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2018-2019 BOARD OF GOVERNORS
Liaison Hotel, Washington, DC
April 8, 2019

MINUTES

Attendance during the open session was as follows:

Board of Governors	
President:	Said Jahanmir
Immediate Past President:	Charla K. Wise
President-Elect:	Richard Laudenat
Governors:	Stuart Cameron, Joe Fowler, Robert E. Grimes, Mahantesh Hiremath, Michael Molnar, Karen J. Ohland, Mary Lynn Realff*, Karen Thole*, William J. Wepfer
Governors-Elect:	Todd Allen, Laura Hitchcock, Tom Kurfess
Other Officers	
Senior Vice Presidents:	Sam Korellis, Standards and Certification Sector Kalan Guiley, Public Affairs and Outreach Richard C. Marboe, Technical Events and Content Callie Tourigny, Student and Early Career Development
Senior Vice President-Elect:	George Papadopoulos, Technical Events and Content
Secretary and Treasurer:	Bryan A. Erler
Executive Director/CEO:	Thomas Costabile
Assistant Secretary/General Counsel:	John Delli Venneri
Assistant Treasurer:	William Garofalo
Corporate Counsel:	John Sare
Committee Chairs	
John Mulvihill	Group Engagement Committee
Lester Su	Committee on Government Relations
Other Guests	
Howard Berkof	Chair, Presidential Task Force on Nomination Process
Andy Bicos	Chair, Presidential Task Force on Membership
Betty Bowersox*	COFI member
Mindy Grinnan	Member, Committee on Government Relations
Amos Holt	Chair, Presidential Task Force on Organizational Structure, and Past President, 2009-2010
Michael Johnson	Consultant
Hong Liang	ASME Foundation Swanson Fellow
Shawn Moylan	Chair, Manufacturing Engineering Division

J. Robert Sims	Past President, 2014-2015
Sam Zamrik*	Past President, 2007-2008

Staff

Mandi Bergenfeld	Enterprise, Technical Trainer & Help Desk Manager
RuthAnn Bigley*	Coordinator, Governance
Jeff Patterson	Chief Operating Officer
Allian Pratt	Managing Director, Global Alliances & Board Operations
Laurel Raso	Assoc. Executive Director, Human Resources & Facility Operations
Karen Russo*	Director, Board Operations & Outreach
David Soukup	Managing Director, Governance

**Attendance via phone*

1. Opening of the Meeting

1.1. Call to Order: On April 8, 2019, a meeting of the Board of Governors of the American Society of Mechanical Engineers was held at The Liaison Hotel in Washington, DC. A quorum was present, and the meeting was called to order by President Jahanmir at 8:12 AM Eastern Daylight Time.

1.2. Adoption of the Agenda: The Board voted to adopt the agenda as circulated on March 25, 2019.

1.3. Announcements: President Jahanmir welcomed all to the meeting and acknowledged the guests in the room, including Past President Amos Holt. He also congratulated Board Member Joe Fowler for the release of his new book, *Harvest of Riches*, and Bobby Grimes for receiving the Baker Hughes/GE Lifetime Achievement Award in 2019.

1.4. President's Remarks: President Jahanmir welcomed everyone to DC, provided an overview of the agenda, and stated that we have a hard stop at 4:00 pm. He pointed out that following the budget update and enterprise planning presentations for FY20, three of the Task Forces will be providing their final reports to the Board. Their recommendations will be reviewed and evaluated and acted on by Presidential and Executive Director Team. He explained that the Nominations Task Force will provide a status update, with a final report at the June meeting, and several motions will be presented to the Board today based on the work of the Organizational Structure Task Force. After lunch, the Board will go into closed session to discuss and take actions on several important issues including appointments to BOG committees and staff compensation.

1.5. Executive Director/CEO's Remarks: Tom Costabile provided comments on the organizational budget and enterprise planning. Mr. Costabile stated that the Society was in good financial position. With respect enterprise planning, he noted that enhancements will be made for next year, but overall the process was successful. He mentioned the cooperation of the COFI team and the senior leadership.

Mr. Costabile next summarized presentations which will be given at the June meeting. He introduced Michael Johnson, a consultant to the Board. He asked him to come out of retirement to help ASME review its strategy. The Board will also get an update from Laura Hitchcock who is helping to lead the International Relations Ad Hoc Advisory Group as co-

chair and is working on a charter and deliverables. Anand Sethupathy will report on programs, and Kathleen Lobb will present the case for support for the ASME Foundation.

Mr. Costabile thanked the Task Force Chairs for their work. Only one task force, the Task Force on Organizational Structure brought action items to be voted upon at this meeting.

Next year, Stevens Institute of Technology will celebrate its 150th anniversary, and ASME will be celebrating its 140th. A celebration in New York is being considered.

1.6. Consent Items for Action:

The Board voted to approve the following items on the consent agenda:

1.6.2. Minutes from February 1, 2019 Meeting
1.6.3. Two ASME General Position Papers: Bioengineering General Position Paper and Engineering America's Future General Position Paper
1.6.4. Proposed Appointments

2. Open Session Agenda Items

2.1. Financial Update: Bill Garofalo and Jeff Patterson provided a high-level overview of the FY19 YTD Budget. Mr. Patterson updated the Board on the status of the FY19 Operating Plan. Mr. Garofalo gave a financial update in which he acknowledged that the budget shows a deficit. (Appendix 2.1.)

