ITEM 1

8. Call to Order

9. Adoption of Agenda

10. Announcements including Celebrations

11. Consent Items for Action

12. Report on Closed Session

13. Open Session Agenda Items

14. Adjournment

1 Numbers are sequential from previous FY meetings.
LIST OF APPENDICES

I. Proposed Appointments

II. Update to By-law B4.3.4 under section 4.3 Officers for First Reading - Clarity of Executive Director’s Responsibilities

III. Revision of Strategy Flyer

IV. Board Retreat Follow-up and Hindsight

V. Strategic Topic – Learning and Development

VI. Tiger Team – Segregated Accounts

VII. Committee of Honors Annual Report

VIII. Committee of Organization and Rules Annual Report

IX. Committee of Past Presidents Annual Report
8. **Call to Order:**

On September 28, 2017, a meeting of the Board of Governors of the American Society of Mechanical Engineers was held in Montclair, NJ at the University Hall Conference Center at Montclair State University. A quorum being present, the meeting was called to order by the President at 8:40 AM Eastern Time. Attendance was as follows:

**Board of Governors**
- President: Charla K. Wise
- Immediate Past President: K. Keith Roe
- President-Nominee: Said Jahanmir
- Governors: Stuart Cameron, Bryan A. Erler, Caecilia Gotama, Mahantesh Hiremath, Karen J. Ohland, Sriram Somasundaram, Mary Lynn Realf, William J. Wepfer

- Absent: Robert E. Grimes

**Governor-Nominees:** Joe Fowler, Michael Molnar, Karen Thole

**Other Officers**
- Senior Vice Presidents: Sam Korellis, Standards and Certification
- Richard C. Marboe, Technical Events and Content
- Paul D. Stevenson, Student & Early Career Development
- Tim Wei, Public Affairs & Outreach Sector

- Senior Vice Presidents Elect: Kalan Guiley, Public Affairs & Outreach Sector
- Callie Tourigny, Student & Early Career Development Sector

- Secretary and Treasurer: James Coaker

- Executive Director: Thomas G. Loughlin

- Assistant Secretary: John Delli Venneri

- Assistant Treasurer: William Garofalo

**Corporate Counsel**
- John Sare

**Committee Chairs**
- John Goossen: Strategy Advisory Committee
9. **Adoption of the Agenda:** The Board

VOTED: To adopt the agenda as circulated on September 13, 2017.

10. **Announcements:**

President Wise welcomed all to the meeting and celebrated recent milestones by ASME volunteers and staff by giving those in attendance a chance to acknowledge and celebrate any significant events. President Wise recognized Past Presidents Bob Sims and Sam Zamrik.

11. **Consent Items for Action:** The Board

VOTED: To approve the following items: (1) Proposed Appointments (Agenda Appendix 2.4.3 and Minutes Appendix I); (2) Update to by-law B4.3.5 under section 4.3 Officers- for First Reading(Agenda Appendix 2.4.4 and Minutes Appendix II); (3) Revision of Strategy Flyer (Agenda Appendix 2.4.5 and Minutes Appendix III).

12. **Report on Closed Session**

Secretary/Treasurer Jim Coaker reported on the Closed Session held on the afternoon of September 27, 2017, at which the Board:

(1) Approved the appointments of:

(a) Kalan Guiley as 2018-2021 Public Affairs & Outreach Senior Vice President
(b) Callie Tourigny as 2018-2021 Student & Early Career Development Senior Vice President
(2) Accepted and approved the FY17 Audited Financial Statements as presented by KPMG
(3) Approved the appointment of KPMG as auditors for the FY18 audit
(4) Approved the FY17 Incentive Compensation Performance results for the Enterprise as outlined in the table in Agenda Appendix 1.7
(5) Authorized the Executive Director of the Society to execute and deliver a lease agreement related to ASME’s Washington, DC office
(6) Approved the components of the Integrated Operating Plan (IOP) related to FY18 and the corresponding FY18 budget
(7) Discussed the FY18 Enterprise Incentive Objectives
(8) Received a legal report
(9) Received an update on the defined benefit plan.

13. **Open Session Agenda Items:**

The Board heard reports concerning and discussed the following items:

(1) President’s Remarks: President Wise congratulated everyone on the IOP team including senior management, Laura Hitchcock, Jeff Patterson, Senior Vice Presidents, and Rob Pangborn for the outstanding job of refining the Integrated Operating Plan. She discussed the three tiger teams that have convened to date: (1) Segregated Accounts (2) ASME Resource Planning related to IOP; (3) Brainstorming: What would ASME Look Like if it Started Today.

(2) Executive Director’s Remarks: Tom Loughlin mentioned the recent hurricanes and acknowledged the generosity of ASME staff who have donated 75 PTO days and $4,538.62 toward the victims of Hurricane Harvey, Irma, Maria, and the earthquake in Mexico. He also acknowledged the work of the Integrated Operating Plan, and how volunteers worked together with staff as part of a collective effort. He discussed the culture survey that was conducted at ASME in July, which led to an all day workshop around the survey results.

(3) Introductions: Following on the precedent from the June 14, 2017 meeting, Mike Molnar, Karen Thole, Paul Stevenson, Tim Wei, all of whom were unable to attend on June 14, and John Goossen, who is the Chair of the new Strategy Advisory Committee, introduced themselves.

(4) Planning for FY19 IOP/Budget: Said Jahanmir remarked the IOP process for FY18 was the first time this type of plan was created for ASME. Jeff Patterson said that the FY18 IOP planning process will be an opportunity to learn and improve for FY19. Jeff Patterson and Said Jahanmir will co-chair the IOP team for FY19. They will present a plan and schedule for IOP development to the Board in November. The plan is to present FY19 IOP to COFI by March to ensure that it aligns with the budget cycle.

(5) Board Retreat Follow-Up and Hindsight: Elena Gerstmann and Charla Wise discussed the retreat output from the July Board of Governors Retreat led by Syntegrity Group. The Syntegration produced approximately 26 recommendations and numerous ideas. The output

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² In addition to the budget presented in the IOP, the Board also approves ($750k) in 2018 expenses related to the Executive Director search.
was organized into a manageable framework consisting of objectives, supported by strategies, supported by the recommendations and other ideas. The core team reviewed and then it was used at the Post Syntegration session where participants were asked to further refine the information into a robust, actionable roadmap. PEDT will receive status reports in between Board meetings. The Board will receive updates during each FY18 Board meeting.

(6) Strategic Topic- Learning and Development: Dennis Kilian and Arin Ceglia introduced the plans around growing ASME’s Learning and Development program. They explained the ASME Learning and Development team is dedicated to capturing and communicating the knowledge and experiences of engineering subject matter experts using an approach to learning and teaching that focuses on how academic and theoretical topics are applied in practice by today’s engineers.

(7) Tiger Teams- Segregated Accounts: Jeff Patterson discussed the Tiger Team on Segregated Accounts, which is working to determine the future of ASME volunteer groups and distribution of funds in the segregated accounts. A Division Leaders meeting was held in September to begin identifying the issues and working toward resolution.

(8) Information Items
(1) Committee on Honors Annual Report (Agenda Appendix 5.1)
(2) Committee on Organization and Rules Annual Report (Agenda Appendix 5.2)
(3) Committee of Past Presidents Annual Report (Agenda Appendix 5.3)

14. Adjournment:

The meeting adjourned on Thursday, September 28, 2017 at 11:45 AM Eastern Time.

________________________
James Coaker
Secretary
AGENDA ITEM 2.4.3 - PROPOSED APPOINTMENTS

Date Submitted: September 5, 2017
BOG Meeting Date: September 27-28, 2017

To: Board of Governors
From: Committee of Organization and Rules
Presented by: COR
Agenda Title: Proposed Appointments

Agenda Item Executive Summary:

Proposed appointments reviewed by the COR on September 5, 2017.

Proposed motion for BOG Action:

To approve the appointments listed in Agenda Appendix 2.4.3

Attachments: Document attached.
## SEPTEMBER 2017
## PROPOSED APPOINTMENTS
## TO AN ASME UNIT

<table>
<thead>
<tr>
<th>Internal Unit</th>
<th>Nominee</th>
<th>Appointment Position/Title</th>
<th>Appointment Term/Category</th>
<th>Appointment Type</th>
<th>History</th>
</tr>
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<tbody>
<tr>
<td>Group Engagement Committee</td>
<td>John Mulvihill</td>
<td>Chair</td>
<td>7/2017 – 6/2018</td>
<td>Initial</td>
<td>Current: TEC Sector Board, Committee on Honors</td>
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## PROPOSED APPOINTMENTS
## TO EXTERNAL UNIT

<table>
<thead>
<tr>
<th>External Unit</th>
<th>Nominee</th>
<th>Appointment Position/Title</th>
<th>Appointment Term/Category</th>
<th>Appointment Type</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Tribology Council</td>
<td>Bharat Bhushan</td>
<td>ASME Representative</td>
<td>7/2017 – 6/2021</td>
<td>Initial</td>
<td>Current: Tribology Division Chair</td>
</tr>
</tbody>
</table>
ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: September 1, 2017
BOG Meeting Date: September 27, 2017

To: Board of Governors
From: Keith Roe, Chair EDESC
Presented by: Keith Roe
Agenda Title: Update to By-Law B4.3.5- Clarity of Executive Director Responsibilities

Agenda Item Executive Summary: (Do not exceed the space provided)

A redlined version of the proposed change is attached, as well as a clean proposed version.

