



LOCKHEED MARTIN



Measurement at Lockheed Martin Corporation

**Practical Software Measurement User's
Group Conference
July 22, 1997**

Keynote Presentation

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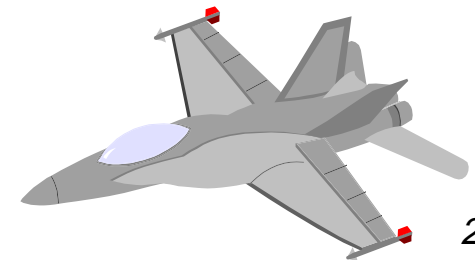
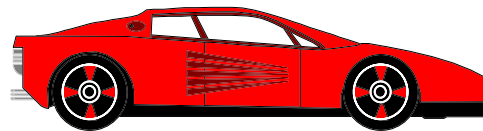
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Agenda

- Lockheed Martin Corporation Roles in Practical Software Measurement (PSM) Transition
- PSM Influence on the Lockheed Martin Corporation Software & Systems Resource Center (SSRC) Measurement Initiative



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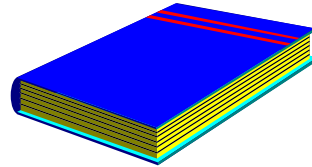
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Lockheed Martin Corporation Roles in PSM Transition

- Assist PSM Support Center to transition PSM across *government* organizations
- Transition PSM into *commercial* use
- Transition PSM into widespread use across *Lockheed Martin Corporation companies*

PSM Transition Mechanisms

- Guidebooks



- Tool Selection Support
- PSM Insight



- Workshops
- Training
- Conference Presentations



- Consulting (e.g., Planning and Analysis)
- Proposal and Program Support



Support to Government PSM Transition

- Early, long-term PSM involvement (1994 -)
- 5 members of the PSM Working Group
- 6 Certified PSM instructors
- Assist with PSM training and consultation across government agencies and programs
- Key contributors to PSM Project planning and technical guidance development

Approach to Commercial PSM Transition

- Intent is to leverage PSM as a process improvement technique in the commercial marketplace
- Utilize PSM transition mechanisms (training, guidebook, etc.)
- Lockheed Martin Corp. Command & Control Integration Systems is the service provider
 - Contact: David Card (david.n.card@lmco.com or 407-984-2561)

Approach to Lockheed Martin Corporation PSM Transition

- Intent is to leverage PSM as a best practice on Lockheed Martin Corporation programs
- Integrate PSM into the Lockheed Martin Corporation Software & Systems Resource Center (SSRC) Measurement Initiative
- Utilize PSM transition mechanisms
- SSRC is the service provider
 - Contact: Alan Weinberger
(alan.weinberger@lmco.com or 301-240-5723)

SSRC Mission / Scope

- Mission: A service organization and a source of *expert resources* to Lockheed Martin Corporation companies performing software development and systems integration
- Scope: *System, software, test engineering* disciplines and others as needed (e.g., program management)

