



Evolving the SEPG to a CMMI[®] World

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SEI Authorized

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Objectives

Role of the Enterprise PG

Lessons Learned from the SEPG

Evolving the SPI Infrastructure

Evolving the SEPG to an Enterprise PG

Summary

Questions and Answers



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Objectives

- **Understand the role of the Enterprise Process Group (PG).**
- **Review a Roadmap to successfully implement the CMMI[®].**
- **Discuss how to Evolve the SEPG into an Enterprise PG using CMMI[®] Process Areas (PA) .**
- **Identify the knowledge and skills needed for an effective Enterprise PG member.**
- **Answer any of your questions.**



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Organization Process Focus (OPF)

Purpose: *To plan & implement organizational process improvement based on a thorough understanding of the current strengths and weaknesses of the organization's processes and process assets.*

SG 1: *Strengths, weaknesses, and improvement opportunities for the organization's processes are identified periodically and as needed.*

SG 2: *Improvements are planned and implemented, organizational process assets are deployed, and process-related experiences are incorporated into the organizational process assets.*



Role of an Enterprise Process Group (PG)

The Role of the Enterprise PG across the organization:

- **Obtains and maintains management support for Process Improvement (PI).**
- **Maintains collaborative working relationships with engineers to plan and install new practices and technologies.**
- **Arranges for any training or continuing education related to process improvements.**
- **Facilitates the creation and maintenance of process definitions, with managers and engineering staff.**
- **Collecting & analyzing measurement data.**
- **Facilitates process assessments.**



Measurement & Analysis (MA)

Purpose: *To develop & sustain a measurement capability that is used to support management information needs.*

SG 1: *Measurement objectives and activities are aligned with identified information needs and objectives.*

SG 2: *Measurement results that address identified information needs and objectives are provided.*



Organization Process Definition (OPD)

Purpose: *The purpose of OPD is to establish and maintain a usable set of organizational process assets.*

SG 1: *A set of organizational process assets is established and maintained.*



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SEPG Team Skills

- **Sponsorship and guidance are critical.**
- **What gets done before and during SEPG formation greatly determines success.**
- **A coach or advisor to the SEPG, skilled in software process improvement (SPI), is key.**
- **The SEPG leader and members must be selected carefully and strategically.**