The reason for the recommended change is to add greater clarity to the scope of the Executive Director's responsibilities and to better reflect current Society operations.

Proposed motion for BOG Action: (if appropriate)

Approval of the Changes to By-Law B-4.3.5

Attachments: Redlined version of revised By-Law
B4.3.5 The Executive Director shall be an employee reporting directly to the Board, an ex officio member of the Board of Governors without vote and the chief operating executive Officer of the Society, an ex officio member of the Board of Governors without vote. The Executive Director shall have supervision, direction and management of the business and affairs of the Corporation, including, but not limited to strategy, operations, finance, marketing, human resources and philanthropic efforts. The Executive Director and shall have such powers and perform such duties as the Board of Governors may from time to time prescribe.
Proposed Final Version

B4.3.5 The Executive Director shall be an employee reporting directly to the Board, an ex officio member of the Board of Governors without vote and the chief executive officer of the society. The Executive Director shall have supervision, direction and management of the business and affairs of the Corporation, including, but not limited to strategy, operations, finance, marketing, human resources and philanthropic efforts. The Executive Director shall have such powers and perform such duties as the Board of Governors may from time to time prescribe.
ASME Board of Governors Agenda Item
Cover Memo

Date Submitted: September 12, 2017
BOG Meeting Date: September 27 & 28, 2017

To: Board of Governors
From: ASME Strategy Advisory Committee
Presented by: John Goossen and Elena Gerstmann
Agenda Title: Revisions to Strategy Flyer

Agenda Item Executive Summary:

ASME Strategy Advisory Committee (SAC) recommends revisions to the Strategy document that was approved by the Board in June 2017. The attachment includes all recommended edits.

Part of SAC’s role is to evaluate strategy-related documents and provide guidance to the Board of Governors. The revisions requested are meant to further clarify the purpose of the document and the strategy itself.

Following the Board’s approval, SAC will have the content designed into a new “flyer” that can be shared on ASME.org and throughout the organization. Printed versions will be available during IMECE in November, 2017. It will be central to the new communications plan.

Proposed motion for BOG Action:

Whereas the Strategy Committee does not intend to change the strategy but would like to clarify the Strategy and the relationship between various elements of the Strategy;

Whereas the Strategy Committee recommends that certain changes to the ASME Strategy Document be made to communicate these clarifications;

The Board of Governors hereby approves the revisions to the ASME Strategy Document as recommended by the Strategy Advisory Committee and detailed in Appendix 2.4.5.

Attachments:
Appendix 2.4.5 -- ASME Strategy Draft 9.13.2017
ASME Strategy

The overall strategy consists of various elements driven by the Mission and Vision through Objectives and Goals to an Integrated Operating Plan which sets budgets and targets for all of ASME including staff and volunteers of the Segments, Divisions, Councils, and Sections.

Changed title from “ASME Strategic Plan” to “ASME Strategy”
Added the sentence below ASME Strategy. This may be used in communications but its inclusion is at the communicator’s discretion.
The graphic is new. The use of the graphic and its text may be revised, as needed, for communications purposes.
Mission
ASME’s mission is to serve diverse global communities by advancing, disseminating and applying engineering knowledge for improving the quality of life; and communicating the excitement of engineering.

Vision
ASME aims to be the essential resource for mechanical engineers and other technical professionals throughout the world for solutions that benefit humankind.

Credo
Setting the Standard...
- In Engineering Excellence
- In Knowledge, Community & Advocacy
- For the Benefit of Humanity

Core Values
In performing its mission, ASME adheres to these core values:
- Embrace integrity and ethical conduct
- Embrace diversity and respect the dignity and culture of all people
- Nurture and treasure the environment and our natural and man-made resources
- Facilitate the development, dissemination and application of engineering knowledge
- Promote the benefits of continuing education and of engineering education
- Respect and document engineering history while continually embracing change
- Promote the technical and societal contribution of engineers

Enterprise Strategic Objectives:
ASME will:
- Be relevant and impactful to global constituents by being the recognized leader in advancing engineering technology.
- Be the go-to organization to help address key technology-related challenges in the public interest in a manner that engages core engineering constituencies (government, academia, industry, engineers, students, and technology development professionals).
- Have a unified organizational structure and culture that encourages and empowers members and other interested individuals to find their lifelong professional home where they can impact the world, contribute content, share ideas, participate in communities, and work on projects that improve the human condition.
10 Year Society Goals
The ASME Society Goals are continuous goals and will be achieved at various stages over the ten year horizon.

- ASME is an internationally-renowned thought leader and networking hub for engineering knowledge and information, best practices, and events.
- ASME enables collaboration among industry, government, and academia to advance the cause of engineering worldwide.
- ASME’s engagement is open and seamless, empowering individuals worldwide to contribute, communicate, and consume engineering content to solve technical problems.
- ASME is globally respected for its Standards and Certification programs and is recognized for enhancing public safety and improving quality of life for humankind.
- ASME offers education and training programs to prepare the workforce of tomorrow to address the world’s challenges.
- ASME engages and inspires future generations to pursue careers in engineering.
- ASME’s growing impact on the world is enabled by a well-managed and diversified revenue stream that provides sustainable financial health.

Strategic Actions
The essence of the ASME strategy can be summed up in the Five Strategic Actions described below. The Strategic Actions apply to all sectors, councils, divisions, sections, and technologies, staff, and volunteers throughout the organization.

- **Leadership** - Increase recognized value by executive leadership, as a technology innovation partner, by leveraging and mobilizing the expertise of our community.
- **Technology Portfolio** – Create and manage a well-balanced, sustainable technology portfolio along with associated industry- and geography-based strategies.
- **Solutions Portfolio** – Strengthen and expand solutions portfolio: defend Standards & Certification against agile competitors; solidify and diversify ASME’s revenue base by developing solutions with strong customer demand; establish deeper expertise in content and technology development and deployment across the Technology Development Curve.
- **Collaboration** – Enhance ASME’s impact in the mechanical engineering field by broadening collaboration with peers, creating greater scale and impact, reducing barriers to entry, and expanding diversity and student engagement.
- **Engagement** – Increase core constituent engagement around the world by providing high-value, relevant, impactful, and rewarding opportunities to network, participate, and learn through a branded set of technology- and purpose- advancing activities delivered through a variety of platforms.
THE STARTING POINT
To promote Strategic Growth, the Strategy is initially focused on the Technology Portfolio, and specifically on the Five Core Technologies and Eight Enabling Applications and Cross-cutting Technologies listed below:

FIVE CORE TECHNOLOGIES

The following five core technologies have been initially identified as key to the overall Strategy. Each technology has a Technology Advisory Panel (“TAP”) of experts in their field and their role is to provide technology and market insights, identify constituent needs, and to provide advice for potential new ASME products and services and greater constituent engagement.

In addition to these five core technologies, ASME’s breadth and depth also include the rich technologies represented by its Technical Divisions, Groups, and Standards Committees.

Manufacturing
- The technologies associated with traditional and advanced manufacturing from product design through to production.

Pressure Technology
- The technologies applicable to the design, materials, fabrication, examination, installation, commissioning, and maintenance of pressure equipment.

Clean Energy
- The technologies for electric power generation, storage, distribution and usage while minimizing the impact on the environment.

Bioengineering
- The technologies associated with application of the engineering processes in developing products, pharmaceuticals, biologics, cosmetics, food supplements, the prevention and treatment of disease.

Robotics
- The technologies for industrial machine systems and emerging areas such as service robots, drones, and autonomous vehicles.

EIGHT ENABLING APPLICATIONS AND CROSS-CUTTING TECHNOLOGIES

In addition, eight enabling applications and cross-cutting technologies have been identified.

- Internet of things (IoT)
- Big data analytics
- Artificial intelligence
- Cybersecurity
• Sustainability
• Materials
• Nanotechnology
• Design engineering
Before we begin...