SSRC Approach

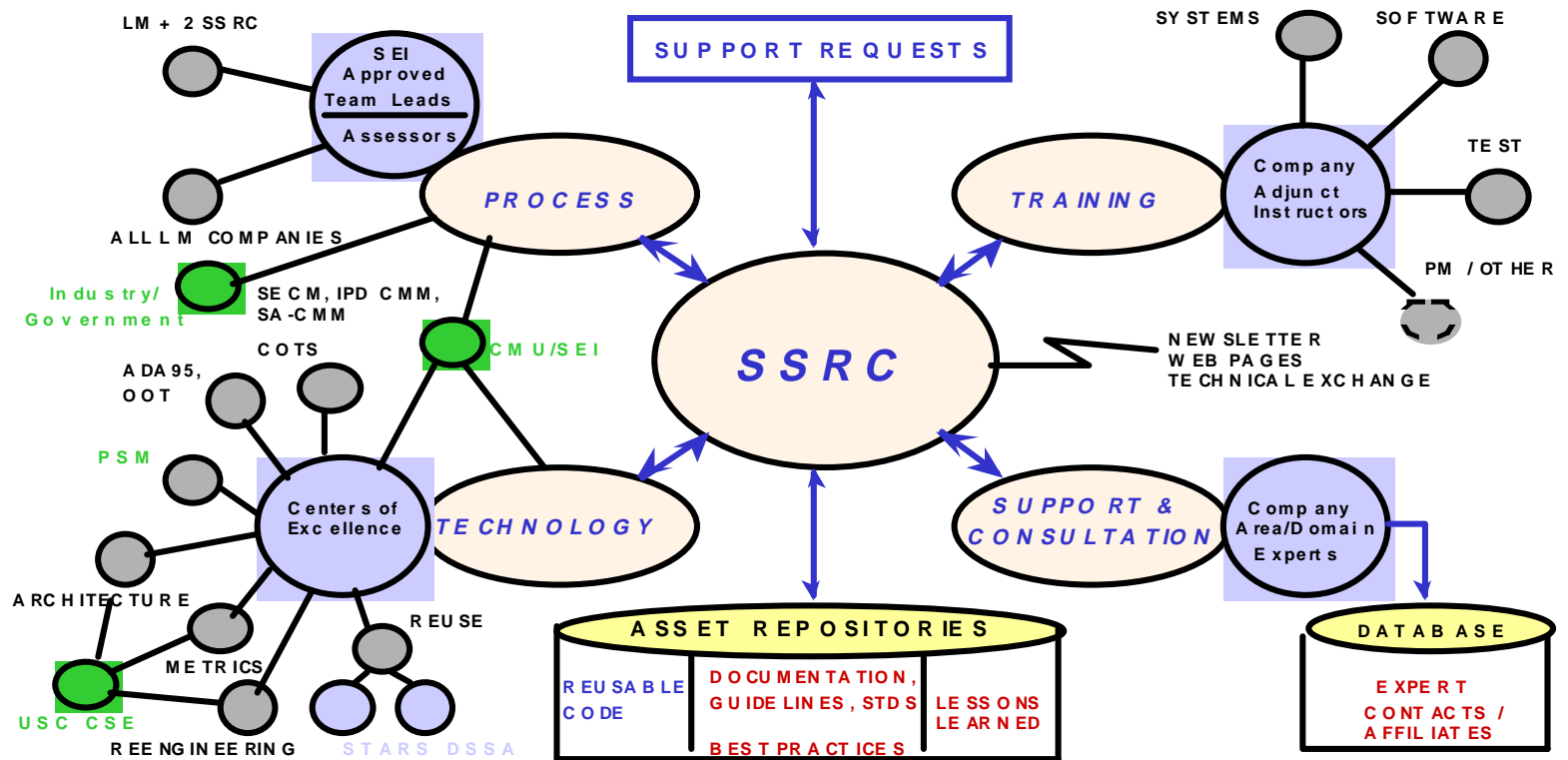
- Establish and sustain an infrastructure to share common information, experience, knowledge, *lessons learned*
- Leverage industry, academia, government, and company *best practices* and Centers of Excellence
- Perform process appraisals / reviews, and provide consultation to assist companies in achieving overall *process maturity* goals
- Provide expert resources for bid and program consultation, and conduct reviews to improve *program performance*

SSRC Approach (Continued)

