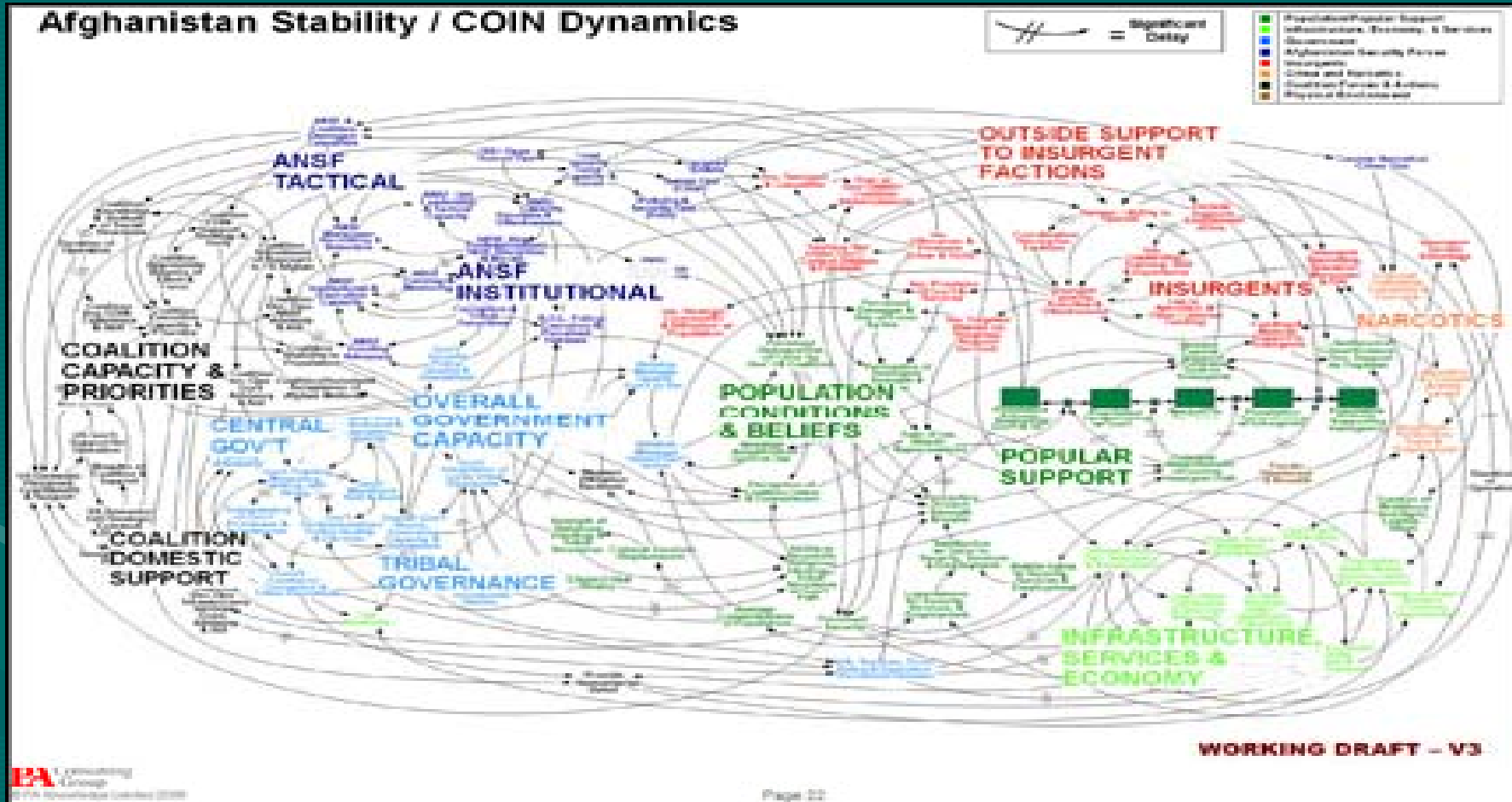


Six Sigma and Project Management

ASQ 502 Baltimore
LSS SIG

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I'll give you a moment to digest this



Some “truth in presenting”

My background

- Senior Member ASQ
- Company Certified Master Black Belt
- ASQ Certified Six Sigma Black Belt
- Project Management Professional
- Originally not a Six Sigma supporter
- Currently a Process Improvement Coach at a DOD Agency

Your Background

- Six Sigma?
- Project Management?