• Thank you again for participating... but you aren’t off the hook yet
• We need to keep our momentum
  – We will be having an update at every BOG meeting
  – PEDT will review progress along the way
What to Expect from Presentation

- **Brief Description** – Provide a summary of the retreat output and hold a discussion of thoughts on future retreats.
- **Desired Outcome** – Board members will understand where we are with projects coming from the retreat.
- **Questions** – Please ask clarifying questions throughout the presentation but hold general questions until after the presentation.
- **Duration** – Presentation: 20 Minutes; Discussion: 25 Minutes.
Context

- **ASME Board Summer Retreat Syntegration**
  - July 12, 13, 14, 2017, Coeur D’Alene, Idaho

- ASME convened a diverse group of participants representing the Board of Governors, current and incoming presidents, governors-elect, volunteers and key executive staff to address the following question:

  “Given the Strategic Plan and Integrated Operating Plan, what must we start doing now and over the next 3 years to continue moving forward on our five Strategic Actions and best position ASME to realize our Enterprise Strategy over the next 10 years?”
Objectives

- Involve volunteer and staff leaders in deep-dive thinking about the next steps of the strategy and future of ASME and to help:
  - In co-creating the answers.
  - Ensuring engagement.
  - Building stronger working relationships and partnerships.
  - Fostering buy-in and alignment.

- Build upon and use all the components of the Strategic Plan and the past and existing documents that provide strategic guidance.

- Consider ways to re-capture the “heart and soul” of the ASME community.

- Understand potential and real barriers to action.

- Unify and build upon the strengths and talents of the Team.
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<table>
<thead>
<tr>
<th>Topic Color</th>
<th>Topic Name</th>
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<tbody>
<tr>
<td>Red</td>
<td>Strategy &amp; Metrics</td>
</tr>
<tr>
<td>White</td>
<td>Roles &amp; Responsibilities</td>
</tr>
<tr>
<td>Orange</td>
<td>Hearts, Minds &amp; Soul</td>
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<tr>
<td>Brown</td>
<td>External Engagement</td>
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<td>Blue</td>
<td>Fulfill Our Mission in a Business-Like Way</td>
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<tr>
<td>Green</td>
<td>Membership Engagement</td>
</tr>
<tr>
<td>Silver</td>
<td>Future of Standards &amp; Certification</td>
</tr>
<tr>
<td>Purple</td>
<td>Expanding Our Base</td>
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</table>
8 Topic Agenda as Determined by Participants

- Hearts, Minds & Soul
- Fulfill Our Mission in a Business-Like Way
- Roles & Responsibilities
- Expanding Our Base
- Future of Standards & Certification
- Strategy & Metrics
- Membership Engagement
- External Engagement
Output From Retreat

• The Syntegration produced approximately 26 recommendations and numerous other ideas.

• Output was organized into a more manageable framework consisting of objectives, supported by strategies, supported by the recommendations and other ideas.

• The core team reviewed and then it was used at the PS Session where participants were tasked to further refine it into a robust, actionable roadmap.
Post Syntegration (PS) Session

• 15 participants focused on refining, scoping and building an action plan with ownership, timing, and budgeting requirements identified.

• Three breakout groups worked through thematically-connected recommendations, developed next steps, and a timeline.
Deliverables – All in Board Effect
(Historical record for Board-use only)

From the PS Session:
✓ Executive Summary of the Final Results — PowerPoint (this presentation).
✓ Reference Document — Word document containing details behind the final results
debrief (share with project teams to help them finalize project plans).
✓ Roadmap — Excel file containing all plan details (ready to hand to a project
manager).
✓ Gantt charts — PDFs.

From the Syntegration:
✓ Syntegration Binder — all participants have this.
✓ Syntegration Results — Word Document (final output for ease of reference that
provides additional support for project teams).
✓ Electronic output of all content produced (3 Rounds, Statements of Importance, etc.).
✓ Final Presentations — PowerPoint containing the Topic recommendations.
Organizing Framework

Goal (Question)

- Strategic Objective 1
  - Strategies
  - Recommendations

- Strategic Objective 2
  - Strategies
  - Recommendations

- Strategic Objective 3
  - Strategies
  - Recommendations
Over the next three years, leveraging our Strategy and Integrated Operating Plan, we continue moving forward “together” on our five Strategic Actions and realize our Enterprise Strategy over the next 10 years.

<table>
<thead>
<tr>
<th>[1] Fulfill our Mission by clarifying and aligning to our strategy and operating goals</th>
<th>[2] Strengthen our Technology and Solutions Portfolios to expand our influence and reach</th>
<th>[3] Reclaim the hearts, minds and soul of ASME and secure our Leadership Position while increasing Engagement, Collaboration and diversity through this <strong>holistic engagement model</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Release our Strategy now and communicate and clarify it across ASME</td>
<td>A. Diversify our reach and connection to key stakeholders and future markets for all products and services</td>
<td>A. Communicate, celebrate and collaborate to energize and engage the hearts, minds and soul of ASME</td>
</tr>
<tr>
<td>B. Develop a robust strategic plan and metrics which enables alignment across ASME</td>
<td>B. Ensure the strength and future of S&amp;C</td>
<td>B. Expand and reinvigorate ASME’s diverse global community</td>
</tr>
<tr>
<td>C. Transform how we prioritize, operationalize and measure what we choose to pursue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Provide clarity around 2 key issues to move forward</td>
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</table>
Everything from the retreat was kept

Over the next three years, leveraging our Strategy and Integrated Operating Plan, we continue moving forward on our five Strategic Actions and best position ASME to realize our Enterprise Strategy over the next 10 years

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<tbody>
<tr>
<td>[1]</td>
<td>Fulfill our Mission by clarifying and aligning to our strategy and operating goals</td>
<td>[2]</td>
</tr>
<tr>
<td>Technology Portfolio, Solutions Portfolio</td>
<td>Leadership Position, Technology Portfolio, Solutions Portfolio</td>
<td>Leadership Position, Collaboration, Engagement</td>
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</table>

**Strategies**

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<tr>
<td>B.</td>
<td>Red 2, 3, White 3, Green 3</td>
<td>B. Silver 1, 2, 3, 4</td>
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<tr>
<td>C.</td>
<td>Blue 1, 3, White 2</td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>Blue 2, White 1</td>
<td></td>
</tr>
</tbody>
</table>
1) Fulfill our Mission by clarifying and aligning to our strategy and operating goals

- **Release our Strategy now and communicate and clarify it across ASME**
  - Start sharing the ASME Strategy ASAP—publish it.
  - Develop a robust communication plan.

- **Develop a robust strategic plan and metrics, which enables alignment across ASME**
  - Write a fuller strategic plan with sector plans incorporated.
  - Review the strategy, clarify Society goals and flowdown.
  - 10 year Society goals and 1 to 3 year operating goals.
  - Empower segments, sectors, and divisions to align with new plan, linking 1-year goals with ASME’s Five Strategic Actions across the organization.
1) Fulfill our Mission by clarifying and aligning to our strategy and operating goals [continued]

• **Transform how we prioritize, operationalize and measure what we choose to pursue**
  – Run the FY-18 IOP through the filter of the 5 SAs and rank order the actions in the IOP.
  – Define a structured IOP development process through a Tiger Team (includes prioritization process).
  – Review the FY19-IOP to verify compliance with Strategic Plan and actions for FY-19.

• **Provide clarity around 2 key issues to move forward**
  – EDESC will propose revisions to bylaws related to ED and President R&R for first read at the September BOG.
  – At the September BOG, reaffirm or modify the goals of “double the revenue” and “50% revenue from S&C.”
2) Strengthen our **Technology and Solutions** Portfolios to expand our influence and reach

- **Diversify our reach and connection to key stakeholders and future markets for all products and services**
  - Create industry multi-society conference workshops.
  - Develop educational and outreach engagement packages / toolboxes tied to the selected technologies (5+1).
  - Develop dialogue opportunities for government, policy, tech, international and strategy, tailored to the 5 SAs—targeting 3 to 5 events in the first year.
  - Launch an Engineering Ambassador program.
2) Strengthen our **Technology and Solutions Portfolios** to expand our influence and reach [continued]

- **Ensure the strength and future of S&C**
  - Conduct a lean exercise on standards.
  - Evaluate the use of benchmarking to look for potential options to address choke points identified within the lean exercise.
  - Communicate the value of standards—gather and share success stories.
  - Identify new S&C opportunities and leverage new and existing ASME events as research sources.
  - Deliver standards data in a format that meets the needs of users.
3) Reclaim the hearts, minds and soul of ASME and secure our Leadership Position while increasing Engagement, Collaboration and diversity through this holistic engagement model.
3) Reclaim the hearts, minds and soul of ASME and secure our Leadership Position while increasing Engagement, Collaboration and diversity through this holistic engagement model

- Communicate, celebrate and collaborate to energize and engage the hearts, minds and soul of ASME
  - Plan a March 2018 Leadership Training event.
  - Evaluate survey results from task forces and missing group feedback to determine new surveys needed.
  - Collaborate with Strategy group to deliver 101 seminars.
  - Determine new/alternative methods of celebrating volunteers, members, staff and groups and the outcomes they create together.
  - Create tools and resources to enhance collaboration among volunteers, members and staff.

