CMMI – What a Difference a Sponsor Makes!

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Agenda

- **Assessed Organization – Garland TX**
- **CMMI Timeline**
- **Raytheon Process Integration**
- **Organize for Success**
- **Garland CMMI Team Structure**
- **Executive Steering Team Charter/Membership**
- **Deployment Model**
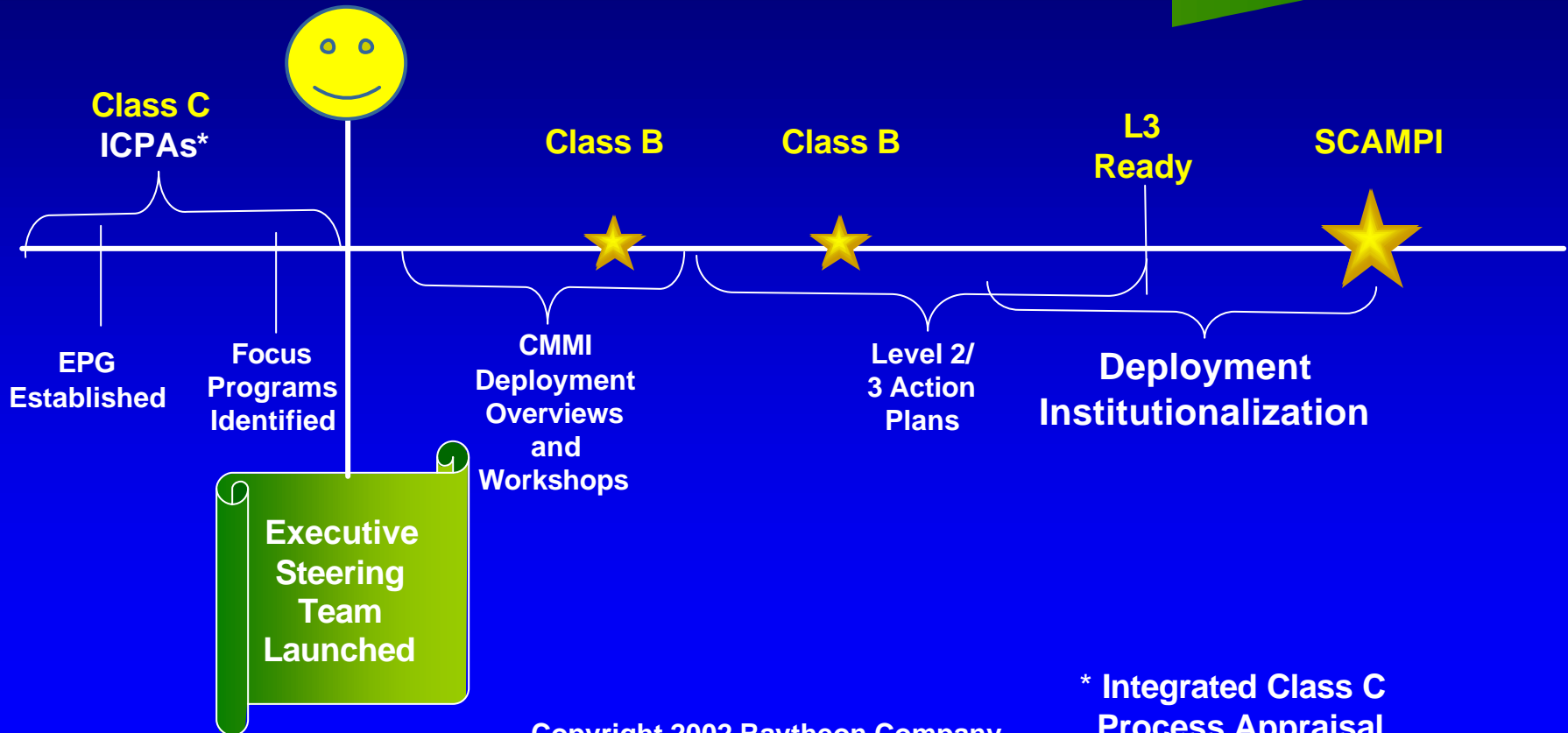- **Action Team Structure**

