



SECC in Three Years 2001-2004

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SECC Establishment

- A program for Software Engineering Enhancement started in Dec 2000
- Ideas from the outcome of Motorola Workshop held in Egypt in 1998
- The creation of SECC has been approved by the Minister in February 2001
- The SECC Business Plan v2.1 was released in May 2001
- SEI released a letter of intent to cooperate with SECC in June 2001
- SECC was inaugurated in June 2001



SECC Mission

- Promote and support the development of software industry in Egypt by improving the software engineering practices to higher maturity level, to achieve strong presence in the international market.



SECC Goals

1. Adopt standards for software development in Egypt.
2. Enhance the capability and maturity level of software companies to comply with the international standards.
3. Raise the awareness of the existing software engineering procedures and promote their use.
4. Provide change management that drives the compliance with software engineering standards and procedures.
5. Support software technology transfer.
6. Encourage the software export and offshore development.



SECC Strategy

- **Cooperation with the industry**
 - ◆ **23 Founders: 10 Multinational – 13 Egyptians**
- **International Cooperation**
 - ◆ **Motorola**
 - ◆ **Software Engineering Institute SE**
 - ◆ **European Software Institute ESI**
- **Funding**
 - ◆ **MCIT**
 - ◆ **Contribution of the founders**
 - ◆ **USAID/ ICT program**
 - ◆ **UNDP**
 - ◆ **SECC services revenue**



Strategic Plan

- An international consultant developed SECC strategic plan based on the initial SECC business plan
- 8 Foundation & Exploratory initiatives are identified to support goals of SECC
- 14 projects to implement these initiatives have been proposed



Plan Initiatives

1. Develop a program for software quality measurement
2. Define a set of SDLCM for the Egyptian industry
3. Define software development best and maturity models applicable to the Egyptian market
4. Enable the creation of Egyptian extended enterprises
5. Enable the management of change in the Egyptian firms
6. Developing standards, conformance tests to ensure the quality of software in support of E-Commerce
7. Investigate the use of technology in training and education (anytime & anywhere)
8. Develop techniques and tools to specify and develop the software tests



Standard Selection

- SW-CMM[®] is selected as the base standard
- SECC decided to focus on Level-2 & Level-3 from the 5 level standard
- IEEE standards for Software Engineering are extensively used to develop the practices & templates
- SA-CMM[®] is used to develop rigorous practice for Software acquisition in Egypt



CMM[®] Promotion

- More than 80 Egyptian companies participated in the SECC awareness program and workshops
- 10 Egyptian Companies are currently using CMM[®] in their development life cycle
- A pool of CMM[®] Egyptian experts started to be formed



SPI for SMEs

- SW process Implementation Guide for SME's
- 7 Key Process Areas (KPAs) of Level-2 & Level-3 are identified to be tailored for SMEs
- Selected KPAs focused on:
 - Requirements Management
 - Software Project Planning
 - Software Project Tracking and Oversight
 - Software Quality Assurance
 - Software Configuration Management
 - Software Product Engineering
 - Peer Reviews



SME-SPI Methodology

- Workshop is held in June 2003 in cooperation with Motorola to discuss the idea with experts from industry
- Working group is formed from 6 experts to tailor each KPA and to develop a toolkit based on IEEE standard of Software Engineering
- First draft of the report version 1.0 released, under revision by International & Egyptian experts



Training Activities

- SECC realizes the vital role of human resources in the software industry
- SECC in three years delivered training to 1646 software professionals from more than 100 companies
- Training is delivered by SEI, SECC and technology providers (local & internationals)



Training Tracks

1. **CMU-SEI Track** (90 attendees)
 - Introduction to CMM®
 - Consultation skills workshop
 - Mastering Software Process improvement
2. **SECC CMM® Track** (558 attendees)
 - Level 2 Training
 - Level 3 Training
3. **Software Development Methodologies Track** (134 attendees)
4. **Systems Management Track** (161 attendees)
5. **Software Quality Engineering Track** (339 attendees)