Some Definitions

- **Six Sigma:** A method (DMAIC) that provides organizations tools to improve the capability of their business processes. A data driven quality strategy for improving processes and an integral part of a Six Sigma quality initiative. DMAIC is an acronym for define, measure, analyze, improve and control.
- **Black Belt:** Full-time team leader responsible for implementing process improvement projects

Some Definitions, continued

- **Project:** A temporary endeavor undertaken to achieve a particular aim. Has a definite beginning and end.
- **Project Management:** The application of knowledge skills, tools and techniques to meet the requirements of a particular project.
- **Process Groups:** Initiating, Planning, Executing, Controlling and Closing

Some Definitions, continued

- Quality “the totality of characteristics of an entity that bear on its ability to satisfy stated or implied needs”

“A critical aspect...is to turn implied needs into stated needs through project scope management”

Six Sigma & Project Management

A few comments

- Almost all Black Belts are Project Managers, even if they don't know it.
- Almost all Project Managers are involved in process improvement, even if they don't know it.

Project Management in the Black Belt Bok

Two explicit PM functions, both in DEFINE

- **Project Charter**

- Problem statement
- Project scope
- Goals and objectives
- Project performance measures

- **Project tracking**

Identify, develop and use project management tools, such as schedules, Gantt charts, toll-gate reviews, etc., to track project progress. (Create)

Quality in the PMBOK

- Planning
 - Quality Planning
- Executing
 - Quality Assurance
- Monitoring and Controlling
 - Quality Control

PMBOK Knowledge Areas

- Integration Management
- Scope Management
- Time Management
- Cost Management
- Quality Management (Hurrah!)
- Human Resource Management
- Communications Management
- Risk Management
- Procurement Management

PMBOK Processes Within Knowledge Areas

Each process is defined by:

- Inputs
- Tools and Techniques
- Outputs

Looks a lot like SIPOC (Supplier, Input, Process, Output, Customer) doesn't it?

A Look at the “Quality” PMBOK Processes

Quality Planning

INPUTS

- Enterprise Environmental Factors
- Organizational Process Assets
- Project Scope Statement
- Project Management Plan

A Look at the “Quality” PMBOK Processes

Quality Planning

TOOLS AND TECHNIQUES

- Cost Benefit Analysis
- Benchmarking
- Design of Experiments
- Cost of Quality
- Other tools

A Look at the “Quality” PMBOK Processes

Quality Planning

OUTPUTS

- Quality Management Plan
- Quality Metrics
- Quality Checklists
- Process Improvement Plan
- Quality Baseline
- Project Management Plan Updates

A Look at the “Quality” PMBOK Processes

Quality Assurance

INPUTS

- Quality Management Plan
- Results of quality control measurements
- Operational Definitions