2.2. FY20 Enterprise Planning Document: Tom Costabile, Jeff Patterson and Bill Garofalo reported on the projected FY20 plans for the business units. (Appendix 2.2.)

2.3. Presidential Task Force on Membership: Andy Bicos, Chair of the Presidential Task Force on Membership provided a final report of the Task Force with a summary of recommendations moving forward and an action plan for the launch of a pilot. (Appendix 2.3.)

2.4. Presidential Task Force on Nomination Process: The Board received a progress report from the Chair of the Task Force, Howard Berkof, who noted the various discussions the group has had with the nomination process. A final report will be provided in June. (Appendix 2.4.)

2.5. Presidential Task Force on Core Technologies: Mike Molnar, the Chair of the Task Force, provided concluding recommendations from the group, noting an implementation plan for a pilot. He introduced Shawn Moylan from the Manufacturing Division as a key volunteer for the pilot. Mr. Molnar noted that good work was done, but additional work is needed. (Appendix 2.5.)

2.6. Presidential Task Force on Organizational Structure: A final report was provided by Amos Holt, the Chair of the Task Force. Several recommendations were presented to the Board for consideration. (Appendix 2.6.)

2.7. Realignment of Organizational Structure: Several motions were presented to the Board by Richard Laudenat premised on the work of the task force. The Board voted affirmatively on the following motions:

Motion 1

a. Approve in principle the formation of a new Member Development and Engagement (MDE) Sector to provide governance for sections, student sections and membership development.
b. Sunset the Group Engagement Committee formed by the Board Motion of June 11, 2017 (Board of Governors Minutes Appendix V page 1 of 17, Motion 2) upon the formation of the new MDE Sector.
c. Upon the formation of the MDE Sector, appoint the current Chair of Group Engagement Committee as the Interim Senior Vice President of Member Development and Engagement Sector.
d. Assign to the current Chair of the Group Engagement Committee the development of the organizational structure and operating documents for review by the Board. Due Date for First Reading of Bylaws: September-October 2019.

Motion 2

a. Approve in principle the change of the name of Technical Events and Content Sector to Technical and Engineering Communities (TEC) Sector.
b. Assign to the Senior Vice President of TEC the development of a reporting and governance structure and operating documents taking into consideration the recommendations of the Task Force on Organizational Structure for review by the Board of Governors. Due Date for First Reading of Bylaws: September-October 2019.

Motion 3

The Board of Governors shall revise the operating documents for the Industry Advisory Board and the Diversity and Inclusion Strategy Committee to reflect reporting of these committees to the Board of Governors while maintaining participation on the Public Affairs and Outreach Council. Due date for First Reading: September-October 2019.

Motion 4

The Board of Governors shall revise the operating documents for the Volunteer Orientation and Leadership Training Committee to reflect reporting of this committee to the Board of Governors while maintaining its participation on the Sector Management Committee. Due Date for First Reading: September-October 2019.

Motion 5

The Board of Governors shall revise the operating documents to:

a. Clarify the reporting requirements of Sector Senior Vice Presidents and Sector Management Committee to the Board of Governors and clarify the rules for participation of staff as voting members of SMC. Due Date for First Reading: September-October 2019.
b. Clarify the functions of the Committee of Past Presidents. Due Date for First Reading: September-October 2019.*

2.8. Technology Intersecting Policy and Politics: The Chair of the Committee on Government Relations, Lester Su, gave an overview of the activities of the committee and stated the important work that is being done to provide legislators the technical input and expertise to improve the quality of government and public policy decision-making. (Appendix 2.8.)

* Board member Karen Thole was not present during the vote on the five motions. The vote was otherwise unanimous.

2.9. 2019-2020 Board of Governors: Rich Laudenat, incoming President of ASME presented his focus for the next fiscal year--international strategy, increasing revenue, and IT transformation.

The following are his appointments for the coming year:

- Audit Committee: Laura Hitchcock (3 years)
- EDESC: Todd Allen (3 years)
- Strategy Advisory Committee: Mike Molnar (1 year)
- Committee on Finance and Investment Liaison: Todd Allen (1 year)
- Committee on Honors Liaison: Tom Kurfess (1 year)
- Committee on Organization and Rules Liaison: Mary Lynn Realff (1 year)

3. Contingency Time for Discussion or New Business:

The Board approved the following two motions:

- To spend $200,000 to satisfy the current EVERFI contract.
- To reaffirm the current membership dues level for FY20.

4. Open Session Information Items:

4.1. Dates of Future Meetings

DATE	DAY	TIME (local time)	LOCATION
June 2, 2019 (a)	Sunday	8:30 AM – 4:00 PM	Orlando, Florida
June 5, 2019 (b)	Wednesday	10:00 AM – 3:00 PM	Orlando, Florida
July 8-10, 2019 (b) Planning Meeting	Monday-Wednesday	July 8: beginning at 12:00 PM July 10: ending at 12:00 PM	Newport, Rhode Island
Fall meeting	TBD	TBD	Conference Call
November 9, 2019 (b)	Saturday	8:30 AM- 4:30 PM	Salt Lake City, Utah

