

## 付 属 資 料

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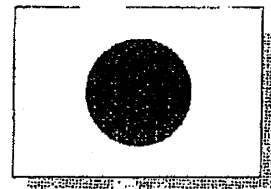
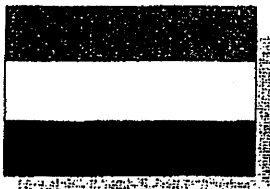
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### 【第Ⅱ部】

第Ⅱ部の内容は「Comprehensive Report of Joint Study on Egypt-Japan University of Science and Technology, September 2007」の要点をまとめたものであり、詳細は同 Report を参照されたい。

1 . Egypt-Japan University for Science and Technology (E-JUST) Feasibility Study-V5

October, 2006



**Establishment Of**

**Egypt -Japan University**

**For Science and Technology (E-JUST)**

**Feasibility Study – V5**

**October, 2006**

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## **Executive Summary**

- 1- This brief feasibility study is intended to explore the main attributes governing Egypt- Japan University for Science and Technology (E- JUST). Though utmost care based on the available data and information has been taken, a full detailed feasibility study covering basic Engineering should be conducted at a later stage. The main features that have been revealed are:
- 2- A new Technological Research Intensive University in Egypt with Japanese support should play a critical role in shaping the future of Egypt-Japan scientific and technological relationship. As distinct public technological university, it is ought to be an important conduit through which technology flows into the Egyptian society.
- 3- The university's educational programs should be tailored to prepare students to be leaders in the technology-dependent economy of the 21st century. University researchers will seek new knowledge to improve processes and products for industry. Through public and private partnerships and economic development efforts, the university must help to grow new business ventures that fuel the economy.
- 4- Conceptually, the Egypt - Japan University for Science and Technology (E-JUST) is based on the regional (Arab--Africa) as well as national aspiration of both countries. E-JUST is to be established as an international entity under the Egyptian Higher Education Act.
- 5- The vision and mission of E-JUST are stated together with the suggested motto "Science and Technology for All Mankind". Elaboration of this idea is also given.
- 6- The Egyptian government has allocated an area of 210,000,000 square meters in Borg El-Arab City, 30 Km from Alexandria City, for the establishment of E-JUST. The merits of the site are:
  - Located in the middle of the modernized industrial sector of Alexandria region, where some 40% of Egypt industry and 65% of the petrochemical industry are situated.
  - Neighboring Mubarak City for Science and Technology (MuCSAT), which represents one of the modern new established research organization.

- Close to Alexandria University and the world famous Bibliotheca Alexandrina, which has been inaugurated in 2002 to be a center of excellence in the production and dissemination of knowledge and to be a place of dialogue, learning and understanding between cultures and peoples.
  - New established excellent infrastructure including an International Airport (under construction) connecting Borg El Arab with Alexandria, Cairo, North coast.
- 7- English language is presented as the proposed medium of instruction although the Japanese language will be instructed through study levels.
  - 8- The main concept was detailed to develop the E-JUST as a research intensive university (RIU); that matches the Egyptian government priorities, and within the establishment of a set of centers of excellence in research, continuing education and training and incubators.
  - 9- Students would be drawn from the Egyptian population, Arabian and African countries as well as from the international community. The ratio between local and international students is set to be 70:30 at steady state, the academic, technical and other support staff required are projected based on ratios of corresponding institutes.
  - 10- At this stage EJUST is planned to consist of: two faculties (Engineering and Business), five departments (Electronic and communication Engineering – Mechanical Engineering – Chemical and Environmental Engineering – International business and humanities) and nine programs. It is not intended to start all the programs at once.
  - 11- The undergraduate enrollment at the steady state in all the engineering programs is 2500 and in all business programs 500 (EJUST undergraduate total enrollment is some 3000).
  - 12- The postgraduate enrollment at the steady state in all the engineering programs is 600 and in all business programs 150 (EJUST postgraduate total enrollment is some 750).
  - 13- The total number of academic staff and teaching assistants is 193, and the total numbers of Japanese professors is 18.
  - 14- The implementation process of E- JUST will adopt the approach of starting with

limited number of academic degrees in graduate level in the first years and then gradual & careful increase in the academic and research activities in the graduate and undergraduate levels until year ten, which represents the steady state of the enrollment capacity of the university.

- 15- The area of the land allocated for EJUST in Borg El-Arab, Alexandria adjacent to Mubarak City for Science and Technology (MuCAST) is 210,000 mt<sup>2</sup>.
- 16- The total area of Faculty of Engineering is 27,000 mt<sup>2</sup>, and for Faculty of Business is 10,500 mt<sup>2</sup>. The foot print of the main campus including the two faculties is 17,700 mt<sup>2</sup> (the buildings are one, two, and three storey buildings)
- 17- The total land required including: the main campus, playground, staff and student accommodation, services, roads, landscape...) 115,700 mt<sup>2</sup> which leaves some 95,000 mt<sup>2</sup> for future expansion
- 18- EJUST main components construction including staff and students accommodation budget is estimated to be L.E.248, 200,000.
- 19- Engineering and business undergraduate laboratories , libraries and IT Centers estimated budget is L.E.168,500,000.
- 20- Engineering and business postgraduate and research laboratories estimated budget is L.E. 65,540,000.
- 21- Student and staff accommodation furniture budget is L.E.10, 250,000.
- 22- The total fixed investments budget is L.E.569,735,5000 (Table 16).
- 23- Annual salaries (academic, non-academic, local and foreigners) budget estimate in the steady state is about L.E.22,601,280.
- 24- The steady running expenses budget including, salaries, fringe benefits, maintenance, depreciation... etc. is L.E.55, 807,280.
- 25- The investment budget is L.E.596,235,000 fixed assets + L.E.55,000,000 working capital. = L.E.651,235,000..
- 26- The steady state income budget is L.E.97,505,000 (Table 55).
- 27- The expected income in the steady state exceeds the running expenses by about L.E. 41,697,720..
- 28- The income calculations are based on a very conservative estimate of both research contracts and other educational services offered.

- 29- The accommodation facilities for both students and staff are considered to be operated on cost recovery basis.
- 30- A group of 10 of leading industrialist from Borg El Arab covering different fields of industry (engineering, food, textile, chemical, pharmaceutical, petrochemical ...etc. has been invited for consultation. The invited group has been selected based on the following criteria: they are university graduates with at least 20 years experience in the field, and are running their own successful leading companies. They have showed very deep concern and have issued the memorandum of understanding attached in appendix 1. The memorandum of understanding includes a pledge that reflects the strong intentions of the local industrial community and their full support.
- 31- Continuous education programs and professional diplomas to be designed and conducted as needed. There is a serious and urgent need for professional programs and courses in: Total Quality Management – Operations Management – Automatic Control (Mechatronics). The Industrial community in Borg El Arab offered their training facilities to conduct these courses and programs making use of the Japanese expertise and experience.



## **Part One: Education, Scientific Research, and Industry in Egypt**

### **1- UNIVERSITY AND HIGHER EDUCATION:**

Over the past two decades of the 20th century increasing access to university and higher education was given through about 35 governmental and private universities comprising about 500 faculties and institutes distributed all over Egypt and concentrated mainly in Larger Cairo City.

#### **1-1- Indicators of Higher Education:**

Number of students admitted to higher education and universities hit 500,000 in 2005/ 2006.

Number of students enrolled in governmental higher education and universities hit 2,250,000 in 2005/ 2006.

Open learning system was introduced in some faculties of Cairo, Alexandria, Ain Shams and Assiut universities, in addition to guided non-regular education system in all universities.

#### **1-2- Overseas Missions**

The state-financed overseas missions increased to 1066 spread in 19 countries.

Investments allocated to the overseas mission are estimated at LE 390 million in 2004/05 budget.

### **2- SCIENTIFIC RESEARCH**

#### **2-1- Scientific Research Investments:**

Investments of scientific research under 2004/05 plan are estimated at LE 500 million totally allocated by the government including LE 173 million for the Ministry of Scientific Research and the Academy, LE 117 million for the Ministry of Agriculture and Land Reclamation, LE 90 million for the Ministry of Water Resources and Irrigation and the remaining investments are distributed to other ministries.

#### **2-2- Major Research Centers:**

The number of scientific research centers affiliated to the Ministry of Scientific

Research reached 13, in addition to the Higher Council for Research Centers and Institutions. Moreover, the number of research and studies centers in the different ministries reached 219 and in 114 universities. The major research centers are :

- 1- Academy of Scientific Research and Technology:
- 2- Mubarak City for Scientific Research and Technological Applications:
- 3- The National Research Centre:
- 4- The National Authority for Remote Sensing and Space Sciences:
- 5- The National Institute of Astronomical and Geophysical Research:
- 6- Electronics Research Institute:
- 7- The National Standardization and Calibration Institute:
- 8- The National Institute of Oceanology and Fisheries Sciences:
- 9- Theodore Belharz Research Institute:
- 10- Oil Research Institute:
- 11- Ophthalmology Research Institute:
- 12- Metals Development and Research Centre:
- 13- The Higher Council for Research Centers and Institutes:
- 14- The Technical and Technological Studies and Researches Consultancy Fund:
- 15- Major Research Centers of the Egyptian Atomic Authority EAA:
- 16- Nuclear Research Centre
- 17- The National Centre for Nuclear Security and Radio-active Control
- 18- Egypt's Second Nuclear Research Reactor
- 19- The Circular Accelerator

### **3- INDUSTRY IN EGYPT**

Since early eighties, Egypt has begun a new stage on the way of industrial development and the motto of "Made in Egypt" has become the driving objective of Egyptian industry.

Moreover, the state has given due attention to the quality so as to achieve self-sufficiency and enhance exportation. With the enforcement of Economic reform

policy, public sector was re-structured by law no 203 of 1991 concerning public enterprises sector and has been the door opened before the private sector to lead the development process. Therefore, the great industrial companies have become affiliated to public enterprises sector instead of Industry Ministry.

At the earlier of 21st century, the state has adopted a program for modernizing the Egyptian industry and (achieving) a leap in industrial product in addition to achieve quality to be able to compete in domestic and foreign markets under the umbrella of Markets opening.

### **3-1- The economic importance of industry sector**

Industry sector Gross Domestic product reached about LE 95.6 billion in 2004/05, of which the public sector contributed about LE 12.9 billion a rate of 13, 5% and the private sector contributed about LE 82.7 billion with a rate of 6.5%. The implemented investments of industry sector during the two past decades exceeded over LE 60 billion. Investments of 2004/05 reached about LE 7.7 billion.

### **3-2- Industrial Quantitative Product**

Total industrial buildings of General organizations for industrial on 1st January 2005 reached 26458 buildings. The volume of its product reached about LE 224516 million at an investment cost of LE 195300 million. In the framework of sustainable efforts to develop Egyptian Industry, the two past decades witnessed supporting Egyptian industry base and increasing the productivity capacity with a ratio of 25% in a number of basic industries in addition to entering new fields such as hi-tech industries and programs and micro-electronics industry.