A Look at the “Quality” PMBOK Processes

Quality Assurance

TOOLS AND TECHNIQUES

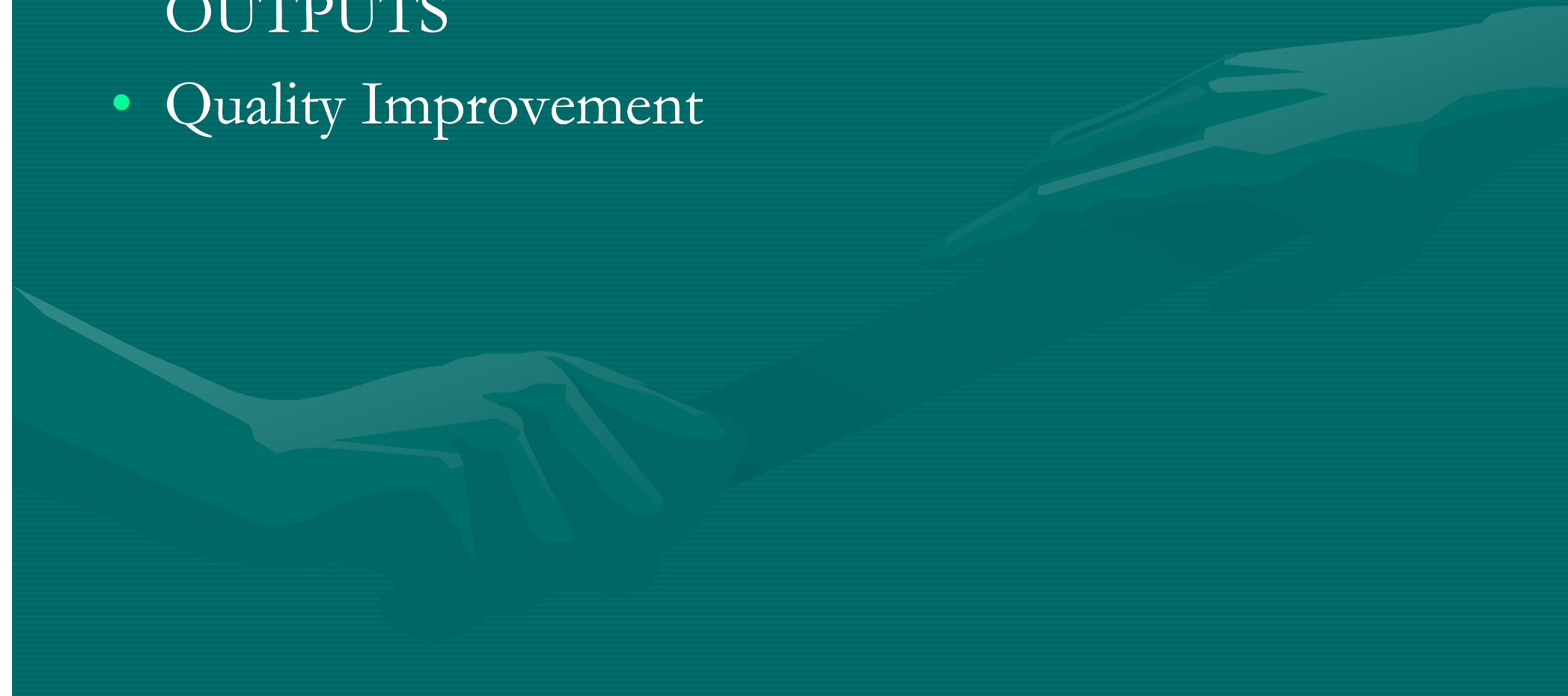
- Quality planning tools and techniques
- Quality Audits

A Look at the “Quality” PMBOK Processes

Quality Assurance

OUTPUTS

- Quality Improvement



A Look at the “Quality” PMBOK Processes

Quality Control

INPUTS

- Work results
- Quality management plan
- Operational definitions
- Checklists

A Look at the “Quality” PMBOK Processes

Quality Control

TOOLS AND TECHNIQUES

- Work results
- Inspection
- Control charts
- Pareto diagrams
- Statistical sampling
- Flow charting
- Trend analysis

A Look at the “Quality” PMBOK Processes


Quality Control

OUTPUT

- Quality Improvement
- Acceptance decisions
- Rework
- Completed checklists
- Process adjustments

A Look at the “Quality” PMBOK Processes

I don't think I've seen that much
“Quality” laid out as defined processes
in most Quality Manuals!