(a) 2018-2019 Board of Governors; (b) 2019-2020 Board of Governors

5. Adjournment: The meeting adjourned on Monday, April 8, 2019 at 2:03 PM Eastern Daylight Time.

Bryan A. Erler

Bryan Erler
Secretary

List of Appendices

1.6.3. Approval of ASME Position Papers
1.6.4. Proposed Appointments
2.1. Financial Update
2.2. FY20 Enterprise Planning Document
2.3. Presidential Task Force on Membership
2.4. Presidential Task Force on Nomination Process
2.5. Presidential Task Force on Core Technologies
2.6. Presidential Task Force on Organizational Structure
2.8. Technology Intersecting Policy and Politics

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 18, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors
From: ASME Committee on Government Relations, PAO Sector
Presented By: Kalan Guiley, Sr. VP, PAO
Agenda Title: Two ASME General Position Papers

Agenda Item Executive Summary:

Bioengineering General Position Paper: This new ASME General Position Paper from the ASME Bioengineering Public Policy Task Force details support for federal programs that specifically support bioengineering, including those at the National Institutes of Health (NIH) and the Food and Drug Administration (FDA). In addition to providing ASME's views on federal bioengineering funding issues, the statement also includes several recommendations to bolster programs dedicated to advancing bioengineering. Finally, the statement provides an analysis of how U.S. funding for bioengineering compares to other international players that have a strong influence in the field on a global scale.

Engineering America's Future General Position Paper: This paper is an update to a previously approved General Position Paper from the ASME Committee on Government Relations outlining ASME's support for public investments in science and engineering R&D, policies that encourage private investment in R&D, policies to support tech transfer and commercialization, and initiatives to broaden the STEM workforce pipeline and support life-long education.

Proposed motion for BOG Action: Motion to approve as ASME General Position Papers.

Attachments:

- Bioengineering General Position Paper
- Engineering America's Future General Position Paper

DRAFT: NOT FOR PUBLICATION

Investing in Bioengineering: Securing America's Leadership Role in a 21st Century Global Economy

The Importance of Bioengineering in the U.S. Research and Development Portfolio

Bioengineering is an interdisciplinary field that combines engineering principles and knowledge of the physical and life sciences to solve problems in biology, medicine, behavior and health. It is used to advance our understanding of biological systems, as well as to develop novel medications and medical devices to prevent, diagnose, and treat disease. Bioengineers have employed mechanical engineering principles in the development of many life-saving, and life-improving technologies such as robotic surgery, the artificial heart, prosthetic joints, diagnostics and numerous rehabilitation technologies. ASME (American Society of Mechanical Engineers) recognizes that robust funding of bioengineering research and development (R&D) is essential to improving public health and maintaining America's position as a global leader in this field.

Founded in 1880, ASME is a non-profit technical and educational organization with over 100,000 members worldwide. The Society includes members from across economic sectors, including industry, academia, government, health care, and bioengineering. ASME is proud to be made up of members whose expertise is helping put the U.S. at the international forefront of bioengineering R&D. Currently, ASME's Bioengineering Division boasts approximately 5,350 members in industry, academia, and non-profits directly contributing to U.S. advances in bioengineering. Based on our expertise in this field, we have the following recommendations to improve the bioengineering R&D environment.

National Institutes of Health (NIH)

The National Institutes of Health (NIH) is the world's largest research organization dedicated to improving health through biological and medical science. Through their leadership, the NIH has played a pivotal role in new research and developments that have increased average life expectancy in the U.S. by 15 to 20 years over the last five decades. The *United for Medical Research* coalition of leading research institutions' 2017 Update, which details NIH's Role in Sustaining the U.S. Economy noted that NIH extramural funding in 2017 generated an estimated $68.8 billion in nationwide economic output. This is double the amount of federal funding they receive, and includes an important feeder effect on small companies clustered around academic research institutions.

The NIH is comprised of 27 different *Institutes* and *Centers* that support a wide spectrum of research activities including basic research, disease and treatment-related studies, clinical research, and epidemiological analysis. The mission of individual Institutes and Centers varies

from studying a particular organ to a given disease to sequencing the human genome. In a broad capacity, NIH funding encourages economic growth, both in the research and development jobs it supports, as well as the generation of biomedical innovations that subsequently come to market in the form of new products. The National Institute of Biomedical Imaging and Bioengineering (NIBIB), which focuses on the development, application, and acceleration of technologies to improve outcomes for a broad range of biomedical applications and health care challenges is particularly important to ASME. ASME has been supportive of the mission of the NIBIB since its inception in 2001.

As the outcomes and benefits of biomedical research continue to grow, ASME is pleased that Congress has recognized these meaningful advancements and sustained NIH funding over the past several years. However, funding and the competitive edge that comes with it are at risk because of reduced purchasing power, austerity-minded budget proposals and looming budget caps.

ASME has the following recommendations related to future NIH budgets:

1) Provide robust funding for NIH at a level that outpaces the inflation rate. The most recent Biomedical Research and Development Price Index (BRDPI) projects a GDP Price Index of roughly 2 percent through 2023.
2) Continue to fund both extramural research that is awarded to universities and nonprofit organizations (e.g., R01/R21/R03 grants) and commercial innovation (e.g., STTR and SBIR grants).
3) Resist efforts to significantly reduce research overhead costs, which would have long-term negative economic impacts for local communities, long-term consequences for patients, and would adversely affect America's global competitiveness.
4) Include more bioengineers on NIH grant review panels as they pertain to future NIH funding.