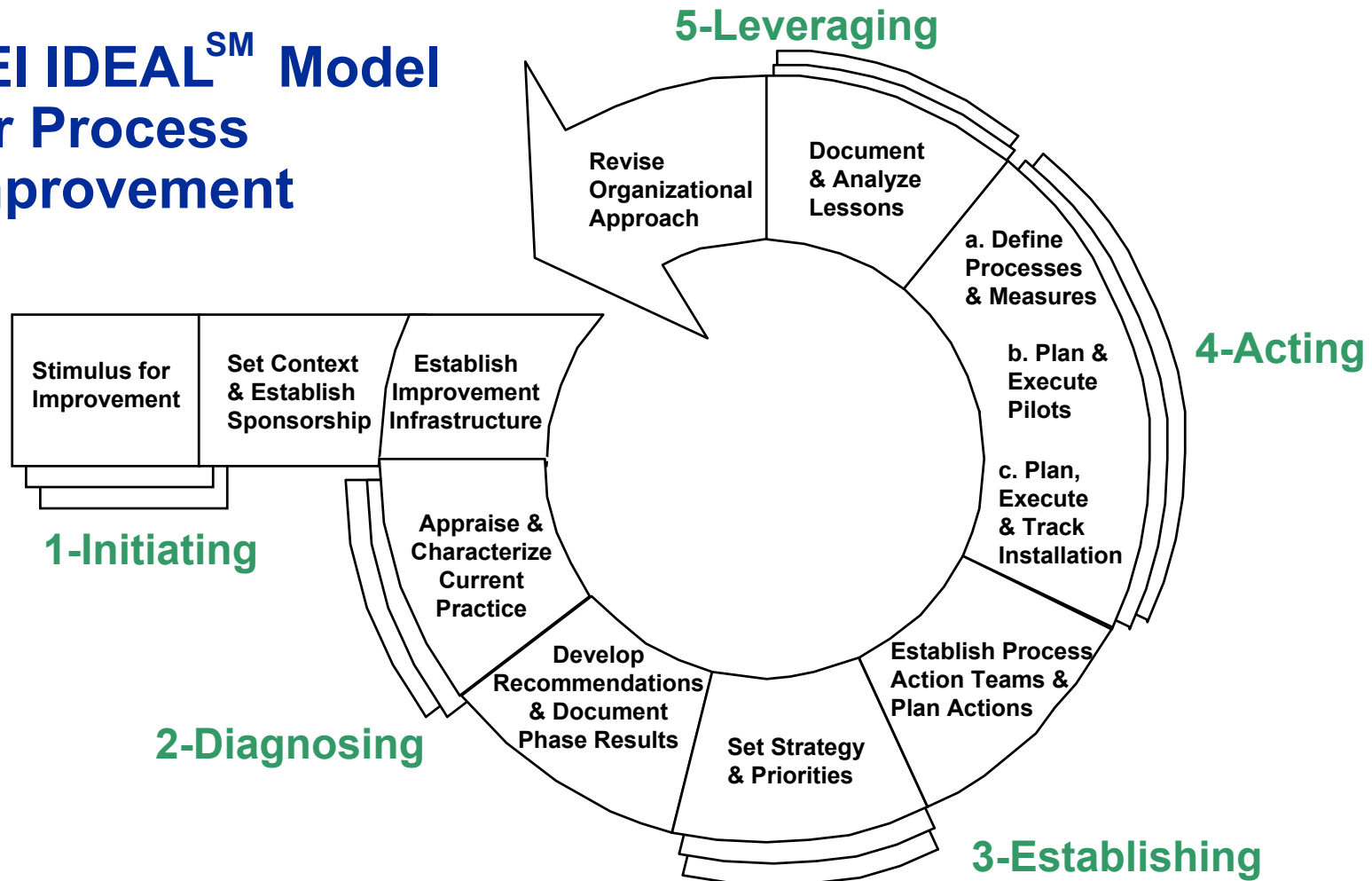
Scholtes & Joiner Team Principles

- **Forming-Storming-Norming-Performing**
- **Clear team goals**
- **Documented improvement plan**
- **Clear and defined roles**
- **Clear communication**
- **Balanced participation**
- **Accepted group processes**



