



































# The Egyptian Printing Technology Centre The Establishment Plan

Prepared by: LEVEL



March / 2006

## Study objectives

The overall objective of this study is to design and establish a Technology Centre that satisfies the development needs of the Egyptian printing industry. The specific objective is to develop an establishment plan for Egyptian PRTC and a business plan for its first year of operation.

## Beneficiaries

The direct beneficiaries of the PRTC are all industrialists relevant to the Printing industries and all other supportive industries such as inks, paper, etc. The indirect beneficiaries are producers (in various sectors such as chemicals, food, pharmaceuticals, etc.), exporters, traders and end consumers.

## The Overall Vision

The IMC, on one hand, has developed a new vision, shaped by its fundamental re-organization towards an active involvement of the Egyptian industrial sector and achieving deeper integration into the global economy. Through close coordination with the Ministry of Foreign Trade and Industry (MFTI), the IMC is contributing to the formulation of industrial policies in addition to being an executing agency for implementation.

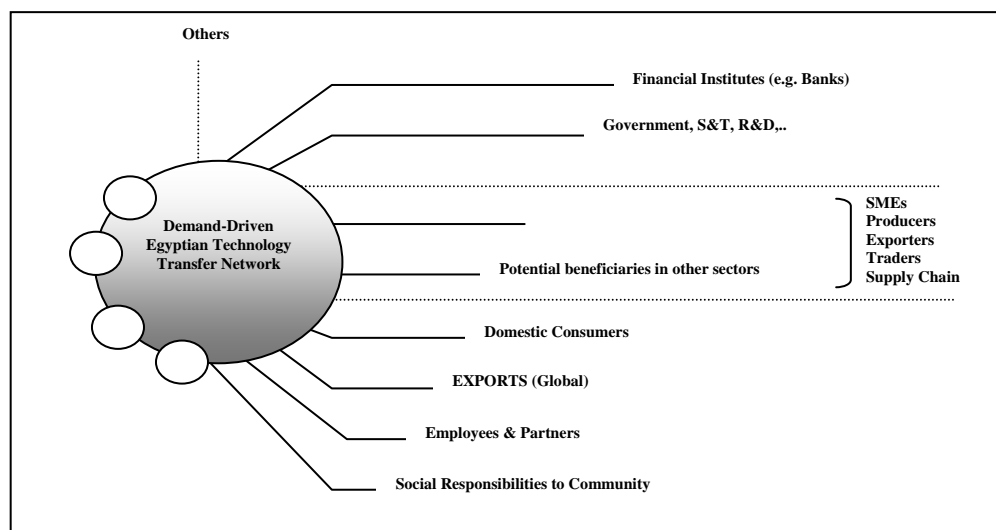
The MFTI, on the other hand, is actively adopting state-of-art approaches to technology and innovation. Among these emerges MFTI's unique initiative of an Egyptian Technology Network (ETN).

## Lessons learnt from global Best practices within Technology Networks (adapted to Egypt)

Upon examining the objectives, contexts, achievements of International Technology Transfer networks, manufacturing extension programs and similar activities, a few lessons emerge. These lessons were carefully considered/adapted during the course of this study to the Egyptian context. For example:

### Importance of increasing cost-effectiveness of TCs

- Through central Egyptian network training in marketing, HR, entrepreneurship, and other systems.
- Through offering Technology Transfer performance related rewards, and reward based financing
- Through regularly conducting surveys to assess quality of service, and development of a Common quality assurance and benchmarking system for TCs and ETN.



### Development of the Egyptian network into a regional hub

- Through encouraging linkages with other global networks
- Through working with various agencies to promote TT
- Through making reciprocal arrangements to deliver a global service
- Through twinning agreements

# The Egyptian Printing Technology Centre

## The Study Approach

The Consultant took careful note of the vital issues and problems facing the establishment of a new TC within a highly dynamic, global and cross-cutting sector, such as the Egyptian printing sector.