U.S. Food and Drug Administration (FDA)

Former FDA Commissioner Dr. Scott Gottlieb noted the importance of the agency, stating that "the FDA's broad mission is to promote and protect [how] the nation's public health touches the lives of all Americans. Over $2.4 trillion annually, roughly 20 cents of every dollar, is spent by consumers on a product that FDA regulates." The FDA oversees 100% of drugs, vaccines, medical devices, cosmetics and 80% of our nation's food supply. The FDA's budget consists of both Congressional appropriations and user fees, which totaled $5.14 billion in FY17.

ASME supports the FDA's mission and the directive set forth in the 21st Century Cures Act that the FDA "support innovation while maintaining the evidentiary standards that provide assurance to the American public about the safety and efficacy of medical products." While congress acknowledges that the FDA's public health mission is vital and growing, current FDA funding levels are inconsistent with this mission. With FDA's increasing public health and safety responsibilities, ASME is concerned that FDA's budget is insufficient and should be increased while limiting FDA user fees. Additionally, ASME recommends that the FDA should increase the

percentage of participants on their cutting-edge initiatives with bioengineering expertise to ensure comprehensive, technologically informed overview before such advances are brought to market.

ASME encourages the FDA to continue developing its forward-looking regulatory efforts with regard to medical devices and products and promoting the clinical translation of innovative manufacturing technologies such as additive manufacturing and bioprinting, which will determine the future of medical devices in the U.S. and abroad.

International Competition in the Bioengineering Space

The most recent *Science and Engineering Indicators* report from the National Science Foundation (NSF) notes that the U.S. is currently the global leader in R&D funding, but other countries, including China in particular, are on track to catch up and surpass us within the next few years.

Since 2000, China has increased R&D spending at an accelerated rate of roughly 18 percent annually, with a focus on commercial development and "high-risk" research that can lead to disruptive "high-reward" innovations. By contrast, U.S. R&D investment has only averaged 4 percent annual growth, and focused mainly on "low-risk" research. As the NSF's *Indicators* note, while the US currently spends more, that leadership margin is slim and overall R&D intensity is falling. Conversely, R&D spending intensity in China is quickly growing.

China's most recent *Five-Year Economic Plan* stipulates that a quantifiable percentage of the country's GDP be generated by Biotechnology outputs, with the goal that this percentage will increase in the future. In 2008, China created the *1000 Talents Program* which provides incentives for trained academics and scientists to come work in China. This program represents a growing challenge to America's previously undisputed position as the global R&D leader. Without a renewed and robust funding plan for R&D and Bioengineering, the U.S. will see greater competition in this space as more and more countries continue to devote resources into boosting their R&D capabilities.

United Kingdom and Canada

Countries closer to home are also quickly proving their prowess and strength in the bioengineering arena. The U.K. and Canada are rapidly scaling up their capabilities and output. There were initial concerns that Brexit would ruin the UK bioengineering sector. However, despite ongoing challenges from Brexit, the UK BioIndustry Association's December 2017 report, *Pipeline Progressing: The UK's Global Bioscience Cluster in 2017*, concluded that the UK had the "strongest clinical and preclinical pipeline in Europe," and ranked third globally in R&D funding (behind the U.S. and Switzerland), with relatively stable funding for British biotechnology.

Canada's biotech industry has also rapidly bounced back from the global tech bust at the beginning of the millennium. In 2017, the Canadian government pledged $950 million to various tech industries through its *Innovative Superclusters Initiative*. The goal of the program is

to position Canada at the forefront of innovative R&D. The Canadian investment firm Bloom Burton and Co. reported that "Canada is gearing up for a new golden era in Biotech." As it moves away from its risk-averse research funding tendencies of the past, we should expect some Canadian biotech companies to shift toward riskier and potentially disruptive biomedical R&D. As Bloom Burton and Co. explained, "Within 10 years, these emergent companies could surpass the stars of the last Canadian biotech boom and even rival the large Biotechs in the U.S."

While the US still leads the UK and Canada in R&D funding, these historically close allies are rapidly becoming our adversaries in the biotech arena, and the ASME strongly endorses increased federal funding for bioengineering-focused R&D to ensure America's continued leadership and reclaim our position of dominance.

Workforce Development

America is facing a dearth of qualified STEM workers that is impeding the success of bioengineering R&D. For the US to remain competitive in the bioengineering arena and beyond, we need a strong, "STEM-capable" workforce. As the National Academies explained in their 2016 report *Developing a National STEM Workforce Strategy*, a STEM-capable workforce is not only trained with a comprehensive technical skillset, but also with "soft" skills such as communication and critical thinking. One of the many challenges to ensuring that a workforce is STEM-capable is that the responsibility for developing a competent, skilled workforce is split between governments, employers, and educators, and there are no formal structures linking these entities. Individuals within these institutions must have effective collaboration and communication skills to bridge this workforce development divide.

To maintain its competitive status through the 21st Century, the U.S. needs to improve and coordinate its workforce development programs. In a 2010 survey, roughly 16.5 million workers, from STEM and other fields, stated that their job required at least a bachelor's degree level of science or engineering expertise. As technology continues to develop at breakneck speeds, the need to educate technologically competent workers will increase. There is already a projected deficit of skilled workers for the number of STEM jobs coming through the pipeline. It is estimated that by 2020 there will be between 12 and 24 million unfilled jobs in STEM-based careers, with 75 percent of manufacturers stating that they are already being negatively impacted by this skills shortage.