Increase industry engagement / recognition.
3) Reclaim the hearts, minds and soul of ASME and secure our Leadership Position while increasing Engagement, Collaboration and diversity through this holistic engagement model [continued]

- **Expand globally and reinvigorate ASME’s diverse global community**
  - Create project plan to develop a catalog of products/programs and services.
  - Develop a project plan to increase group engagement opportunities.
  - Explore multiple levels of membership.
  - Create a funding model for group activities (segregated accounts).
  - Construct SROI.
  - Plan and execute activities to increase membership diversity.
  - Evaluate the focus on China, India and Europe—do we continue in these regions, are there other offices to open?
  - Evaluate International sections and national society partnerships to increase engagement.
Emergent Themes (across several topics)

• The need for clarity and alignment with the:
  – Strategy (Strategic Plan)
  – Five Strategic Actions (the how)
  – Five Core Technologies
  – Current (“legacy”) technologies that do not fit the Five Core Technologies
  – IOP

• Communication—the need for better communication on ASME’s future direction

• Prioritization—the need to choose how to best allocate resources

• The future of the Golden Goose (that is, S&C)
Next Steps

• Refine program prioritization based resource load and balance
  – Reasonable & realistic expectations
• When possible, align project results with existing projects
• Share updates at every Board meeting
  – PEDT will review in-between board meetings
• Project view of each action item with names
## Project Reviews by PEDT & Board

### STRATEGIC OBJECTIVE

**O-1 Fulfill our Mission by clarifying and aligning to our strategy and operating goals**

- **Please our Strategy now and communicate it across ASME**
  - Gerstmann
  - July 2017
  - July 2017

- **Start sharing the ASME Strategy ASAP—publish it.**
  - Good
  - Gerstmann
  - July 2017

- **Develop a robust communication plan and launch.**
  - Gerstmann
  - July 2017

- **Develop a robust strategic plan and metrics, which enables alignment across ASME.**
  - Gerstmann
  - July 2017

- **Write a fuller strategic plan with sector plans incorporated.**
  - Good
  - Gerstmann
  - July 2017

- **Review the strategy, clarify Society goals and flowdown.**
  - Good
  - Gerstmann
  - July 2017

- **10 year Society goals and 1 to 3 year operating goals.**
  - Good
  - Gerstmann
  - July 2017

**Comments:**
- July 15 - published revised flyer to ASME org.
- July 21 - sent revised flyer to Board SVPz, and EMT

### VOLUNTEER/STAFF

<table>
<thead>
<tr>
<th>VOLUNTEER/STAFF</th>
<th>START DATE</th>
<th>END DATE</th>
<th>STATUS (COLOR)</th>
<th>RUNNING STATUS REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>July 2017</td>
<td>July 2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gerstmann</td>
<td></td>
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</tr>
</tbody>
</table>

### STRATEGIC OBJECTIVE

**O-2 Strengthen our technology portfolio and solutions portfolio for our businesses and expand our impact and reach**

- **Versify our reach and connection to key stakeholders and future markets for products and services**
  - Create industry multi-society conference workshops.
  - Develop educational and outreach engagement packages leveraging selected technologies (5+).
  - Develop dialogue opportunities for government, policy, and strategy, tailored to the 5 SAs—targeting 3 to 5 events.
  - Launch an Engineering Ambassador program.
  - Ensure the strength and future of S&C.
  - Conduct a lean exercise on standards.

**Comments:**

- Plan a March 2018 Leadership Training event.
- Evaluate survey results from task forces and missing group feedback and determine new surveys needed.
- Collaborate with Strategy group to deliver 101 seminars.
The Story in Short

Challenge
ASME needs to stay relevant in a changing world and lacks a robust strategy and common goals that it can unite behind.

Opportunity
We are well positioned to lead in our core business, grow in key technologies and leverage the passion and expertise of our society to become the go-to organization serving core engineering constituencies.

The Payoff
Are recognized as the leader and essential resource for mechanical engineers and other technical professionals globally for solutions that benefit humankind—leading in key technologies that impact the world.

Focal Point
Over the next three years, leveraging our Strategy and Integrated Operating Plan, we continue moving forward “together” on our five Strategic Actions and realize our Enterprise Strategy over the next 10 years.

How We Deliver
Reclaim the hearts, minds and soul of ASME and secure our Leadership Position while increasing Engagement, Collaboration and diversity.

How We Deliver
Strengthen our Technology and Solutions Portfolios to expand our influence and reach.

How We Deliver
Fulfill our Mission by clarifying and aligning to our strategy and operating goals.
# Evaluation Summary

<table>
<thead>
<tr>
<th>1. Interactions with other people</th>
<th>8.81</th>
<th>88%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Content of the conversations</td>
<td>8.00</td>
<td>80%</td>
</tr>
<tr>
<td>3. Syntegration process</td>
<td>8.58</td>
<td>86%</td>
</tr>
<tr>
<td>4. Syntegrity team</td>
<td>8.85</td>
<td>88%</td>
</tr>
<tr>
<td>5. Final recommendations</td>
<td>8.16</td>
<td>82%</td>
</tr>
<tr>
<td>6. Likely to recommend or use Syntegration in Future</td>
<td>7.76</td>
<td>78%</td>
</tr>
</tbody>
</table>

| Feedback form completion         | 26/32 | 81% |

- This is a great way to get everyone to contribute and have a voice.
- Nice method to get everyone to participate.
- Mixing people up/broad audience gave more perspectives and broader ownership.
- Ideas come and go, implementation produces results, ASME is ready to implement.
- I believe we are really addressing the top few items facing ASME and positioning ourselves for success.
- Excellent, especially the reflective listening and constructive debate.
- Collaboration between staff and volunteers.
- Transparency of process and dialogue at each step was key.
Open Discussion

• Several opening thoughts
  • Based on this year’s budget, we are looking at a NJ/NY location for July 2018 retreat
  • Would we use Syntegrity again?
  • What are your thoughts on future retreats?
    – Number of days? Team building event needed? Anything missing from last retreat? One topic or multiple topics? Outside speakers?
ASME Learning & Development (L&D) Business Summary

September 28, 2017
ASME Board of Governors’ Meeting
Dennis Kilian & Arin Ceglia

Confidential Internal Documents - ASME Board of Governors & Executive Management Team (EMT) privileged material – do not forward this presentation or information contained within
L&D Overview
L&D Strategy is Aligned with ASME’s Mission & Vision

ASME’s Learning & Development (L&D) team is dedicated to capturing and communicating the knowledge and experiences of Engineering Subject Matter Experts (ESMEs), using an approach to learning and teaching that focuses on how academic and theoretical topics are applied in practice by today’s engineers and technicians to design solutions and solve problems, improving the quality of life.

L&D is a perfect fit with ASME’s Mission and Vision
Based on Go-to Organization research, investment in L&D should be a priority for ASME.
In this example, the TAM for L&D is more than 10X the TAM for other ASME products and services.
L&D Overview – Target Market

- MEs represent the largest discipline within engineering
- Of the 610,000+ higher education engineering students enrolled in the U.S., Mechanical Engineers represent the largest segment
- 25,000+ ME degrees are awarded in the U.S. every year; more than 100,000 globally
- ~50%, or 12,500 of MEs earning a degree in the U.S. enter the workforce and earn their living in an engineering capacity. Using the same assumption globally, there are 50,000+ new Mechanical Engineers entering the workforce every year.
- ASME’s targeted market includes early and mid-career engineers; defined as engineers with 0 – 15 years experience in the workforce.
- ASME’s total available market (TAM) for early to mid-career Mechanical Engineers is ~750,000. When adding other engineering disciplines, as well as technicians, the TAM exceeds 2 million.

IOP revenue growth projections are based on conservative estimates of L&D’s target market and TAM
L&D Overview – Diversification and Growth

- From page 8 of the Integrated Operating Plan:

  “A major catalyst for restructuring the Society was the result of a number of external factors, including rapidly changing technologies, changes in engagement models with ASME’s volunteer communities and a recognition of an over dependence on revenue from one sector – Standards and Certification – which is potentially threatened by external factors beyond ASME’s control.”