Organizational Characterization

- **Organization: Garland TX site (Dallas suburb)**
- **Component of larger business unit**
- **Site population: 2000**
- **Engineering population: 1100**
- **SW Engineers: 530**
- **System Engineers: 370**
- **Business base: SW intensive systems**
- **10 year history of SW (CMM) and SE (SECMM & EIA-731) process improvement**

Garland CMMI Level 3 Timeline

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Raytheon Six Sigma (R6s)

Visualize…Commit…Prioritize……Characterize……Improve……Achieve

Class C ICPAs*

Class B

Class B

L3 Ready

SCAMPI

EPG Established

Focus Programs Identified

CMMI Deployment Overviews and Workshops

Level 2/3 Action Plans

Deployment Institutionalization

Executive Steering Team Launched
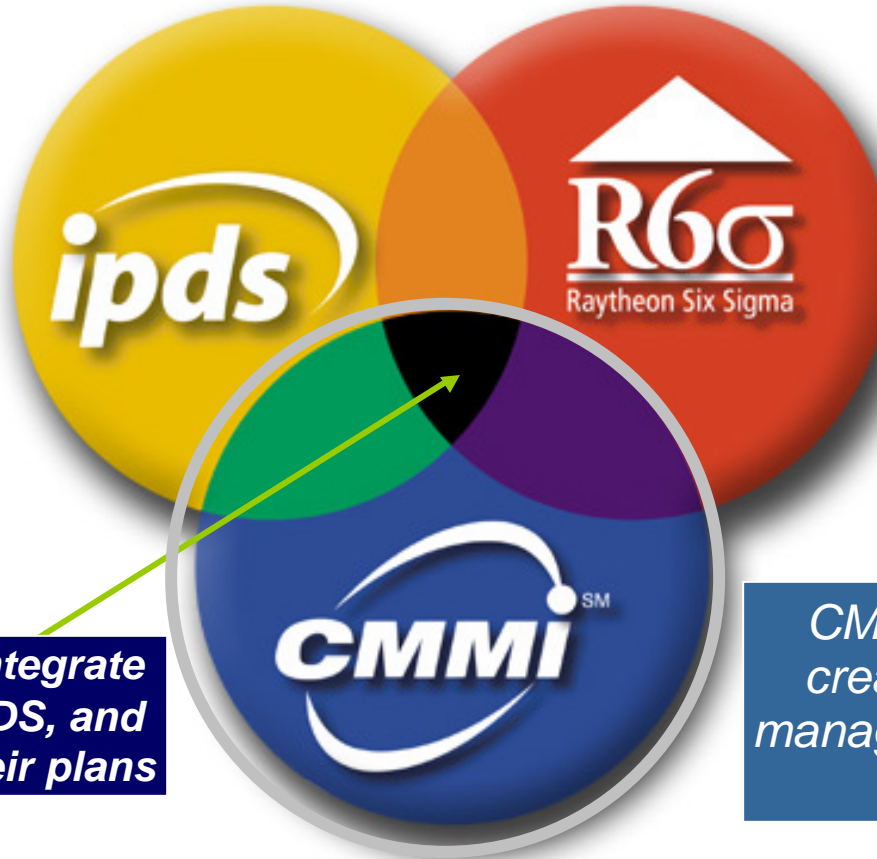
* Integrated Class C Process Appraisal

IPDS, CMMI, and R6σ are Tightly Coupled

IPDS provides an integrated set of best practices for the entire product development life cycle through a just-in-time tailoring process.