The Egyptian Industrial building is based on industries forming more than 80% of industrial institutions. The greatest three industries are textile, food and beverage industries as well as furniture manufactures and mineral, chemical and main metals industries.

3-3- Quantitative Evolution of Major Industrial Commodities  
during the period (1981/82-2004/04)\*

**Table 3-1 Evolution of Major Industrial Commodities**

Commodity	Unit	Production		Growth Rate %
		1981/82	July 2004 February 2005	
- Spinning	1000 tons	262	707.4	56
- Ready-made garments	Million	45	279.6	521
- Carpets and coquette	pieces	1.1	19.5	1673
- Blankets	Million m2	3.4	15.2	347
- Refined sugar	Million pieces	693	1434	107
- Flour (wheat, corn and barley)	1000 tons	8243	20.000	143
- Rice mills	1000 tons	1344	3320	147
- Animal poultry foddors	1000 tons	1611	3303	26
- Manufacturing cleaning	1000 tons	52	252	385
- Passenger Car	1000 tons	16273	30.000	84
- Buses	Number	705	3066	335
- Refrigerators	Number	326	1000	207
- Washing machines	1000	221	993	350
- Medicines	1000	245	3562	1354
- Phosphate fertilizers	LE million	511	1270	149
- Cement	1000 tons	3629	28339	681
- Reinforcement steel bars	1000 tons	355	4405	1141
	1000 tons			

### **3-4- Quality and Proficiency**

In the framework of developing the capabilities of industrial sector, ministry of Industry and Ministry of Technological Development merged with foreign trade ministry and became Ministry of foreign trade and Industry. The Ministry is to affirm on the "Quality" concept as a national motto and join the standard specifications of industrial commodities with the international specifications as well as pay due attention to the environmental origin of Egyptian industry and identify the environmental specifications of Egyptian industrial product for the international demand especially European.

Major steps have been implemented in order to develop the industry sector performance. Salient of which are: approving the first law for small Egyptian industries to encourage and develop them; giving exemption and tax advantages for many productive projects and approving a new draft for custom tariff contributing to increase the competitiveness capability of Egyptian product, in addition to continuing to support exports and exporter through Exports Development Fund and providing information and industrial guidance network.

Preparing industrial data base including 11261 industrial buildings and 3318 products in addition to 12 industrial investment maps for raw materials and commodities and 24 feasibility studies of relative advantage industries as well as preparing a guidance list including the required industrial enterprises in local market and could accepted in foreign markets.

### **3-5- Modernizing Egyptian Industry Program**

Quality is the major element for enhancing the Egyptian industry competitiveness capability in order to face the challenges in local and foreign markets. In the framework of Egyptian-European partnership, since 2002/03 Egypt has started to implement the Industry Modernization Program at a total cost of 427 million euro. European Union contributed to 250 million euro in the program with a rate of 59 percent of total cost.

The program aims at enhancing the competitiveness of the Egyptian industrial sector so as the Egyptian products would become qualified for making optimal use of the openness of Egyptian markets and integrates Egypt into the international economy, in addition to envisages providing more job opportunities and increasing income. Numbers of factors benefited from this program during the past three years reached

430 buildings.

It is targeted to modernize 3400 building during the period (2004/05- 2005/06) through providing technical support for these factories that work in the field of weaving, ready-made garments, furniture, software programs, food industries, engineering and chemical industries.

In the framework of modernizing the Egyptian industry, consultant council was established to modernize industry and rehabilitate 300 Egyptian consultant offices in the field of modernization services.

### **3-6- Additional Advantages in New Cities**

The new cities and urban communities that reached 21 in 2005 help in redrawing Egypt's urban and economic plan.

The industrial zones are the hope to create new job opportunities for thousand Egyptians due to the investment advantages of these zones at a top of which are taxes exemption and lands law prices that contribute to increasing number of productive factories from 896 in 1991/92 to 3322 factories in 2005, with an increase rate of 271 percent. The productive factories capital in these new cities and urban communities till January 2005 is about LE 32.2 billion. The volume of annual production reached about LE 34.7 billion and number of workers are about 308.5 thousand. There are about 1709 factories under construction.

### **3-7- Borg El Arab**

Borg El Arab is the new industrial Estate of Alexandria it is located about 30 Km from the city center and connected to Alexandria metropolitan area by modern highways which facilitate the easy access to Metropolitan Alexandria. Recently many of Alexandria upper class criticizes moved and are living in Borg El Arab and the nearby district of King Mariout. Borg El Arab is 3-4 Km south the most popular elite Mediterranean summer resorts. Most of the summer resorts are vacant all the year around except from mid June to mid September.

## **4- ALEXANDRIA**

Few cities have made so magnificent an entry into history as Alexandria. Alexandria was founded by Alexander the Great in 332 BC. In the 3rd century BC: the library of Alexandria is reported to consist of 500,000 volumes. The Museum / Library of

Alexandria was founded at a unique place and time which allowed its scholars to draw on the deductive techniques of Aristotle and Greek thought, in order to apply these methods to the knowledge of Greece, Egypt, Macedonia, Babylonia, and beyond. An amazing number of Alexandrian discoveries and theories, especially in mathematics and geometry, still provide the groundwork for modern research in these fields.

- 1- Some 40% of Egypt industry and 65% of the petrochemical industry are in Alexandria.
- 2- Alexandria University is serving three governorates (Alexandria, Behira, and Matrouh. It is one of the Egyptian very eminent universities. The Arab Academy for science and Technology (An Arab League University) and the new private University of Pharos are an odd to the higher education system of Alexandria.
- 3- Moubark City for Scientific Research which is a major research organization is located I Borg El Arab adjacent to the new Alexandria University Educational Hospitals.
- 4- To renew and enhance the scientific features of Alexandria The new Bibliotheca Alexandrina has been inaugurated in 2002 to be a center of excellence in the production and dissemination of knowledge and to be a place of dialogue, learning and understanding between cultures and peoples.
- 5- The unique role of the Library of Alexandria, as that of a great Egyptian Library with international dimensions, focuses on four main aspects that seek to recapture the spirit of the original ancient Library of Alexandria. It aspires to be: The world's window on Egypt; Egypt's window on the world; A leading institution of the digital age; and, above all, A center for learning, tolerance, dialogue and understanding.

#### **4-1- Local Community Research needs:**

The local industry in Alexandria area and around is in need of applied problem solving research. Also, there is a momentous need to establish effective R and D in the local industrial enterprises. To establish the required effective R and D, well trained creative engineers who are capable to conduct R and D are very desirable.

#### **4-2- Higher Studies and Training Courses**

Due to the local industry in Alexandria area and around immense need to develop

the capabilities of the local engineers to cope with the world class industry in particular field viz. TQM, Mechatronics, Product Design, etc. The local industrial leaders are offering there physical facillities and sponsorship to start at the earliest possible convenient time: Specialized diploma courses, Professional Master Degrees, and or high quality state-of-the-art training courses to develop the capabilities of their technical staff. The local industry as well as Mubark City for Scientific Research possesses a variety of resources including: well equipped class rooms, auditoriums, and some lab facilities.

It is highly recommended to start this higher studies and/or training courses and training courses as from the coming spring. All what is expected to be needed is some additional lab facilities specially in Mechatronics. The Japanese expertise in TQM, Mechatronics, and Product design is notable and highly appreciated.



## **Part Two: Opportunity Study Establishment of Egypt-Japan University for Science and Technology (E-JUST) In Egypt**

A new Japanese Technological (Research) University in Egypt should play a critical role in shaping the future of Egypt-Japan scientific and technological relationship. As distinct public technological university, it is ought to be an important conduit through which technology flows into the Egyptian society. The university's educational programs should be tailored to prepare students to be leaders in the technology-dependent economy of the 21st century. University researchers will seek new knowledge to improve processes and products for industry. Through public and private partnerships and economic development efforts, the university must help to grow new business ventures that fuel the economy. However, the following initial steps are necessary

Conceptually, the Egypt-Japan University for Science and Technology (E-JUST) is based on the regional (Arab--Africa) as well as national aspiration of both countries. E-JUST is to be established as an international entity. Its Governance and Management systems are to be flexible and business oriented. Hence it is proposed that the University is established under the Egyptian Higher Education Act.

A total of two Faculties, five departments and fifteen academic programs were proposed. which will encompass the emerging technologies, to enhance the capability of Egypt's workforce and thus to contribute towards national and regional advancement .The broad disciplines include Electrical and Electronics Engineering ,Mechanical/Manufacturing Engineering, Materials and Chemical Engineering and Business and Humanities. The programs include undergraduate and postgraduate studies. The Curriculum would need to satisfy the requirements of the appropriate accrediting bodies of Egypt and Japan.

English language is presented as the proposed medium of instruction although the Japanese language will be instructed through study levels.

The main concept was detailed to develop the E-JUST as a research intensive university (RIU); that matches the Egyptian government priorities, and within the establishment of a set of centers of excellence in research, incubators and spin-off/out companies.

Students would be drawn from the Egyptian population as well as from the international community. The ratio between local and international students is set to be 70:30 in the long term. Similarly, the academic, technical and other support staff required are projected based on ratios of corresponding institutes.

## **5- GENERAL CONCEPTS**

### **5-1- Prerequisites**

- 1- Research-Oriented University
- 2- Familiarity with Japanese language education and practice
- 3- Adoption of virtue of Japanese University Education system and labor ethics
- 4- Internationally competitive
- 5- International/Domestic Competence of E-JUST
- 6- Must compete with several existing prestigious, time-honored Egyptian universities.
- 7- Must compete with new-comers, both domestic and foreign.
- 8- E - Just promotion plans to attract undergrad and post-grad students.
- 9- Instruction Language
- 10- English is a teaching media of course subjects for the sake of international compatibility.
- 11- Intensive Japanese language education, four years from freshman to senior, with the aid of computer-mediated language learning system (e-learning).
- 12- Presentation of Japanese technical Terminology in lectures is an advantage.
- 13- Human Resource Development
- 14- With the above commitment, human resource development is vital to implement the strategy. There is still a shortage of quality engineers and business administration specialists now and in the nearest future. A number of new Private Universities and Government University Colleges are being opened to improve the situation. The establishment of E-JUST will certainly be a significant contribution towards the national and regional aspirations. It is imperative to increase the intake of engineering student but with caution of not sacrifice the quality.

15- Egypt has just entered into the mass education category with slightly over 30.5% of the appropriate age group manage to join the tertiary education in the country. It falls under the category of between 15-50% which calls for non-conventional education methodologies with primary purpose of education being the transmission of knowledge and skills with specialized areas and development of leadership in society.