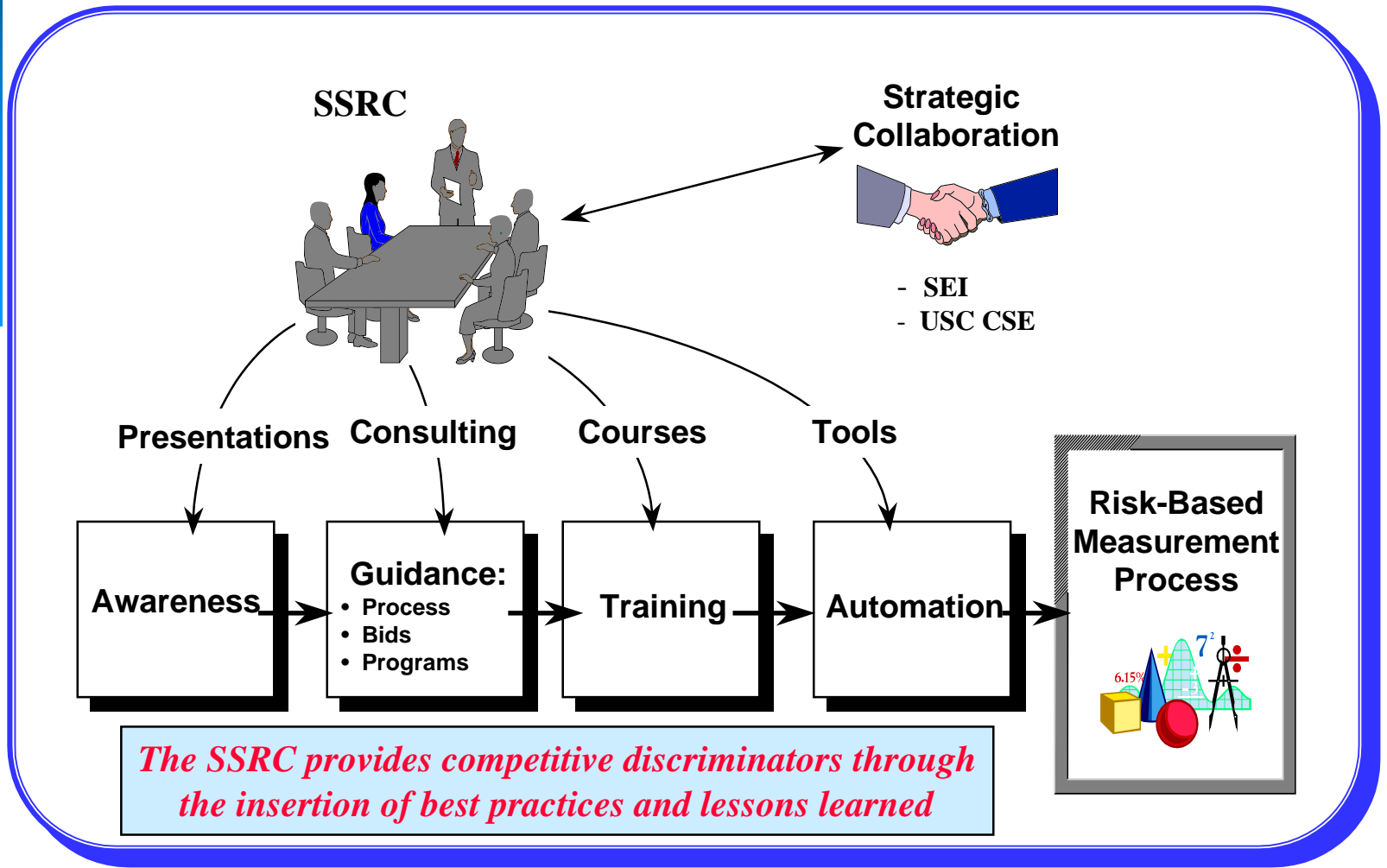
- Provide training to build and sustain *core discipline skills*, and to improve the overall development process
- Recommend policy, processes, methods, tools, and technologies to assist in achieving *organizational goals*