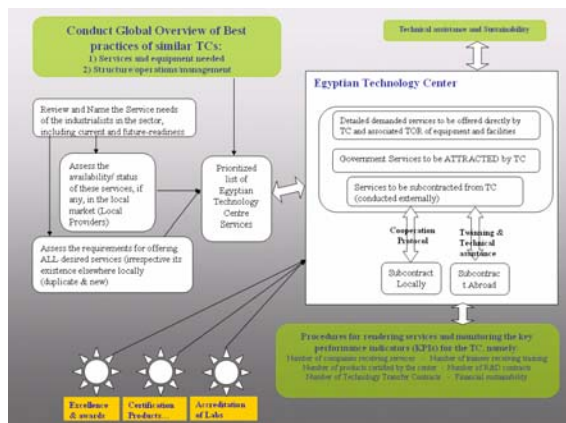
Existing relevant sectoral studies commissioned by the IMC and MFTI have been thoroughly read and all Printing needs have been extracted and summarized. Further input was sought through:

- ☐ Meetings with MFTI/IMC.
- ☐ Meetings with existing, and relevant Egyptian Technology Centres such as Food and Plastic TCs.
- ☐ Meetings with donor agencies such as USAID, DANIDA, CIDA, ...
- ☐ Assessment of existing facilities at over 20 key Egyptian institutions.
- ☐ Assessment of local Industry demands and needs with numerous industrialists and government agencies.

## The Study Methodology

### Requirements analysis and specification

In this phase the requirements of stakeholders (producers, exporters, traders and consumers) were reviewed, focusing in particular on their requirements in relation to services that address problems that are crippling their development in exports, capacity building, quality control, and acquisition and utilization of new technology.



The result of previous activities was the definition of broad services required of the new technology Centre:

### Broad Roles of Egyptian TC

Business Development Centre; providing business development support to individual companies in the sector. Also, a Training provider, responsible for in-house and central training services and certifying competences **(Developmental Services)**

Sector economic coordinator, promoting economic alliances leading to improved marketing, procurement, production and export operations. **(Integrational and Networking Services)**

Strategic technology coordinator; facilitating local content, disseminating best practice and excellence on standards, productivity and QC, and providing accredited labs and means of improving production technology for the sector **(Technical Services)**

A national information centre, offering centralized information on industry standards (national and translated-international), electronic archives, various informational services (enquiries, referrals, studies,...), relay services (innovation, technology transfer, ..), publicity material, clientel services and distribution. **(Informational and Promotional Services)**

**Best International Practices**

Despite that Best Practice component was not listed in the TORs, however it has been perceived that the establishment\business plans must integrate such proven Best Practices of international printing TCs.

This was perceived to grant the Egyptian PRTC a near-immediate implementation, particularly because today no existing institution in Egypt delivers consolidated services to the printing industry. This was the result of a review of local Egyptian institutions with testing facilities.

The international and local expertise of the study team that The Consultant has drawn together are very recent, successful and readily implementable into the Egyptian context. As to the local expertise, it allowed The Consultant direct access to practical and immediate problems of the Egyptian market.

**Role definition for PRTC**

When the sector requirements became clear, updated, and complete, the role of the PRTC was defined and services specified, and then the establishment plan and subsequent business plan were developed, emphasizing all the way through alternative solutions and implementation scenarios whenever possible.