#### **5-2- Proposed Site of E-JUST**

The Egyptian government has allocated an area of 210,000,000 square meters in Borg El-Arab City near to Alexandria City for the establishment of E-JUST. The merits if the site are :

- 1- Close to the modernized industrial sector of Borg El-Arab City.
- 2- In front of Mubarak City for Science and Technology (MuCSAT).
- 3- Close to Alexandria University and Library of Alexandria.
- 4- Some 40% of Egypt industry and 65% of the petrochemical industry are in Alexandria City.
- 5- Borg El Arab is the new industrial Estate of Alexandria it is located about 30 Km from the city center and connected to Alexandria metropolitan area by modern highways which facilitate the easy access to Metropolitan Alexandria. Borg El Arab is 3-4 Km south the most popular elite Mediterranean summer resorts. Most of the summer resorts are vacant all the year around except from mid June to mid September.
- 6- Alexandria University is serving three governorates (Alexandria, Behira, and Matrouh). It is one of the Egyptian very eminent universities. The Arab Academy for science and Technology (An Arab League University) and the new private University of Pharos are integrated with the higher education system of Alexandria.
- 7- Moubark City for Scientific Research which is a major research organization is located in Borg El Arab adjacent to the new Alexandria University Educational Hospitals and just in front of E-JUST site.
- 8- To renew and enhance the scientific features of Alexandria The new Bibliotheca Alexandrina has been inaugurated in 2002 to be a center of excellence in the production and dissemination of knowledge and to be a place of dialogue, learning and understanding between cultures and peoples.

9- The unique role of the Library of Alexandria, as that of a great Egyptian Library with international dimensions, focuses on four main aspects that seek to recapture the spirit of the original ancient Library of Alexandria. It aspires to be: The world's window on Egypt; Egypt's window on the world; A leading institution of the digital age; and, above all, A center for learning, tolerance, dialogue and understanding.

#### **5-3- Local Community Research needs:**

The local industry is in need of applied problem solving research. Also, there is a momentous need to establish effective R and D in the local industrial enterprises. To establish the required effective R and D, well trained creative engineers who are capable to conduct R and D are very desirable.

#### **5-4- Higher Studies and Training Courses**

Due to the local industry immense need to develop the capabilities of the local engineers to cope with the world class industry in particular field viz. TQM, Mechatronics, Product Design, etc. The local industrial leaders are offering there physical facilities and sponsorship to start at the earliest possible convenient time: Specialized diploma courses, Professional Master Degrees, and or high quality state of-the-art training courses to develop the capabilities of their technical staff. The local industry as well as Mubark City for Scientific Research possesses a variety of resources including: well equipped class rooms, auditoriums, and some lab facilities.

It is highly recommended to start this higher studies and/or training courses and training courses as from the coming spring. All what is expected to be needed is some additional lab facilities. The Japanese expertise in TQM, Mechatronics, and Product design is notable and highly appreciated.

### **6- VISION AND MISSION OF E-JUST**

Egypt-Japan University for Science and Technology (E-JUST) shall be a research intensive university operating in Egypt, implementing Japanese academic concepts in the teaching-learning and research through Japanese professional ethics. Egypt enjoys excellent central location at the heart of the world. It also has a moderate weather all year round and a political stability with good international relation in the Arab/African Region.

#### **6-1- Center of Scientific and Technological Excellence.**

- 1- A system for scientific and technological parks, and out-researches centers.
- 2- Economic management forum for scientific and technological innovations and creations.
- 3- Systematic programs for nurturing talents and giftedness in higher education and research system.
- 4- Effective and continuous participation in scientific and technological international events.

#### **6-2- The mission statements of E-JUST are:-**

- 1- To foster linkages and collaboration between Egypt and Japan and other countries.
- 2- To contribute to the capacity building in technology of the country in particular and neighboring countries in general , through integration of Japanese education and research Environment and Egyptian unique features .
- 3- To act as a center of excellence for higher education, research and training for manpower needs of the country and the region.
- 4- At the concept, the stance is to assure that it is needs-oriented, relevant to Egypt where it shall reside and also addressing the regional professional human resource capacity and capability building to sustain the ever challenging economics development in the coming years. It shall assume an international standing with high quality education institution. The content and implementation shall integrate the strengths and advantages of the Japanese education / training and research systems and the Egyptian strategic elements. Flexibility but with high accountability should become the feature of its governance and management system.

### **7- GOVERNANCE AND ADMINISTRATION**

#### **7-1- Governance and Management**

The Egypt-Japan University for Science and Technology (E-JUST) is to be established under the Egyptian Higher Education Act.

## **7-2- Board of Directors**

The Board of Directors is the management Authority of the university, which is responsible for policy making. The composition shall consist of the following:

- 1- A Chairman ;
- 2- The President;
- 3- Two representatives from Egypt;
- 4- Two representatives from Japan;
- 5- Two representatives from the industries ;
- 6- One representatives from the Alumni
- 7- Senate
- 8- The Senate is the highest academic authority of the university, which will be responsible for the management of the academic affairs of the university.
- 9- Membership of the Senate consists of:
  - 10- The president as Chairman.
  - 11- The vice - Presidents.
  - 12- Deans of Faculties.
  - 13- Heads of Academic service centers of the University.
  - 14- Other persons (academicians), as provided in the Rules and Regulations of the University.
  - 15- The total membership of the Senate shall not exceed ... (to be determined later).

## **7-3- Management**

### **7-3-1 THE Management Philosophy:**

- 1- Self-sustainable.
- 2- Transfer of knowledge to people efficiently, successfully and economically.
- 3- Create new knowledge through research activities.
- 4- Provide infrastructure to promote creativity and innovation towards nation building.
- 5- International Standard.

### **7-3-2 Marketing Unit:**

The role of marketing unit will be as follows:

- 1- Recruitment of students.
- 2- Liaison with industries.
- 3- Industrial training / internship placements for students.
- 4- University – industry collaboration.
- 5- International students exchange.
- 6- International staff exchange.

### **7-3-3 Organizational Structure**

Similar to other universities in Egypt, the President will be as the academic and administrative head assisted by only three vice-presidents. There will be two deans for the faculty of engineering and the faculty of business and humanities with heads of departments and specialized centers of Excellence. General Managers administers various sections for efficient running of the key activities within the university. This structure may be sufficient to run a moderately size university efficiently.

## **8- FACULTIES AND THE ACADEMIC PROGRAMS**

From internal and external scanning over the regional and national needs for highly competent human resource, the disciplines deemed most suitable are Electrical/Electronics, Mechanical/Manufacturing and Business and Management. The thrust areas of research from industries and government confirm that these broad disciplines are unmistakable. Two Faculties are proposed namely:

Faculty of Engineering(7 programs)

Faculty of Business and Humanities(2 programs)

### **8-1- Faculty of Engineering (7 programs):**

- 1- Electronics and Communication Engineering
- 2- Computers and Information Technology.
- 3- Industrial Engineering and Management System.
- 4- Mechatronics and Robotics Engineering.

- 5- Materials Science and Engineering.
- 6- Chemical and Petrochemical Engineering.
- 7- Energy Resources and Environmental Engineering.

**8-2- Faculty of International Business and Humanities**

Two departments are to be set up as follows:

- 1- International Business Management
- 2- Cross-Cultural Management and Japanology .

**8-3- Proposed Centers of Excellence :**

- 1- Nano- Engineering Research Center
- 2- Energy Resources and Management Research Center
- 3- Mechatronics / Electronics Research Center
- 4- High Tech Training and Continuing Education Center

**8-4- Roles of Japanese Academic staff**

- 1- At infant stage, Japanese professors may assume academic consultation and laboratory build-up, to be taken over by Egyptian Profs, ASAP.
- 2- Bunched throw of competent, able Japanese scholars
- 3- "Carte Blanche" commission to hire research colleagues, domestic, neighboring countries and from all over the world.
- 4- Positive appointment of senior Japanese professional experts
- 5- Implantation of virtue of Japanese University education system
- 6- Family-like hands-on instruction
- 7- Small group teaching and self-learning
- 8- Internship at Egypt-Japan joint venture factories
- 9- Ethical education, e.g. to respect elders

**8-5- The Governing Ratios**

- 1- Governing Ratios



Academic Staffs	Acad. Staff: Student (Eng.)	1:8 [ 1:15] *
	Acad. Staff: Student (Buss and Hum.)	1 : 15 [1 : 20]*
	Technical Staff/Aced Staff	1:2
	Professor: Assoc Professor: Lecturer (Eng.).	20% : 30%: 50%
	Professor: Assoc Professor: Lecturer (Buss and Hum.).	10%: 40%: 50%:
Administrative Staff	Admin, Staff :Student	1:20

[ ]\* : These ratios are considered in the present study

- 2- Manpower requirement
- 3- Efficient allocation of LIMITED Budget.
- 4- Minimize number of office clerks.
- 5- Introduction of Office Automation System for School affairs and facility management.
- 6- Utilize Research assistants, Teaching assistants.
- 7- High investments for Digital Campus.
- 8- Avoid installation of expensive laboratory equipment with high running cost.

#### 8-6- FINANCING

The Egyptian Government and other stake holders are committed to bear the cost for the physical development of land, premises, and physical facilities This Load covers the cost of Academic Complex, Management Complex, Student college/hostel, Main Hall and Experiment halls, Sport Facilities, Basic Infrastructure, Furniture and Project Management cost.

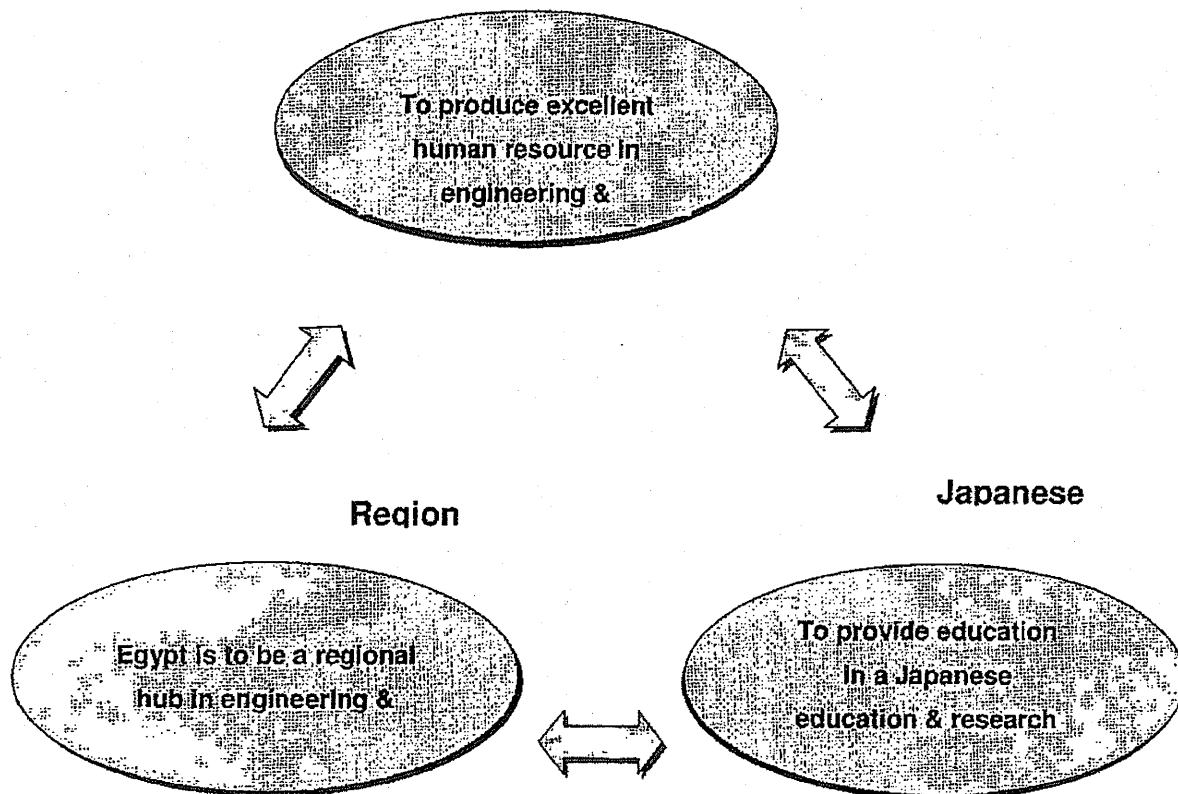
The Japanese side will contribute to the dispatch of some Professors and key academicians to implement the programs and also sponsor the cost of the equipment required to establish undergraduate and postgraduate laboratories. The details of

these will depend on the estimated budget and research laboratories and educational laboratories to be set up for the next ten years.