SSRC Virtual Network

Implementation - Virtual Network



SSRC Measurement Initiative



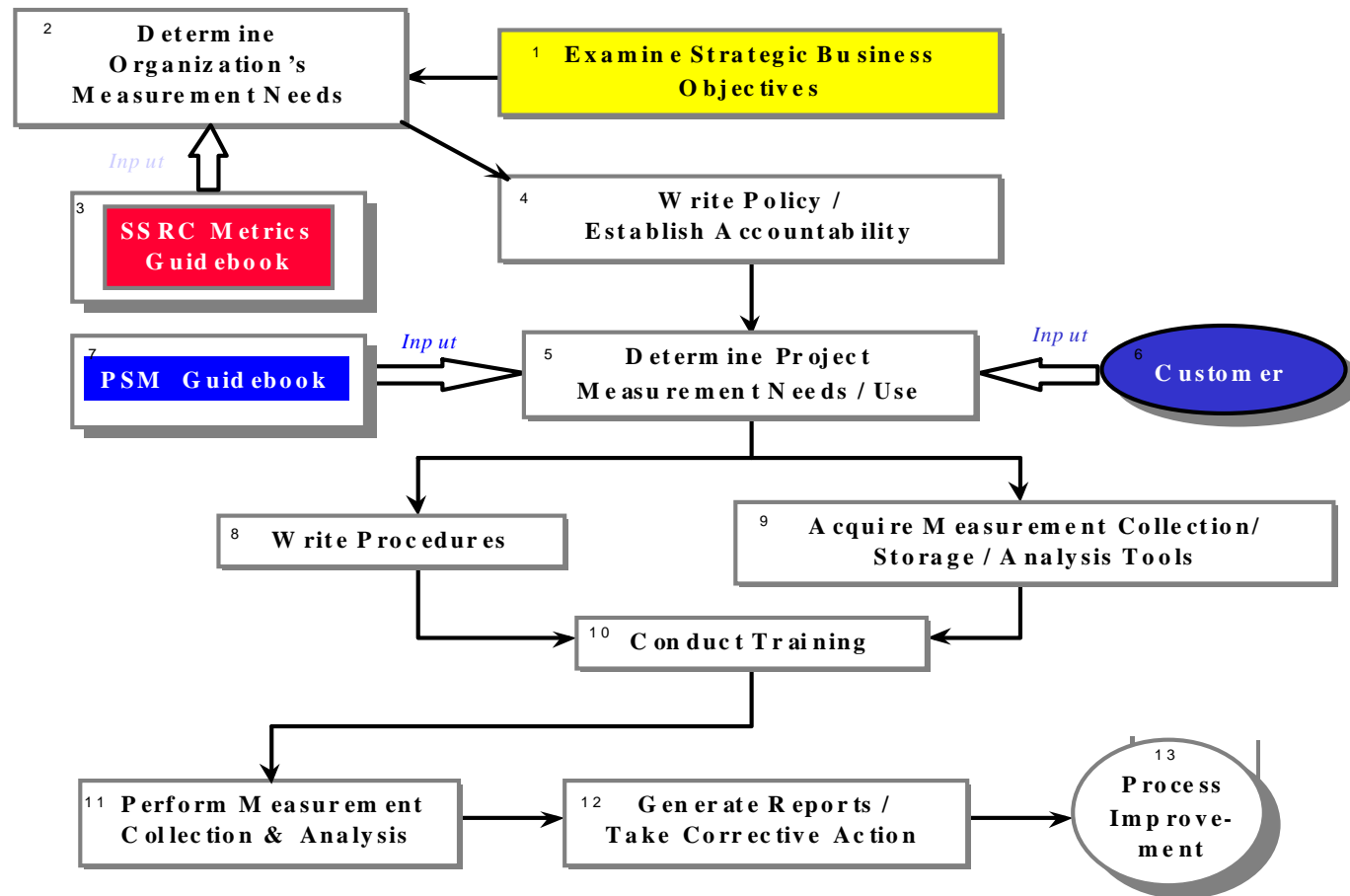
SSRC Measurement Initiative Elements

- Infrastructure: Process Collaboration Group, SW-CMM Level 4 Working Group, Subcouncils
- Collaboration with key external groups, e.g.,
 - SEI, PSM Project, University of Southern California Center for Software Engineering (USC CSE)
- Measurement transition aids:
 - SSRC Web pages, newsletters, flyers
 - PSM and SSRC Guidebooks
 - Consulting, bid/program reviews, team launches
 - Classes (on-site and regional), seminars
 - Tool selection support

PSM Influence on SSRC Measurement Initiative

- PSM incorporated into
 - SSRC Measurement Roadmap
 - SSRC metrics training
- Lockheed Martin Corporation (LMC) metrics conference, 15-16 July 1997, contained significant PSM content
- PSM used in project consultation reviews
- PSM briefings to LMC Software and Systems Subcouncils
- Incorporation of PSM into LMC process guide