Level-2 Training

Participants : 528

Course Name	No. of Attendees
CMM® level (2) Key Process Areas (I)	59
CMM® level (2) Key Process Areas (II)	50
CMM® Operational Framework	99
Software Requirement Management	68
Software Project Planning & Tracking	70
Subcontract Management	39
Software Quality Assurance	83
Software Configuration Management	60



SEI Courses

- Introduction to SEI SW-CMM[®]
 - ◆ A mandatory course for CMM[®] assessors
 - ◆ Offered only by SEI or its licensors
 - ◆ Qualified 55 software Egyptian experts from 29 companies

- Consultation Skills Workshop
 - ◆ Attended by 15 software experts from 14 companies
 - ◆ Focused on developing the consultation skills of software practitioners

- Mastering Process Improvement
 - ◆ Focused on providing software engineers with tools and procedure to enhance software process
 - ◆ Attended by 20 software experts from 14 companies



Quality Track

- Designed to provide participants with the basic knowledge needed in software quality engineering
 - Introduction to Software Quality Engineering
 - Software Quality Management
 - Software Processes
 - Software Project Management
 - Software Metrics and Measurements
 - Software Inspection and Testing
 - Software Audits



Consultation Activities

- SECC provides ongoing consultation to software firms for software process improvement
- SECC supports the companies to bridge the gap between their current status and the certified CMM[®] companies
- SECC offers templates and procedure to help them in CMM[®] certification efforts



Consultation Workshops

- SECC conducted a number of workshops to assist the companies in their effort to obtain CMM® accreditation:
 1. Workshop on CMM® Assessment Activities
 2. Orientation Seminar for Top Management
 3. Pre-assessment Workshop
 4. Implementing SPI Program
 5. On-site Coordination Workshop
 6. Consulting Skills workshop
 7. Software Estimation Workshop

- Workshops were attended by 300 software experts



Mentoring Project

- Four companies are qualified to get on-site consultation from international experts to help them obtaining CMM[®] Level-2 & Level-3 accreditation
- International consultants will assist the companies to set-up their software process according CMM[®] standards
- Mentoring activities are expected to start in June 2004



Assessment Activities

- Contacting 25 companies to investigate their readiness for assessment
- Completed gap analysis for 7 software companies in Egypt
- EDS, one of SECC founders, is formally assessed as CMM[®] Level-2 Company



Gap Analysis

- Eight SW-CMM[®] mini-assessments
- Performed by joint team formed between the company staff, International lead assessor, international consultant and SECC experts
- Reports with finding are issued by the team and delivered to the company



EGYPT-SPIN



■ Mission

- ◆ Provide a leadership forum for the free and open exchange of software process improvement experiences and practical ideas.
- ◆ Provide assistance for the Egyptian Software Companies to embark upon process improvement.

■ Goals

- ◆ To provide an active program of networking and speakers to exchange experience and enhance the software process improvement skills of Egyptian software companies.

- Egypt-SPIN is an active member in the International Software Process Improvement Networks (SPINs)



EGYPT-SPIN



- A series of events was scheduled to transfer the "know-how" and experience of software companies which are actively practicing software process improvements.
 - ◆ **DMS, January 5, 2003**
 - ◆ **Fujitsu-Egypt, April 7, 2003**
 - ◆ **EDS-Egypt, July 7, 2003**
 - ◆ **ITSoft, March 1, 2004**
- Newsletter is published quarterly since launching Egypt-SPIN in December 2002, covering different tutorials and news of the relevant topics written by software professionals in the community



Future Plans

- **CMMI[®] Transition Plan**
 - ◆ Moving forward while keeping SW-CMM[®] investment
- **Establishment of Testing unit**
 - ◆ Product Certification
 - ◆ Testing Institute
- **Establishment of Embedded Software Center**
 - ◆ In-cooperation with Korea
 - ◆ Serving telecommunication & consumer industries