**8-7- Visions**

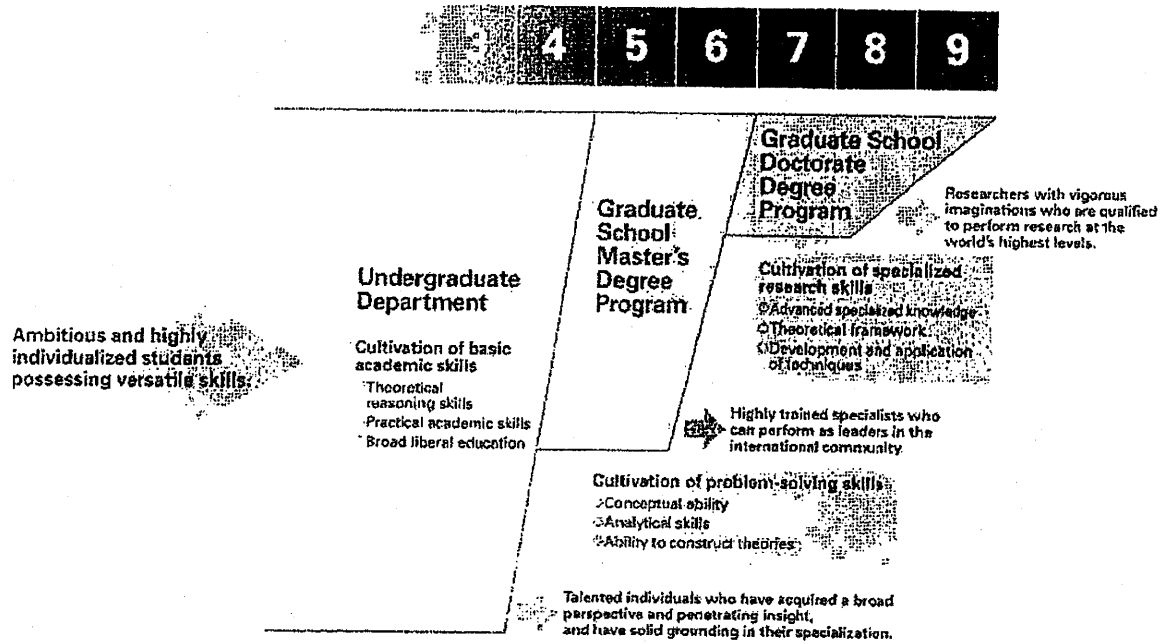
- 1- To produce human resources (HR), which are capable in meeting the challenges of tomorrow
- 2- To continuously create new technology for the betterment of humankind
- 3- To adopt a holistic approach by integrating HR and technology potentials HR

**8-8- Missions**



**Figure1: The visions and missions of EJUST.**

8-9- Time Frame



**Figure 2: Undergraduate/ graduate integrated education in a remarkable learning environment, with a faculty who are active on the international stage.**

### **Part Three: The Estimated Budget**

9- ENROLLMENTS PROJECTION FOR THE FIRST TEN YEARS

9-1- Undergraduate Enrollment Projections in Engineering

Table 9-1 : Undergraduate Enrollment Projections in Engineering

	Preparation 2 years	3rdrd year	4th Year	5thd Year	6th Year	7th Year	8th Year	9th Year	10th Year
Faculty of Engineering									
Electronics and Communication Engineering		0	50	100	200	300	375	450	500
Computer Technology and Information		50	100	150	200	225	275	300	350
Industrial and Management System		50	100	150	200	225	250	275	300
Mechatronics and Robotics		50	100	150	200	225	250	275	300
Materials Science and Engineering		0	0	0	50	100	150	200	225
Chemical and Petrochemical		50	100	150	250	325	400	475	525
Energy Resources and Environmental Engineering		0	50	100	150	200	250	275	300
Total Engineering		200	500	800	1250	1600	1950	2250	2500

9-2- Undergraduate Enrollment Projections in Business

Table 9-2 Undergraduate Enrollment Projections in Business

Faculty of Business	Preparation 2 Years	3rd year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
International Management	0	50	100	150	200	225	250	275	300
Cross-Cultural Management and Japanology	0	25	50	75	100	125	150	175	200
Total Business	0	75	150	225	300	350	400	450	500

9-3- Postgraduate Enrollment Projections in Engineering

Table 9-3 Postgraduate Enrollment Projections in Engineering

Engineering		Preparation 2 years	3rd Year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
Engineering and Technology	Diploma	40 - 80	80	80	80	80	80	80	80	100
Engineering and Technology	M.Eng.	0	40	80	80	80	80	80	80	100
Department of Electrical, Electronic and Computer Engineering	M.Sc.	0	20	30	30	30	30	60	90	100
	PhD	0	0	0	10	15	20	20	20	40
Department of Mechanical Engineering	M.Sc.	0	20	30	30	30	30	60	90	100
	PhD	0	0	0	10	15	20	20	20	40
Department of Chemical and Environmental Engineering	M.Sc.	0	20	30	30	30	30	60	90	100
	PhD	0	0	0	5	10	15	15	15	20
Total Engineering		40 - 80	180	240	275	290	305	395	485	600

9-4 Postgraduate Enrollment Projections in Business

Table 9-4 Postgraduate Enrollment Projections in Business

Business	Preparation 2 years	3rd year	4th Year	5th Year	6th Year	7th Year	8th Year	9th Year	10th Year
International Business Management --Diploma	0	20	40	40	40	40	40	40	40
International Business Management – Master-MBA.	0	10	20	20	20	30	30	30	30
International Business Management – Ph.D.	0	0	0	0	0	0	0	5	10
Cross-Culture Management and Japanology- Diploma	0	0	10	20	20	30	30	30	30
Cross-Culture Management and Japanology - Master.	0	0	0	10	20	30	30	30	30
Cross-Culture Management and Japanology – Ph.D.	0	0	0	0	0	0	0	5	10
<b>Total Business</b>	<b>0</b>	<b>30</b>	<b>70</b>	<b>90</b>	<b>100</b>	<b>130</b>	<b>130</b>	<b>140</b>	<b>150</b>



**10- UNIVERSITY CAMPUS BASIC COMPONENTS, FEATURES, OUTLINES  
AND REQUIREMENTS.**

10-1- The projected steady state undergraduate enrollments (10th  
Year)

**Table 10-1 The projected steady state undergraduate enrollments (10th Year)**

Faculty of Engineering	Steady State projected enrollments	Faculty of Business	Steady State projected enrollments
Electronics and Communication Engineering	500	Department of international business and Humanities	
Computer and Information Technology	350	International Business Management	300
Industrial and management Systems	300	Cross-Cultural Management and Japanology	200
Mechatronics and Robotics	300		
Materials Sciences and Engineering	225		
Chemical and Petrochemical	525		
Energy Resources and Environmental	300		
<b>Total Engineering</b>	<b>2500</b>	<b>Total Business</b>	<b>500</b>

10-2- The projected steady state postgraduate enrollments (10th Year)  
 – Engineering

**Table 10-2 The projected steady state postgraduate enrollments (10th Year) –  
 Engineering**

Engineering		Steady State projected enrollments
Engineering and Technology	Diploma	100
Engineering and Technology	M.Eng	100
Department of Electrical, Electronic and Computer Engineering	M.Sc.	100
	PhD	40
Department of Mechanical Engineering	M.Sc.	100
	PhD	40
Department of Chemical and Environmental Engineering	M.Sc.	100
	PhD	20
Total Engineering		600

10-3- The projected steady state postgraduate enrollments  
 (10th Year) – Business ( M. Sc. )

**Table 10-3 The projected steady state postgraduate enrollments  
 (10th Year) – Business ( M. Sc. )**

Business		Steady State projected enrollments
International Business Management	Diploma	40
	Master	30
	PhD	10
Cross-Cultural Management and Egyptology	Diploma	30
	Master	30
	PhD	10
Total Business		150

**11- CAMPUS MAIN COMPONENTS:**

No.	Item
1	Lecture theaters
2	Class rooms
3	Seminar rooms
4	Meeting rooms
5	Academic staff rooms
6	Non-academic staff and secretarial rooms
7	Auditorium
8	Undergraduate labs
9	Research labs
10	Workshop
11	Libraries
12	Mosque - Chaplaincy
13	Student union complex
14	Gymnasium and play grounds
15	Clinics
16	Restaurants and cafeterias
17	Students dorms
18	Staff accommodations
19	Utilities complex
20	Miscellaneous

**11-1- Faculty of Engineering lab., workshops, lecture theaters, class rooms, etc.:**

**11-1-1 Engineering Undergraduate lecture theaters, class rooms,  
etc.:**

**Table 11-1 Engineering Undergraduate lecture theaters, class rooms, etc.:**

Faculty Engineering of	Steady State projected enrollments	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Department of Electrical ,Electronic and Computer Engineering								
Electronics and Communication	500	4	7	7	2	18	4	
Computer and Communication	350	2	4	4	1	10	2	
Department of Mechanical Engineering								
Industrial and Management System	300	2	4	4	1	10	2	
Mechatronics and Robotics	300	2	4	4	1	10	2	
Material Sciences and Engineering	225	2	3	3	1	8	2	
Department of Chemical and Environmental Engineering								
Chemical and Petrochemical	525	4	7	7	2	18	4	
Energy Resources and Environmental	300	2	4	4	1	10	2	
Total Engineering	2500	18	33	33	9	84	18	1
Are per unit (mt2)		150	80	40	30	10	15	400
Total area (mt2)		2700	2640	1320	270	840	270	400

11-1-2 Engineering Undergraduate labs, workshops, libraries, etc.

