

Modeling and Simulation

Educating the DoD Communities and Services



Acquisition; Test and Evaluation

M&S Leadership Summit – 11 Feb 2008

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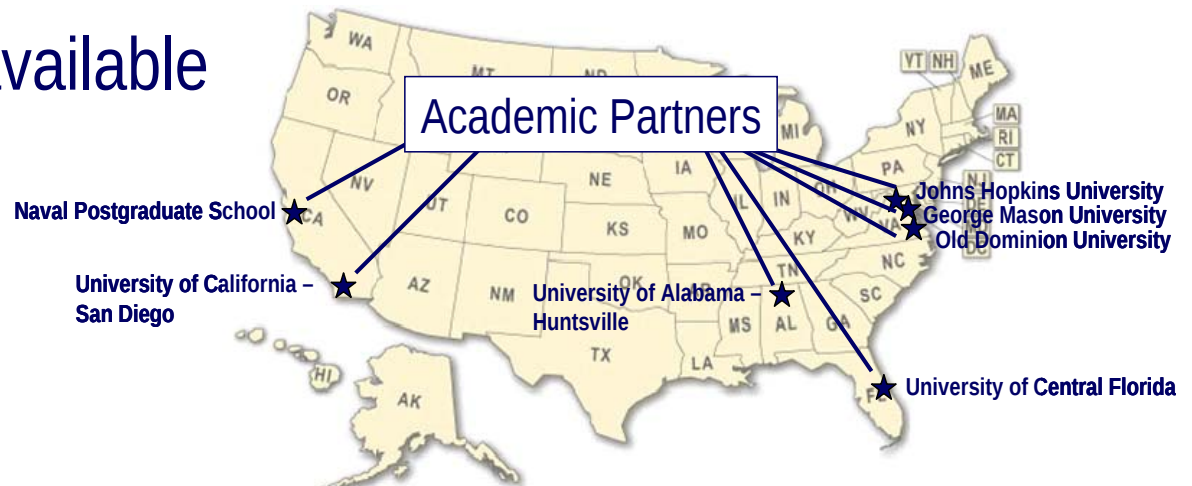
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The problem

- M&S is not realizing its potential for cost savings in DoD
 - Customers of M&S do not know how to employ M&S effectively
 - **Which** tools to use, **when** to use them, **how** to use them, **how** to get them.
 - Customers of M&S do not understand **risk** and **benefits** of using M&S
- Education can help drive wider acceptance and use

The approach

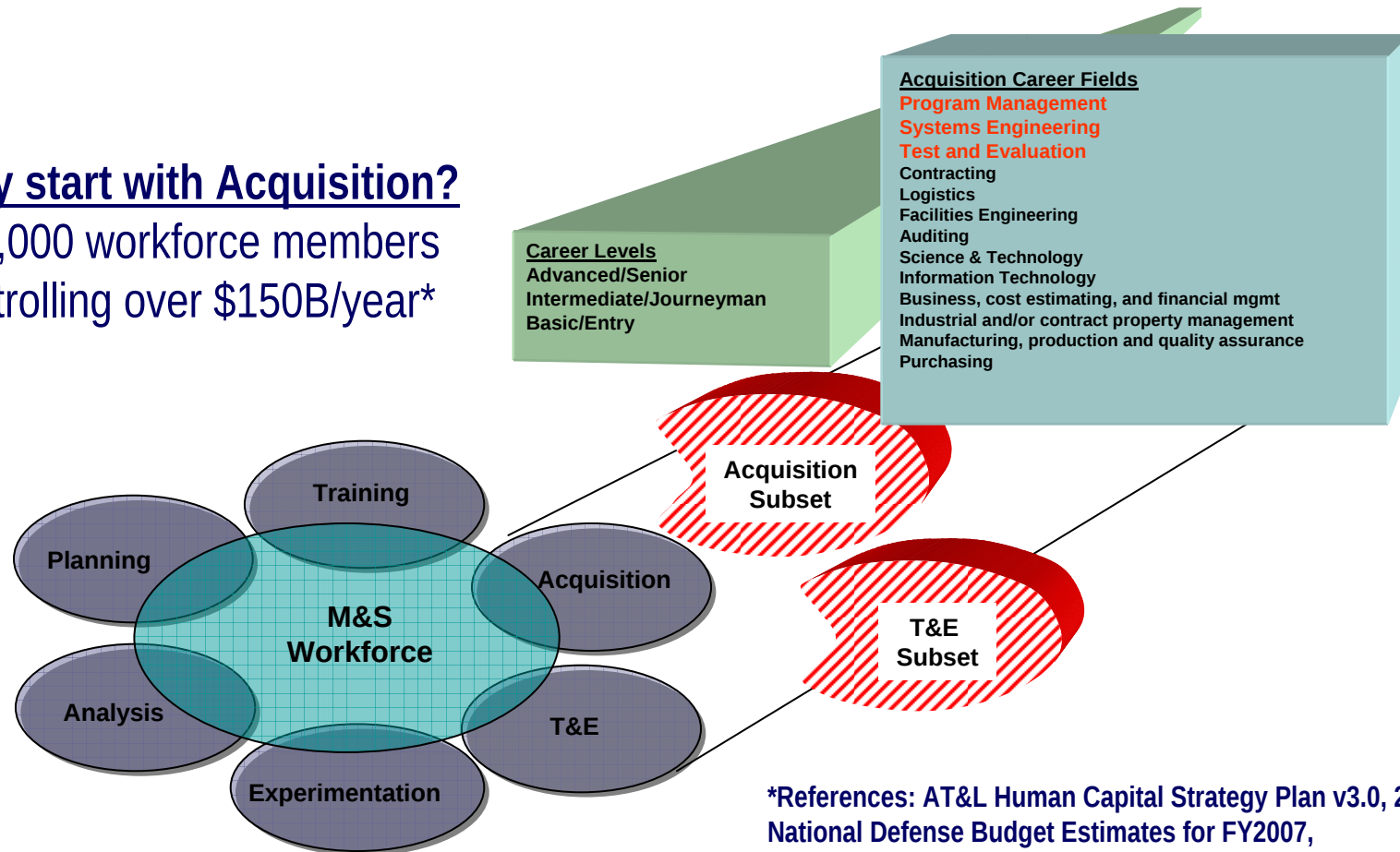
- Identify requirements using a wide set of stakeholders for focused initial audience
- Develop educational offerings using the best US university programs
- Make them widely available
 - Web
 - DAU CLMs
 - University Courses
 - Short courses
 - Public domain
- Track return on investment longitudinally



