Tissue Matching Center of Sun Yat-sen University

Institute of Nephrology, Sun Yat-sen University

Human Genetic Resource Platform of Sun Yat-Sen University

Vaccine Research Institute of Sun Yat-Sen Univerisity

Institute of Stomatological Research, Sun Yat-Sen University

Research Center of Pain, Sun Yat-Sen University

Institute of Morbid Genomic, Sun Yat-Sen University

Institute of Cardiopulmonary Cerebral Resuscitation of Sun Yat-Sen University

Insitute of Gastrointestinal Disease

Hygienic Examination Center of Sun Yat-Sen University

Institute of Diagnostic and Interventional Ultrasound of Sun Yat-Sen University

R & D Center of Pharmaceutics and Pharmaceutical Engineering, Sun Yat-Sen University

Institute of Respiratory Diseases, Sun Yat-Sen University

Liver Cancer Research Center of Sun Yat-Sen University

Sun Yat-sen University Diabetes Institute

Interventional Institute of Sun Yat-Sen University

Institute of Hearing and Speech-language Science, Sun Yat-Sen University

Institute of Human Virology, Sun Yat-Sen University

Sun Yat-Sen Institute of Hematology

Breast Cancer Research Center of Sun Yat-sen University

Sun Yat-sen Center for Migrant Health Policy

Zhuhai Institute of Medical Science, Sun Yat-Sen University

GDD-SYSU Institute of Bioindustry (GZIBI)

III) The Research centers in the “liberal area”

Level & Category

Research Institute

Institute of Marxist Philosophy and Chinese Modernization, Sun Yat-Sen University

Institute of Logic and Cognition, Sun Yat-Sen University

Key Research Institute of Humanities and Social Sciences at Universities, Ministry of Education

Center for Studies of Hong Kong, Macao and Pearl River Delta, Sun Yat-Sen University

Center for Chinese Public Administration Research, Sun Yat-Sen University

Centre for Historical Anthropology

Institute of Chinese Intangible Cultural Heritage, Sun Yat-Sen University

Sun Yat-Sen University Institute For Economics

Sun Yat-Sen University Legal Theories and Practice Centre

Key Research Institute of Humanities and Social Sciences, Guangdong Province

South China Rural Research Center

Center for Urban Studies, Sun Yat-Sen University

Center for Accounting, Finance and Institutions

Center for Anti-Corruption Studies of Sun Yat-sen University

	Research Center for Financial Engineering and Risk Management, Sun Yat-Sen University
	Center of migration and ethnicity study, Sun Yat-sen University
Area & Country Study Cultivation Base, Ministry of Education	Sun Yat-Sen University Center for Oceanian Studies
	Center for Studies of Hong Kong, Macao and Taiwan, Sun Yat-Sen University
Key Research Institute of Humanities and Social Sciences, Guangzhou City	Research Center of Canton Port, Sun Yat-Sen University
	Base for International Chinese Teaching Materials Developing and Teacher Training
Other Research Bases	<u>Research Center of Tourism Impact Studies of China Tourism Academy</u>
	Guangzhou Base for Studies of Overseas Chinese Affairs Overseas Chinese Affairs Office of the State Council
	Sun Yat-sen University - Macao Polytechnic Institute Center for Gaming Studies
Overseas Cooperative Institute	Macao Polytechnic Institute - Sun Yat-Sen University Center for Gaming Studies
	<u>The Chinese University of Hong Kong - Sun Yat-Sen University Centre for Historical Anthropology</u>
SYSU University-Level Research Institute	School of Marx's Research of Sun Yat-Sen University
	Institute for Advanced Research in Social Sciences

Guangdong Academy of Decision Science

Media Convergence Institute, Sun Yat-Sen University

Sun Yat-sen University Institute for the South China Sea

Institute of Information Security and Electronic Records, Sun
Yat-sen University

Institute of Reform and Development in the Pearl River Delta

Institute for the Study of Lingnan Culture, Sun Yat-Sen
University

Institute of Chinese Culture Research of Sun Yat-Sen University

Institute of Public Communication, Sun Yat-Sen University

Center of Visual Culture Study, Sun Yat-Sen University

Law Institute of Sun Yat-Sen University

Administrative Law Research Institute of Sun Yat-Sen
University

Law and Economics Research Center of Sun Yat-Sen University

Criminal Law Research Center of Sun Yat-Sen University

SYS University Business Management Research

Research Center for Information Economics and Policy, SYSU

Enterprise and Market Research Center, Sun Yat-Sen University

China Marketing Research Center, Sun Yat-Sen University

Research Center for Service Business Administration, Sun Yat-Sen University

China Center for Service Sector Research, Sun Yat-Sen University

Sun Yat-Sen University Finance and Investment Research Center

Institute of Behavioral Finance and Financial Economics, Sun Yat-sen University

Chinese German Research Center for Corporate Governance, Sun Yat-sen University

Sun Yat-Sen University Chinese Brand Research Center

Center for Industrial and Regional Development Research, SYSU

Research Centre For Chinese Family Firm, Sun Yat-Sen University

Enterprise and nonprofit organization internal control research center, Sun Yat-Sen University

Standard Chinese Training and Research Center

Institute for Studies in Education of Sun Yat-Sen University

Institute of Moral Education Research, Sun Yat-Sen University

Psychological Services Center, Sun Yat-Sen University

Educational modernization centre of Sun Yat-Sen University

Center for Socio - Cultural Studies and Mental Health, Sun Yat-Sen University

Institute for studies in history and construction of Chinese Communist Party, Sun Yat-Sen University

The Center for Studies in Social Consciousness of Contemporary China, Sun Yat-Sen University

Institute for Sun Yat-sen Studies, Sun Yat-sen University

Centre for Modern China Studies, Sun Yat-Sen University

Institute for Religion and Culture Studies, Sun Yat-Sen University

Centre for art history study, Sun Yat-Sen University

Bank Research Center, Sun Yat-Sen University

Research Center for Logistics & Supply Chain, Sun Yat-Sen University

Research Center for Taxation & Financial and Tax law, Sun Yat-Sen University

Social security study center of Sun Yat-Sen University

Monitoring Centre of UNWTO Sustainable Tourism
Observatories (MCSTO)