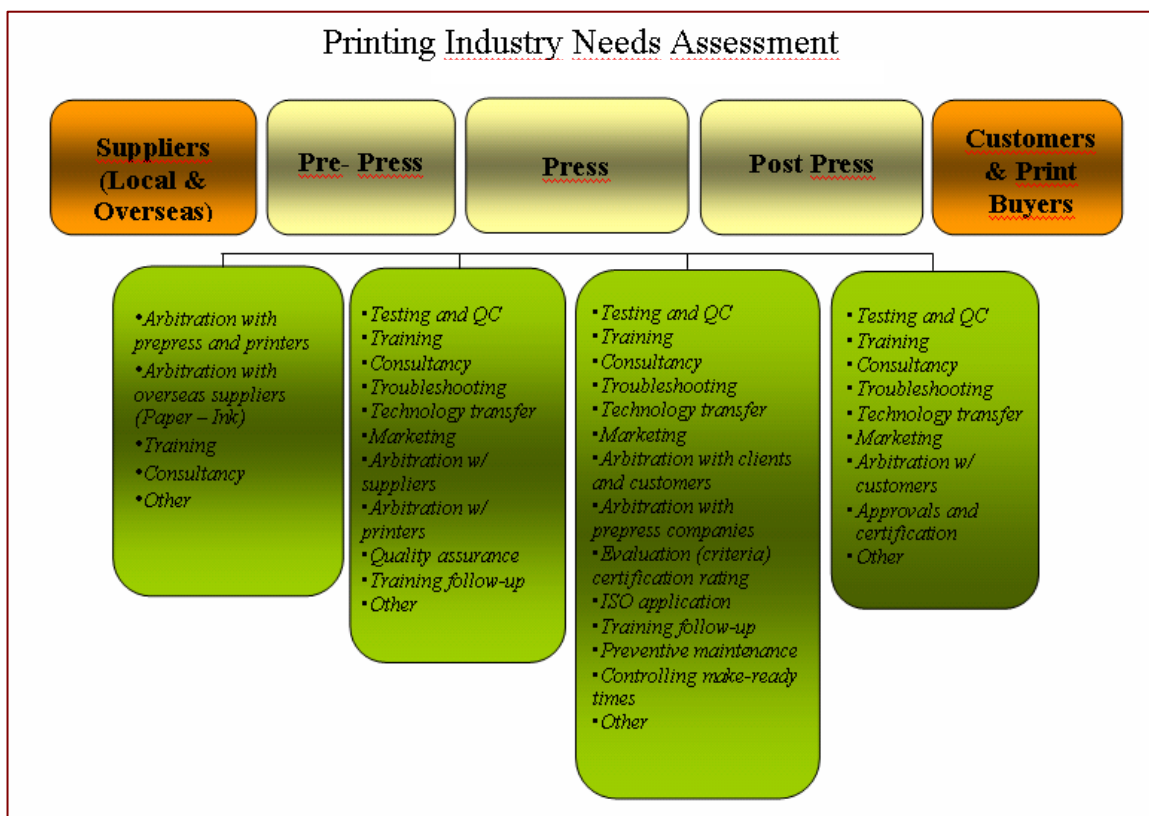
**Printing Companies Needs Assessment**

**There is unanimous welcome of a PRTC to support the sector in thrive to growth, competitiveness and higher exports.**

**Other Printing Issues Needing Addressing by Egyptian PRTC**

Areas which were strongly indicated as priority areas needing help are represented in figure below. As noted, special emphasis was given to:

- Characterization of materials, local and imported, especially imported for the purpose of customs clearance (do tests quickly and reliably)
- Combating processing and quality problems (trouble shooting)
- Arbitration (supplier/printer, printer/customer, all/Government)
- Companies' evaluation, rating and certification
- Quality Assurance
- Training follow-up
- Preventive maintenance
- Controlling make-ready time



## International Best Practice Centres

A Sample of just a few Best Practices assessments reviewed for this report:

**Aptec - HONG KONG**

**Fogra - Germany**

**PIA/GATF - USA**

**Ifra - Germany**

**PIRA - UK**

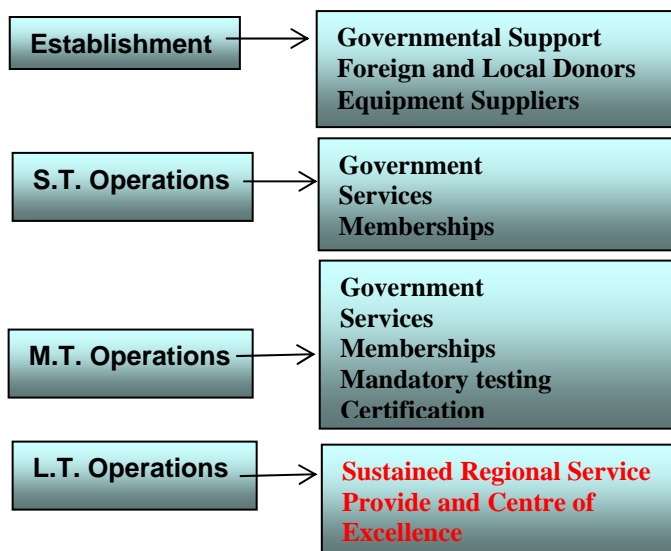
**Pra Coatings Technology Centre - UK**

**Ugra - Switzerland**

A collective synthesis of these world major printing technology centres is given in this study.

## The Challenges

The establishment of the Egyptian PRTC faces several challenges, such as lack of industry support, TC fatigue, weak linkages, bias and funding. Based on proven, complete and realistic experiences of world printing TCs, the addressing of the funding/income generation issues and various scenarios are given as follows:



Unanimous agreement initially emerged from both local and international assessments: 'The Egyptian PRTC must be independent, unbiased, and National', and, 'quick, effective, and free of historic bureaucracy in rendering its service'

The best practices exercise shows, in summary, that:

- The range of services provided by the printing TCs is a direct result of the industry demand.
- The primary services are consulting, testing, certification, training and conferences, process control products and publishing.
- Success depends on a very high technical calibre of staff.

### ORGANISATION

None are fully funded by their national government, Two receive part of their operational costs from their government, Others have received funds from EU for establishment (Income is split roughly into 3 equal sources: government grant, sale of services & membership fees).

Most have a large membership. Either significant participation from industrial associations, or largely at the level of the individual company, or a strong individual + institutional membership.

### GOVERNANCE

Most have some form of independent board normally with strong industry participation, typically a directly employed CEO and a number of officers running the organization.

Collaborations: Printing TCs are invariably closely associated with trade associations in their country of location.

### SERVICES OFFERED

1. General Services:
  - Research
  - Consulting
  - Testing
  - Expert assessment
  - Certification
2. Training
3. Events
4. Others (products, Publishing)

### EQUIPMENT

Most have a wide range of materials testing equipment, and in some cases are the best equipped laboratories for printing in their countries.

### STAFF

TC staff are generally very highly experienced and qualified. Senior staff are very well respected in the industry in their country and internationally.

## PRTC: The establishment



Considering previous analysis, the definition of specific roles and services required of the new Egyptian printing technology Centre (PRTC) is formulated as follows:

### The Roles and Overall Services of PRTC

The roles and services of the printing technology centre will eventually span activities such as Laboratory Testing, Certification, Arbitration, Upgrading, Quality Assessment and ISO Certification, Safety, Information System, Printing Design, Sector Promotion, Training, Technical Assistance and Consultancy, Troubleshooting, R&D, Technology Transfer, Export Promotion, Information & Marketing and Many Others.

The PRTC does not limit itself only to services that are not currently offered; it is equipped to provide whatever the industry demands today and in the foreseen future, whether or not these demands are offered by other institutions- in order to establish the pivotal importance it aspires.

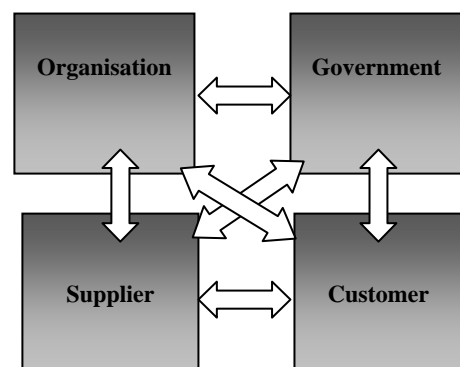
This study has addressed all prerequisite issues related to the technology centre's own facilities, such as Accreditation Issues of the Laboratories, Industry Standards for Compliance Testing, Fully Detailed Equipment and Technical Specifications, Accessories, Spares, Consumables, Operating Costs, Operating Procedures, Budgets, Awareness Activities, and more.