R6Sigma is our business strategy. It guides us to use CMMI and IPDS as tools to deliver value to customers and integrate industry best practices.

ipds

R6σ
Raytheon Six Sigma
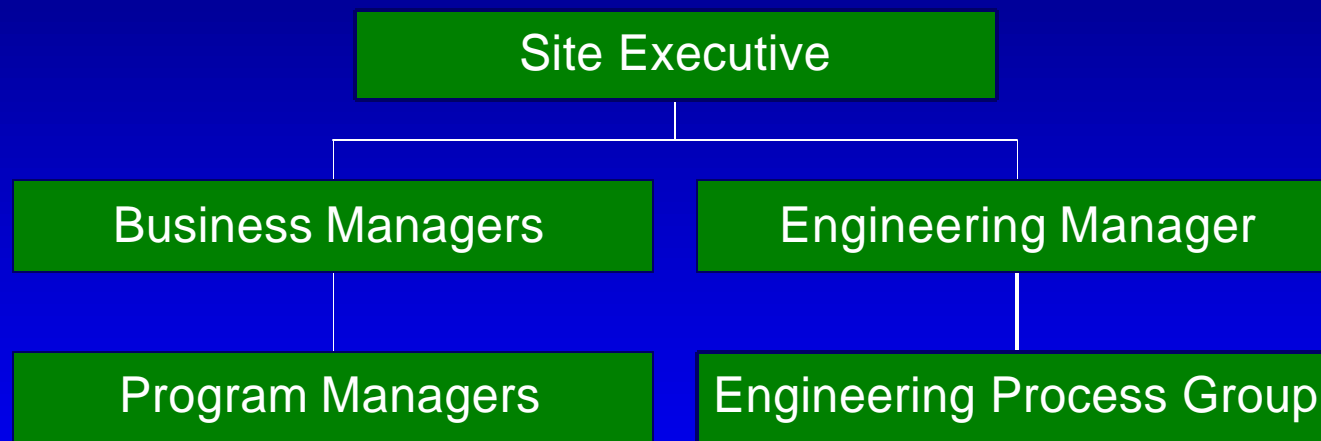
CMMI ℠

Programs integrate R6Sigma, IPDS, and CMMI into their plans

CMMI is a model for creating, measuring, managing, and improving processes.

Each plays an integral role in the success of programs, projects and organizations

Organize for Success

Early Major Step: Established the EPG to focus on maturity of all engineering processes

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                    Site Executive
                          |
        ┌─────────────────┴─────────────────┐
Business Managers                  Engineering Manager
        |                                    |
Program Managers                  Engineering Process Group
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CMMI Deployment Teams