A SW-CMM[®] Roadmap

SEI IDEALSM Model for Process Improvement





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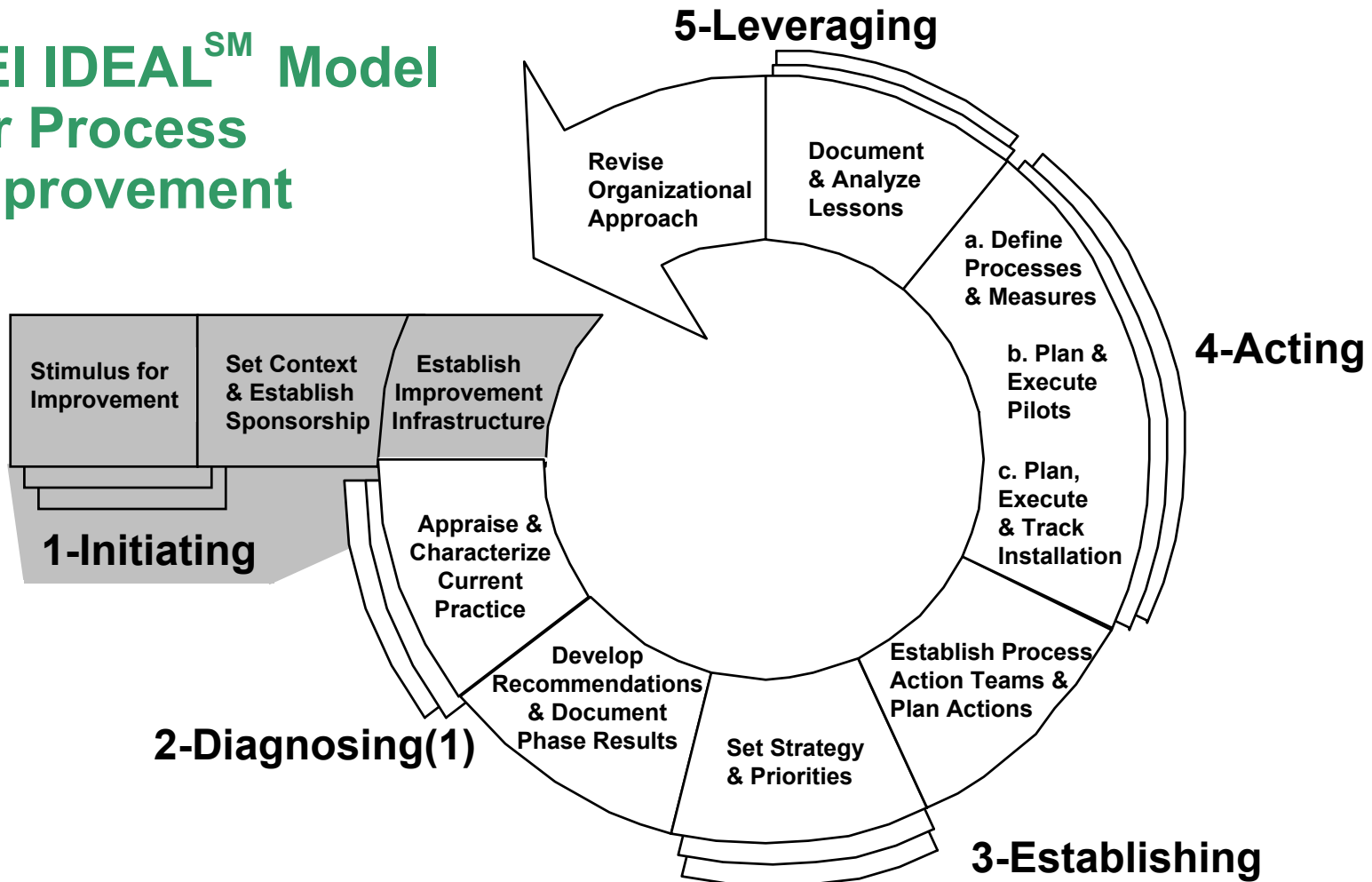
