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## EVALUATION OF EGYPTIAN R&D LANDSCAPE

### Fraunhofer Institute for Production Systems and Design Technology IPK

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#### Key Data

Period: 2008 - 2011  
Client: Egyptian Ministry for Higher  
Education and Scientific Research  
Partners: Atos Origin, Pohl Consulting

[www.innovationsystems.fraunhofer.de/en](http://www.innovationsystems.fraunhofer.de/en)

### Initial Situation

As many other developing countries, Egypt recognizes the need to renovate its national innovation system in order to provide more and better research results – for the benefit of the national academic community as well as for society and businesses. Moreover, Egyptian research can rarely contribute to and benefit from international scientific debates.

In order to assure most efficient policy measures, the project partner – the Egyptian Ministry of Higher Education and Scientific Research (MHESR) – contracted Fraunhofer IPK to analyse the current performance of the Egyptian innovation system and provide profound information for evidence-based policy making.

Moreover, systematic research and innovation management was prototypically tested in research institutions during a second phase of the project, providing closer insights into the barriers and potential of research and innovation in Egyptian research institutions.

### Project Goal

The goal of the project »Evaluation of the Egyptian Science, Research and Technology Landscape for the Design of the Egyptian Innovation Policy and Strategy« was to assist the Ministry of Higher Education and Scientific Research in developing a solid foundation for the Egyptian national innovation policies and strategies.

Specific objectives included:

- Conducting an analysis of the science, research and technology (SRT) landscape.
- Recording the state of capabilities and risks of Egypt's SRT institutions in comparison to those of peer countries and highly-industrialised countries.
- Implementing three pilot case studies at universities and research institutions for professional research and innovation management.
- Know-how transfer and capacity building on assessment methodologies for industry innovation performance and research as well as innovation management throughout the project.



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## Project Approach

The overall project approach was organized in three major modules. Module 1 and 2 were assessing the status quo in the country: first the analysis of industrial demands and societal needs for SRT and second the performance assessment of the single actors in the present SRT system (e.g. universities, research labs, technology transfer.) Module 3 built on these results and looked into the future. It proposed design principles for different policy areas for improvement of the national innovation system (see figure 2). During the project, priority was given to the analysis and recording of the current status of the Egyptian innovation system:

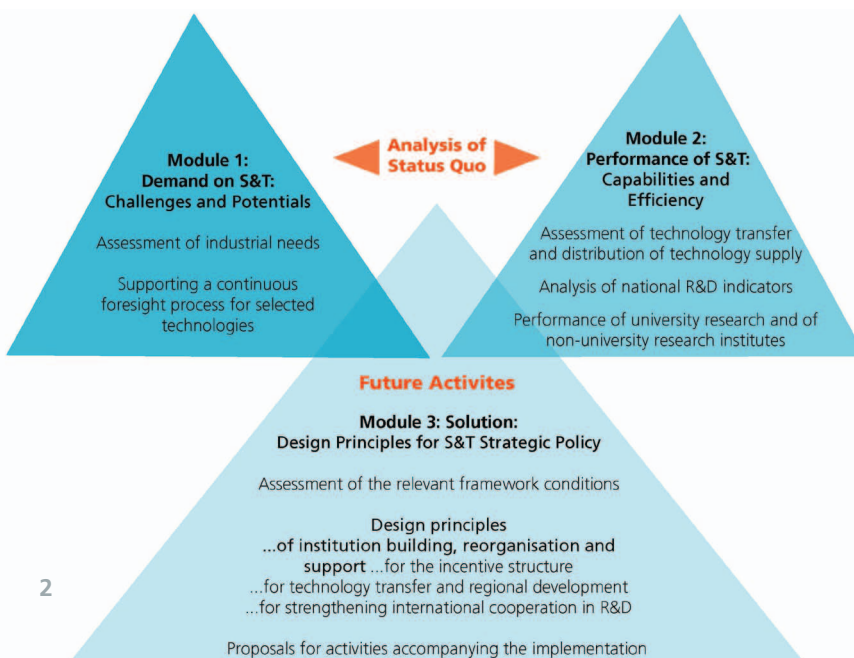
- **Assessment of industrial needs:** Large-scale quantitative survey across the country to evaluate industrial innovation performance and support needs and publication of research study.

- **National SRT performance:** Analysis of macroeconomic performance and innovation infrastructure. International competitiveness benchmarking with peer countries.
- **Performance of university research:** In depth evaluation of all Egyptian universities and prototypical implementation of research and innovation management practices.
- **Performance of applied research institutions:** In depth evaluation among selected Egyptian research institutions, prototypical implementation of research and innovation management practices.
- **Performance of technology transfer and regional distribution of technology supply:** Analysis of existing national and regional infrastructure to support technology access to companies (including funding programs and agencies).

## Results and Benefits

The project established a firm foundation for the improvement of the Egyptian research, development and innovation policy. The project could decisively reduce the lack of reliable information about the performance of innovation infrastructures and single actors in the country. Based on well researched information and broad collection of empirical data, a solid basis for evidence-based policies has been provided. A well-documented design of the assessment study including a standard set of indicators has been handed over to the project partners of the ministry. This will support them to monitor improvements and changes of the Egyptian Innovation System regularly for future identification of improvement actions. Continuous capacity building ensures sustainable application of the know-how created during the project jointly by the Egyptian-German team.

The performance survey identified the greatest potentials of Egypt's SRT institutions and identified future opportunities for development. Especially the prototypical implementations of research management approaches proved to be highly valuable for local research managers. The tests raised awareness for future actions and highlighted the need for organizational renewal.



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2 Project approach: analysis of research landscape in Egypt © Fraunhofer IPK