**Table 11-2 Engineering Undergraduate labs, workshops, libraries, etc.**

Faculty of Engineering	Steady State projected enrollments	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
Department of Electrical ,Electronic and Computer Engineering								
Electronics and Communication Engineering	500	6		1				
Computer and Information Technology	350	3						
Department of Mechanical and Manufacturing Engineering								
Industrial and Management System	300	3		1				1
Mechatronics and Robotics	300	3						
Materials Sciences and Engineering	225	3						
Department of Chemical and Environmental Engineering								
Chemical and Petrochemical	525	6		1				1
Energy Resources and Environmental	300	3						
Total Engineering	2500	27	1	3	1	1	1	3
Area per unit (mt2)		160	400	150	500	150	300	100
Total area		4320	400	450	500	150	300	100

**11-1-3 Faculty of Engineering Postgraduate seminar rooms,  
offices, research labs, etc.**

**Table 11-3 Faculty of Engineering Postgraduate seminar rooms, offices,  
research labs, etc.**

		Steady State projected enrollments	Seminar room	Offices	Research lab	Work shop	Lecture room
Engineering							
Eng. and Tech	DiP.	100					
	M. Eng.	100					
Electronics and Communication Engineering	M.Sc.	100					
	PhD	40	3	10	6	1	1
Industrial and Management System	M.Sc.	100					
	PhD	40	3	10	6	1	1
Mechatronics and Robotics Materials Sciences and Engineering	M.Sc.	100					
	PhD	20	3	10	6	1	1
Chemical and Petrochemical	M.Sc.	100					
	PhD	20	3	10	6	1	1
Total Engineering		600	9	30	18	3	3
Area per unit (mt2)			40	10	100	100	100
Total area			360	300	1800	300	300

**11-1-4 Total area under and postgraduate Engineering: Seminar rooms, Offices, Research labs, Workshops, Lecture Rooms:**

**Table 11-4 Total area under and postgraduate Engineering: Seminar rooms, Offices, Research labs, Workshops, Lecture Rooms**

Item	Area (mt2)	Steady State projected enrollments	Average (mt2) per capita
Undergraduate	14,660	2500	5.9
Postgraduate	3,060	105	29.0
Total	17,720		

Total area under and postgraduate Engineering including star cases, corridors, stores, WC, facilities rooms, elevators, lounge, bookstore ..etc. = 17720 x 1.5 = @ 27000 mt2

Foot print of Faculty of Engineering Building = 9000 mt2 (three levels building).

**11-2- Faculty of Business labs., Lecture Theater, class rooms, seminar rooms, etc.:**

**11-2-1 Faculty of Business Undergraduate Lecture Theater, class rooms, seminar rooms, etc.**

**Table 11-5 Faculty of Business Undergraduate Lecture Theater, class rooms, seminar rooms, etc.**

Faculty of Business	Steady State projected enrollments	Lecture theater	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
International Business Management	300	2	4	4	1	10	2	
Cross-Cultural Management and Japanology	200	2	3	3	1	8	2	
Total Business	500	4	7	7	2	18	2	1
Are per unit (mt2)		150	80	40	30	10	15	400
Total area		600	560	280	60	180	60	400

**11-2-2 Faculty of Business Undergraduates labs, workshops,  
local libraries, etc.**

**Table 11 -6 Faculty of Business Undergraduates labs, workshops, local  
libraries, etc.**

Faculty of Business	Steady State projected enrollments	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
International Business Management	300	1		1				
Cross-Cultural Management and Japanology	200	1		1				
<b>Total Business</b>	<b>500</b>	<b>2</b>		<b>2</b>				
Area per unit (mt2)		160	400	150	500	150	300	100
Total area		320	0	300	500	150	300	200

**11-2-3 Faculty of Business Postgraduate seminar rooms, offices,  
research labs, etc.:**

**Table 11-7 Faculty of Business Postgraduate seminar rooms, offices, research  
labs, etc.**

Faculty of Business	Steady State projected enrollments	Seminar room	Offices	Research lab	Work shop	Lecture room
International Business Management	80	3	10	2	0	3
Cross-Cultural Management and Japanology	70					
<b>Total Business</b>	<b>150</b>	<b>3</b>	<b>10</b>	<b>2</b>	<b>0</b>	<b>3</b>
Area per unit (mt2)		40	10	100	-	100
Total area		120	100	200	0	300



**11-2-4 Total area under and postgraduate Business:**

**Table 11-8 Total area under and postgraduate Business**

Item	Area (mt2)	Steady State projected enrollments	Average (mt2) per capita
Undergraduate	3910	500	7.8
Postgraduate	720	35	20.6
Total	4630		

Total area under and postgraduate Engineering including star cases, corridors, stores, WC, facilities rooms, elevators, lounge, bookstore ..etc. = 4630 x 1.6 = @ 7500 mt2

Foot print of Faculty of Engineering Building = 3500 mt2 (three levels building)

**11-3- Total area Engineering, Business, and auxiliaries:**

**11-3-1 Main Campus Components**

**Table 11-9 Total area Engineering, Business, and auxiliaries**

No	Item	Area (mt2)	Foot Print Area (mt2)
1	Faculty of Engineering	27,000	9,000
2	Faculty of Business	7500	2500
3	Central Library	1,000	500
4	Mosque – Chaplaincy	5,00	500
5	Student union complex	2,000	1000
6	Gymnasium	1,000	1000
7	Clinics	300	300
8	Restaurant	500	500
9	Utilities and services complex	1000	1000
10	Stores	2000	1000
11	Administration	1200	400

No	Item	Area (mt2)	Foot Print Area (mt2)
12	Miscellaneous	500	500
Total		44,500	18200

### 11-3-2 Additional campus components

**Table 11-10 Additional campus components**

No	Item	Area (mt2)
1	Play grounds	8,000
2	Student dorms to accommodate ( up to 500)	10,000
3	Staff accommodation to accommodate-flats ( up to 50)	10,000
4	Staff accommodation villas (up to 20)	10,000
5	Additional Service facilities (supermarket, book shop, restaurants, cafeterias, ...)	10,000

### 11-4- Land required

**Table 11-11 Land required**

No	Item	Land require (mt2)	Remarks
1	Main campus components	18200 (foot print)	One, Two, or Three floors buildings
2	Play ground	4,000	
3	Students dorms	$10,000/5 = 2,000$ (foot print)	Five floors building
4	Staff accommodation (flats)	$10,000/5 = 2,000$ (foot print)	Five floors building

No	Item	Land require (mt2)	Remarks
5	Staff accommodation (Villas)	10,000	25 units
6	Additional Service facilities	10,000	
7	Landscape	50,000	
8	Roads and Parking Spaces	20,000	
Total		116200	

## 12- BUILDINGS ESTIMATED COST:

### 12-1- Main Components

**Table 12-1 Estimated Building Cost - Main Components**

No	Item	Cost LE
1	44,500 mt2 for main campus components x LE3000 including mechanical, ventilation, and limited air condition.	133,500,000
2	Foundations and basement 18,200 x LE1000	18,200,000
3	Play ground 4000 x LE500	2,000,000
4	Student dorms 10,000 mt2 x LE2000	20,000,000
5	Staff accommodation (flats) 10,000 mt2 x LE2500	25,000,000
6	Staff accommodation (Villas) 25 units x LE50,000	12,500,000
7	Service facilities hangars 10,000 x 1000	10,000,000
8	Landscape 50,000 x LE200	10,000,000
9	Roads and parking 20,000 x LE500	10,000,000
Total		248,200,000

12-2- Engineering and business undergraduate lecture theaters, class rooms, seminar rooms meeting rooms, staff rooms' cost, and administrative rooms' furniture:

**Table 12-2 Estimated Cost of Engineering and business undergraduate lecture theaters, class rooms, seminar rooms meeting rooms, staff rooms' cost, and administrative rooms' furniture**

	Lecture rooms	Class rooms	Seminar rooms	Meeting rooms	Staff rooms	Admin. room	Auditorium
Engineering	18	33	33	9	84	18	1
Business	4	7	7	2	18	4	1
Total	22	40	40	11	102	22	2
Cost (LE) per unit	50,000	15,000	20,000	15,000	10,000	5,000	600,000
Total	1,100,000	600,000	800,000	165,000	1,020,000	110,000	1,200,000
Grand Total	4,995,000						

12-3- Engineering and business undergraduate labs, workshops, local libraries, central libraries, IT centers furniture, utilities, and cafeterias furniture and equipment:

**Table 12-3 Estimated Cost of Engineering and business undergraduate labs, workshops, local libraries, central libraries, IT centers furniture, utilities, and cafeterias furniture and equipment**

	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
Engineering	27	1	3	1	1	1	3
Business	2	0	2	1	1	1	2
Total	29	1	5	2	2	2	5
Cost (LE) per unit	5,000,000	10,000,000	1,000,000	2,000,000	2,000,000	0	100,000
Total	145,000,000	10,000,000	5,000,000	4,000,000	4,000,000	0	500,000
Grand total							

	Labs	Work shop	Local library	Central Library	IT Center	Utilities	Cafeteria
	168,500,000						

12-4- Engineering and business postgraduate lecture theaters, class rooms, seminar rooms meeting rooms, staff rooms' cost, and administrative rooms' furniture:

**Table 12-4 Estimated cost of Engineering and business postgraduate lecture theaters, class rooms, seminar rooms meeting rooms, staff rooms' cost, and administrative rooms' furniture**

	Lecture room	Work shop	Research lab	Offices	Seminar room
Engineering	3	3	18	30	9
Business	3	0	2	20	3
Total	6	3	20	50	12
Cost (LE) per unit	50,000	1,500,000	3,000,000	10,000	20,000
Total	300,000	4,500,000	60,000,000	500,000	240,000
Grand total	65,540,000				

12-5- Students and staff accommodation furniture

**Table 12-5 Estimated Cost of Students and staff accommodation furniture**

Item	Description	Cost per unit (LE)	Total (LE)
1	Students Dorms (250 unit)	10,000	2,500,000
2	Staff flats (70 unit)	75,000	5,250,000
3	Staff Villas (25 unit)	100,000	2,500,000
Total			10,250,000

12-6- Total for items 12-1, 12-2, 12-3, 12-4, 12-5

**Table 12-6 Total Estimated Cost for Items listed in tables 12-1, 2, 3, 4, and 5**

No	Cost (LE)
1	248,200,000
2	4,995,000
3	168,500,000
4	65,540,000
5	10,250,000
Total	497,485,000

**13- TOTAL FIXED INVESTMENT:**

No	Item	Cost
1	Item 21-6	497,485,000
2	210,000 mt2 x125	26,250,000
3	Mechanical installations: elevators, air condition, ventilation, pumps, etc. (@4% from item 21-1)	10,000,000
4	Electrical installations: cables, wiring, lighting, protection, etc. (@4% from item 21-1)	10,000,000
5	Fence, gates, and securities	5,000,000
6	Shopping, food court, and recreational area	5,000,000
6	Miscellaneous. (@5% from item 3-6)	16,000,000
Total LE	569,735,000	

**14- THE ESTIMATED BUDGET FOR THE FIRST FOUR YEARS (AFTER THE PREPARATION YEAR):**

The preliminary budget for the first 4 years includes the following main items.