- ASME’s L&D is focused on the ongoing adult learning needs of engineers and technicians in the workforce, with an emphasis on potential students in the early and mid-career stages

- Based on market sizing research conducted by Cardinal Consulting, the Total Available Market (TAM) for Applied Learning & Development Programs appears to be more than 10X what it is for other ASME products and services.

L&D has the greatest potential to achieve the goal of generating more than 50% of total revenue from sectors other than Standards and Certification in 10 years
### L&D Overview – Current Business comprised of 5 Product Lines

<table>
<thead>
<tr>
<th>Public Courses – Entry &amp; Intermediate Level In-Person Training Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Projected to grow from $3.435M in FY 2017 to $3.522M in FY 2018 primarily because of the new bundled course offerings and improved marketing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Masters Courses – Advanced Level In-Person Training Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Projected to remain relatively flat from $0.40M in FY 2017 to $0.40M in FY 2018 primarily to continued weakness in the Oil and Gas Industry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>eLearning Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Projected to grow from $0.6M in FY 2017 to $0.73M in FY 2018 primarily because of growth in sales of L&amp;D’s eLearning Bolting Programs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Licensed Courses – Training Courses Offered by Authorized Training Partners (ATPs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Projected to grow from $0.173M to $0.2M in FY 2018 primarily because of ATP sales of hands-on practical components of L&amp;D’s Bolting Program</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In-company Learning Programs – Public or Masters Training Courses Offered Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Projected to grow from $0.7M in FY 2017 to $0.82M in FY 2018 primarily because of additional B2B sales and marketing resources</td>
</tr>
</tbody>
</table>
Voice of the Customer

- Includes formal research, personal interviews, TAPs, IAB
  - The “brain drain” is a real concern due to the aging demographic of their workforce
  - All invest a significant amount of resources and funds in On-The-Job Training (OJT) of recently graduated and early career engineers who are not prepared to contribute and cannot be productive when they first join a company
  - The senior engineers who provide OJT are retiring in greater numbers. The Idaho National Lab expects to lose 33% of their engineering workforce to retirement in 2 years
  - Newly graduated engineers have limited exposure to the general engineering and engineering management challenges facing companies employing newer technologies such as robotics, advanced manufacturing and bioengineering
  - Domestic universities are not graduating enough engineers in these fields to close the gap. Even when including international engineering graduates, the graduates do not have the practical experience needed by their new employers.

ASME has a unique opportunity to capture and transfer engineering knowledge through applied learning programs
ASME has a competitive advantage in the applied learning space for engineers
L&D Competitive Landscape

- ASME is developing applied learning modules and courses in the five technology areas where gaps have been identified.
- As part of a pre-course development assessment “Rubric”, Competitive Landscape Matrixes are prepared for each proposed applied learning course.
- Applied learning courses are designed to be integral parts of a competency-based applied learning curriculum.
- ASME will partner with potential competitors (“coopetition”) when they already offer relevant courses that satisfy ASME competency development requirements.
- Competitors with complementary applied learning course offerings can be evaluated for M&A potential.

Case-by-case Coopetition is key to L&D’s success.
L&D Overview – Mission, Strategy & Objectives (IOP – pg. 49)

- Stabilize the business
- Bundle courseware to support learning paths, learner relationships
- Create multi-media applied eLearning modules and courses
- Develop competency-based blended learning curriculums with industry recognized ASME credentials

L&D’s strategy is based on an low-risk incremental building block approach
L&D’s ASME University (To Be Renamed)

- ASME University
  - Is a concept designed to support the transition ASME from a training course provider to a respected applied learning institution for engineers
  - Is an online and physical learning destination that engineering students attend to take individual courses and / or earn an ASME Credential based on the completion of applied learning curriculums
  - Will offer courses utilizing a variety of delivery methodologies, including eLearning, virtual instructor assisted applied learning programs and in-person instructor-led courses similar to those offered today.

ASME University is meant to be primarily an online destination for applied learning
L&D’s ASME University - Instructor-led / eLearning Split

- Today, 90% of ASME’s L&D revenue (~$4.7M) comes from in-person, instructor led training courses delivered at hotels and at company locations
- Over the next 10 years, the 90% of revenue from in-person, instructor led training courses will shrink to ~25% of L&D revenue, but is still projected to grow to more than $6M
- Holding in-person, instructor led public and master class at hotels is costly and inefficient
  - Opening ASME University “brick & mortar” locations are productivity initiatives, i.e., we can simultaneously expand capacity and lower cost
  - The cost to lease, furnish and staff two ASME University locations is more than offset by the $850K budgeted in FY2018 for hotel services, travel and office expenses that will be eliminated
  - Leasing two multi-purpose facilities increases ASME’s capacity to deliver in-person, instructor led courses at a lower cost
  - Excess “free” capacity can be used to host forums, summits and exhibits, as well as providing upscale meeting spaces for committees, individual volunteers, ASME Members, staff, etc.

ASME University “brick & mortar” locations are secondary, cost efficiency initiatives
ASME Go-To Market Strategy

- Leverage the ASME network - connect the dots in CRM, i.e., identify and refine a list of potential customers by leveraging connections between staff, members, volunteers, channel partners and loyal customers
  - Dependency – CRM implementation, integration and complete daily data uploads of all contacts and customer interactions from ASME systems
- Inbound leads - demand generation via integrated marketing campaigns to targeted audiences by sales vertical, i.e., academic, corporate and government
- Transition to a solution sales model - develop high-level needs-based value in targeted verticals
  - Dependency – Time and schedule of enough meetings to capture enough feedback
- Domestic inbound call center and chat capability
  - Enhanced live agent support for all external constituencies, e.g., paying customers, end-users, members, volunteers
  - Direct pre-sales on strategic opportunities in the U.S. and / or complementary sales with appropriate channel partners

Solution sales leverages the full potential of ASME as a Go-to Organization
# L&D Pro Forma Income Statement

<table>
<thead>
<tr>
<th></th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
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</thead>
<tbody>
<tr>
<td><strong>Current Products Baseline Revenue</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning &amp; Development</td>
<td>$5,294,132</td>
<td>$5,066,531</td>
<td>$4,759,114</td>
<td>$4,470,350</td>
<td>$4,199,106.89</td>
<td>$3,944,321.77</td>
<td>$3,704,996.00</td>
<td>$3,480,191.56</td>
<td>$3,269,027.37</td>
<td>$3,070,676</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$5,294,132</td>
<td>$5,066,531</td>
<td>$4,759,114</td>
<td>$4,470,350</td>
<td>$4,199,106.89</td>
<td>$3,944,321.77</td>
<td>$3,704,996.00</td>
<td>$3,480,191.56</td>
<td>$3,269,027.37</td>
<td>$3,070,676</td>
</tr>
</tbody>
</table>

**Current Product Incremental Growth Initiatives**

6. Packaged Learning Courses & In-Company Programs

<table>
<thead>
<tr>
<th></th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
<th>FY 2023</th>
<th>FY 2024</th>
<th>FY 2025</th>
<th>FY 2026</th>
<th>FY 2027</th>
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<tbody>
<tr>
<td></td>
<td>$150,000</td>
<td>$50,880</td>
<td>$697,840</td>
<td>$907,192</td>
<td>$1,161,206</td>
<td>$1,451,507</td>
<td>$1,741,809</td>
<td>$2,090,170</td>
<td>$2,173,777</td>
<td>$2,260,728</td>
</tr>
</tbody>
</table>

**Subtotal**

|                         | $150,000      | $50,880       | $697,840      | $907,192      | $1,161,206    | $1,451,507    | $1,741,809    | $2,090,170    | $2,173,777    | $2,260,728    |

**Next Generation Product Growth Initiatives**

1. Bio/Engineering Solutions
d. ASME University / Applied L&D - includes cur
   | $40,000       | $40,000       | $875,000      | $1,117,500    | $1,478,750    | $1,922,375    | $2,499,088    | $3,248,814    | $3,411,254    | $3,581,817    |

2. Advanced Manufacturing Solutions
d. ASME University / Applied L&D - includes cur
   | $40,000       | $40,000       | $875,000      | $1,117,500    | $1,478,750    | $1,922,375    | $2,499,088    | $3,248,814    | $3,411,254    | $3,581,817    |

3. Pressure Vessel Technology
d. ASME University / Applied L&D - includes cur
   | $40,000       | $40,000       | $875,000      | $1,117,500    | $1,478,750    | $1,922,375    | $2,499,088    | $3,248,814    | $3,411,254    | $3,581,817    |

4. Clean Energy Solutions
d. ASME University / Applied L&D - includes cur
   | $5,000        | $245,000      | $675,000      | $875,000      | $1,137,500    | $1,478,750    | $1,922,375    | $2,499,088    | $3,248,814    | $3,411,254    |