Institute of Population Research, Sun Yat-Sen University

Research Institute for Social Development, Sun Yat-Sen
University

Sino-France Organizational Study Center, Sun Yat-Sen
University

Cultural Heritage Research Center of South China, Sun Yat-Sen
University

Research Institute of Health and Human Development of Sun
Yat-sen University

Labor Studies and Service Center, Sun Yat-Sen University
University

Social Work Education and Research Center, Sun Yat-Sen
University

Consumption and Development Studies Center, Sun Yat-Sen
University

Center for Social Survey

South China Sea Archaeological Research Center of Sun Yat-
Sen University

Center for Environment and Maintaining of Physical and Mental
Health

Center on Philanthropy, Sun Yat-Sen University

Research Centre for Anglo - American Language & Literature

Centre for Australian Studies

Language Studies Institute

Functional Linguistics Institute

Translation Studies Institute

Centre of China Studies Overseas

Institute of Southeast Asia Studies

American Research Center

Institute of Taiwan Studies

Institute of Korean Studies

Center for Overseas Chinese Studies

Institute of Chinese Philosophy, Sun Yat-Sen University

Institute of Humanities Sun Yat-Sen University

SYSU Virtual World Research Center

Institute of Comparative Religion, Sun Yat-Sen University

Institute of Research in Analytic Philosophy, Sun Yat-Sen
University

Institute of Phenomenology, Sun Yat-Sen University

Center for the History of Chinese Interpretation of Marxism

The research center of management in China and foreign countries

Archive for Introduction of Western Thoughts, Sun Yat-Sen University

Center for Classical Studies of Sun Yat-Sen University

Center for Practical Philosophy, Sun Yat-Sen University

Center for Human Resources Research and Development, Sun Yat-sen University

Institute for Political Studies, Sun Yat-Sen University

Institute for Local Governance, Sun Yat-sen University

Center for Public Affairs Investigation, Sun Yat-Sen University

Center for E-governance, Sun Yat-Sen University

Center for Volunteer Service and Social Policy Research, Sun Yat-Sen University

Center for Citizen Survey, Sun Yat-Sen University

Research Institute of Chinese paleography, Sun Yat-sen University

Research Center of Traditional Chinese Culture, Sun Yat-Sen University

Research Center of Folklore, Sun Yat-Sen University

Research Center of Chinese Literary Forms, Sun Yat-Sen

University

Research Institute of Chinese Classical Philology, Sun Yat-Sen
University

Research Center of Contemporary Literature, Sun Yat-Sen
University

Institute of Medical Information

Research Institute of Library & Information Science

Institute of Educational Technology

Centre for Historical Geography

International Cooperations

<i>Number</i>	<i>Continent</i>	<i>Country</i>	<i>University/College/Institute</i>
1	North America	The United States of America	<u>IBM China Company Limited</u>
2	North America	The United States of America	<u>Massachusetts Institute of Technology</u>
3	North America	The United States of America	<u>University of Iowa</u>
4	North America	The United States of America	<u>Bowling Green State University</u>
5	North America	The United States of America	<u>University of Pennsylvania</u>

6	North America	The United States of America	<u>Springfield College</u>
7	North America	The United States of America	<u>Oklahoma State University</u>
8	North America	The United States of America	<u>National Institutes of Health</u>
9	North America	The United States of America	<u>University of Washington</u>
10	North America	The United States of America	<u>University of California Davis</u>
11	North America	The United States of America	<u>University of California Los Angeles</u>
12	North America	The United States of America	<u>University of California San Francisco</u>
13	North America	The United States of America	<u>California Lutheran University</u>
14	North America	The United States of America	<u>Carnegie Mellon University</u>
15	North America	The United States of America	<u>Kent State University</u>
16	North America	The United States of America	<u>University of Miami</u>
17	North America	The United States of America	<u>University of Texas South Western Medical Center</u>

18	North America	The United States of America	<u>University of Massachusetts</u>
19	North America	The United States of America	<u>University of Missouri</u>
20	North America	The United States of America	<u>University of Minnesota</u>
21	North America	The United States of America	<u>City University of New York</u>
22	North America	The United States of America	<u>Pacific Lutheran University</u>
23	North America	The United States of America	<u>University of Hawaii</u>
24	North America	The United States of America	<u>The university of Hawaii at Hilo</u>
25	North America	The United States of America	<u>University of Cincinnati</u>
26	North America	The United States of America	<u>The university of Illinois at Urbana- Champaign</u>
27	North America	The United States of America	<u>Indiana-Purdue University Indianapolis</u>
28	North America	The United States of America	<u>Indiana University</u>
29	South America	The United Mexican States	<u>Universidad Iberoamericana(UADY)</u>

30	South America	The United Mexican States	<u>Universidad Autonoma de Yucatán</u>
31	North America	Canada	<u>University of Alberta</u>
32	North America	Canada	<u>University of British Columbia</u>
33	North America	Canada	<u>University of Calgary</u>
34	North America	Canada	<u>Université Laval</u>
35	Oceania	The Commonwealth of Australia	<u>Griffith University</u>
36	Oceania	The Commonwealth of Australia	<u>University of Queensland</u>
37	Oceania	The Commonwealth of Australia	<u>Queensland University of Technology</u>
38	Oceania	The Commonwealth of Australia	<u>Monash University</u>
39	Oceania	The Commonwealth of Australia	<u>University of Western Australia</u>
40	Oceania	The Commonwealth of Australia	<u>University of Sydney</u>
41	Oceania	The Commonwealth of Australia	<u>University of Technology, Sydney</u>

42	Oceania	The Commonwealth of Australia	<u>University of New South Wales</u>
43	Oceania	The Commonwealth of Australia	<u>University of Ballarat</u>
44	Oceania	The Republic of the Fiji Islands	<u>University of the South Pacific</u>
45	Asia	The Republic of Korea	<u>Sungshin Women's University</u>
46	Asia	The Republic of Korea	<u>Dongguk University</u>
47	Asia	The Republic of Korea	<u>Dongseo University</u>
48	Asia	The Republic of Korea	Korea University
49	Asia	The Republic of Korea	<u>Kwandong University</u>
50	Asia	The Republic of Korea	<u>Konkuk University</u>
51	Asia	The Republic of Korea	<u>Kyonggi University</u>
52	Asia	The Republic of Korea	<u>Ewha Womans University</u>
53	Asia	The Republic of Korea	<u>Myongji University</u>
54	Asia	The Republic of Korea	<u>Kyung Hee University</u>
55	Asia	Republic of Korea	<u>Dan Kook University</u>
56	Asia	The Republic of Korea	<u>Hankuk University of Foreign Studies</u>
57	Asia	The Republic of Korea	<u>Sogang University</u>