**14-1- Operating (running) expenses:**

- 4- Wages and salaries (including fringe benefits).
- 5- Non-Egyptian academic staff compensation.
- 6- Consumables (lab material, spare parts...) and Stationary
- 7- Building maintenance
- 8- Lab equipment maintenance
- 9- Building depreciation
- 10- Lab equipment depreciation
- 11- Landscape maintenance
- 12- Utilities and communication.
- 13- Student services
- 14- Staff and employees services
- 15- Miscellaneous and contingencies.
- 16- Non-Egyptian staff compensations.

**14-2- Additional Investment expenses**

- 1- Pre-operating expenses (consultations, curricula building, experts, travel ...)
- 2- Libraries (book, periodicals and electronic)
- 3- Educational IT network (soft and hardware)
- 4- Management Information System MIS network MIS (soft and hardware)
- 5- Additional research lab equipment (as required)
- 6- Transportation vehicles
- 7- Miscellaneous

**15- OPERATING (RUNNING) EXPENSES:**

**15-1- Wages and salaries (including fringe benefits).**

**15-1-1 Academic Staff:**

**Academic Staff salaries and benefits**

The following table shows the number and salaries (including benefits) of the academic staff at full operation (fourth year) of university.

**Table 15-1 Number And Salaries Of The Academic Staff (Full-Time) At Full Operation Of The University.**

	Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
Engineering	Professors	15	12,000	3,000	15,000	225,000
	Associate Professor	30	8,000	2,000	10,000	300,000
	Assistant Professors	40	6,000	1,500	7,500	300,000
	Teaching Assistants	40	2,000	500	2,500	100,000
	Professors	2	12,000	3,000	15,000	30,000
Business and Humanities	Associate Professor	6	8,000	2,000	10,000	60,000
	Assistant Professors	8	6,000	1,500	7,500	60,000
	Teaching Assistants	9	2,000	500	2,500	22,500
	Professors	4	12,000	3,000	15,000	60,000
Basic Sciences	Associate Professor	4	8,000	2,000	10,000	40,000
	Assistant Professors	8	6,000	1,500	7,500	60,000
	Teaching Assistants	9	2,000	500	2,500	22,500
	Total (LE)					1280,000



The following table shows the percentage of the academic staff to be hired during the first four years (after the preparation period until reaching full operation )

**Table 15-2 Percentage Of Academic Staff To Be Hired During The First Four Years (After The Preparation Period).**

	% Staff to be appointed in 3rd year	% Staff to be appointed in 4th year	% Staff to be appointed in 5th year	% Staff to be appointed in 6th year
Engineering	25%	25%	25%	25%
Business and Humanities	25%	25%	25%	25%
Basic Sciences	50%	25%	25%	

The following table shows the academic staff projections for the first four years (after the preparation year).

**Table 15-3 Academic Staff Projections (Including Teaching Assistants)**

	Total No. of Academic Staff in the 3rd Year	Total No. of Academic Staff in the 4th Year	Total No. of Academic Staff in the 5th Year	Total No. of Academic Staff in the 6th Year
Engineering	30	60	90	125
Business and Humanities	6	12	18	25
Basic Sciences	12	18	25	25
TOTAL	48	90	133	175

The following table shows the development of the academic staff salaries and benefits over the first four years (after the preparation year):

**Table 15-4 The Development Of The Academic Staff Projected Monthly Salaries And Benefits.**

	3rd year	4th year	5th year	6th year
Engineering	231,250	462,500	693,750	925,000
Business and Humanities	43,125	86,250	129,375	172,500
Basic Sciences	91,250	136,875	182,500	182,500
TOTAL(LE)	365,625	685,625	1005,625	1,280,000

**15-1-2 Non-Egyptian academic staff compensation**

The following table shows the projections of the Egyptian and non-Egyptian academic staff. The non-Egyptian academic staff is about 10% of the total academic staff.

**15-1-3 Egyptian / Non-Egyptian Academic staff projections.**

**Table 15-5 Egyptian / Non-Egyptian Academic Staff Projections.**

	Total No. of Academic Staff in the 3rd Year		Total No. of Academic Staff in the 4th Year		Total No. of Academic Staff in the 5th Year		Total No. of Academic Staff in the 6th Year	
	Egyptian	Non Egyptians	Egyptian	Non Egyptians	Egyptian	Non Egyptians	Egyptian	Non Egyptians
Engineering	30	4	60	8	90	12	125	14
Business and Humanities	6	-	12	-	18	-	25	-

	Total No. of Academic Staff in the 3rd Year		Total No. of Academic Staff in the 4th Year		Total No. of Academic Staff in the 5th Year		Total No. of Academic Staff in the 6th Year	
	Egyptian	Non Egyptians	Egyptian	Non Egyptians	Egyptian	Non Egyptians	Egyptian	Non Egyptians
Basic Sciences	12	-	18	2	25	4	25	4
TOTAL Egyptians	48		40		133		175	
Total Non-Egyptian		4		10		16		18

In addition to the salary paid for Egyptian professors, Non-Egyptian professors Compensation (covering one air ticket per year for three members of the family, apartment rent, transportation, gratitude ... etc. LE25, 000 per month = LE300.000 annually)

#### 15-1-4 Non-Academic Staff:

The table below shows the estimate numbers and salaries of non academic staff at full operation.

**Table 15-6 Number And Projected Monthly Salaries Of The Non-Academic Staff At Full Operation Of The University**

	Item	No.	Salary (LE/month)		Salary + Benefits and allowances (LE/month)	Total
Engineering	Administrative and Secretarial	30	1,000	250	1,250	37,500
	Lab Technicians	60	2,000	500	2,500	150,000
	Workshop technicians	20	2,000	500	2,500	50,000
	Maintenance staff	30	2,000	500	2,500	75,000
	Helpers	30	750	188	938	28,125
Business and Humanities	Administrative and Secretarial	9	1,000	250	1,250	11,250
	Maintenance staff	5	2,000	500	2,500	12,500

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Item	No.	Salary (LE/month)		Salary + Benefits and allowances (LE/month)	Total
Helpers	5	750	188	938	4,690
Total (LE)					369,065

The table below shows the percentage of the non- academic staff to be hired in the first four years (after the preparation year) (until reaching full operation)

**Table 15-7 Percentage Of Non- Academic Staff To Be Hired During The First Four Years (After The Preparation Period).**

	% Staff to be hired in 3rd year	% Staff to be hired in 4th year	% Staff to be hired in 5th year	% Staff to be hired in 6th year
Percentage of full number	50%	25%	25%	
No. of Employees	95	143	189	189
Monthly salaries LE	184,533	276,799	369,065	369,065

**15-1-5 University administration:**

The table below shows the university administration staff salaries and benefits.

**Table 15-8 The University Administration Staff Salaries And Benefits**

Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
President	1	30,000	7,500	37,500	37,500
Associate President	3	25,000	6,250	31,250	93,750

Rank	No.	Salary (LE/month)	Benefits and allowances (LE/month)	Salary + Benefits and allowances (LE/month)	Total
Dean	2	20,000	5,000	25,000	50,000
Secretary General	1	15,000	3,750	18,750	18,750
Secretarial and administration	10	1,500	375	1875	18750
Accounting and Personnel	5	2,500	625	3,125	15,625
Total					234,375

The table below shows the development of the total salaries of the academic, non-academic and university administration staff over the first four years (after the preparation year).

**Table 15-9 The Development Of The Academic, Non-Academic And Administrative Staff Projected Monthly Salaries Over The First Four Years (After The Preparation Period).**

	Monthly Salaries 1st year	Monthly Salaries 2nd year	Monthly Salaries 3rd year	Monthly Salaries 4th year
Academic	365,625	685,625	1,005,625	1,280,000
Non Academic	184,533	276,799	369,065	369,065
Administration	234,375	234,375	234,375	234,375
Total salaries	784,533	1,196,799	1,609,065	1,883,440

**15-2- Consumables (lab material, spare parts...) and stationary**

The table below shows estimated annual expenses of the consumables and stationary for the first four years (after the preparation period) (estimated in proportion to the number of students enrolled in each college and the needs in the two main colleges).

**Table 15-10 Estimated annual expenses of the consumable and stationary for the first four years (after the preparation period)**

Item	1st year	2nd year	3rd year	4th year
Engineering undergraduate	120,000	280,000	480,000	680,000
Engineering Master	30,000	66,000	78,000	84,000
Engineering Ph.D.			30,000	30,000
Business undergraduate	30,000	72,000	124,000	180,000
Business Master	12,000	24,000	30,000	30,000
Total	192,000	442,000	742,000	1,004,000

**15-3- Building maintenance**

The table below shows a rough estimate for the building maintenance expenses (@ 2% annually) over the first four years (after the preparation year).

**Table 15 -11 Estimated Building Maintenance Cost Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Buildings maintenance	4,000,000	4,000,000	4,000,000	4,000,000

**15-4- Lab equipment maintenance**

The table shows a rough estimate for the labs maintenance (@10% annually) over the first four years (after the preparation year).

**Table 15-12 Estimated Lab Maintenance Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Lab maintenance	3,000,000	3,000,000	3,000,000	3,000,000

**15-5- Building depreciation annual payment**

The table below shows a rough estimate for the building depreciation annual payment (@ 1% annually) over the first four years (after the preparation year).

**Table 15-12 Estimated Building Depreciation Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Buildings Depreciation	3,000,000	3,000,000	3,000,000	3,000,000

**15-6- Lab equipment depreciation annual payment**

The table below shows a rough estimate for the labs depreciation (@5% annually) annual payment over the first four years (after the preparation year).

**Table 15-13 Estimated Lab Depreciation Annual Payment Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Lab Depreciation	1,500,000	1,500,000	1,500,000	1,500,000

**15-7- Landscape maintenance**

The table below shows a rough estimate for the vast landscape (about 500,000 mt2) maintenance expenses over the first four years (after the preparation year).

**Table 15-14 Estimated Landscape Maintenance Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Lab maintenance	500,000	500,000	500,000	500,000

**15-8- Utilities and communication.**

The table below shows estimated annual expenses for the utilities and communication over the first four years (after the preparation year).

**Table 15-15 Estimated Annual Expenses Of The Utilities And Communication For The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Lab maintenance	2,000,000	3,000,000	4,000,000	5,000,000

**15-9- Student services**

The table below shows estimated annual expenses for the student services over the first four years (after the preparation year).

**Table 15-16 Estimated Annual Expenses For The Student Services Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Student services	500,000	1,000,000	2,000,000	4,000,000



**15-10- Staff and employees services**

The table below shows estimated annual expenses for the staff services and employees over the first four years (after the preparation year).

**Table 15-17 Estimated Annual Expenses For The Staff And Employees Services Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Student services	100,000	200,000	300,000	400,000

**15-11- Miscellaneous and contingencies**

10% of total expenses and expenses.

**15-12- Summary of operating expenses**

The table below shows a summary of the operating (running) expenses over the first four years (after the preparation period).