Our initial audience

Why start with Acquisition?

128,000 workforce members
controlling over \$150B/year*

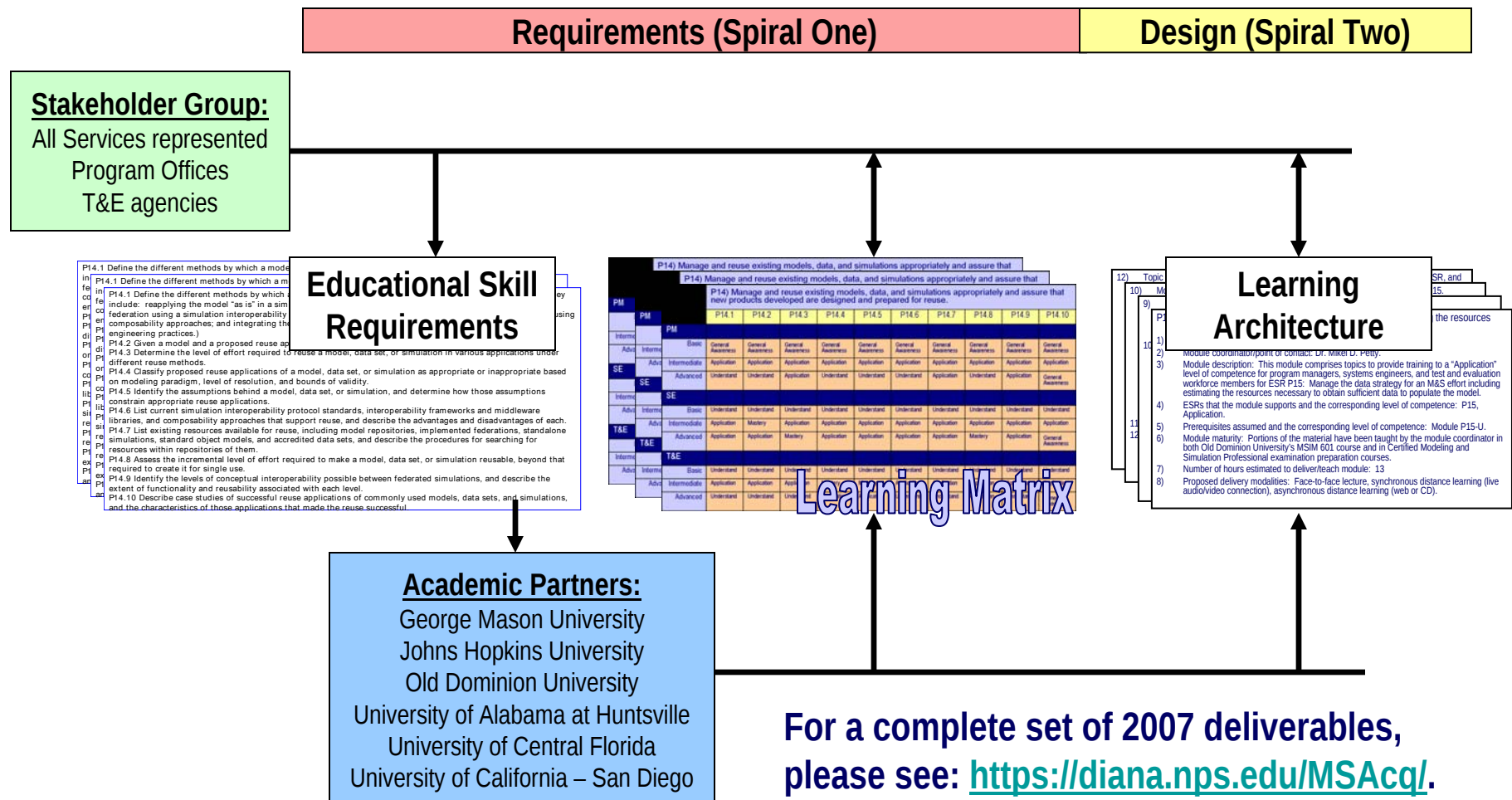


*References: AT&L Human Capital Strategy Plan v3.0, 2007;
National Defense Budget Estimates for FY2007,
<http://www.defenselink.mil/comptroller/defbudget/fy2007/>

Results to date

- Requirements identified and vetted
- Module and course syllabi developed and distributed
- Both requirements and syllabi available at <https://diana.nps.edu/MSAcq>
- Case studies to support courses developed and web-enabled
 - [Ship Shock Case Study](#)

2007 graphic



This year

- Develop and test the courses
- Develop web-delivered summary versions
- Develop CLMs for DAU
- Develop short course versions
- Develop assessment plan
- Publish “Program Manager’s Guide to M&S” Details

Details

15 Courses planned for development

M&S in the Acquisition Life Cycle, Parts One and Two
M&S Strategy and Support Plans
M&S Requirements and Evaluating M&S Proposals
Contracting for M&S
M&S In Decision Risk Analysis and Mitigation
Best Practices in M&S
M&S Environments
M&S Data Strategies
M&S for Test and Evaluation, Introduction and Advanced
Physics-based M&S
Basic Engineering Concepts in M&S, parts 1 & 2
Topics in the Application of Engineering M&S

Four Certificate programs:

- M&S Management
 - Intro to DoD M&S
 - Modeling and Simulation in the Acquisition Life Cycle, Parts 1 & 2
 - Best Practices in M&S
- M&S Acquisition
 - M&S Strategy and Support Plans
 - M&S Requirements & Evaluating Proposals
 - Contracting for M&S
 - M&S in Decision Risk Analysis
- M&S Test and Evaluation
 - M&S for Test and Evaluation. Introduction and Advanced