CMMI

Executive Steering Team

Deployment Steering Team

Program R6s Action Teams

Org R6s Action Teams

Strategic Plans Link to Tactical Execution
through the
Program Managers

Process Area Owners
sponsor and mentor
through participation
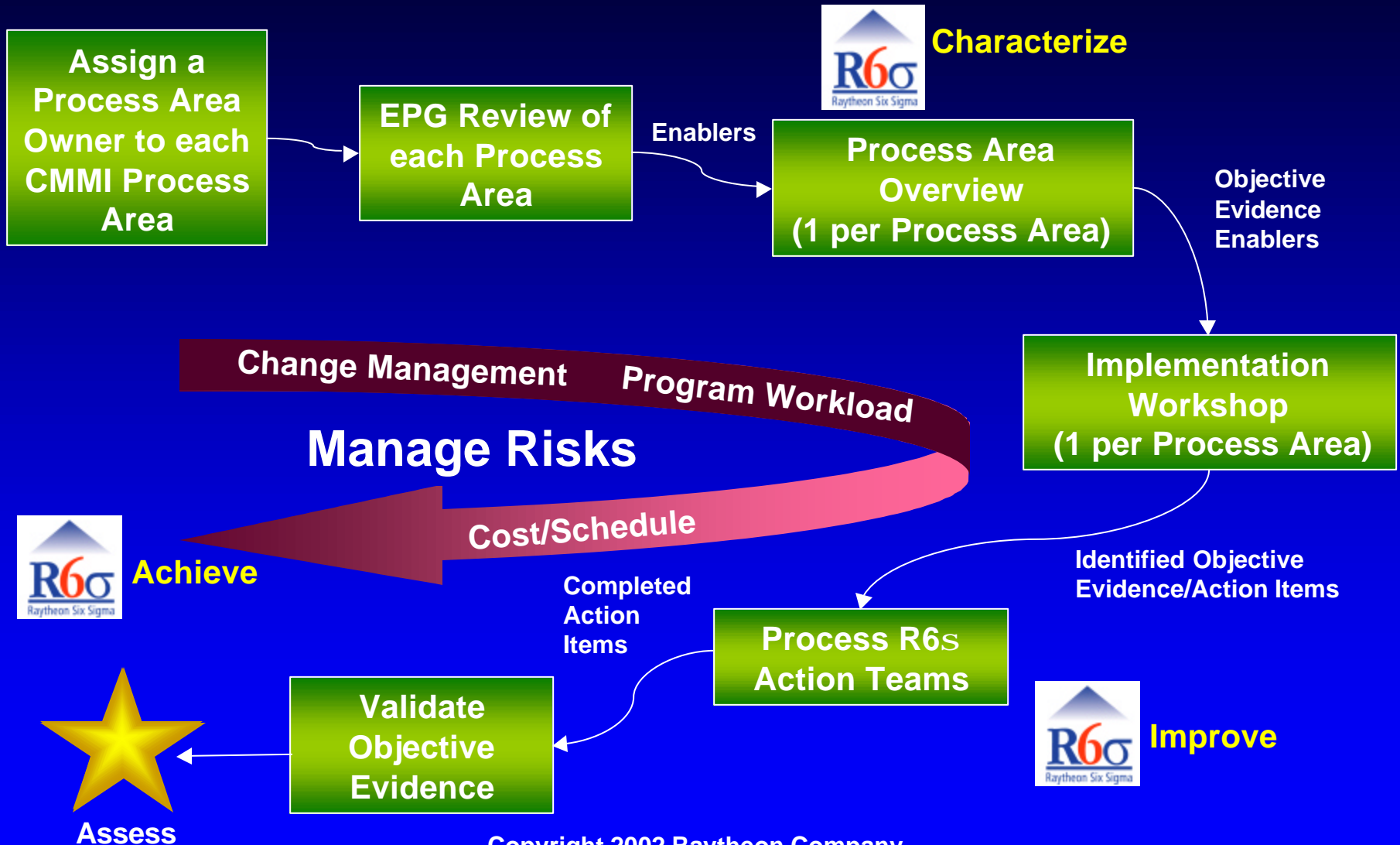on Steering Teams and
R6σ Action Teams
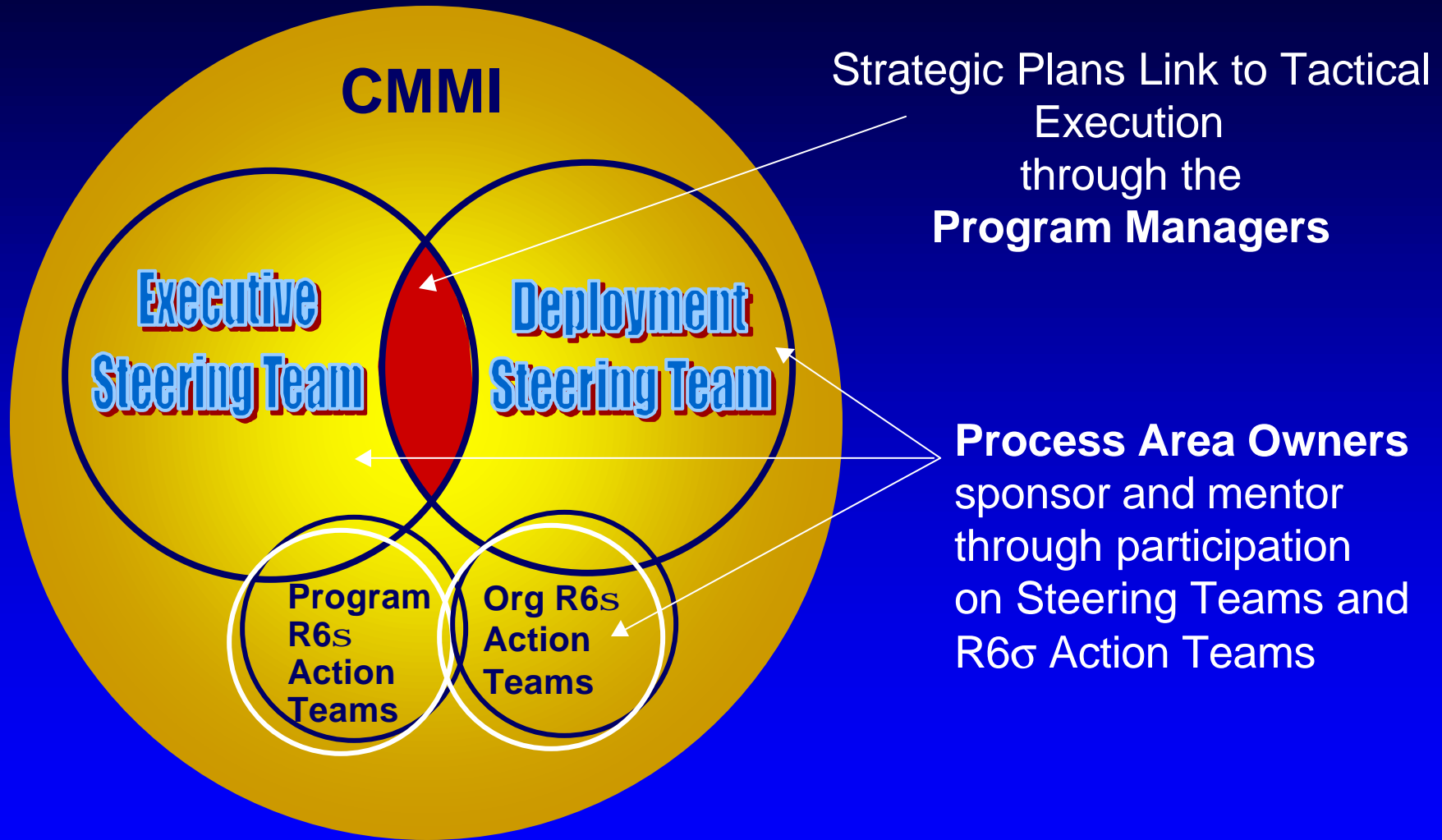
IGS/NS(Tx) CMMI Executive Steering Team Charter

