

SECC Success Records in Helping Egyptian and Regional Companies Succeed



Arab Republic of Egypt
**Ministry of Communications
and Information Technology**



Software Engineering Competence Center



Process Improvement Models Adopted by SECC to Support SW & IT Organizations

**SPIG Product Suite
Handbook V1.2**
Software Process Improvement Guide

COBIT[®]
AN ISACA[®] FRAMEWORK

agile

Lean
Six
Sigma

CMMI

ITIL[®]

TOGAF[®]

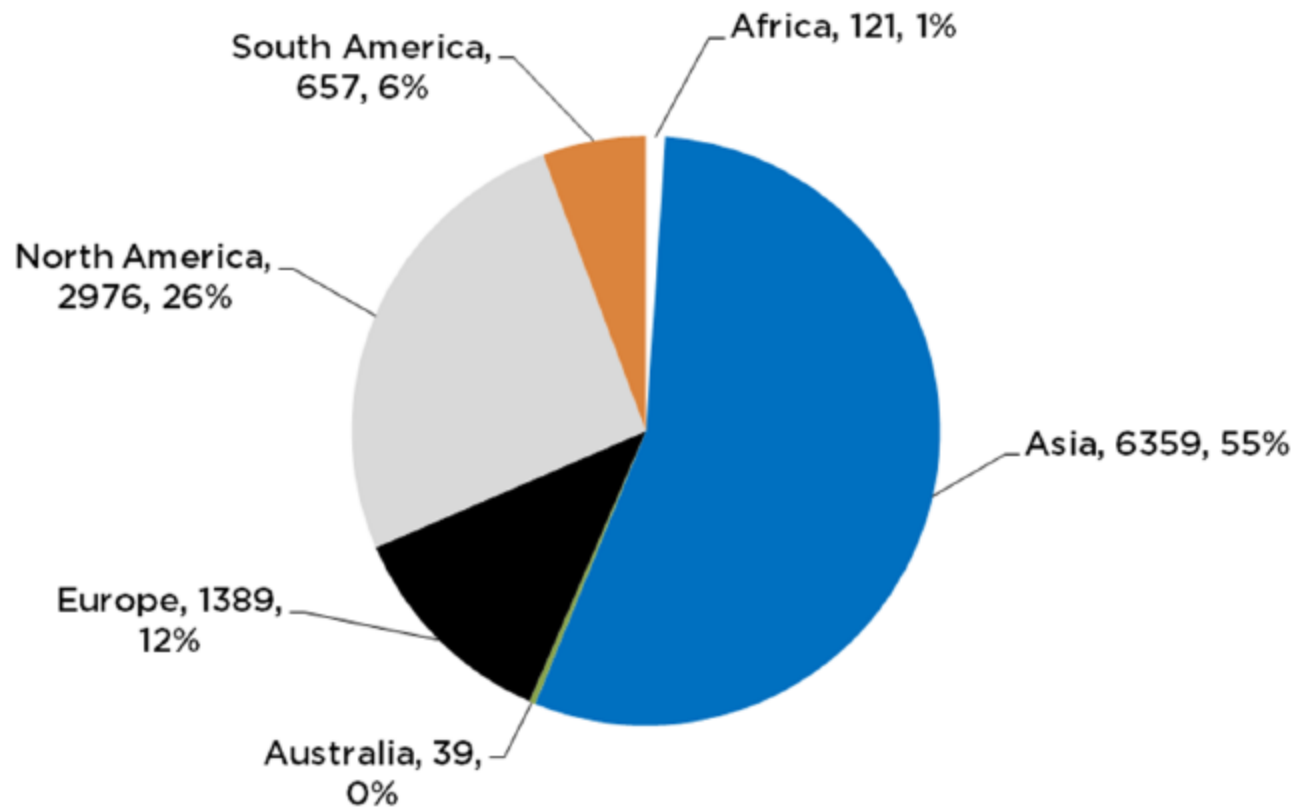
Software Process Improvement Guide (SPIG)

- The aim of the program is to develop an adaptable model of excellence in software development based on the related international standards
- Model development started in 2003 in coordination with Motorola and Egyptian software industry experts

Capability Maturity Model Integration (CMMI)

