M&S Leadership Summit

Professional Development

The purpose of this discussion area is to identify the most serious problems with the development of Modeling and Simulation professionals, including initial and continuing education, certification, and workforce metrics.

Bill Tucker
The Boeing Company
# M&S Leadership Summit

## Status of Issues from 2006 Summit

<table>
<thead>
<tr>
<th>Top Issues</th>
<th>Recommendation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M&amp;S Knowledge Skills, and Abilities</strong></td>
<td>• Establish National M&amp;S Advisory Council</td>
<td>• Concept paper drafted</td>
</tr>
<tr>
<td></td>
<td>• Charter body to sponsor M&amp;S research</td>
<td>• Significant effort applied to DOL/DOC. Neutral to negative response</td>
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<tr>
<td></td>
<td>• Support establishment of DOL/DOC tracking codes</td>
<td></td>
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<tr>
<td><strong>Workforce Development</strong></td>
<td>• Charter National body to establish M&amp;S accreditation standards</td>
<td>• None</td>
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<tr>
<td></td>
<td>• Support establishment of education standards</td>
<td></td>
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<tr>
<td></td>
<td>• Support establishment and acceptance of professional certification</td>
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<tr>
<td><strong>Workforce Management/Maintenance</strong></td>
<td>• Charter and support National body to provide M&amp;S research grants</td>
<td>• None</td>
</tr>
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<td></td>
<td>• Provide resources for workforce development projects</td>
<td></td>
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<tr>
<td></td>
<td>• Continue and grow existing service programs</td>
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</tbody>
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M&S Leadership Summit
Issues for Consideration in 2007

• M&S Knowledge Skills, and Abilities
  – Identify Body of Knowledge (BOK)
  – Sponsor M&S Research to enhance BOK
  – Establish industry and labor codes to track workforce size and investment

• Workforce Development
  – M&S accreditation standards
  – Education and curricula standards
  – M&S professional certification
  – Make education resources broadly accessible

• Workforce Management/Maintenance
  – Provide resources for initiative to expand workforce development projects across government.
  – Continue and grow existing DoD Service M&S workforce programs
M&S Leadership Summit
Professional Development

- **IDENTIFICATION:** M&S Knowledge Skills, and Abilities

- **CIRCUMSTANCES:**
  - National Body/Council Concept white paper drafted, circulating
  - Significant effort applied to DOL/DOC. Neutral to negative response
  - Effort under weigh on Body of Knowledge Index

- **ISSUE/OPPORTUNITY:**
  - Support National Body/Council concept to coordinate BOK development, enhancement
  - Identify Body of Knowledge (BOK)
  - Sponsor M&S Research to enhance BOK
  - Establish industry and labor codes to track workforce size and investment

- **PROPOSED ACTIONS:**
  - Support ongoing broadly participatory program to identify BOK
  - Charter body to sponsor M&S research to extend BOK, following research agenda
  - Support establishment of DOL/DOC tracking codes to support need prioritization
M&S Leadership Summit
Professional Development

• **IDENTIFICATION:** Workforce Development
• **CIRCUMSTANCES:**
  – Increased M&S offerings from several universities
  – Work toward undergraduate M&S education program in Arizona
  – M&S skill code in major industry
• **ISSUE/OPPORTUNITY:**
  – M&S accreditation standards
  – Education and curricula standards
  – Make education resources broadly accessible
• **PROPOSED ACTIONS:**
  – Charter National agency to establish M&S accreditation standards
  – Support establishment of education standards
  – Support establishment and acceptance of professional certification
M&S Leadership Summit
Professional Development

• **IDENTIFICATION:** Workforce Management/Maintenance
• **CIRCUMSTANCES:**
  – Better coordinated approach to DOL, DOC
  – Multiple local activities
• **ISSUE/OPPORTUNITY:**
  – Improved cooperation among initiatives
  – Provide resources for workforce development projects
  – Continue and grow existing service programs
• **PROPOSED ACTIONS:**
  – Collect labor and industry metrics to guide industry and academic investment in the workforce
  – Charter and support National body to coordinate and lead M&S prioritization, leading to academic recognition
M&S Leadership Summit

Professional Development *Out Brief*

The purpose of this discussion area is to identify the most serious problems with the development of Modeling and Simulation professionals, including initial and continuing education, certification, and workforce metrics.

Chair:

Bill Tucker
# M&S Leadership Summit

**Out Brief – (Professional Development)**

<table>
<thead>
<tr>
<th>Top Issues of 2007</th>
<th>Actionable Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M&amp;S Education</strong></td>
<td><strong>Establish M&amp;S as National Critical Technology to seed investment in M&amp;S Education</strong></td>
</tr>
<tr>
<td>Professional and continuing education,</td>
<td></td>
</tr>
<tr>
<td>as well as undergraduate through PhD academic education</td>
<td></td>
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<tr>
<td><strong>M&amp;S education in K-12</strong></td>
<td><strong>Working with other education oriented Caucuses, encourage application of M&amp;S to attract, motivate, and educate students</strong></td>
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<tr>
<td>Use M&amp;S to both increase interest in field, and to</td>
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<tr>
<td>teach math, science, and technology</td>
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<tr>
<td><strong>Improve, Strengthen Certification Program</strong></td>
<td><strong>Endorse requirement for rigorous M&amp;S certification in government programs</strong></td>
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<tr>
<td>Add levels and areas of certification,</td>
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<tr>
<td>obtain broader adoption, less competition</td>
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## M&S Leadership Summit

**Out Brief – (Professional Development)**

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<tr>
<td>Department of Labor and Commerce Statistics</td>
<td><em>Endorse and support Industry efforts to establish tracking codes for businesses and individuals</em></td>
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<tr>
<td>Provide data about business and workforce numbers, economics</td>
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</tr>
<tr>
<td>Establish and support Body of Knowledge</td>
<td><em>Establish M&amp;S as a National Critical Technology</em></td>
</tr>
<tr>
<td>Maintain BOK as basis for education, certification, and research programs</td>
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<tr>
<td>National M&amp;S Entity</td>
<td><em>Participate in development of strategic plan, support results</em></td>
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<tr>
<td>Body to provide research grants, support certification programs, accredit education programs, provide visibility of industry</td>
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