58	Asia	The Republic of Korea	<u>The Academy of Korean Studies</u>
59	Asia	The Republic of Korea	<u>Yonsei University</u>
60	Asia	The Republic of Korea	<u>Hannam University</u>
61	Asia	The Republic of Korea	<u>Kookmin University</u>
62	Asia	The Republic of Korea	<u>Sungkyunkwan University</u>
63	Asia	The Republic of Korea	<u>Keimyung University</u>
64	Asia	Japan	<u>Nagoya Institute of Technology</u>
65	Asia	Japan	<u>Sōka University</u>
66	Asia	Japan	<u>Daito Bunka University</u>
67	Asia	Japan	<u>Tokai University</u>
68	Asia	Japan	<u>The University of Tokyo</u>
69	Asia	Japan	<u>Fukuyama University</u>
70	Asia	Japan	<u>Junsei Educational Institution</u>
71	Asia	Japan	<u>Kansai Gaidai University</u>
72	Asia	Japan	<u>Hiroshima University</u>
73	Asia	Japan	<u>University of Tsukuba</u>
74	Asia	Japan	<u>Kyushu University</u>

75	Asia	Japan	<u>Ritsumeikan University</u>
76	Asia	Japan	<u>Ryukoku University</u>
77	Asia	Japan	<u>National Federation of University Co-operative Associations</u>
78	Asia	Japan	Kobe University
79	Asia	Japan	Agon Shu
80	Asia	Japan	<u>Waseda University</u>
81	Asia	Japan	<u>Chuo University</u>
82	Asia	Japan	<u>The Tokyo Foundation</u>
83	Asia	The Socialist Republic of Vietnam	<u>Hanoi University</u>
84	Asia	The Socialist Republic of Vietnam	<u>Vietnam National University, Hanoi</u>
85	Asia	The Socialist Republic of Vietnam	<u>VNU University of language and international studies</u>
86	Asia	The Socialist Republic of Vietnam	<u>VNU University of Social Science and Humanities</u>
87	Asia	The Socialist Republic of Vietnam	<u>Vietnam National University, Ho Chi Minh City</u>
88	Asia	The Socialist Republic of Vietnam	<u>Hue University</u>

89	Asia	Malaysia	<u>Southern College</u>
90	Asia	Malaysia	<u>New Era College</u>
91	Asia	The Kingdom of Thailand	<u>Huachiew Chalermprakiet University</u>
92	Asia	The Republic of Singapore	<u>National University of Singapore</u>
93	Asia	Republic of the Philippines	<u>Ateneo de Manila University</u>
94	Asia	The State of Kuwait	<u>Gulf University for Science & Technology</u>
95	Asia	The Hashemite Kingdom of Jordan	<u>The University of Jordan</u>
96	Africa	The Republic of South Africa	<u>The University of Cape Town</u>
97	Europe	The Republic of France	<u>Université de Paris 7 Denis Diderot</u>
98	Europe	The Republic of France	<u>L'Université Paul-Cézanne(Aix-Marseille □</u>
99	Europe	The Republic of France	<u>Université d'Angers</u>
100	Europe	The Republic of France	<u>Université de Paris 11 Paris Sud</u>
101	Europe	The Republic of France	<u>Université Paris-Sorbonne Paris 4</u>
102	Europe	The Republic of France	<u>Université Paris Descartes Paris 5</u>
103	Europe	The Republic of France	<u>école normale supérieure de Paris (ENS)</u>

104	Europe	The Republic of France	<u>"N+I" Engineering Institute</u>
105	Europe	The Republic of France	<u>University of Bourgogne</u>
106	Europe	The Republic of France	Université de Paris 3 Sorbonne Nouvelle
107	Europe	The Republic of France	<u>Institut Pasteur</u>
108	Europe	The Republic of France	<u>Le Centre national de la recherche scientifique</u>
109	Europe	The Republic of France	<u>Fondation Alliance Francaise</u>
110	Europe	The Republic of France	<u>Université de Franche-Comté</u>
111	Europe	The Republic of France	<u>Grenoble Ecole de Management</u>
112	Europe	The Republic of France	<u>Université Lyon 3 Jean Moulin</u>
113	Europe	The Republic of France	Consortium fran ais de formation d'ingénieurs en nucléaire civil
114	Europe	The Republic of France	<u>Université de Perpignan Via Domitia</u>
115	Europe	The Republic of France	<u>Université de Strasbourg</u>
116	Europe	The Republic of France	Consortium Med China
117	Europe	The Republic of France	<u>Université Lumière Lyon 2</u>
118	Europe	The Republic of France	<u>Université Paul Verlaine - Metz</u>
119	Europe	The Republic of France	<u>EM Lyon</u>

120	Europe	The Republic of France	<u>Université d'Artois</u>
		The United Kingdom of	
121	Europe	Great Britain and Northern Ireland	<u>University of Glasgow</u>
		The United Kingdom of	
122	Europe	Great Britain and Northern Ireland	<u>University of Leicester</u>
		The United Kingdom of	
123	Europe	Great Britain and Northern Ireland	<u>Lancaster University</u>
		The United Kingdom of	
124	Europe	Great Britain and Northern Ireland	<u>Liverpool Hope University</u>
		The United Kingdom of	
125	Europe	Great Britain and Northern Ireland	<u>University of Leeds</u>
		The United Kingdom of	
126	Europe	Great Britain and Northern Ireland	<u>University of Oxford</u>
		The United Kingdom of	
127	Europe	Great Britain and Northern Ireland	<u>University of Portsmouth</u>
		The United Kingdom of	
128	Europe	Great Britain and Northern Ireland	<u>University of Manchester</u>
		The United Kingdom of	
129	Europe	The United Kingdom of	<u>University of Birmingham</u>

		Great Britain and Northern Ireland	
130	Europe	The Federal Republic of Germany	<u>Johann Wolfgang Goethe-Universittat Frankrurt am Main</u>
131	Europe	The Federal Republic of Germany	<u>DAAD Branch Office Beijing</u>
132	Europe	The Federal Republic of Germany	<u>Freie Universitat Berlin</u>
133	Europe	The Federal Republic of Germany	<u>Universitat-Gh Siegen</u>
134	Europe	The Federal Republic of Germany	<u>University of Cologne</u>
135	Europe	The Federal Republic of Germany	<u>Universitat Passau</u>
136	Europe	The Kingdom of Spain	<u>World Tourism Organization</u>
137	Europe	The Kingdom of Spain	<u>University of the Balearic Islands</u>
138	Europe	The Kingdom of Spain	<u>Universidad de Valladolid</u>
139	Europe	The Kingdom of Spain	<u>Universitat Autonoma de Barcelona</u>
140	Europe	The Kingdom of Spain	<u>Universidad de Leon</u>
141	Europe	The Kingdom of Spain	<u>La Universiddad de Santiago de Compostela</u>