**Table 15- 18 Summary Of Operating (Running) Expenses For The First Four Years (After The Preparation Period)**

No	Item	1st year	2nd year	3rd year	4th year
1	Salaries (annual)	9,414,396	14,361,588	19,308,780	22,601,280
2	Non-Egyptian Prof. compensations*	1,200,000	3,000,000	4,800,000	5,400,000
3	Consumables and stationary	252,000	510,000	984,000	1,350,000
4	Building maintenance	4,000,000	4,000,000	4,000,000	4,000,000
5	Lab equipment maintenance	3,000,000	3,000,000	3,000,000	3,000,000
6	Buildings depreciation	3,000,000	3,000,000	3,000,000	3,000,000

No	Item	1st year	2nd year	3rd year	4th year
	annual payment				
7	Lab equipment depreciation annual payment	1,500,000	1,500,000	1,500,000	1,500,000
8	Landscape maintenance	500,000	500,000	500,000	500,000
9	Utilities and communication	2,000,000	3,000,000	4,000,000	5,000,000
10	Student services	500,000	1,000,000	2,000,000	4,000,000
11	Staff and employees services	100,000	200,000	300,000	400,000
12	Miscellaneous and contingencies	2,579,450	3,442,688	4,347,525	5,056,000
<b>Total</b>		<b>28,045,846</b>	<b>34,071,588</b>	<b>47,740,285</b>	<b>55,807,280</b>

**15-13- Additional Investment Expenses:**

Pre-operating expenses (consultations, curricula building, experts, travel ...), to be paid upfront.

Roughly it can be up LE5, 000,000.0. The pre investment expenses will be spent prior to the first year. The following list shows the break down of the pre-operating expenses.

**Table 15-19 The Break Down Of The Pre-Operating Expenses**

Item	Budget
Curricula preparation	500,000
Travel expenses	500,000
Advertisement and publicity	500,000
Staff soliciting (academic)	1,000,000
Staff soliciting (non academic)	100,000
Preparatory year salaries and compensations	2,000,000
Contingencies	400,000
<b>Total</b>	<b>5,000,000</b>

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**15-13-1 Libraries.**

The table below shows estimated investments and expenses in the libraries over the first four years (after the preparation period).

**Table 15-20 Estimated Annual Investments And Expenses In The Libraries Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Libraries	1,000,000	2,000,000	2,000,000	2,000,000

**15-13-2 Educational IT network (soft and hardware)**

The table below shows estimated annual investments and expenses in the Educational IT network over the first four years (after the preparation period).

**Table 15-21 Estimated Annual Investments And Expenses In The Educational IT Network Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Educational IT network	3,000,000	1,000,000	1,000,000	1,000,000

**15-13-3 Management Information system IT network (soft and hardware)**

The table below shows estimated annual investments and expenses in Management Information system IT network over the first four years (after the preparation year).

**Table 15-22 Estimated Annual Investments And Expenses In The Educational IT Network Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Management Information Systems IT network	3,000,000	1,000,000	1,000,000	1,000,000

**15-13-4 Transportation vehicles**

The table below shows estimated annual investments in transportation vehicles over the first four years (after the preparation year).

**Table 15- 23 Estimated Annual Investments And Expenses In Transportation Vehicles Over The First Four Years (After The Preparation Period).**

Item	1st year	2nd year	3rd year	4th year
Transportation vehicles	1,000,000	500,000	500,000	500,000

**15-13-5 Summary of the additional investment expenses**

**Preparatory period expenses.**

Item	Preparation period
Pre-operating expenses	5,000,000

The table below shows a summary of the investment expenses over the first four years (after the preparation year).

**Table 15 – 24 Table Summary Of Investment Expenses Over The First Four Years (After The Preparation Period)**

Item	1st year	2nd year	3rd year	4th year
Libraries	1,000,000	2,000,000	2,000,000	2,000,000
Educational IT network	3,000,000	1,000,000	1,000,000	1,000,000
Management Information Systems IT network	3,000,000	1,000,000	1,000,000	1,000,000
Transportation vehicles	1,000,000	500,000	500,000	500,000
Total	8,000,000	4,500,000	4,500,000	4,500,000

**16- SUMMARY OF THE REQUIRED BUDGET OVER THE FIRST FIVE  
YEARS (BUILDINGS AND INSTALLATIONS ARE EXCLUDED)**

**Table 16-1 Summary Of The Required Budget Over The First Six Years  
(Including The Preparation Period) – Buildings An Installations Are Excluded**

Item	Preparation period	1st year	2nd year	3rd year	4th year
Running expenses	0	28,045,846	34,071,588	47,740,285	55,807,280
Additional Investments	5,000,000	8,000,000	4,500,000	4,500,000	4,500,000
Total	5,000,000	36,045,846	38,571,588	52,240,285	60,307,280

**17- SUMMARY OF THE REQUIRED BUDGET OVER THE FIRST 10 YEARS :**

The required budget during the two years construction period, preparatory year and nine years thereafter is shown in the table below.

**Table 17- 1 The Budget Required Over 10 Years (Not Including Investments In Building, Installations ...Etc.)**

Item	Prep. period	3	4	5	6	7	8	9	10
Running (L.E.)		28,045,846	34,071,588	47,740,285	55,807,280	55,807,280	55,807,280	55,807,280	55,807,280
Buildings, land, labs, (Table 16)	569,735,000								
Preparatory year (LE)	5,000,000								
additional investment expenses (table 49)		8,000,000	4,500,000	4,500,000	4,500,000				
<b>Total (LE)</b>	<b>574,735,000</b>	<b>36,045,846</b>	<b>38,571,588</b>	<b>52,240,285</b>	<b>60,307,280</b>	<b>55,807,280</b>	<b>55,807,280</b>	<b>55,807,280</b>	<b>55,807,280</b>

18- CASH FLOW:

18-1- Cash out.

18-1-1 Operating and running expenses over 10 years (not including investments)

Item	Prep.	3	4	5	6	7	8	9	10
Running (L.E.)		28,045,846	34,071,588	47,740,285	55,807,280	55,807,280	55,807,280	55,807,280	55,807,280

18-1-2 Total operating, running expenses, and investments over 10 years

Item	Prep.	3	4	5	6	7	8	9	10
Running (L.E.)		28,045,846	34,071,588	47,740,285	55,807,280	55,807,280	55,807,280	55,807,280	55,807,280
Investment (L.E.)	574,735,000	8,000,000	4,500,000	4,500,000	4,500,000				
Total	574,735,000	36,045,846	38,571,588	52,240,285	60,307,280	55,807,280	55,807,280	55,807,280	55,807,280

Total fixed investments = LE 596,235,000

Working capital = LE 55,000,000

Total Investment = LE 651,235,000

**18-2- Cash-in.**

**18-2-1 Sources of cash:**

- 1- Undergraduate tuitions.
- 2- Postgraduate tuitions.
- 3- Research and consultations.
- 4- Continuous education and training.

**1- Tuitions:**

The table below shows the suggested tuitions for under and postgraduates in Engineering and Business.

**Table 18 -1 Suggested Tuitions For Under And Postgraduates In Engineering And Business**

Item	Annual tuitions L.E.
Engineering undergraduate	25,000
Business undergraduate	20,000
Diploma	5,000
Engineering - M.Eng.	15,000
Engineering postgraduate	25,000
Business postgraduate	20,000

**2- Research and consultations**

The contribution of research and/or consultations is based on the reasonable assumption:

25% of the Egyptian staff and 50% of the Non-Egyptian staff will conduct one research and/or consultation annually. Each research and/or consultation will



contribute on the average L.E. 300,000 in Engineering and Business and 100,000 in Basic science.

### **3- Continuous education and training**

The contribution of continuous education and training is based on the reasonable assumption:

20% of the in engineering and business will offer continuous education and training programs that contribute L.E.100, 000 annually

The table below shows the expected cash-in from tuitions, research, consultations, continuous education, and training activities.

**Table 18 -2 Cash-In From Tuitions, Research, Consultations, Continuous Education, And Training Activities**

Item	Prep.	3	4	5	6	7	8	9	10
Eng. Undergrad. tuitions	600,000	5,000,000	6,250,000	20,000,000	31,250,000	40,000,000	48,750,000	56,250,000	62,500,000
Bus. Undergrad. tuitions	.	1,500,000	3,000,000	5,625,000	6,000,000	7,000,000	8,000,000	9,000,000	10,000,000
Engineering -Diploma	600,000	400,000	400,000	400,000	400,000	400,000	400,000	400,000	500,000
Engineering -M.Eng.	0	600,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,500,000
Business -Diploma	0	100,000	250,000	300,000	300,000	350,000	350,000	350,000	350,000
Eng. Postgrad. tuitions	0	1,500,000	2,250,000	2,875,000	3,250,000	3,625,000	5,875,000	8,125,000	10,000,000
Bus. postgrad. tuitions	0	200,000	400,000	600,000	800,000	1,200,000	1,200,000	1,400,000	1,600,000
Research/consult Eng	0	1,350,000	2,700,000	4,050,000	5,100,000	5,100,000	5,100,000	5,100,000	5,100,000
Research/consult Eng	0	1,050,000	2,100,000	3,150,000	4,200,000	4,200,000	4,200,000	4,200,000	4,200,000
Research/consult Eng	0	250,000	425,000	675,000	675,000	675,000	675,000	675,000	675,000
Cont. education / training engineering	0	280,000	560,000	840,000	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000
Total	600,000	12,230,000	19,535,000	39,715,000	54,255,000	64,830,000	76,830,000	87,780,000	97,505,000

**Table 18 - 3 Cash-In And Cash-Out (Operating And Running Expenses Only, Investments Are Not Included) Flow Over 10**

Years

Item	Prep.	3	4	5	6	7	8	9	10
Cash-out (operating and running expenses)	0	28,045,846	34,071,588	47,740,285	55,807,280	55,807,280	55,807,280	55,807,280	55,807,280
Cash-in (tuitions, research, training, etc.)	600,000	12,230,000	19,535,000	39,715,000	54,255,000	64,830,000	76,830,000	87,780,000	97,505,000
Cash-in - cash-out		-15,815,846	-14,536,588	-8,025,285	-1,552,280	9,022,720	21,022,720	31,972,720	41,697,720

**Positive cash flow is expected in the seventh year (fifth year of operation after the preparation period).**

Note : The income of continuing education during the preparation period , which is estimated as 600,000 L.E., is not included in the calculations.

**Table 18 – 4 Cumulative Cash-In And Cash-Out (Operating And Running Expenses Only, Investments Are Not Included)**

**Flow Over 10 Years**

Item	Prep.	3	4	5	6	7	8	9	10
Cash-out (operating and running expenses)	0	28,045,846	34,071,588	47,740,285	55,807,280	55,807,280	55,807,280	55,807,280	55,807,280
Cash-in (tuitions, research, training, etc.)	600,000	12,230,000	19,535,000	39,715,000	54,255,000	64,830,000	76,830,000	87,780,000	97,505,000
Cash-in minus cash-out		-15,815,846	-14,536,588	-8,025,285	-1,552,280	9,022,720	21,022,720	31,972,720	41,697,720
Cumulative cash out		28,045,846	62,117,434	109,857,710	165,664,990	221,472,270	277,279,550	333,086,830	388,894,110
Cumulative cash-in		12,230,000	31,765,000	71,480,000	125,735,000	190,565,000	267,395,000	355,175,000	452,680,000
Cumulative in minus out		-15,815,846	-30,352,434	-38,377,710	-39,929,990	-30,907,270	-9,884,550	22,088,170	63,785,890

The cumulative cash-in will exceed the cumulative cash-out in the ninth year (seventh year of operation after the preparation period)

**19- TOTAL INVESTMENTS**

The table below shows the total investments including, construction, preparatory period and additional investments.