 - M&S Environments
 - M&S Data Strategies
- M&S Engineering Integration
 - Physics-based M&S
 - Basic Engineering Concepts in M&S, Parts 1 and 2
 - Selected Topics in the Application of Engineering M&S

**Planned NPS
Implementation**

Certificates can be credited toward resident and non-resident NPS degree programs

Issues

- Incentivizing workforce
- Funding tuition
- Embedding content into DAU core courses
- Extending to other communities
- Scaling
- Documenting cost avoidance and cost savings

Program Benefits

- Comprehensive educational program focused on **consumers** of M&S. Significant step towards satisfying DoD M&S educational needs.
- Partnership of government and academia - opportunity to influence the culture of M&S education.
- Improved workforce capabilities across all Services, activities and programs that utilize M&S.
- Increased use of M&S in acquisition to realize potential savings from simulation based acquisition in the DoD not being realized today.
- All learning materials created from this project will be public domain – the nation will not have to pay for this work again.
- 80% of course materials will support all 6 communities, and the program is constructed in a way to facilitate reuse.

Conclusion

Current path will result in products that provide the education and training that acquisition and T&E professionals need to use M&S effectively in their jobs.

For more information about this project, please see
<https://diana.nps.edu/MSAcq>, or contact:

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Questions?

Backup

M&S Education Project – Roadmap

Updated 1 August 2007