Another major challenge facing educators today is not knowing what skills their students need to be successful beyond graduation. In a recent workshop, NSF director Dr. France Cordova noted "there is a clear need for communication about workshop training expectations between business and higher education." To develop more focused course offerings, one solution is to create academia-industry partnerships by involving industry employers in academic curriculum development, and providing academic faculty with experiences within industry.

The federal government is getting more involved with programs such as the *NSF INCLUDES Initiative* (Inclusion across the Nation of Communities of Learners of Underrepresented

Discoverers in Engineering and Science), which makes STEM education and careers more accessible to students and workers of all backgrounds. In addition, the 115th Congress recently voted to reauthorize the *Carl D. Perkins Career and Technical Education Act*, a key source of federal funding for secondary and post-secondary career and technical education programs. **ASME enthusiastically supports this forward-thinking legislation and is eager to serve a consulting role on engineering-related STEM curriculum development.**

Summary and Conclusion

Bioengineering-based solutions to health care problems improve health outcomes and reduce health care costs. Biomedical research generates commercializable technologies from federally funded research.

While the U.S. currently enjoys a leadership position in the global Bioengineering space, this status cannot be maintained in the future without continued support and stable funding. Therefore, ASME strongly urges Congress to increase funding for bioengineering R&D across NIH, NSF, FDA, and other federal agencies, and to strengthen STEM workforce development initiatives. This support will ensure continued dominance in bioengineering R&D, reduce health care costs for the U.S. and her citizens, and help secure America's leadership role in the 21st century global economy.

DRAFT – NOT FOR PUBLICATION

ENGINEERING AMERICA'S FUTURE
Economic Growth Through Technological Innovation

INTRODUCTION

Economic prosperity and growth in the global age is at root a story of technological innovation. Various economic analyses ascribe up to 80% of economic growth in the industrial era to technological advancements. Innovation allows us to make continual improvements in our quality of life and maximize the productivity of our citizens. It also enhances our ability to identify and collect scarce resources and use them efficiently, and to optimize our adverse impact on the earth and its environment. Appropriately directed, technological advancements can also be delivered to the benefit of the global community and can be a driver for national security.

The emergence of the United States in the 20th century as the preeminent world economic power was largely attributed to the country's stable political system, vast natural and human resources, and agricultural, manufacturing and engineering prowess. Underlying all of this has been an unceasing capacity for innovation. This innovation made possible remarkable productivity gains in agriculture. Beginning in the 19th century, the development and dissemination of science-based best practices in agriculture allowed the nation's growing food needs to be met by ever-smaller numbers of farm workers. This improvement in farm labor productivity enabled people to focus on producing in other markets. Today this manifests itself in our ability to engineer new technologies in areas such as life sciences, environmental sciences, energy, advanced manufacturing and information technology, which define our quality of life and will be crucial to economic growth and prosperity in a global economy.

RECOMMENDATIONS

Private enterprise will continue to take the lead in technological and engineering innovation, particularly regarding commercialization of new ideas and technologies. The government plays a role through the promulgation of policies that encourage innovation. These policies must be mindful of the long-term, capital-intensive nature of engineering

and basic science innovation, recognize the interdisciplinary nature of R&D and understand the need to bridge different funding paths for technology transition. These policies should encourage a regulatory environment for the transfer of research results to application developers and for ease of commercialization. The goal of these policies should support the development and sustenance of a well-educated, technically sophisticated workforce that is sufficiently agile to respond to rapid developments in technology.

1. Ensure substantial public investment in science-based engineering research that recognizes the interdisciplinary nature of innovation.

Federal funding is crucial to the nation's R&D enterprise. This funding encompasses both publicly supported laboratories operated directly by federal agencies, as well as grants to non-profit research-performing organizations such as universities and research institutions. In particular basic research, which is defined as that work that is not directly motivated by specific applications, is almost exclusively the domain of government support. The divide between basic research and applications means that there can only be limited assurances that commercial applications will result even from successful research projects. In most cases, private enterprises cannot justify investments in research for which the promise of revenue-generating applications is not imminent. In such areas only a shared investment in the precompetitive Science and Technology realm will allow the market to develop. Leadership by the federal government through its funding investment is a critical component of this enterprise.

Federal research funding should be balanced between biology and the life sciences, where funding generally is largely provided by the National Institutes of Health (NIH), and engineering and the physical sciences, where funding is provided by the Department of Defense (DoD), Department of Energy (DoE), Department of Commerce, National Aeronautics and Space Administration (NASA), or the National Science Foundation (NSF). A balanced federal research portfolio is especially vital to emerging technical areas, which may be highly interdisciplinary and may require distinctly different funding avenues. Balancing the federal investment in multiple fields will foster a knowledge base and capability in multiple research areas.

Federally funded research also supports graduate education. A large percentage of doctoral degree recipients in engineering and science are supported in part by federal funds. These degree recipients go on to play key roles not only in carrying out research, but in training successive generations of engineers and scientists.

The federal policies should consider R&D investments that:

- Ensure long-term commitments to science and engineering research by devoting more than 3% of the total U.S. gross domestic product (GDP) to R&D or a fixed percentage of federal revenues to supporting basic R&D activities.

- Continues to support robust investments in basic research for the National Science Foundation, the Department of Energy's Office of Science, the National Institute of Standards and Technology, and the Department of Defense, which supports high risk, but high reward projects.