5. Robotics Solutions
d. ASME University / Applied L&D - includes cur
   | $5,000        | $245,000      | $675,000      | $875,000      | $1,137,500    | $1,478,750    | $1,922,375    | $2,499,088    | $3,248,814    | $3,411,254    |

6. ASME University for Early Career Engineers
   | $60,000       | $675,000      | $1,090,000    | $1,117,500    | $1,478,750    | $1,922,375    | $2,499,088    | $3,248,814    | $3,411,254    | $3,581,817    |

**Subtotal**

| $130,000       | $1,840,000    | $4,650,000    | $6,242,500    | $8,382,375    | $11,344,394   | $15,075,565   | $19,605,464   | $24,374,280   | $32,441,560   |

**Grand Total Revenue**

| $5,674,132     | $7,442,231    | $10,169,054   | $11,020,042   | $13,742,088   | $16,740,223   | $20,826,369   | $25,085,808   | $29,817,084   | $33,772,764   |

**COGS @ 80% of Revenue Growth Increase**

| $5,917,000     | $7,162,000    | $7,365,000    | $8,332,187.72 | $9,337,077.12 | $10,145,055.59 | $11,953,395.02 | $13,750,402.83 | $15,464,390.97 | $16,993,424.02 |

**Gross Margin**

| ($2,457,823)   | ($2,909,771)  | ($2,998,823)  | ($2,893,187.72)| ($2,997,814.47)| ($3,007,990.50)| ($3,180,093.58)| ($3,086,019.14)| ($2,924,990.8) | ($2,392,005.37)|

**SG&A @ 20% of Revenue**

| $1,134,826     | $1,488,666    | $2,021,391    | $2,384,008    | $2,748,538    | $3,348,045    | $4,104,074    | $5,091,162    | $5,963,417    | $6,754,553    |

**Net Operating Surplus**

| ($1,377,695)   | ($1,267,335)  | ($1,476,528)  | ($1,589,765)  | ($1,651,462)  | ($1,699,995)  | ($1,980,029)  | ($2,085,051)  | ($2,861,478)  | ($3,028,538)  |
L&D Sensitivity Analysis

- **Worst Case Scenario**
  - No changes to current L&D offerings and we continue the downward revenue trend of recent years due to a mature product set and accelerating instructor attrition
  - ASME does not have the career development resources valued by the younger and mid-career segments of ASME Members, resulting in continued aging of our Membership demographic and an increasing drop off in the student to early career membership transition
  - ASME loses one of the key attributes of a “Go-to Organization”, slowing the revenue growth in other product areas, such as Publishing, Conferences, Media Site, new standards development, etc

- **Best Case Scenario***
  - ASME’s eLearning courses gain greater traction, attracting more than the 0.2% of the early and mid-career Mechanical Engineers forecast in the Most Likely Scenario
  - ASME gains greater credibility in the professional training attribute of “Go-to Organizations”, resulting in a boost to the revenue growth in other product areas such as Membership, Publishing, Conferences, Media Site, new standards development, etc
  - * Contemplated M & A and / or partnering with selected technology, professional training, other Societies / SDOs and academic institutions can accelerate and significantly improve the Best Case Scenario
Appendix
<table>
<thead>
<tr>
<th>Manufacturing</th>
<th>Professional Services</th>
<th>Utilities</th>
<th>Oil &amp; Gas</th>
<th>Gov't &amp; Academic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standards &amp; Guides</strong></td>
<td><strong>Program &amp; Personnel Certification</strong></td>
<td><strong>Learning &amp; Development</strong></td>
<td><strong>Program &amp; Personnel Certification</strong></td>
<td><strong>Learning &amp; Development</strong></td>
</tr>
<tr>
<td><strong>Conference Proceedings</strong></td>
<td><strong>Conference Proceedings</strong></td>
<td><strong>Conference Proceedings</strong></td>
<td><strong>Conference Proceedings</strong></td>
<td><strong>Conference Proceedings</strong></td>
</tr>
</tbody>
</table>

Bundled Products & Services = Solution Sets

**Industry Vertical & Market Segments**
**Strengths**
- ASME is a trusted source for learning and development, particularly on the pressure vessel space.
- ASME has a portfolio of learning products in several engineering sub-disciplines, e.g., boiler & pressure vessels, design and materials, gas turbines, geometric dimensioning and tolerances, fluids, etc.
- ASME has access to a large network of SMEs in the aforementioned engineering sub-disciplines.
- ASME has developed several courses with several delivery models.

**Weaknesses**
- ASME’s course catalog is not aligned with customer needs or market focus, e.g., program and personnel certifications and has stagnated.
- ASME does not have defined competency models learning paths and an associated curriculum comprising multiple courses.
- ASME’s current pool of instructors may not have expertise in newer growth technologies and techniques, e.g., robotics, advanced manufacturing, cyber security, etc.
- ASME does not control or have influence on course delivery technology.
- ASME’s current mix of learning products is expensive and not scalable.

**Opportunities**
- There is a significant average age gap between an older engineering workforce nearing retirement and recent college engineering graduates.
- Substantial practical knowledge and skills are being lost as larger percentages of engineers retire.
- Universities and colleges do not have the capability to provide the practical engineering knowledge and skills required in the commercial sector.
- Companies are investing enormous time and capital in OJT engineering programs.
- Innovative and dynamic distance learning programs aligned with younger generation learning preferences.

**Threats**
- As demand grows for applied programs, competition for a limited pool of experienced and capable instructors increases.
- ASME’s reputation as a trusted source and brand may not be transferable to emerging technology areas.
- Liabilities associated with a link between learning programs, certifications and standards.
- Time necessary to develop scalable practical engineering competency models, capture relevant knowledge in a multi-media digital format and obtain needed content delivery technologies.
# 10 - Year Roadmap for Learning & Development

<table>
<thead>
<tr>
<th>Category</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
<th>2027</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Sales Channel</td>
<td>Build and Launch</td>
<td>Grow &amp; expand to all Operating Units via-vo-voie solution sales</td>
<td>Staff and maintain to industry benchmarks</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Packaged Courseware</td>
<td>Package courseware in ISBM, Eng Mgmt, Systems Design, etc.</td>
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</tr>
<tr>
<td>Personnel Certification</td>
<td>Launch ISBM ANF course &amp; cert exams</td>
<td>Launch 3 course &amp; personnel cert exam packages</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Applied Learning Modules</td>
<td>1 course per technology</td>
<td>Develop 12 new courses</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ASME University</td>
<td>Open 1st location</td>
<td>Open 2nd and 3rd location</td>
<td>Launch/serve university</td>
<td>Expand to COE</td>
<td>Integrate ASME University with COE &amp; volunteer support infrastructure</td>
<td></td>
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</tr>
<tr>
<td>Curriculums &amp; ASME Qualifications</td>
<td>Build industry consensus</td>
<td>Launch Program &amp; ASME qual</td>
<td>Launch 2nd through 5th curriculum &amp; ASME qual</td>
<td>Launch more curriculums &amp; grow revenue at 50% CAGR through 2025</td>
<td></td>
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</tr>
<tr>
<td>Dynamic Competency</td>
<td>Develop competency model LMS DB</td>
<td>Popular LMS DB with skills-based learning activities</td>
<td>Launch dynamic competency-based course development service</td>
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</tbody>
</table>

ASME - Setting the Standard
Charter:

Problem statement:

» Many different technical communities make up ASME’s membership and volunteer population, each having a distinct identity and character that has served as the rallying point for participation, and each making a unique contributions to the strength of our Society as a whole. At the same time, our Society confronts a host of challenges as we seek to increase our relevance in the 21st century, including an ever-increasing desire to serve humankind through engineering and a commensurate need to increase the resources necessary to fund our growing ambitions to make a positive impact on the world.

» In the absence of a clear consensus on what defines success for divisions, segments and sections – and how their success links to and supports ASME as a whole – the size of a given group’s segregated account balance is often viewed as the leading indicator of the group’s vitality and future capacity to flourish.

» Furthermore, in 2015, when the transition was made from autonomous group financial accountability to the present segregated account structure in which control resides largely at the center, ASME leadership (BoG, COFI, staff) did not articulate a clear strategy, and accompanying policies and guidelines, that would describe how group funding would be managed to either be replenished or to be eventually depleted. The Knowledge & Communities / Institutes Reorganization Task Force made recommendations regarding this but they were not put into operation.
Purpose of the initiative:

» To bring together a cross-functional team of sufficient size to properly reflect the breadth of experience and scope of interests of our volunteer group base, along with the operational expertise of our staff, yet remain small and nimble enough to quickly identify opportunities and challenges, and propose solutions to the problems identified.
Desired work product of the Tiger Team will include recommendations for policies and programs that:

» Capture a representative sampling of the current state of the volunteer group experience, with particular focus on how volunteers define and measure success for their groups – and the extent to which financial health and autonomy are central elements of such a definition. Review and consider the draft KPIs developed by the Group Engagement/Alignment Task Force.