142	Europe	The Russian Federation	<u>Московский государственный университет имени М. В. Ломоносова</u>
143	Europe	The Russian Federation	<u>Московский государственный лингвистический университет</u>
144	Europe	The Russian Federation	<u>Московский государственный университет дизайна и технологии</u>
145	Europe	Sweden	<u>Kungl Tekniska Hogskolan</u>
146	Europe	Sweden	<u>Karolinska Institutet</u>
147	Europe	Sweden	<u>Lund University</u>
148	Europe	Repubblica Italiana	<u>University of Ferrara</u>
149	Europe	Repubblica Italiana	<u>University of Trento</u>
150	Europe	Repubblica Italiana	<u>University of Pavia</u>
151	Europe	The Republic of Poland	<u>Karol Marcinkowski University of Medical Sciences</u>
152	Europe	The Republic of Poland	<u>Adam Mickiewicz University</u>
153	Europe	The Kingdom of the Netherlands	<u>Utrecht University</u>
154	Europe	The Kingdom of Belgium	<u>Group T-Leuven Engineering School</u>
155	Europe	The Kingdom of Denmark	

A4. Excerpts from the Yearbook of Guangzhou University for the Years 2001-2015

- Yearbook of 2001

Improving the awareness, uniting a thought, actively and steadily improve the reform of the cadre and personnel system in our university

by Chen Wanpeng's (the secretary of the party committee) speech the institutional reform of Guangzhou University and the mobilization of cadres

Comrades:

Recently, the municipal board has agreed in principle to our university's institutional reform program. Today, we start this reform mobilization meeting on the institutional reform, concerning the competition for posts and an open selection of leading cadres. Our university attaches great importance to the institutional reform, after having studied it in several meetings, Here are some comments:

1. To do a good job, we must accelerate the process of merging of the various older universities to build the Guangzhou University.

At present, the institutional reform of Party Central Committee, the State Council, and the provincial government have been successfully completed. Many universities of our province and the whole Country have carried out institutional reform too, and achieved good results, providing the experience for the success of our reform. Therefore, we should fully understand the significance of carrying out this institutional reform in our university.

Firstly, the institutional reform has to implement the spirit of the 15th Party Congress: to adapt to the reform of the political and economic system is the requirement for the social development, and is necessary to promote the reform of management system in universities. The reform is a revolution, along with the gradual establishment of the socialist market economy system. Chinese society is undergoing a period of change from the economic base to the superstructure. In such a historical period, the profound and complex changes of universities are happening inevitably, such as ideology, values, management mode etc, in particular, the trend of internationalization of higher education has made the universities facing new situations and new problems never seen before. In order to adapt to these changes, colleges and universities must further deepen the reform of the educational system, especially the reform of the management system. Carrying out the institutional reform is one of the key methods. Through the institutional reform, we can have a better staff and a simpler administration, we can change our working style, improve efficiency, and effectively improve the service level for university's grass-roots units, for teaching and scientific research. It is an important measure to promote the reform of the university's political system, is the urgent need to adapt to the economic globalization and the rapid development of the society.

Secondly, the institutional reform meets the need of our university's new situation and tasks; it is necessary to achieve substantive mergence of the previous universities. The mergence of colleges and universities is a complicated system engineering task. At the beginning of the merger, there are a lot of things and relationships to be solved, plus the campuses are scattered in the country, the difficulty of the work has been increased as a result. We adopt the form of the management of "duplicate merging, determine the interim head for the departments" at the beginning of the merger, in order to ensure the sustainable development of the university work. After more than half a year of running, our university has made substantial progress in college setting, discipline construction, Party building and other aspects; the "operating mechanism of temporary directors" has difficulties to adapt to

the requirements of the new situation, the cadres are also expecting to the early confirmation of staff complement, allocation of posts, and the assignment of the exact responsibilities for cadres. At the same time, the Party committee of our university has an overall understanding of the whole structure of the cadres' team. Therefore, it is time to carry out our institutional reform, because there is an urgent need to promote the development of our university. Facing the new situation, only through institutional reform, we are able to understand the organizational functions of different departments, strengthen the leadership of the Party cadres, and give full play to the staff's enthusiasm and creativity, and to realize the substantial merger and form the overall force and superiority of our university as soon as possible.

Third, to carry out institutional reform is to effectively improve the efficiency and service levels of the administrative organization. Institutional reform is not only the simplification of organization and reduction of personnel, but it must optimize the structure of cadres, give full play to staff's potential and advantages. It is an important measure to improve the overall quality of cadres. At the same time, it is a strategy to adapt to the needs of the future development. As Comrade Deng Xiaoping pointed out, "Streamline the organizations is a revolution". By focusing on the actual conditions of our university, to do a good job in this revolution, we must pay attention to these four combinations:

1) To combine the institutional reform with the optimization of structure and improvement of the quality of the cadres;

2) To combine the institutional reform with the reform of personnel system, to make progress in forming a mechanism of assessment and recruitment of the leading cadres:

- i) a cadre should be ready to take a lower as well as a higher position (in the past, once got a higher position, a person can only be promoted or remains the position forever);
- ii) competition for posts;
- iii) job rotation and personnel exchange, and implement a standardized and institutionalized mechanism;

3) Combine the reform with the strengthening the authority of government and the construction of administrative organizations. Bring a really new work style and the new look of administrative.

4) Combine the reform with the further construction of the legal system. Manage the university according to law.

In short, through institutional reform to achieve the "three changes" (change job function, change the ways of work, change working style) and the "two improvements" (improve the quality of work, improve work efficiency).

2. To strengthen the reform of the personnel system, and construct a team of qualified cadres.

The establishment of the new Guangzhou University is an important measure for the reform and adjustment of the Higher Education Management System in Guangzhou city. It is an objective requirement of economic and social development in Guangzhou. The development goal of our university is the following:

in 5 years of construction and development, rank in the advanced universities of the same level of municipal universities and colleges, and strive to have a great influence among the multidisciplinary universities at home and abroad in 2010. In this important historical period, in order to achieve the strategic objectives, we need to win the "talent competition". Because of the 21.st, Century is the century of competition for talents. To establish an effective and competitive new mechanism, change the personnel selection mode, expand the scope of candidates, truly choose the good talents and build a team of qualified cadres.

First of all, carry forward the concept of the motto "talent is the key", to form an atmosphere of treasuring the talents, which is the base to promote the reform of the personnel system in our university.

Secondly, taking institutional reform as an opportunity, through the open selection and competition for posts, choose the outstanding personnel, and construct a high-quality cadres team, and effectively promote the reform of the personnel system. After the merger, the team of the organs of our school will be a big team. The university has 552 cadres, including 46 cadres at the departmental level, 51 people at deputy departmental level, 131 section chiefs and 148 deputy section chiefs. The overall quality of cadres is good, but the team's academic structure, age structure, the professional structure need to be further improved. Therefore, we should vigorously promote an open selection and competition for

posts in order to select the young and outstanding cadres and to prevent unwholesome tendencies and corruption.