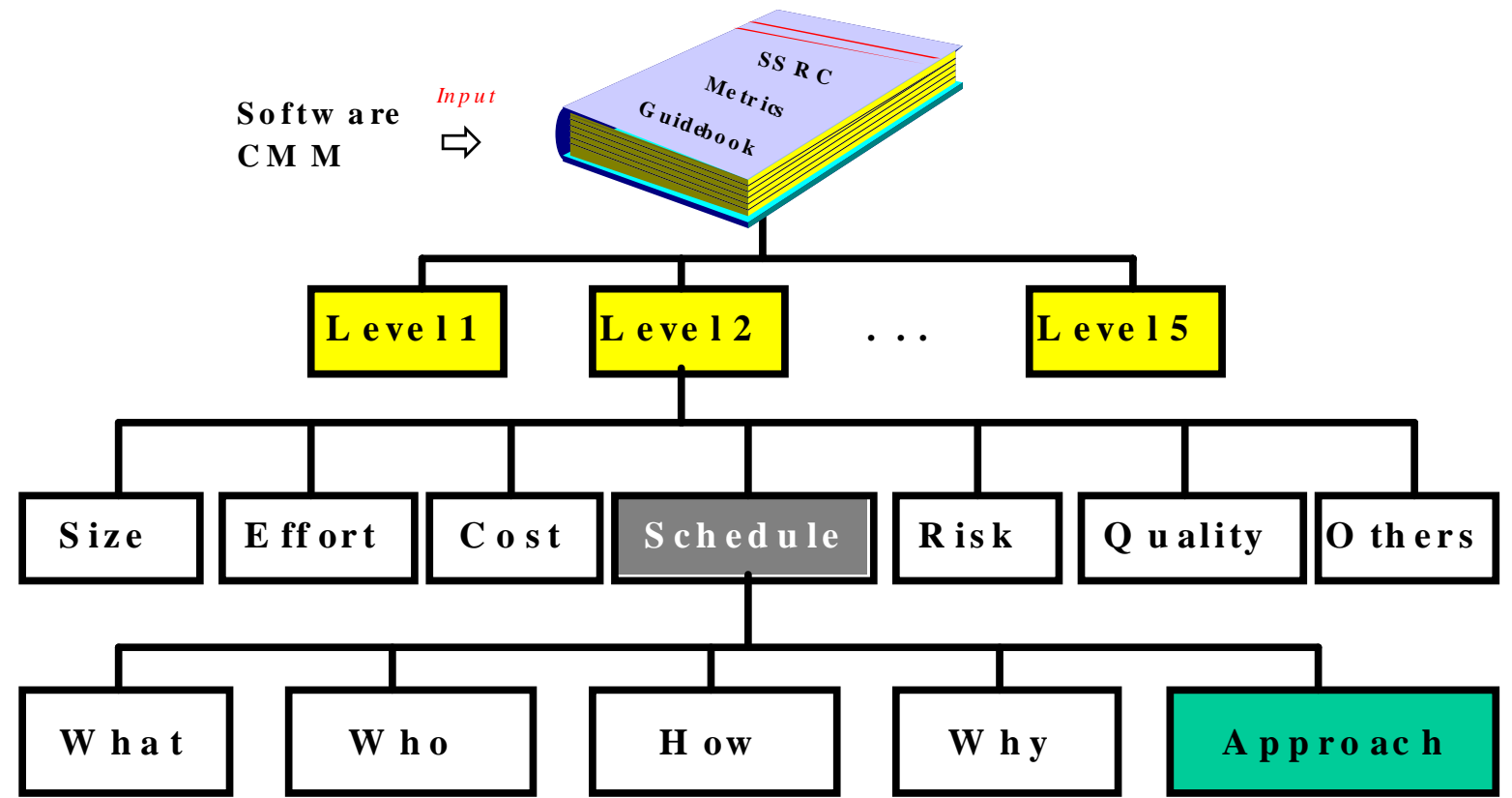
Measurement Roadmap



SSRC Measurement Products and Services

Roadmap Step	Product / Service
■ 1-3: Organization's Measurement Needs	■ SSRC Metrics Guidebook; Measurement Process Review; Metrics Training Class
■ 4: Policy / Accountability	■ Policy Best Practice
■ 5, 7: Project Measurement Needs	■ PSM Guidebook; Executive Briefing; Training Class
■ 6: Customer	■ PSM Customer Briefing
■ 8: Procedures	■ Procedures Best Practice Template
■ 9: Tools	■ Recommendations on SSRC Webpages
■ 10: Training	■ SSRC Facilitated Training Class
■ 12: Report Generation	■ Report Templates

SSRC Metrics Guidebook



PSM Trends / Relevance

- Use of PSM is increasing
 - Across the community
 - Across Lockheed Martin Corporation

- PSM is synergistic with and leverages enterprise process improvement initiatives
 - Software and systems engineering
 - Integrated Product Development