- Pursues a balanced portfolio of research in physical sciences, engineering, and life sciences, with commitment to the research activity supported by all agencies. This balance should be coordinated through government investment priorities and shared research areas among multiple agencies. Research into focus areas where multiple agency missions benefit should be a high priority.

2. Establish policies that encourage private investment in R&D, including basic research.

The private sector accounts for an estimated two-thirds of all R&D spending in the U.S. This private R&D effort is focused on development and applications. The federal government has been the primary source of basic research funding in the U.S. for the last century. In order for technology to drive our economic growth in the future, incentives such as R&D tax credits that are dependable on a continuing basis must be provided.

The role of intellectual property protections in encouraging private R&D investment should also be strengthened and enforced. Such protections, which have both domestic and international implications, can provide strong financial incentives to undertake fundamental R&D by increasing the likely investment return for the private sector.

Federal policies should:

- Maintain the permanence and competitiveness of the R&D tax credit.
- Maintain strong intellectual property and copyright protections.

3. Enact measures to strengthen partnerships between R&D performers and users.

While it is primarily private industry that innovates through transforming knowledge into new products and services, industry depends heavily on government-funded basic research. The task of transitioning basic research has long been identified as a major obstacle in the R&D pathway.

Partnerships between industry and academic or other research institutions allow industry to be better informed about recent research advances, while allowing the performers of basic research in turn to be cognizant of the needs of industry. Planning and coordination is essential for optimal performance of these partnerships. Federal agencies have long and valuable experience in interacting with industry, academic institutions, and research institutions, and benefit from expanded partnership efforts.

Accordingly, the federal policies should:

- Strengthen industry/academic/government partnerships to facilitate the flow of ideas between these parties.
- Stipulate communication on technology transition between parties as conditions of research grants both on the basic research side and the application and development side.
- Support partnerships involving competitive programs that are both cost-shared and merit-reviewed.
- Invest in partnerships that apply commercial technologies to meet government needs in areas such as clean energy, advanced manufacturing, transportation, defense, space exploration, education, and the environment.

4. Promote a system of standards and conformity assessment procedures that facilitates the transfer and commercialization of innovative technical advances.

The globalization of business, the rapid implementation of new technology, and the economic and technological convergence of markets are significantly changing the dynamics of global competition – particularly with respect to the areas of energy and workforce development. As a result, the influence of international product standardization

and conformity assessment procedures on the marketability of U.S. products and services abroad is becoming increasingly important. The significance of supporting sound standardization policy is underscored by the U.S. Department of Commerce estimate that standards affect 80% of world commodity trade.

U.S. international trade policies and the bilateral and multilateral agreements designed to harmonize standardization systems are intended to ensure fair and equitable cross border commerce among the signatory nations to these agreements. Intra-national technical standards and conformity assessment systems should not be used by some countries as an exclusionary tool to inhibit extra-national competition. Preservation of U.S. market access for innovative technology developments will require due diligence by both government and the private sector on the evolving state of international standards practices.

To enhance the commercialization opportunities for new technologies, international standards development and conformity assessment procedures must preserve industry's ability to market products based on those technologies. To accommodate this need, the federal government, through its international trade negotiators and representatives and federal agencies, should:

- Continue to implement provisions of PL 104-113, The Technology Transfer and Advancement Act, to encourage greater use of, and participation in, voluntary consensus standards, accreditation, and conformity assessment programs by government agencies, allowing for increased efficiency, public safety, and reduced costs for taxpayers.
- Support the principles of international standardization including transparency, impartiality and consensus, effectiveness and relevance, and coherence during development, in accordance with the Technical Barriers to Trade (TBT) Agreement.
- Continue to recognize that U.S. domiciled standards-developing organizations produce standards that meet the above criteria, and thus are entitled to favored treatment under the TBT Agreement.
- Support private sector efforts to harmonize requirements among U.S. and international conformity assessment bodies and recognize that harmonization of standards should be addressed on a sectoral basis.
- Protect intellectual property rights for standards applications.

5. Create initiatives to broaden the science, technology, engineering and mathematics (STEM) pipeline at the university level, and strengthen STEM education in primary and secondary schools.

The U.S. economy relies on the productivity, creativity and entrepreneurship of all U.S. citizens. As the workforce becomes increasingly more global and technology-driven, it is essential that the United States align its K-12 core curriculum to the knowledge and skill requirements of its 21st century workforce.

Where engineering degrees made up almost 8% of all earned undergraduate degrees in the mid-1980s, that figure is closer to 5.5% today. Even though overall undergraduate enrollments in engineering in the U.S. have declined from these historic highs, the number of undergraduate engineering degrees awarded annually by U.S. universities reached its highest point in 10 years in 2017, with 619,095 students enrolled. The percentage of women earning B.S. degrees in engineering also reached a 10 year high in 2017, reaching 21.3%. Increasing the participation of women and minorities is essential for broadening the STEM pipeline to meet future U.S. engineering workforce needs.

The lagging performance of U.S. primary and secondary school students on international math and science assessments augurs poorly for our future global competitiveness. It is vitally important to strengthen STEM education at the K-12 levels. This will require a variety of measures, including the recruitment and training of qualified teachers; the development of curricular standards and materials that emphasize creativity, problem-solving, and critical thinking, along with assessments aligned with those standards; and the encouragement of partnerships between public and private stakeholders to bring practical and hands-on STEM experiences to the classroom.