3. To practice the important thought of "Three Representatives" and correctly facing the competition for posts.

In order to combine the reform of the institutions and selection of outstanding young cadres with the personnel system reform, in accordance with (1995) No. 4 "selection and appointment of leading cadres" issued by PRC and (1998) No. 33 "on the party and government organs implementation of competition" issued by Central Organization Department, according to the authority of Party committee, we decided to implement the competition for posts for the cadres of department level and deputy department level. The implementation of open selection and competition for posts in this institutional reform is the implementation of Comrade Jiang Zemin's important thought of "Three Represents", to deepen the reform of the cadre system, major initiatives to strengthen the leadership and cadres.

First of all, to promote a wide range of publicity, improve awareness. Competitive posts need to have a certain quantity and quality of the cadres to participate in order to form an effective competition. A post needs to have a competitive ratio not less than 1:3.

Secondly, we should adhere to the principles and procedures of competition for posts, to ensure the openness, fairness, and justice.

- **Yearbook of 2004**

by Yu Jianshe (the Rector)(April 13, 2004)

1. The main work of the past year:

1. We actively implemented the project of *Strengthening University by Talents* and strived to improve the incentive mechanism, created a new situation on the construction of teaching staff, further improved the incentive mechanism of personnel training. The university has made a policy "*Interim Measures on the implementation of special posts allowance*"; as a result, we implemented the special posts system, determined 30 professors as the first group of distinguished professors of the university level, 70 professors as the first group of distinguished professors of the school level. Through the implementation of this policy, we mobilized the enthusiasm of the talents effectively. At the same time, we further amended the "*Measures for the training of teaching and working staff*", and made

"Management Measures on Staff's Continuing Education", to develop more favorable policies to encourage teachers to improve education levels. According to the provisions of *"Management Measures"*, the university will send the excellent staff according to a certain proportion to study directional Ph.D. program or contractual Ph.D. program. Among them, the tuition of directional Ph.D. program will be fully paid by the university and be rewarded 10 thousand yuan after obtaining a degree; while the tuition of contractual Ph.D. program will be paid 50% by the university in advance and be rewarded the other 50% after obtaining a degree. Over the past year, our university has made new achievements on the work of personnel training. Particularly gratifying is that Professor Zhou Fulin of Engineering Research Center was honored as academician by the Chinese Academy of Engineering (CAE) last year, which reflected a historic breakthrough of personnel training work and discipline construction of our university.

We continued to enlarge the efforts of *"Talents Introduction"*. According to the requirements of the construction of the teaching staff and the construction of the disciplines, our university has revised the *"Implementation Measures on Talents Introduction"*, stressed the importance of both identity and performance, not only in scientific research but also teaching achievements. When the system was being improved, the university also held a conference on the work of personnel on March 23rd for the first time, in-depth analysis of the status quo of the construction of personnel, and carried out a detailed deployment of personnel work. In the past year, we transferred 17 professors and 42 doctoral students. After unveiling the policy of *"Implementation Measures on Talents Introduction"*, a highly increased number of high-level talents manifested their hope to enter our university.

2. The key work of the next year

To thoroughly implement the spirit of the personnel work conference, to take extraordinary measures to create a new situation of construction of talents. Mainly are from these three aspects:

Firstly, according to the discipline construction and development planning of the university, focus on key disciplines, key laboratories, key courses and famous disciplines construction and to meet the requirements to apply for doctoral and master students cultivation station, to meet the target of good planning and talents introduction. The

university will put 14 million yuan in the annual budget to guarantee and support talents introduction.

Secondly, to take extraordinary measures to further improve the training mechanisms, and to promote the growth of talents. To carry out the "*Measures for the training of teaching and working staff*" and to create better conditions for teachers' further education and learning. In particular, to encourage teachers to study Doctoral degree or to study abroad. Besides, to actively promote cooperation with domestic and foreign high-level universities, and strive for cultivating more academic leaders.

Third, to improve the personnel management system, to form a management mechanism that can make the best possible use of the talents. On the one hand, to implement several measures of talents management, and to provide a suitable environment for the growth of talents. On the other hand, to strengthen the education and assessment of talents, to establish a scientific mechanism for the evaluation of personnel, to assess and evaluate the talents from their achievements, abilities, and contribution. To gradually establish teachers' teaching files and scientific research files, to set up a scientific and reasonable talent management mechanism in the whole university.

In accordance with the needs of the development of the university, to complete the work of middle-level cadres transition, to provide the strong organization support for the fast development of the university.

Starting from 2001, our university has vigorously promoted the *Reform of the cadre and personnel system*, to implement of the cadre competition for posts and open selection. Now since the middle-level cadres have been in the posts for almost 3 years, they need to be changed. Our university will implement CPC central committee's Regulations of selection and appointment of leading cadres of the party and the government, to deepen the reform of cadre system. The need to further promote the construction of leadership and cadre of our university is the need of implementation of "*Strategy of talent strengthen the university*" and to achieve leapfrog development.

- Yearbook of 2006

The Development Plan of Guangzhou University in the 11th Five-Year Plan (2006-2010).

"The 11th Five-Years" is the key period of Guangdong to take the lead in achieving the basic education modernization, also the key period to the development of Guangzhou University. In order to seize the opportunity, to deepen the reform and to accelerate the development, we made this Plan in accordance with a series of related documents of the Party Central Committee, provincial and municipal government on the development of higher education, in accordance with the mission of our university to become a high level teaching and research oriented comprehensive university of Guangzhou.

The spirit and work of the deployment and the development of the "11th Five-Year" planning is to combine the requirements with the actual situation of the university

Deepen the reform of the management system, construct the platform of a law-oriented and democratic management.

Promote the reform of personnel distribution system. Guided by teaching and scientific research, optimize the allocation of human resources according to the construction of key disciplines.

Establish and perfect the mechanism of competition, encouragement, supervision and elimination of talents.

Implement the norms of incumbency system, responsibility system and rotation system, adhere to the implementation of middle-level cadres competition, public selection and publicity system.

Implement full employment system and elimination system, and improve the scientific and standardized evaluation system of teachers and employees.

Establish a reasonable distribution system in university, with the priority for the first line of teaching and scientific research personnel.

Evaluate by performance and contribution and to make a positive mechanism of stimulation.

Key points of work for the academic year 2006-2007 at Guangzhou University

Continue to deepen the reform of the personnel system, improve staff appointment system, to further strengthen the construction of teaching staff:

Improve the full employment system. According to the relevant working regulations, check the preparation for the appointment work.