- **Sponsor** CMMI deployment across the enterprise

- **Establish the goals** for strategic process improvement for Garland and all IGS sites

- **Lead the enterprise** to achieve CMMI Level 3 through the integrated deployment of R6s, Integrated Product Development System (IPDS) and CMMI
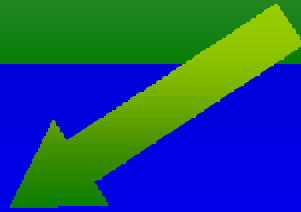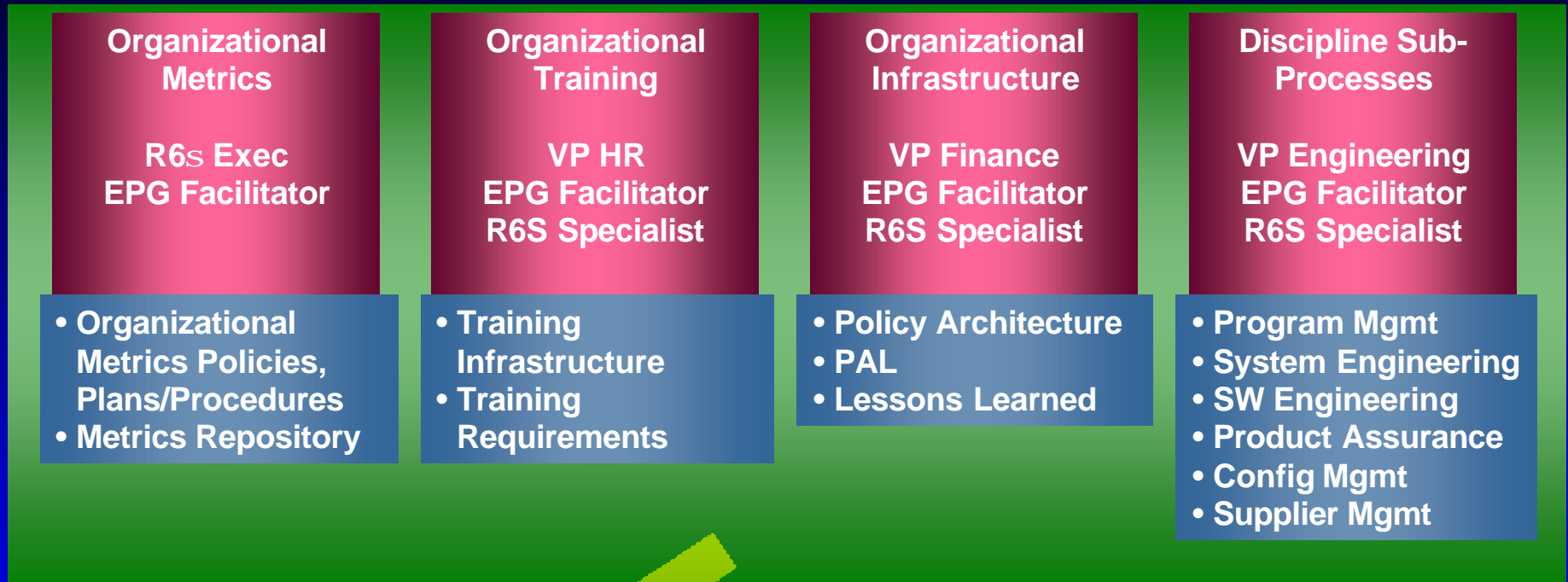
IGS/NS(Tx) CMMI Executive Steering Team