» Clarify roles and responsibilities of volunteers and staff in the ROI/SROI assessment, selection, funding and execution of programs designed to fulfill the mission and vision of ASME.

» Provide definitive guidance to volunteer groups, e.g., divisions and sections, with respect to ongoing operational and reporting requirements for managing the financial health of their groups.

» Generate actionable ideas that provide meaningful incentives for volunteer groups to contribute to ASME revenue growth while nurturing the special identity and character of their groups (these could include revenue sharing, if permissible, and/or greater latitude in how they support the Society strategy).

» Articulate a comprehensive strategy for managing the future finances of the volunteer groups in the context of the long-term sustainability of ASME.
Members:

» Charla Wise, BoG
» Jeff Patterson, Staff
» Tom Loughlin, Staff
» Bill Garofalo, Staff
» Elio Manes, Staff
» Tim Graves, Staff
» Rick Marboe, GEC Rep.
» Lisa Demo, Student Section

» Karen Ohland, BoG
» John Mulvihill, GPS
» Roy Hogan, Solar Energy Division
» Karen Thole, Gas Turbine Division
» Mike Nitzel, Pressure Vessels & Piping Division
» Frank Michell, Power Division
» Craig Redding, Petroleum Division
Meeting Dates:

» 8.25  11-12:00 PM
» 8.31  11-1:00 PM
» 9.18* Division Meeting  8:30-4:00 PM
» 9.25   2-4:00 PM

Upcoming call:
» 10.12  11-1:00 PM
Key findings thus far:

» Division meeting attendees place great value on:
  • Autonomy
  • Control
  • Transparency
  • Communication

» Some groups are motivated by incentives

» No one solution is ideal for all
  • Large vs. small
  • Growth vs. maintenance
  • High engagement vs. low engagement
Five potential elements of common ground:

» Financial stability and transparency

» Program autonomy

» Investment spending and risk-sharing

» Strategic alignment

» Roles for peer review and engagement
Next Steps:

» Elio Manes, Tim Graves and Lily Le are analyzing all divisions to propose criteria for segmentation

» Distribution of data 10.5

» Meeting #4 10.12
Appendix:

» Notes from meetings that took place: 8/25, 8/31, 9/18*, 9/25

* Indicated Division Meeting
8/25 Meeting Recap

Tiger Team Call Recap
082517

Participants: Tom Loughlin, Jeff Patterson, Bill Gurnicle, Eric Maves, Tim Graves, Rick Martin,
Karen O'Hair, John Mitchell, Roy Hogan, Karen Thiel, Mike Mires, Frank Mitchell, Greg Sudding,
Lisa Demo

Key Issues discussed
1. Team members shared their experiences with the managed segregated accounts, and expressed concerns for the longevity of divisions and sections.
2. The current model is not a formula for success.
3. Team members believe that divisions and sections will continue to want autonomy and once funds run out do not want to have to go back to ASME HQ and "beg" for money.
4. These funds are a valuation for the divisions' and sections' contributions & entrepreneurial spirit; we need to make accessing funds a positive experience and not a barrier.
5. The suggestion was made to create industry events/roadshows prior to meetings/meetings needs in the 21st century for new constituents and their events.
6. Volunteer groups can be a source of ideas and action for R&D and Product development.
7. We should fund new activities that create growth.
8. Student Sections are funded in various ways and need to continue and thrive in order to influence the next generation to be part of ASME.
9. How will we look into Student Section Accounts: How are they funded by university, companies, generating own fundraising, senior sections?

For next call:
1. Senior sections may have different perspectives than divisions; any incentives should be created with an understanding of the distinctions between the needs and priorities of senior sections vs. divisions. What differences in priorities may exist between senior sections and divisions?
2. How do we deal with segregated accounts that are running out of funds?
3. Is there way to keep sections healthy and have volunteers continue to contribute?
4. How are we going to provide process for support when funds deplete?
5. How will we fund these sections from ASME HQ?
6. How do we grow these funds?
7. What's the best way to communicate?
8. Is the 35% spending limit realistic?
8/31 Meeting Recap

Tiger Team Recap
11:00am - 1:00pm
8.31.17

Participants: Tom Loughlin, Jeff Patterson, Bill Gandolfi, Eloe Maves, Tim Graves, Rick Marlowe, Karen O’Hara, John McMillen, Ray Argus, Karen Thies, Mike Nitzs, Frank Michel, Craig Beckling, Lisa Demo

Key items discussed:
Potential MTO/ways a group can generate $
Karen T. - Workshops for Gas Turbine—50%/50%
Mike N. - Workshops and Other 50%/50%
Craig R. - Agreed to percentage
Ray N. - Spin-off shared risk
John M. - 10%/50% is a good number
Rick M. - Performance bonus structure set up, engagement and alignment, workshops, standard session. Plane to be focused on next year’s planning and budget FY18
Karen O. - Performance bonus structure - Look at conferences as baseline if a conference does better 50%/50% shares the risk.
Tom L. - Agrees with 50%/50%, target budget. Who will be accountable?
Bill G. - Sharing dollars not each are going into their accounts and not going into general fund. Property communicating it will make sense.
Jeff P. - Cities to be the pilot program, anything over and above they can keep. They need to drive attendance and exhibition revenue.
Tim G. - Calendar year 2018 have the opportunity, try to devote something for Congress. Make it out in this calendar year and fix it in the next calendar year.

If the conference loses money?
Ray/John M. risk, if we are partners we need to share the money.

Tom L. - When it comes out of the pool covers the loss (the whole roll up of the segregated accounts), it holds the divisions accountable.

Charlie/Jeff - Still to draft up a proposed recommendation for how this would work for both up and downsides for consideration by this group for the third call. Something he would present by a financial perspective that Tom, Jeff would support.
9/18 Division Meeting Recap

Summary of Results
Division Leadership Meeting
18 September 2017
ASME Headquarters, New York

A. Introduction and Background
1. A Division Leadership Meeting was held on 18 September 2017 at ASME Headquarters in New York. A total of 46 individuals participated in the meeting (32 in person and 14 online). The list of participants is shown in Appendix A of this report. The agenda for the meeting is attached to this report as Appendix B.

2. The purpose of this meeting was to get Division Leaders together to hear and address their concerns and provide feedback to a Presidential Tiger Team that was charted to address how we can help Divisions be successful and, more specifically, what can we do about segregated accounts. It was stressed at the meeting that the ideas that came up are subject to review and approval (OIT and the IRO).

3. Two facilitated discussions were conducted:
   a. Define Success for Your Division
   b. Discuss Thoughts on the Future of Segregated Funds.

B. Executive Summary of Results
1. Divisions want more autonomy to conduct their activities. They do not want to deal with bureaucracy and red tape. They want legal to help them move forward, not hinder them.
2. Divisions want more tools to be able to accomplish their goals.
3. Divisions need more flexibility with tools and their needs, because each division is different.
4. Divisions don’t care about money—they want to generate enough surplus to invest in additional activities. ASME shouldn’t be about making money, but having impact.
5. There should be more incentive for volunteers to participate in ASME programming.
6. ASME needs to engage more young people.

C. Results Details
1. Attendees were asked to spend a few minutes thinking about one inspiring experience they have had with ASME Divisions. Then, as a whole group, we developed a list of characteristics that reflect past awesome experiences. It was noted that the characteristics on this list must be part of our future:
   a. Honored
   b. Connected
   c. Knowledge
9/25 Meeting Recap

Segregated Account Tiger Team
2:00 PM EDT 5/31/17

Participants: Tom Laughlin, Jeff Patterson, Jill Gamble, Lisa Hanus, Tim Green, Rick Marinas, Karen Ohland, Kay Hughes, Karen Thier, Mike Moss, Frank Nickel, Craig Hendrick,
Not Participating: Charlie Wise, John Blanchett, Lisa Dermo

Executive Summary Meeting notes:
Karen T: Now that the segment would like to spend their own money without spending, make sure there are no revenue plans, and that the money is indeed important.
Rick M: Scavens for a new Division - I trust Power Division expenses like it's my own personal expense. At this time, I'm not sure what they want to stay within budget. We need to get a sense who provides seed money for new ideas?
Bob M: Didn't get a sense of what the group has a large segregated account, where do the money come from for new experimental ideas?
Karen C: Still no idea on how to spend or a clear view of what the best step could be.
Mike N: Not a fan of the 20% 20 model that was proposed for possible revenue sharing model for conferences/events. Have to talk to GO/TOG approach.
Jeff: What could be the financial plan for group members and how to get them on track to sustainability?
Mike T: Partner with more successful division.
Karen T: GSE turbine has a transparent budget, shows ownership. Have the smaller divisions see their budget, size doesn't dictate. It may just be smaller divisions not everyone can be equally successful. More should be some variations.
Tom L: - not all divisions are necessarily able to come up with something that makes sense for everyone.
Mike N: Differences between GSE and industry event.
Tom O: - when division partners in the past at times they felt lost in a specific conference.
Jeff suggests a 2 tier system:
- Large divisions operate as a certain level, they have 5% to spend with guidelines, retain and generate new revenue.
- Smaller groups basic level of funding that supports their activity, LCD is represented under certain level.