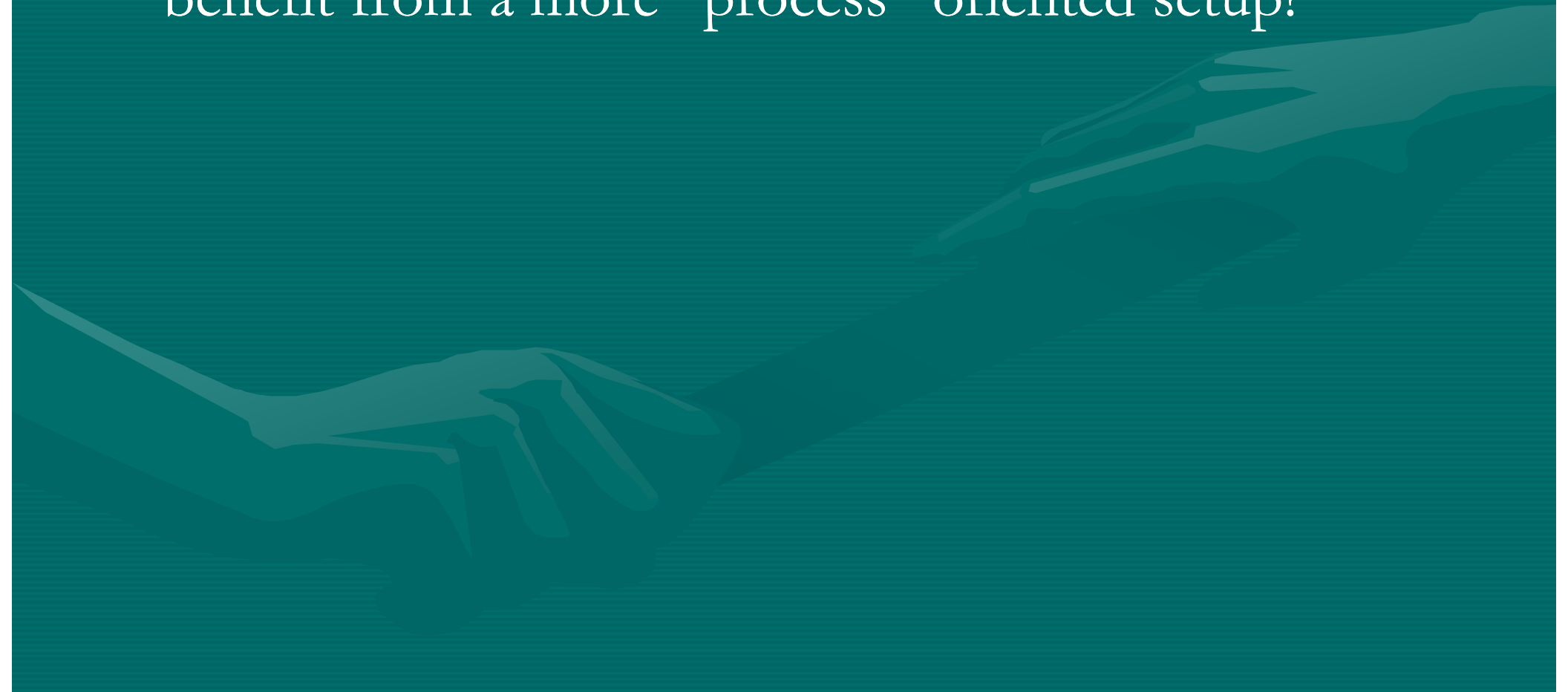
Questions

Do Six Sigma Black and Green Belts (and Quality Practitioners in general) need more Project Management Expertise?



Questions

Would the Quality BOKs and especially Six Sigma benefit from a more “process” oriented setup?



Certification

Differences

- PMP Exam is closed book
- PMP Exam is given at commercial test centers
- No fixed date.
- Results available immediately

Certification

Similarities

- Three year recertification
- Course work, Professional meetings, Professional work provide recert points
- This presentation counts for both!

More Information

- Six Sigma

www.asq.org

www.isixsigma.com

<http://elsmar.com/Forums/index.php>

Project Management

www.pmi.org

Thank You!

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