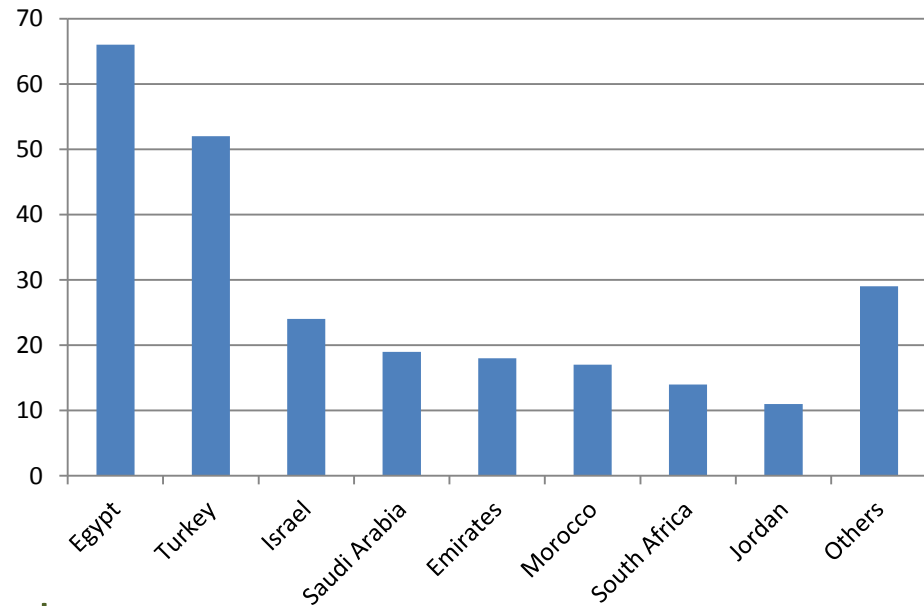
- CMMI is a process improvement model established in 1990s and evolved since then
- CMMI was sponsored by SEI in USA and now is sponsored by CMMI Institute in USA
- CMMI has 5 maturity levels (Initial, Managed, Defined, Quantitatively Managed, and Optimizing)

CMMI World Wide



CMMI In the Region

- Egypt 66
- Turkey 52
- Israel 24
- Saudi Arabia 19
- Emirates 18
- Morocco 17
- South Africa 14
- Jordan 11
- Kuwait 5
- Lebanon and Syria 4 each
- Kenya, Mauritius, Qatar and Tunisia 3 each
- Angola, Ghana, Iraq and Malawi 1 each



CMMI Appraisals by SECC in the Region

More than 50 appraisals in Egypt

8 appraisals in emirates, Kuwait, Saudi Arabia and Syria

From these appraisals SECC realized common characteristics and problems





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Common Characteristics



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Small Team Size

- One person plays multiple roles in the same project
- Some people are involved in many projects concurrently

Small Projects

- No need for extensive documentation
- PM manages many projects concurrently
- Reusability and automation are highly used

Missed Functions

Some people of the project team play the roles of the missed functions beside their roles (e.g. tester acts as a quality auditor)

Resistance to Process Improvement

- All levels of staff must participate in process improvement activities
- Speak organization language, not CMMI language
- Prioritize work according to organization needs, not CMMI levels
- Be agile and helpful



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Common Problems



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Scope Creep

- Use appropriate requirements elicitation techniques
- Establish an effective change management process
- Control communication channels

Un-maintainable Systems

- Organization staff must be trained on architecture and design
- Establish a design and coding process

Too Many Defects

- Depend on qualified testers
- Train staff on modern testing and review techniques
- Automate testing activities

Missed Delivery Dates

- Employ organization experts to establish sizing technique
- Start with a simple technique and complicate if needed

Disputes and Conflicts

- Understand organization, projects, and teams to establish appropriate roles and responsibilities
- In small projects and teams, do not give a person a role to review and or audit his own work

Late Discovery of Project Problems

- Prepare risk repository initially containing problems faced before
- Periodically use a checklist to monitor project activities

Surprised Senior Management

- Deliver summary reports to senior management periodically
- Quality auditors have to escalate late NCs to senior management

Thank you

Namaste

KÖSZÖNÖM

Danke schön

شكرا

Obrigado

Tak

شكريه

谢谢你

Merci

Grazie

Arigato

Xiexie