Actively promote the construction of a Talent Exchange Center, to strengthen the training and management of the personnel, to provide the conditions for deepening the reform of personnel system.

Improve the ‘distinguished professors’ system. Conscientiously sum up the experience, standardize the professional and technical personnel assessment, carefully do work of post reporting and selection, to further improve the selection system of distinguished professors.

Work on the Introduction and Training of Personnel. To get the support of the Ministry of education and the Guangzhou Municipal Personnel Bureau, select suitable personnel (sponsored by the government) to study abroad; strengthen the continuing education of the staff, focusing on support for the young teachers to study doctor's degree.

Re-approve, according to the provisions of the Municipal Board, the Municipal Personnel Bureau, the number of different departments and the number of posts, strengthen the authority of post staff management and the evaluation of the performance of each unit of work.

Strengthen the team building of academic leaders and key teachers, clear their responsibilities, to make the Academic Holiday system on the basis of the thorough investigation, to encourage the backbone of the team soon the results of teachers.

Cooperate with the superior personnel department, and to complete the reform of the wage system positively, steady and accurately.

Excerpt from the Work report of GZ university

by Yu Jianshe (the Rector) (March 14, 2006)

A review of the work of the past year.

We started the teacher appointment system, revised the examination system, deepened the personnel system reform.

Over the past year, our university has increased the intensity of the reform of personnel system, focusing on the following two tasks:

First, vigorously promoted the reform of the personnel system, focusing on the appointment of teachers. In order to strengthen the consciousness in teaching, and to improve the quality of education and teaching, we have officially started the work of teacher

appointment in the second half year of 2005. Employment system is the necessity of the reform and development of colleges and Universities. In order to strengthen the consciousness of teaching of teachers and improve the teaching quality, we have started the teacher appointment system. After the procedures of promoting and launching the work ---- teachers applying for the posts ---- each school assigned a leading group to audit procedures, all the schools, and research institutes have completed the first round of the work.

Second, made a comprehensive revision of the assessment system, and formed a good incentive mechanism. The university has revised the following assessment documents: "Measures for the implementation of the Comprehensive Assessment of the work of GZ University", "Measures for the implementation of Assessment of Administrative Departments", "Measures for the Implementation of Assessment of Scientific Research Institutions" and "Interim Measures for annual Assessment of Teaching and Administrative Staff" and etc. The university's assessment work has changed from the former personal assessment to both the personal assessment and group assessment. Have strengthened the consciousness of responsibility of leadership of the university (departments). And to mingle the personal benefits with group benefits.

Key work to be done in 2006

Deepen the reform of the personnel system, and strive to create working environment of "work hard and start a business, give full scope to the talents".

First, we must do the annual performance evaluation well. It should be in accordance with the requirements of the collective and individual assessment documents, and constantly improve the evaluation index system. The next step is the full implementation of the school finance contract and to achieve the goal management, also lay the foundation for the second round of the teacher's appointment system.

In the next round of teacher appointment system, a part of teachers should be further split into different levels, to teach in the second-level college of GZ university or to teach adult education.

Second, to revise the talent introduction and training program.

Third, gradually to promote the reform of the distribution system. Re-revised "Guangzhou University distribution system reform program", fully embodies the excellent work merit pay, and enlarge the reward gap. Build up a dynamic management, and

gradually establish and improve the talent competition, incentives, supervision and elimination mechanism.

- Yearbook of 2007

Guangzhou University's outline of the academic year 2007-2008

Further promote the reform of the employment system of public institutions, and actively innovate the new ideas of personnel work.

Promote full employment system reform. According to the requirements of provincial and municipal personnel departments, ensure the position setting program to be completed on scientific and reasonable premises. Actively and steadily push forward the reform of full staff appointment system of our university.

Improve the income distribution reform. According to *"Implementation opinions on reform of Guangdong province public institutions staff income distribution system"* and the relevant provisions of Merit Pay System(Job performance-based payment system) of the public institutions of Guangzhou city, further improve the staff appraisal index system of teaching and administrative staff, develop the performance appraisal program and the new allowance distribution system of our university based on the real situation, so that every staff can share the achievements with the university according to their own contribution to the achievement.

Improve the program of talents introduction and training. Continue to improve "the program of distinguished professors of the university level and of the school level". To cultivate good policy environment and talent growth environment, to attract and retain high-level talents; pay attention to the introduction of foreign intelligence, and gradually from the language teachers to the research experts; strive for a breakthrough in the construction of the discipline teams and high-level personnel training.

- Yearbook of 2008

Guangzhou University's outline of the academic year 2008-2009

by Yu Jianshe (June 24, 2008)

We deepened the reform of personnel distribution system and strengthened the construction of personnel.

-- We further improved the welfare benefits of the teaching and administrative staff actively through a variety of channels. In October 2007, we received government's support and increased financial input, have further increased the living allowance of the teaching and administrative staff, in particular, of retirees. At present, we are correcting the research results, and to improve the distribution scheme, and try to the greater support from government to further improve the treatment of teaching and administrative staff.

-- We further revised the distinguished position system. Based on the experience of the reform of personnel distribution system and the previous implementation of the system of the university's distinguished post allowance, we revised the system, expanded the scope of beneficiaries, increased the provisions. There are 164 people in total who were recruited with special posts.

-- We made a great achievement in the construction of a group of talents. Our university has aroused widespread concern in the community by the second large-scale of open recruitment for deans and academic leaders at home and abroad, a total number of 74 people has applied for the posts, among them are experts and scholars from Tsinghua University, Nankai University, Harbin Institute of Technology, Wuhan University, Hunan University, Southern China University of science and engineering, and the other universities of "985 Project", "211 Project" colleges and universities. So far, we have had 3 deans working in their posts, another is in the process of the redeployment procedure. In addition, in 2007, we have 1 person of "the new century excellent talent support program" supported by the Ministry of education, 1 person of in the "thousand hundred ten project", the fourth batch of national training plan, 7 people in the provincial training plan, 6 people of "Outstanding university experts" of Guangzhou city. We introduced 7 professors, 35 doctors, 32 people having gotten the international travel expenses financed by "the national scholarship fund".

- Yearbook of 2009

Guangzhou University's outline of the academic year 2009-2010.

- We improved personnel system, pay attention to team construction, and actively and steadily promote the reform of personnel system of public Institutions

(19) Steadily push forward the reform of personnel system of public institutions. According to the spirit of personnel system reform of Guangzhou public institutions, fully carry out research, develop a scientific and rational position of the program, improve the appointment system of professional title and job title of professional and technical personnel, strengthen the personnel inventory management and job responsibilities, to further deepen the reform of the full employment system, strengthen personnel assessment system. To continuously improve the income and welfare benefits of the teaching and administrative staff.