This study takes into consideration chosen priorities; however alternative services, alternative scenarios and alternative phases of implementation are suggested.

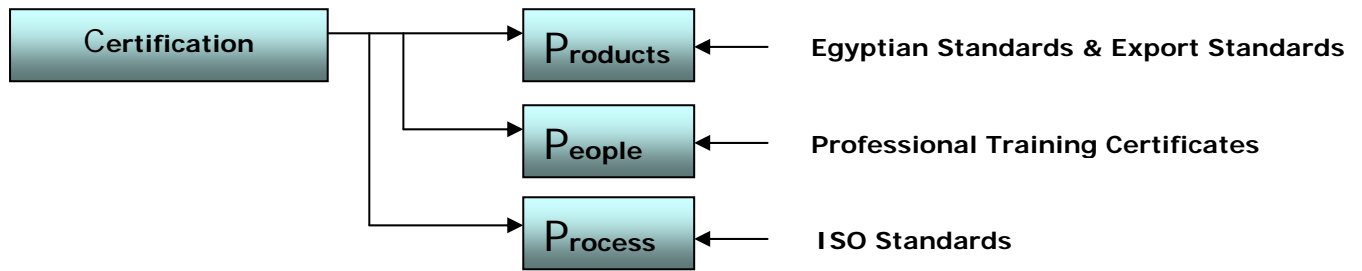
### Technical Services of PRTC

- Laboratory analysis and testing
- Certification (staff, customers, products)
- Quality assessment and ISO certification
- Technical assistance and consultancy
- R&D
- Technical Training
- Upgrading programs
- Technology Transfer programs
- Other

### The Arbitration



## Certification Services



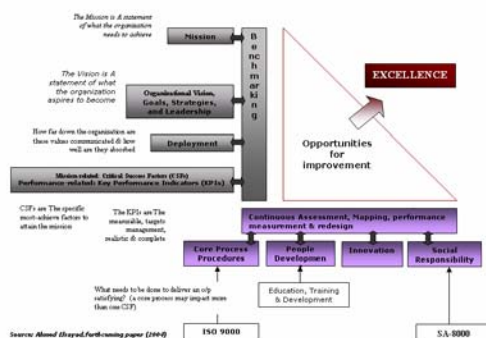
## The Structure of this Study

- The Egyptian Printing Technology Centre may also boost the industry's corporates social responsibilities, through providing an array of codes, standards, guidelines, frameworks to interested companies, and account for social responsibility in various awards and rating practices.
- A unique industry-specific rating process may be managed by the Egyptian Printing Technology Centre.
- Achieving excellence within the industry will be a main focus for the Egyptian PRTC's activities. Examples of strategies used in this direction include offering developmental tools and models for adoption, assisting companies to improve, managing an in-house rating system to introduce excelling companies to new customers and finally offering a wide array of awards.

The report begins by presenting a general overview, followed by a global Review of International Best Practices in Printing TCs and an assessment of Local Demand and Needs of the Egyptian Printing Sector.

Then, the Establishment Plan of the Egyptian Printing Technology Centre is discussed in detail, covering the identity and mission of the centre, a detailing of the roles and Services of the Egyptian PRTC and a description of the supporting functional organization, staff operations and project management.

Addition discussions and recommendations are presented regarding the Facility Layouts, Service Delivery Procedures and Requirements, Income Generation Services, the Detailed Mandate and Code of Conduct and Practice, Website Navigator Structure, Internal Quality Control Mechanisms, The Approach to Industry Excellence/Rating and finally the recommendations regarding Linkages with BRCs and other TCs.



**Vol. II of this study 'The business plan of the first year of operation' of the Egyptian Printing Technology Centre** will address issues such as First Year Objectives, Marketing business plan (Awareness Activities), financial plan (Organization Assessment, Services Assessment, Human Resource Assessment and Overall Economic Assessment), TOR for equipment acquisition and Implementation action plan.

