

## Third Pillar: Knowledge, Innovation and Scientific Research

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### Overview of Current Situation

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The concept of knowledge, innovation, and scientific research expands to include the production and transfer of knowledge in all forms within various education levels, mechanisms of nurturing youth, fostering talents, as well as encouraging innovation, scientific research, and academic cognitive contribution. The definition also expands to include different fields of application through which the effect of knowledge on "quality of human life" could be determined.

The knowledge and innovation environment consists of the following group of elements and components:

- **General environment:** Represents the role of the State in the creation of an environment that encourages innovation, including motivators and constraints, the economic system, policies, legislation, and principles of governance.
- **Infrastructure:** Play a fundamental role in supporting the cognitive and creative production by setting standards and laying regulatory foundations of innovation and scientific research, supporting business and innovation, protecting copyright, ensuring availability of information, financing and encouraging investment.
- **Education and scientific research:** Includes all research organizations and institutions, technical education and vocational training institutions, higher education and scientific research institutions, and research centers.
- **Industry:** Represents all industrial sectors including large, medium, and small scale companies' activities relevant to research and development.
- **Intermediaries:** Includes the institutions that link between industrial innovation, and research and development on the one hand, with academic and research institutions on the other hand.
- **Development needs:** Represents the required demand for innovation, knowledge, and scientific research to fulfill economic and social needs.

The information and communications technology sector in Egypt is one of the driving sectors that encourages innovation and knowledge. The annual growth rate of the number of companies operating in the fields of IT and communications has reached 13.5%.<sup>[1]</sup> This sector succeeded in achieving increased growth rates that required speeding up the development of the information technology infrastructure all over the country and increasing the number of graduates from engineering and information technology educational institutes. Also, the research society

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<sup>1</sup> Business Monitor International, 2010, Egypt Information Technology Report, Q4 2010