**Table 19-1 Total fixed investments**

	Prep. period	3	4	5	6
Buildings, land, labs, (paragraph 2-6-2) investments (LE)	574,735,000				
Preparatory year (LE)	5,000,000				
		8,000,000	4,500,000	4,500,000	4,500,000
Total	579,735,000	8,000,000	4,500,000	4,500,000	4,500,000
Grand Total	601,235,000				

## Memorandum of Understanding

### **Background**

A joint agreement between the Egyptian and Japanese governments has led to the willingness of both parties to establish a Japanese University in Borg el Arab. This MoU is the result of a meeting held on the 24<sup>th</sup> of August 2006 between some stakeholders to substantiate the commitment of the local community to this project.

### **Meeting of 24 August 2006**

A fruitful meeting between some investors of Borg el Arab (BA) and representatives of the Ministry of Higher Education took place at 11:00 am on the 24<sup>th</sup> of August 2006 at the premises of UNITEL Company in BA to discuss the facets of the project and the progress achieved thus far, and to coordinate the establishment of the links between the local business community and the Ministry of Higher Education. Upon exchanging points of views, it was agreed that the business community of BA will mobilize its resources to support the creation of this institution through the submission of a memorandum of understanding summarizing the perspective of the business community and its pledge to support the nascent project.

### **Perspective of the Business Community of Borg el Arab**

#### ***Location***

It is our strong belief that Borg el Arab (BA) is in a unique position to become the home of the planned Japanese University of Borg el Arab, due to the fact that it is an emerging society in close proximity to Alexandria- the nation's second largest city and the home of 40% of Egyptian Industry. The location of the University in Borg el Arab is a good choice as it can offer an atmosphere of reclusiveness, and a focused academic life while still be in close proximity to a vibrant city.

In our vision, Borg el Arab will thrive due to the presence of the University as demonstrated throughout the history of Oxford, Cambridge, Princeton, Heidelberg and many more city universities.

The Value Chain of the University can assume a **Leverage Growth strategy** capitalizing on some of the resources already in place, and others that are planned. In fact, it could be a catalyst in accelerating their implementation.

In this scenario, the university will mobilize the resources available in both Alexandria and Borg el Arab, such as the large cluster of petroleum, spinning, weaving, textiles, pharmaceutical and engineering industries, in addition to a large agricultural community in the neighboring deserts and the many amenities available in the city of Alexandria that are not yet fully deployed in BA.

Furthermore, leveraging on the current and future resources in BA will effectively add to the attractiveness and competitiveness of this University, such as:

- **Mubarak City for Scientific Research:** An already established and operational unit, both the University and the Research Center can benefit from each other by forging a strategic alliance to share and complement each other's programs, resources, and knowledge.
- **Bibliotheca Alexandrina:** The bibliotheca and its rich collection of resources could be made available to the staff and students of the University, in addition to the local libraries of the campus.
- **Future Faculty of Medicine:** The large allocated plot of land destined to become a teaching hospital, could be seen as the base for a world class medical teaching institution with close ties to the Japanese University, which could also benefit from the presence of a strong pharmaceutical industry located within the greater circle of the Alexandria region.
- **City of Borg el Arab:** being still at an early stage of development, it is sparsely populated and is amenable to offer a quiet and stress-free, low pollution community with ample space and pleasant architecture for settling staff and students.
- **North Coast Leisure Resorts:** The close proximity of the north coast leisure resorts will be a bonus in improving the quality of life for the residents.

### ***Fields of Academic pursuit***

Based on the market signals and perception of the business community, and an examination of the multitude of other universities burgeoning in Egypt, we envisage a *long term vision* for a university that could be active in the following domains:

#### **School of Life Sciences**

- Faculty of Medicine with emphasis on an affiliated world class teaching hospital specialized in Liver diseases.
- Faculty of Modern Agriculture, with an emphasis on crop research, advanced irrigation, agro-engineering systems, food processing, packing and packaging.

#### **School of Engineering and Technology**

- Mechatronics Engineering
- Computer Sciences
- Mechanical Engineering / Production Engineering
- Textile Engineering
- Electronic Engineering
- Petroleum Engineering and Sciences

#### **School of Business and Humanities**

- Business School
- International Law School

*NB: This selection is seen as a global vision and long term plan that could be started through a series of phased implementations, according to a planned execution strategy.*

### ***Center of Excellence***

We see this university as a center of excellence, catering to the educational needs of students on a world class basis, and whose staff and faculty are guided by a few leaders in their respective fields.

The accreditations and certificates should be recognized all over the world.

The student pool should target Egyptian and foreign students from Arab and African countries. It would offer the Egyptian students an alternative to studying abroad, while offering guest students a lower cost alternative than traveling to the more traditional university campuses overseas.

The main attributes of this project should address the following issues:

- **Offshore Campus of World-class Universities :** In view of the current trends in globalization, it would be easier to jump-start this project by inviting several known schools to contribute to the establishment of their respective schools. We draw attention to the successful model applied in Education City in Doha- Qatar.
- **Selective Admittance:** Students are admitted based on their performance levels, potential skills, and abilities. The careful screening of students ensures that the University will be ranked favorably when the “retention” factor is considered.
- **Quality Faculty, Students, Staff, and Premises,**
- **Overseen by high caliber, motivated and influential board of Trustees**
- **International recognition of credentials**
- **Alternative to learning abroad, but with an active student exchange and sabbatical programs with other world class institutions.**

### ***Market Driven Approach***

It is imperative that this project be based on market-led reasoning which we see as an essential ingredient in the success of the university.

### **Research Based Teaching centered on Real World Problems**

- **Capitalize on BA Industries** and providing solutions and innovative products that could be commercialized through the BA industry.
- **Capitalize on Donor Agencies Programs** and the many grants and research projects available to solve community and national based issues.

### **Differentiated Strategic Position**

In view of the multitude of new universities established in Egypt, today, it is clear that they all have a similar nature and are still not differentiated. The planned university should have a strategic target of being differentiated and focused, drawing on the strengths and needs of the neighboring community, instead of following a generalized path.

- **Invite support of top scholars (Target Dr, Zoweil, Magdy Yaacoub, Famous Japanese Scholars, Nobel Laureates ...)**



- **Stakeholder Value**

The University should seek to maximize stakeholder value through a set of basic principles centered around:

- **Sound Financial Policy, and Transparency of Administration.**
- **Reasonable Fees and Tuition**
- **Earn the trust of Donors and Benefactors**
- **Affiliations with World-class institutions**
- **Advance the Borg el Arab Community**

### ***Learning Environment***

The following basic principles should be observed in order to achieve the required differentiation as per current world practices.

- **Focus on Multi-disciplinary- Teamwork Oriented-Project Based settings for learning (see MIT's Terrascope project, Stanford's multidisciplinary projects, and many others...)**
- **Research-based teaching:** reinforces the learning experience and gives a sense of purpose to the education process.
- **Encourage Creativity ( ex. participate in international student contests.)**
- **Encourage extra-curricular activities**
- **Wide Ranging E-learning / on-line courses**

### ***Campus***

In view of the current status of the city of BA, it is *imperative* to allocate a substantial part of the resources for this university towards the establishment of a quality campus that provides all the needed elements to support and sustain a thriving learning environment.

- **On-campus accommodation for students and faculty (Target over 60% on-campus accommodation).**
- **Good amenities and quality social life with the necessary infrastructure for recreation, sports, leisure, and transportation.**
- **World class architecture (International Competition)**
- **Extensive libraries / Cybrary**
- **Quality research facilities, classes and labs**
- **Fully wired campus through high speed digital links.**
- **Video conferencing and distance learning.**

**Pledge**

*The investors of the Borg el Arab area pledge to offer their full support to the establishment of a modern university following the above stated guidelines and principles, and are willing to play an active role in the establishment of the University and contribute in kind and in capital to successfully finance part of the foundation of the university in conjunction with other sources of financing and contribute time and effort to see the project bear fruit.*

**Conclusion**

The list of following individuals and institutions endorse the establishment of the Japanese University of Borg el Arab :

No	Name	Affiliation	Company	Signature

Witnessed by:

1	Prof. M. Hamdy Elwany	
2	Prof. Ahmed Abou Ismail	

## 2. F/S に対する日本側質問書

### Feasibility study の検討事項

1. 高等教育改革の中で EJUST 構想はどのように位置づけられているのか。
2. 「研究型大学 (research intensive university) (F/S, P. 21)」のコンセプトを具体的に説明していただきたい。教育活動と研究活動のバランスについてはどのように考えているのか。また、研究に重きを置くのであれば、研究所 (ムバラクシティなど) を充実させるのではなく、新たな大学として設立すべき理由は何か。
3. 「日本式の学術コンセプト及び職業倫理 (Japanese academic concepts and professional ethics) (F/S, P. 21)」について、具体的には何をイメージしているか。
4. EJUST における共同研究、インターンシップ、卒業生の就職等の面で、どのような産学連携を想定しているか。
5. EJUST の設立形態として「国際的な法人 (international entity) (F/S, P. 18)」とは何か。EJUST の初期投資、運営経費へのエジプト政府の財政的支援を明確にするために、EJUST は国立大学なのか私立大学なのかを承知したい。
6. 他の二国間の名前を冠した大学 (仏や独) 及び既存大学と比較して、EJUST の独自性は何か。
7. F/S で提案されている EJUST のコンセプトや学科構成等は、産業界のニーズと高等教育の現状についてのエジプト側の理解に基づいているものと思われるところ、エジプト側がどのようにこれらのニーズ・現状を分析しているのか。
8. EJUST の設立準備段階及び実施段階における予算及び人材の確保の見通し如何。他のステークホルダー (産業界など) からの支援も想定されているのか。
9. この構想の検討段階において、既存大学はどの程度関与しているのか。また、実施段階において、既存大学との連携等は想定されるか。
10. 本件 F/S 案の作成者如何。また、同内容は政府内、特に高等教育省内、及び関係大学との間での協議及び合意は了しているか。
11. エジプトの最近5年間の高校卒業生数、エジプトの大学進学率如何。
12. エジプトの大学の工学部、経済学部の学生の定員数 (国立大学全て及び主な私立大学)
13. エジプト側が想定している EJUST の学生のレベル (バカロレア試験で何点レベルか) 上記レベルの学生は現在どこの大学に入学しているか。
14. 他国のアラブ人留学生の学費をどの程度徴収するのか。エジプト政府から奨学金等が供与されるのか。