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A CMMI[®] Roadmap

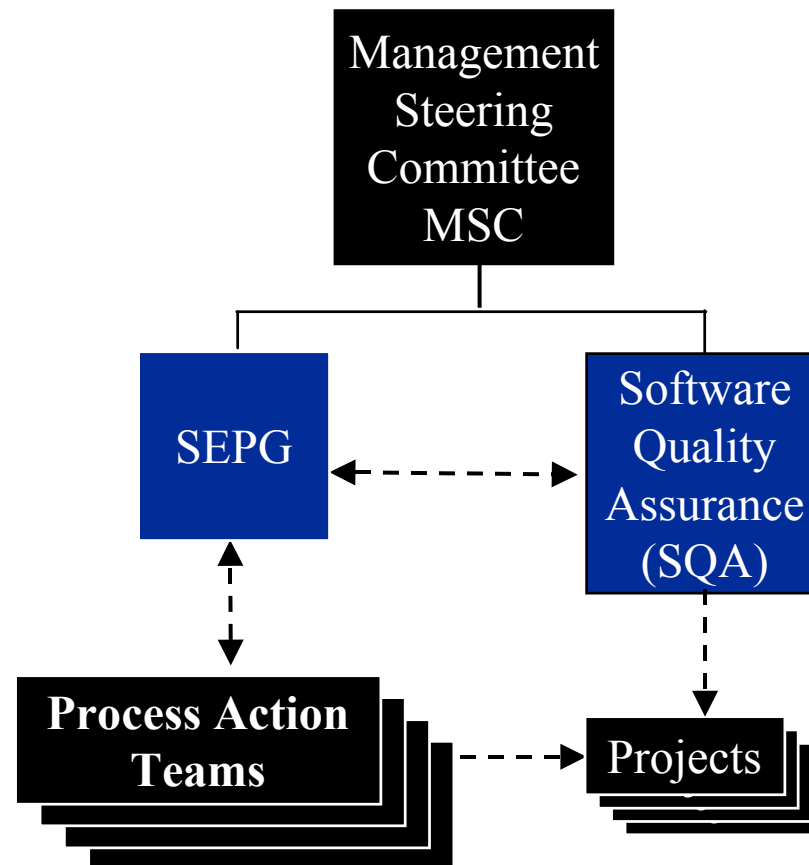
SEI IDEALSM Model for Process Improvement