Karen C: Whistle of the line is there date?
Karen T: Ideas Jeff suggested is a good idea. We need to define what it is to be in what tier. Provide base funding the smaller groups need to balance.
Brian: Like the simplified ideas of the tiered system. What happens if a conference doesn't generate a surplus, what is the risk?
Date Submitted:  September 6, 2017
BOG Meeting Date: September 28, 2017
To: Board of Governors
From: Committee on Honors
Presented by: Yildiz Y. Bayazitoglu
Agenda Title: Committee on Honors Annual Report

Agenda Item Executive Summary: (Do not exceed the space provided)

Committee on Honors Annual Report for Fiscal Year 2016

Proposed motion for BOG Action: (if appropriate) None

Attachment: Report
Committee on Honors Annual Report to the Board of Governors
2016-2017

The Committee on Honors (COH) held two face-to-face meetings, three teleconferences, and conducted several electronic discussions during the 2016-2017 year. Major activities were in the following areas:

a. Rules of Award Review.

COH conducted its triennial review. Nineteen Rules of Award were reviewed to ensure the procedures outlined in the documents corresponded to those of the award committees. This ongoing activity helps to identify areas of concern that must be addressed, as well as to provide the Committee and Special Award Committees the opportunity to make suggestions relative to procedures while ensuring that the awards are still relevant.

b. New Society Award.

COH approved the establishment of the Robert M. Nerem Education and Mentorship Medal and the Wilfred C. LaRochelle Conformity Assessment Award.

c. Selection of Award Recipients.

During the year, the General Awards Committee and the Committee on Honors reviewed and acted favorably upon nominations for sixty-seven of the Society's seventy-four awards. There were eighteen international recipients. Eighteen recipients were from Industry.

COH considered four nominations for the 2017 Honorary Membership. Three nominations for Honorary Membership were recommended to the Board of Governors for approval. The Committee also considered five nominations for the 2017 ASME Medal, and recommended one nomination for approval by the Board of Governors.

COH continues to uphold the integrity of the Honors Program by carefully evaluating all awardees to ensure that they meet the requirements of the award they receive and that the committee remains true to the purpose and intent of each and every award.

d. Membership Promotion.

To attract and retain ASME membership, COH continues to offer award recipients who are non-members, a free year of membership, and young engineers, three years of free membership. Eight honorees were invited to join ASME. To date two have joined.

d. Honors Program.

COH is committed to ensuring that the Honors & Awards Program continues to represent ASME's high standard by honoring outstanding individuals.
Attached, please find the Committee on Organization and Rules Annual Report for the Fiscal Year 2017.

Proposed motion for BOG Action: (if appropriate)

None.

Attachments:

Report.
The Committee on Organization and Rules (COR) provided support to the Board of Governors, the Committees reporting to the Board of Governors and the Sectors. For FY17, the committee held seven meetings via telephone and one in-person meeting.

COR reviewed proposed changes to two By-Laws and recommended changes that the Board of Governors adopted.

COR made changes to five Society Policies, two required Board of Governors approval and three were editorial changes.

The Committee reviewed 28 appointments or reappointments and made recommendations that the Board of Governors approved. COR continued to strictly enforce the examination process of appointments and re-appointments to make sure they were in compliance with Society Policies.


The Committee selected Fred Stong as its chair for 2017-18. Julie Bachmann Kulik will be its vice chair for 2017-18.

As ASME continues to evolve, the importance of being agile to make necessary changes to its governance documents quickly and efficiently is important. COR is responsive to these needs and brings a corporate history and continuity to the process.
Date Submitted: September 5, 2017
BOG Meeting Date: September 27 – 28, 2017

To: Board of Governors
From: Committee of Past Presidents
Presented by: Victoria Rockwell
Agenda Title: 2016-2017 Committee of Past Presidents Annual Report to the BOG

Agenda Item Executive Summary: (Do not exceed the space provided)

A report of the activities of the Committee of Past Presidents during 2016-2017 follows for information for the BOG as a Consent Item for Receipt.

Proposed motion for BOG Action: (if appropriate)
Receipt

Attachments:
Report
Committee of Past Presidents  
2016-2017 Annual Report

During the past year, individual members of the Committee of Past Presidents (CPP) continued to play a vital role as ASME volunteer leaders. Service included participating in ASME activities in the various sections, VOLT, Fellows, History and Heritage, the Nominating Committee, the ASME Foundation and BOG Standing Committees including: Pension Plan Trustees, Committee on Finance and Investment, Committee on Honors, Committee on Executive Director Evaluation and Staff Compensation and Committee on Organization and Rules.

The CPP held two meetings during fiscal year 2017, on November 14, 2016 in Phoenix AZ and June 12, 2017 in Newport Beach, CA.

Congress

In a closed session the following information was discussed:

1. The new format for Honors Assembly.
2. The interface with the Nominating Committee and Committee of Past Presidents will follow the rules of engagement as outlined in the Nominating Committee Manual and the Committee of Past Presidents Operation Guide.
3. Setting expectations for the young ASME members and how the CPP should interface with them.
4. A confidential report from the Ethics Committee was presented.

Vickie Rockwell announced that Susan Skemp has been appointed as Vice Chair of the Ethics Committee for FY 17 – 18 which is being vacated by Bob Simmons on 7/1/17 when he assumes the position of Chair of the Ethics Committee. Vickie also announced that Sara Wilson is a new member-at-large on the committee. Sara is on the faculty of the University of Kansas and will be serving as ASME’s representative to the National Institute of Engineering Ethics (NIEE).

VOLT reported it is running the following programs:
1. ECLIPSE Intern training, mentoring and support to the sectors
2. A cross-sector development workshop for mid-career engineers selected by their sectors as having potential for moving up in ASME
3. Training for Governors, Sr.VP’s and the President.
4. Training for the Nominating Committee.
5. Leadership workshop for all Society leaders. This year’s workshop was on Advocacy, Public, Professional and Private.
6. E-learning program under development
7. Mentoring review
The CPP approved the revised Ethics Committee Operations Guide.

The Committee hosted a private dinner for its members in Phoenix, AZ. Everyone enjoyed catching up with one another.

**Annual Meeting**

In a closed session, the following topics were discussed:

1. The Presidential and Executive Director Team of Keith Roe, Julio Guerrero, Charla Wise and Tom Loughlin discussed the IOP and thanked the CPP for their participation
2. Additional discussion on IOP.
3. Confidentially of CPP discussions and participation.
4. Honors and Awards

The 2016-17 class of ASME ECLIPSE Program interns presented its written report called “A Roadmap Tool for Engagement”. The Committee thanked the interns for their presentation and urged them to continue to pursue its implementation.

Ethics Committee Chair and ASME Past President William Weiblen introduced Ethics Committee Member Sara Wilson. Dr. Wilson discussed the current affiliation that ASME has with the National Institute for Engineering Ethics (NIEE) and the work of other organizations involved in engineering ethics.

The following motion was made and a passed by the assembly:

> The Committee of Past Presidents supports the concept of an overarching inter-society organization focused on engineering ethics.

A status report on NIEE will be presented at the Committee's November 2017 meeting.

Weiblen was recognized for his service as Ethics Committee Chair for 2014-2017. Robert Simmons will be the new Chair and Susan Skemp will be the new Vice Chair, both for the 2017-2020 term. Donald Frikken and Cynthia Stong will be new members-at-large for the 2017-2020 term.

Reginald Vachon discussed his work as ASME’s representative to the Union of Pan American Engineering Societies (UPADI), the World Federation of Engineering Organizations (WFEO), and as Chair of the WFEO United Nations Relations Committee. He said that Robert Simmons and he are members of the International Nuclear Energy Academy.

The CPP members continue to nominate members for Dedicated Service Awards and Fellow recognitions.
The CPP again hosted the Leadership Recognition Event to acknowledge service by outgoing officers. This year, the event took place at Marconi Automotive Museum in Newport Beach, CA.