- We must further strengthen the introduction and training of personnel planning. By a thorough investigation and research, to develop the "12th Five-Year" teaching staff planning. Organize a high-level personnel (team building) work meeting, summarize and explore the experience of construction of high-level personnel...

- Yearbook of 2010

The Guangzhou University Party Committee insists on the implementation of several major issues:

- Deepening the reform of the cadre and personnel system, building a high-quality leadership and cadres

- Adhere to the employment standards and guidelines to appoint cadres who have both political integrity and ability. Adhere to the principles of openness, democracy, competition, merit-based principles. Make an evaluation system in accordance with the requirements of the report on *Scientific Outlook on Development and Correct performance*.

- Establish a scientific program of the selection and appointment of the middle-level leaders.

- Perfect the cadre management mechanism. According to the spirit of the central and provincial's documents, to establish and improve the Cadre assessment system of leadership and cadres.

- Strengthen the construction of a talent team. Adhere to the principle that “the personnel is managed by the party”, and vigorously implement the strategy of “talents strengthening the universities”. Cultivate and appoint the high-level personnel such as the young scholars who have national youth funds, the scholars of the Pearl River talents project, selected talents of "Hundred Thousand talents project". Introduce the platform of disciplines of “Thousand people plan” and the Yangtze River scholars, etc.

- Yearbook of 2013

Notice on Issuing the Guangzhou University’s outline of the academic year 2013-2014

Continue to improve the work of post employment. On the basis of improving the employment contract, strengthen the contract management, and strengthen the performance evaluation, further strives for the support of the municipal government, completes the performance salary distribution system reform. Lays the leading role of the performance salary, to fully explore the potential ability and internal motivation of teaching, scientific research, management and service of teaching and administrative staff by implementing the role of performance salary. To change the welfare program, to improve the effect of welfare expenditure.

Do a good job of high-level personnel. Focus on the construction of “key talents in Colleges and universities in Guangdong Province”. Increase the introduction of efforts to attract more overseas talents, professionals and academic leaders above than professional level 3, excellent and potential young doctors. To perfect the “professional title evaluation system”, do well in the construction of post-doctoral research stations and recruitment and training of domestic visiting scholars.

Further promote the study abroad program for backbone teachers. To actively declare 2013 national public studying abroad project, the cooperation projects of Provincial Department of education and the national student Fund Committee, the signed projects of universities and the national student Fund Committee. In 2013, we plan to send all kinds of projects of overseas trainees 30 to 40. Continue to host the English language training classes for backbone teachers, to improve the ability of English language of the researchers who

study abroad. To formulate the measures for the administration of the study of overseas students in Guangzhou University, and to strengthen the work of service and assessment.

-The reform of personnel system and the construction of talent ranks have been strengthened.

First, efforts to improve the system of personnel work. According to the spirit of the reform of the personnel system, the university made some new regulations such as "teaching, research and management of Guangzhou University," "teacher assessment methods Regulations", "Guangzhou University teachers' practical ability training Interim Provisions" and a series of personnel management system regulations.

- Yearbook of 2014

Work report of GZ University

by Zou Cairong (April 29, 2014)

1.A review of 2013

The job performance wage reform and the construction of the talent team have been strengthened.

We took the reform of the personnel distribution system as a driving force to further standardize the university's institutional settings, audited the settings of various schools. We steadily promoted the implementation of job performance wage reform, determine the total amount of wages per capita, issued incentive performance wages of September to December. Hence laid a solid foundation for the full implementation of performance wage in 2014. In order to focus on the talent construction, we made big force to strengthen the talent team, especially high-level talent team construction: in this year, for the first time we successfully introduced 1 scholar of national “thousands of people Plan Scholars”, and 5 Guangzhou outstanding experts, 16 outstanding experts, 2 young talent reserve, 5 people of “121 Echelon project”. Our university has been approved the qualification to establish of “the Pearl River scholar” position in the discipline of chemical engineering and technology. We

got a big breakthrough in sending young teachers to study abroad, a total of 40 people has gotten qualifications of government-sponsored overseas study.

2. The main work to be done in 2014

We must take the personnel system reform as the driving force, and vigorously promote the level of personnel work.

Talent is the key to the development of the university, the focus of personnel system reform is to attract and stabilize more excellent talents, strengthen the talent incentive and restraint. We should strive to form respect for knowledge, respect for talent and people-oriented atmosphere for the work of talent, create a good physical condition and relaxed atmosphere for talents; to form a fair, open and fair talent selection and competition mechanism; to build up a favorable environment for the growth of talents and to stimulate the enthusiasm of teachers' academic innovation; to cultivate talents of us and to introduce foreign talents, to explore a variety of talent management; to let academic project as a link to attract talented people; to reform the personnel allocation system, mainly for the introduction of doctoral and professors and the talent of the shortage of needs. To further improve the full employment system of the university, make the new round of job recruitment program, based on a wide range of research, complete a new round of post employment work. Also promote the reform of the distribution system, and balance the interests among the university, the schools and the teachers, improve the quality and efficiency of our university school education. This year is the first year to full implement the job performance wage, we have to optimize the original program and ensure the smooth progress of implementing it.

Guangzhou University's outline of the academic year 2014-2015.

Build a high level of talent team as the goal, and vigorously promote the "talents strong the university" strategy.

Strengthen the construction of high-level personnel. Actively promote the "innovate and strong University project", to increase the training efforts and investment for high level of talent, to strive for a breakthrough of high level talent team construction, to make the guiding documents of high-level personnel construction, to broaden the channels of introduction of talents, to optimize the procedures of introduction of personnel, focusing on

the introduction of leading talent, academic leaders, young and middle-aged intellectuals, the potential young PhD, to attract more overseas talents to work in our university; to give full play of the schools and scientific research institutions in the introduction of talent and team building, and strive to improve the quality and efficiency of the introduction of talent. Strengthen the construction of young teachers. To further improve the supporting measures for the development of young teachers, to issue support policies of the promotion of teachers' teaching ability, research ability and the capacity to serve economy and society, including overseas training plan, teaching ability improvement program, the young teachers' team building plan, to hold the young teachers' team building work conference and 2013-2014 report meeting of public supported overseas study teachers, and constantly improve the measures of young teachers funding, services, assessment, management and etc.