Proper investment in K-12 STEM education aimed both at improving the performance of U.S. students and increasing recruitment to STEM fields will require substantial, rigorous research into best practices. There has historically been a dearth of research in STEM education, meaning that the true nature of deficiencies in STEM education are ill-defined, as are the proposed remedies. For example, it is not well-understood if the lack of diversity among STEM university graduates owes to problems of recruitment and retention at the university level, to inadequate technical preparation at the secondary school level, or to cultural biases at the different levels of education; nor is it fully understood if the problems of racial and gender diversity are fundamentally similar. If these issues can be properly defined, it will be essential to evaluate the proper methods for addressing them. These research efforts would naturally be the domain of NSF or the Department of Education.

Federal policies should:

- Coordinate federal programs and activities in support of STEM education and require them to develop a STEM education strategic plan to inform coordinated program and budget planning across the agencies.
- Establish and maintain an inventory of federally sponsored STEM education activities, including documentation on program assessments.
- Support rigorous research, through the Department of Education or NSF, aimed at understanding the current deficiencies in STEM education both in the K-12 and the post-secondary levels, and at identifying best practices for addressing those deficiencies.
- Pursue the adoption of aggressive standards and effective assessment for STEM education in K-12, including reward systems to improve recruitment and retention of outstanding teachers.
- Encourage partnerships to involve private organizations in addressing STEM education improvements.
- Leverage programs such as NSF's Broader Impacts Criterion to encourage large-scale, sustained partnerships among higher education institutions, museums, industry, content developers and providers, research laboratories and centers, and elementary, middle, and high schools to deploy the Nation's science assets in ways that engage tomorrow's STEM innovators.
- Encourage mentoring opportunities for students in K-12 and partnerships that engage students and teachers in K-12 in entrepreneurial and innovative environments.
- Strengthen and re-examine oversight of existing legislation and programs aimed specifically at broadening participation by under-represented groups in STEM fields.
- Award grants to colleges and universities to reform undergraduate STEM education in their institutions, and specify that proposals must include evidence of institutional support for, and commitment to, the proposed reform effort.
- Promote the adoption and/or improvement by states of high-quality common standards and assessments in STEM subject areas.

6. Support life-long education initiatives to provide employees and employers with the tools necessary to compete in the global economy.

Continuing education enables the workforce to stay abreast of technological advances, respond to shifting trends, and supports employability. A technically literate workforce is essential for economic growth and prosperity in today's global economy. Continuing education also fosters stability in the population of technical workers. This workforce

stability is important in attracting promising students to technical fields, and also in helping to ensure that institutional knowledge is retained and can be imparted to successive generations of workers. Return on investment in continuing education must be measured in the long term rather than the short term. Encouragement of continuing education must combine elements of measure intended to promote employment, R&D investment (including fiscal incentives), and aimed at strengthening STEM education.

Federal policies should:

- Strengthen tax incentives for workforce development and continuing education, including at the graduate level, both for employers and employees.
- Support research to identify effective and measurable means for maintaining the technical currency of the workforce.

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 15, 2019
BOG Meeting Date: April 8, 2019

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

Agenda Item Executive Summary:

Proposed appointments reviewed by the COR on March 13, 2019.

Proposed motion for BOG Action:

To approve the attached appointments.

Attachments: Document attached.

APRIL 2019
PROPOSED APPOINTMENTS TO
ASME UNITS

Internal Unit	Nominee	Appointment Position/Title	Appointment Term/Category	Appointment Type	History
Committee on Finance and Investment	Richard Benson	Member-at-Large	July 2019 – June 2022	Initial	Governor 2010-2013
Committee on Finance and Investment	Karen Ohland	Member-at-Large	July 2019 – June 2022	Initial	Governor 2016-2019
Committee on Organization and Rules	Emily Boyd	Member-at-Large	July 2019 - June 2022	Initial	Nominating Committee
Committee on Organization and Rules	Joseph Radisek	Member-at-Large	July 2019 - June 2022	Initial	Affinity Communities Operating Board

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 25, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors
From: Committee on Finance and Investment
Presented by: William Garofalo, Associate Executive Director Finance
Jeff Paterson, Chief Operating Officer
Agenda Title: Fiscal Year 2019 YTD Financial Update

Agenda Item Executive Summary:

Presentation of the Fiscal Year 2019 Financial Update.

Proposed motions for BOG Action:

None

Attachments: Financial Presentation

ASME FY 2019 January YTD Financial Report

William Garofalo, Associate Executive Director, Finance
Jeff Patterson, Chief Operating Officer

April 8, 2019

Confidential and Proprietary - Not to be disclosed outside of ASME

What to expect from this presentation

- **Brief Description** – High-level overview of the FY19 performance to date
- **Desired Outcome** – Awareness of key elements of the Plan and Budget
- **Questions** – Please hold questions until the presentation is complete
- **Duration** – 30 minutes (18 slides: 20 minutes for presentation, 10 minutes for discussion)