Typical SPI Infrastructure

Typical SPI Infrastructure

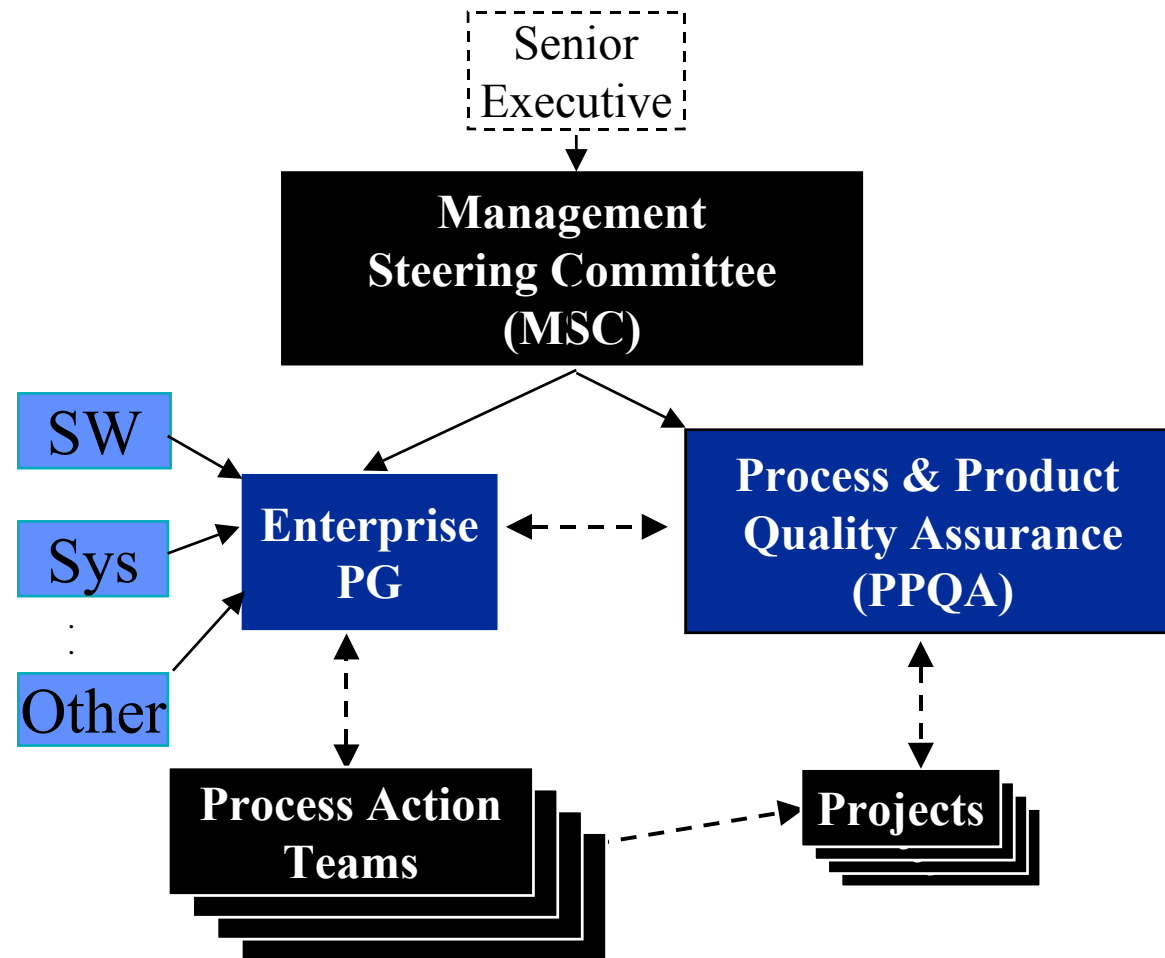


- Slide adapted from SEI Managing Technological Change Training, Copyright © 1996 CMU



Evolving to a CMMI[®] Improvement Infrastructure

Example CMMI[®] Process Improvement Infrastructure





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Use Integrated Teaming (IT) PA to form the Enterprise PG

Purpose: *To form and sustain an integrated team for the development of work products.*

SG 1: Establish Team Composition

- **SP 1.1 Identify Team Tasks**
- **SP 1.2 Identify Needed Knowledge and Skills**
- **SP 1.3 Assign Appropriate Team Members**

SG 2: Govern Team Operation

- **SP 2.1 Establish a Shared Vision** (See IPM SG 3)
- **SP 2.2 Establish a Team Charter**
- **SP 2.3 Define Roles and Responsibilities**
- **SP 2.4 Establish Operating Procedures**
- **SP 2.5 Collaborate among Interfacing Teams** (See IPM SG 4)

****See also Integrated Project Management (IPM) SG 3 & SG 4***



Knowledge & Skills of an Effective Enterprise PG

Technical Skills:

- *Introduction to CMMI® Training
- Intermediate concepts of the CMMI® Training
- *Process Definition Training
- Practical Software Measures (PSM) Training
- ASQ Courses & Exams (CQE, CQA, CQM, CSQE)

Soft Skills:

- *Managing Technological Change Training
- *Facilitation Skills Training

“People” Books:

- **Seven Habits of Highly Effective People** – *Stephen Covey*
- **How to Win Friends & Influence People** – *Dale Carnegie*
- **Getting to Yes** – *Fisher, Ury, Patton*