Renew the post-employment work. Further clarify job responsibilities, strengthen post-employment, and steadily push forward the new round of personnel recruitment; conscientiously implement the spirit of independent management of universities, take the pilot reform of College Teacher Professional Title System Reform of Guangdong Province as an opportunity, combined with the higher requirements and the actual situation of our university, to make implementation details, and further promote professional title system reform of our university.

Establish and improve the incentive mechanism. Combined with the full staff recruitment system of GZ university, improve the performance evaluation system of all kinds of personnel, revise "Guangzhou University annual assessment methods", "Implementation measures on Guangzhou University contribution award" to further improve the "The interim measures on the implementation details of GZ university job performance salary", establish the performance of the priority distribution system which matches with Post Duty system, to fully mobilize the enthusiasm and creativity of the staff; do a good job in the basic work of the national social security system reform, to ensure the payment of various social insurance of the staff, and earnestly safeguard the rights and interests of teaching and administrative staff.

We must work on the construction of post doctoral mobile stations in the three disciplines of mathematics, civil engineering and statistics, and actively encourage and recommend the post doctoral at the stations to apply for different levels of scientific research projects; to strengthen the construction of system and organization of postdoctoral,

to formulate "the detailed rules for the implementation of Guangzhou University postdoctoral management work" and "the management method of funds of post-doctoral funds of Guangzhou University"; and to hold postdoctoral academic exchange conferences.

Excerpt from the Speech at the meeting of leading cadres

by Yu Jianshe (the Rector) (January 15, 2014)

We must steady the already implemented job performance wage reform, strengthened the construction of personnel. Taking the personnel distribution system reform as a driving force, we further standardized the university's institutional settings, identified the settings of each school, and steadily promoted the implementation of the post-performance salary reform, laid a solid foundation for the full implementation of performance salary system in 2014. In order to focus on the talent construction, we make big force to strengthen the talent team, especially high-level talent team construction, the biggest highlights are for the first time we successfully introduced the scholars of national "thousands of people Plan", and the 5 Guangzhou outstanding experts, 16 outstanding experts, 2 young talent reserve, 5 people of "121 Echelon project", have been approved the qualification to establish of "the Pearl River scholar" positions in the discipline of chemical engineering and technology, got a big breakthrough in sending young teachers to study abroad, a total of 40 people has gotten qualifications of government-sponsored overseas study.

- Yearbook of 2015

Work report of GZ University

by Cairong Zou (the Rector)

1. A review of the work of the past year

- Strengthen the strategy of "talents strong university" and the construction of teaching staff.

In order to further strengthen the construction of high-level personnel, to better promote the implementation of the "talents strong university" strategy, our university held a

special seminar on the construction of high-level personnel, to discuss and find many suggestions on the quantity and reasonable layout of the future introduction of high-level talents, the cultivation of the academic environment, cultivation and introduction of Young Scholars and etc. The rector's office meeting decided that from 2015 onwards, the university will increase the cultivating efforts and funding to introduce high-level personnel, take 50 million for high-level talents introduction in the annual budget, introduce a number of high-level teams or top-notch talents every year. The university will strengthen the construction of young teachers. On the one hand, to improve the academic requirements for recruiting young doctors, to improve the wage and treatment of them, especially offer good annual salary of not less than 250 thousand yuan to the doctors who have good academic performance results, and to provide funds for their scientific research; on the other hand, increase the number of young doctors, each year try to introduce about 100 PhD graduates; improve the relevant supporting measures to support the development of the young teachers, research and make some policies on improving young teachers' teaching ability, research ability and economic and social serviceability, including overseas training programs, teaching ability enhancement plan, young teachers team construction plan etc.. Establish and improve the incentive mechanism. The university has formulated the "Approved Methods of staffing personnel of professional and technical posts, management posts and workers posts of Guangzhou University", completed the work of posts setting of all full-time teachers, experimenters and administrative, is among the first universities in the country which have determined the approved standards of the staffing personnel of different types, therefore has attracted a lot of attention and has been their reference by many colleges and universities inside and outside Guangdong province. To further improve the program of "performance salary reform", to match it with the real situation of our university, also through adjusting financial expenditure structure, implement "the total wages per capita of performance of salary" approved by authorities in 2014, to grow the performance salary and the amount of housing provident fund of our staff, to improve the staff's work and living conditions, and let the teachers and students really enjoy the fruits of the reform.

2. The main work in the next period.

- Deepen the reform of personnel system, to further strengthen the construction of high-level personnel.

We need to further promote the reform of the personnel system, and establish the personnel system adapt to the needs of operation and collaborative innovation of the modern university system, implement the autonomy in allocation of personnel, create a fair and harmonious environment for the development, forming a new employment mechanism and incentive mechanism full of vitality. We should vigorously implement the high level teachers construction plan, through the implementation of the new talent project, vigorously introduce high-level talents and teams; Strengthen the training of young teachers, establish a "special talent zone", and organize new doctors and other selected young teachers to enter into the Research Institute (Center), to implement the annual salary system and to encourage them to carry out research, to enhance the scientific research ability and comprehensive quality of the young teachers; to take the pilot project of combining professional evaluation with recruiting professional titles as a chance to improve the scientific posts employment system., to explore the establishment recruitment mechanism of the key teachers at home and abroad, excellent postdoctoral scholars and new recruits of doctors, as the main objects of the pre-employment and long-term employment mechanism, and the exit mechanism of "leave if not been promoted".

From the beginning of 2015, the university should guarantee the annual investment funds in the construction of talents of more than 50 million yuan continuously in the next 3 to 5 years, plans to introduce a number of high level team or talents, especially for the breakthrough of Changjiang Scholars and introduce more academicians, and should attach great importance to the training of young teachers. In this year's funding arrangements, for increased efforts to enhance the teachers to study abroad and make international exchanges, the university has increased overseas academic exchange funds and meeting expenses, encourage teachers to go abroad, outbound study, organize and participate in international conferences, it has also become a guide for personnel training. In short, we want to take the introduction and cultivation of the talents as our key point, and strive to keep the talents by sincerity, career, treatment and services, to form a good mechanism and atmosphere to attract, cultivate and use talents.

Acknowledgments

I would like to express my deepest gratitude to my Tutor, Prof. Valeria Zanier, who guided me with precious, constant advice in the preparation of this Dissertation and transmitted to me her love for knowledge.

I would also like to thank Prof. Zhimin Li, Prof. Attilio Andreini, Prof. Renzo Cavalieri, Ms. Yi Xie, Dr. Elena Bergamin, Prof. Luigi Beghi, Dr. Sara D'attoma, Ms. Michela Siciliano and all the people who have helped me in my research and study in Venice.

A special love to my family (father, mother and daughter) who gave me their constant support during all these years of studying abroad.

Sha Ha

Padova, December 2016