- **One steering team member assigned to each CMMI Process Area as a Process Area Owner**
- **One EPG member to mentor/assist each Process Area Owner**
- **What is the role of the Process Area Owners?**
  - **Participate in a workshop with the focus programs to learn about process area goals and desired behaviors and to participate in identification of organizational and program gaps**
  - **Work with their assigned EPG member to develop action plans based on results of two Class B assessments and EPG gap analysis**
  - **Track deployment of the action resolutions through deployment in preparation for SCAMPI**
  - **Walk the talk!**

CMMI Deployment Model

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Characterize

Assign a Process Area Owner to each CMMI Process Area → **EPG Review of each Process Area** — *Enablers* → **Process Area Overview (1 per Process Area)**

Objective Evidence Enablers

Implementation Workshop (1 per Process Area)

Change Management — **Program Workload**

Manage Risks

Cost/Schedule

Achieve

Identified Objective Evidence/Action Items

Completed Action Items

Process R6s Action Teams

Validate Objective Evidence

Improve

Assess

Garland CMMI Organizational Process Action Teams

Organizational Metrics

**R6s Exec
EPG Facilitator**

- Organizational Metrics Policies, Plans/Procedures
- Metrics Repository

Organizational Training

**VP HR
EPG Facilitator
R6S Specialist**

- Training Infrastructure
- Training Requirements

Organizational Infrastructure

**VP Finance
EPG Facilitator
R6S Specialist**

- Policy Architecture
- PAL
- Lessons Learned

Discipline Sub-Processes

**VP Engineering
EPG Facilitator
R6S Specialist**

- Program Mgmt
- System Engineering
- SW Engineering
- Product Assurance
- Config Mgmt
- Supplier Mgmt

Deployment Team
**SW Eng Director
R6 Specialist**

- Focus Program Support
- Mentoring
- Formal Training

Verification Team
Systems Eng Director

- Objective Evidence Verification
- SCAMPI Coordination

Lessons Learned

- **Support of organizational leader critical to setting goal – can't be driven only from Software and Systems Engineering**
- **Engage program management early**
- **CMMI goal included in Executive Sponsor performance goals and flowed into goals of direct reports established clear responsibility and accountability**
- **Engaging site leadership as a steering team and as action team sponsors was very effective**
  – **Resource availability**
  – **Awareness of issues/challenges**
  – **Passion!**
- **Including focus program PMs on the steering team established accountability as well as forum for elevating issues**

Biographical Information

Ann Turner currently manages the Raytheon Garland site Engineering Process Group which was established in 2001 to better align the organizational process focus with the CMMI model. Ann has 23 years experience in software development, configuration management and process improvement.
Ann has a B.S. in Business with concentration in Management Information Systems and a Certificate in Program Management, both from the University of Texas at Dallas.