*Highly Recommended Training



Enterprise PG Charter

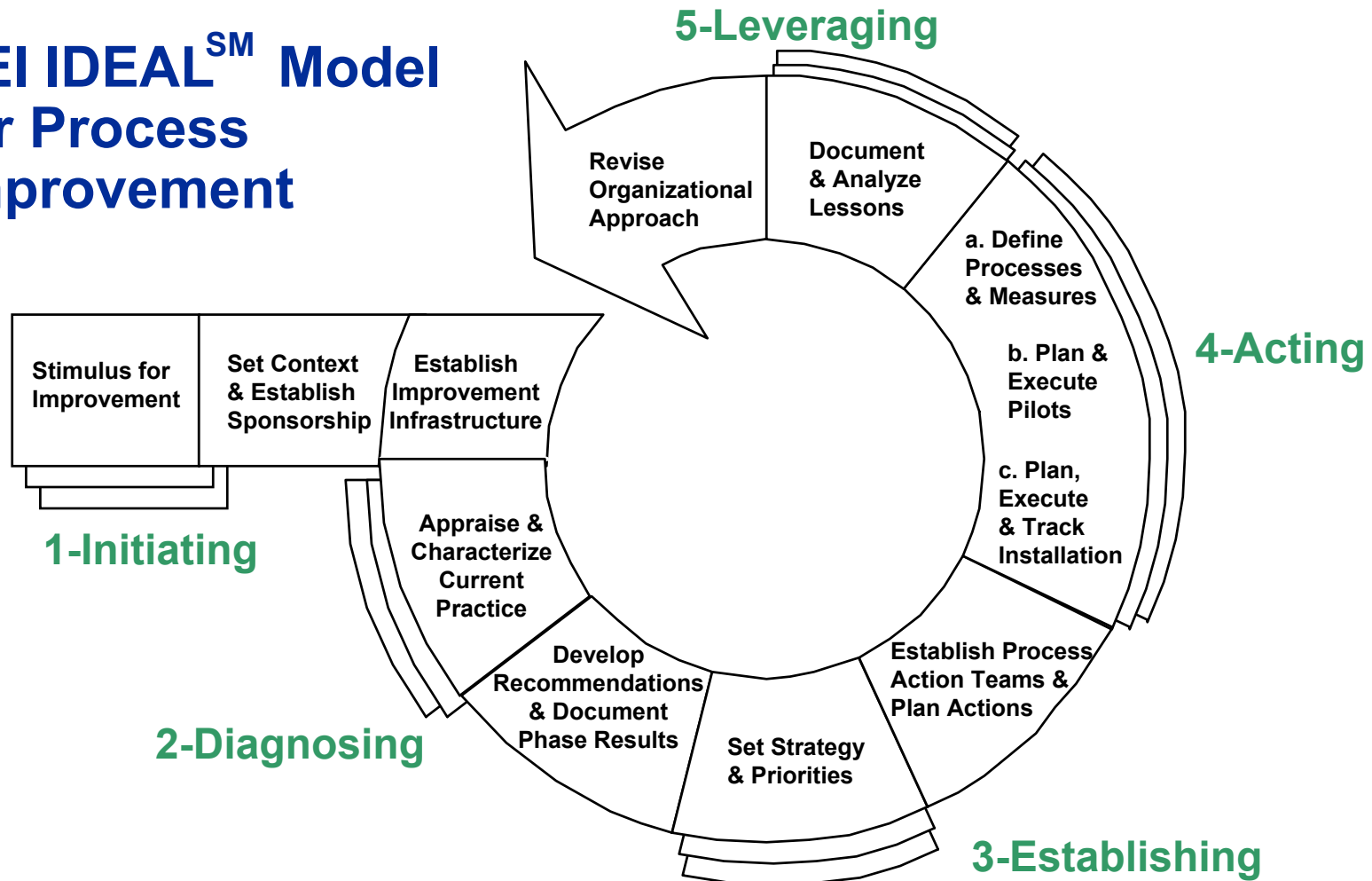
Example content of an Enterprise PG Charter:

- **Vision/Mission statement and desired results**
- **Activities and functions**
- **Deliverables**
- **Authorization** (*Sr. Mgt. - signatures*)
- **Team members** (*roles and responsibilities*)
- **Team ground-rules**



Next Steps

SEI IDEALSM Model for Process Improvement





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SEI's IDEALSM Model:

Initiate:

- Evolve the SPI infrastructure across the organization
- Evolve the SEPG into an Enterprise PG

Diagnose:

- Identify the scope of the improvement initiative in terms of the organization and CMMI[®] (*i.e., Maturity Level / Process Areas*)

Establish:

- Senior Management plan the improvement initiative with the Enterprise PG (*e.g., Strategic Action Plan*)
- Enterprise PG Plan the work (*e.g., Tactical Action Plan*)
- Form Process Action Teams

Acting:

- Execute the plan (*i.e., Define, Pilot, Implement CMMI[®] PA's*)

Leveraging:

- Lessons Learned from the Process Improvement Journey



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- Scholtes, Peter R., Brian L. Joiner, and Barbara J. Streibel, **"The TEAM Handbook, Second Edition"**, ISBN 1-884731-11-2, Oriel Incorporated, Madison, WI, 1996.