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ASME
SETTING THE STANDARD

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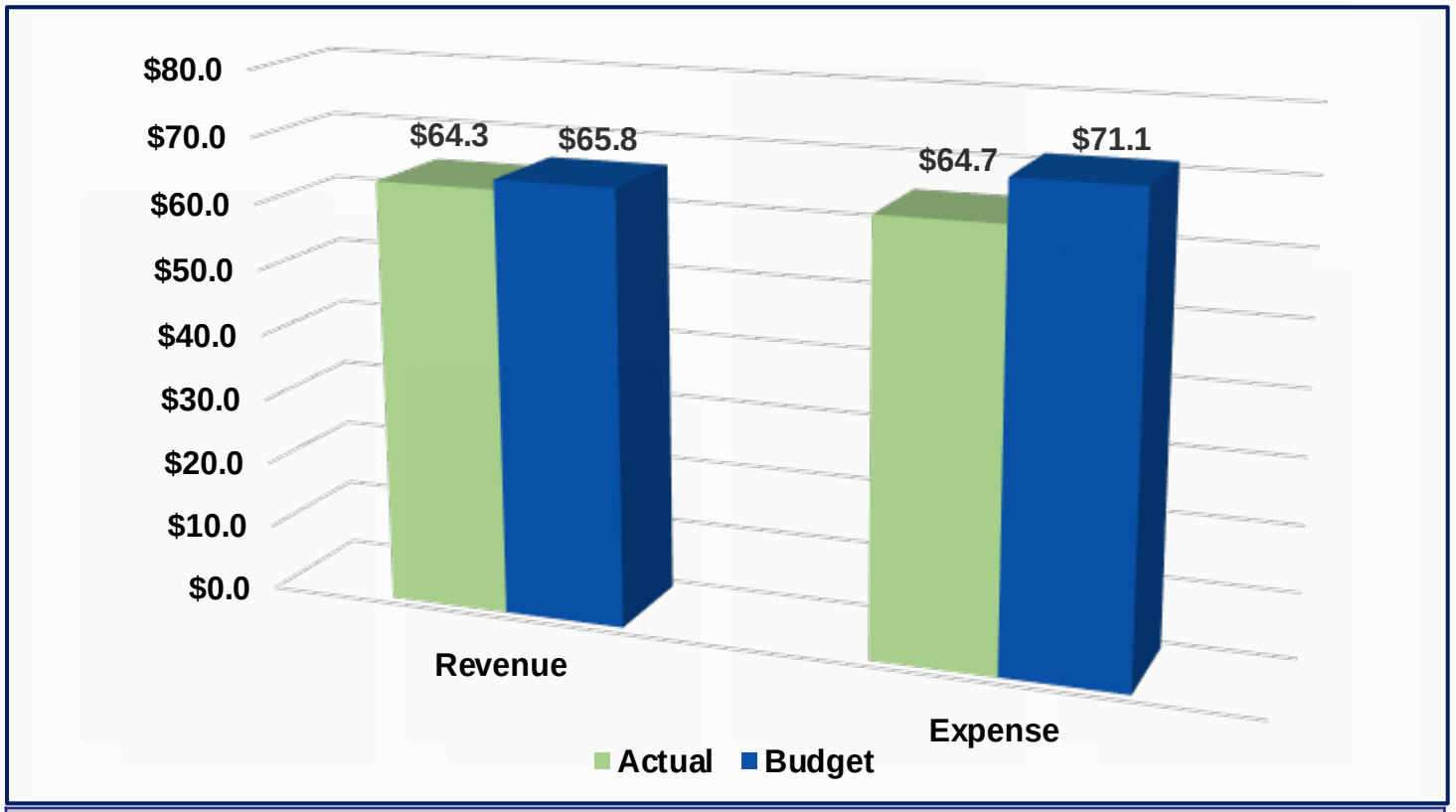
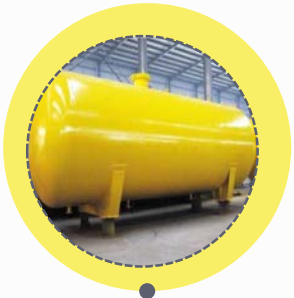
ASME FY19 January YTD Financial Results – vs. Budget



	Actual	Budget	Variance $	Variance %
Revenue	$64.3	$65.8	($1.5)	-2.3%
Expense	$64.7	$71.1	$6.4	9.0%
Net	($0.4)	($5.3)	$4.9	

FY19 Drivers vs. Budget



Standards

Decreased revenues from *Boiler Code hard copy sales* due to increased reseller discounts and many new and revised standards being **sold as PDFs** via resellers instead of ASME.
Expense savings in COGS is directly related to the move from *print to pdf*.

Conformity Assessment

Decreased revenues due to continued *drop* in number of certification renewals domestically as a result of the decision by **State Chiefs** to no longer require ASME stamp. Also contributing is significant **decline in Nuclear Material Certification** offset by expense favorability due to delay in implementation of CA Connect.

Learning & Development

Staff departures and lengthy recruitment significantly slowed course development, resulting in **lower-than-planned consulting expenditure** for new course development, **lower staff travel** and **underspend** in *cost of products and services*.

Technical Events

Favorable revenues due to strong Q2 conference performance from *SMASIS, Internal Combustion and IMECE.*
Expense favorability is largely due to majority of budgeted **surplus sharing** expenses not being paid owing to only 7 conferences meeting their revenue targets & only 5 of these 7 resulting in surplus.

Marketing Services

Underspend in promo and advertising due to *delays in timing of new product* launches caused by **technology implementation delays** and scope changes of anticipated projects.

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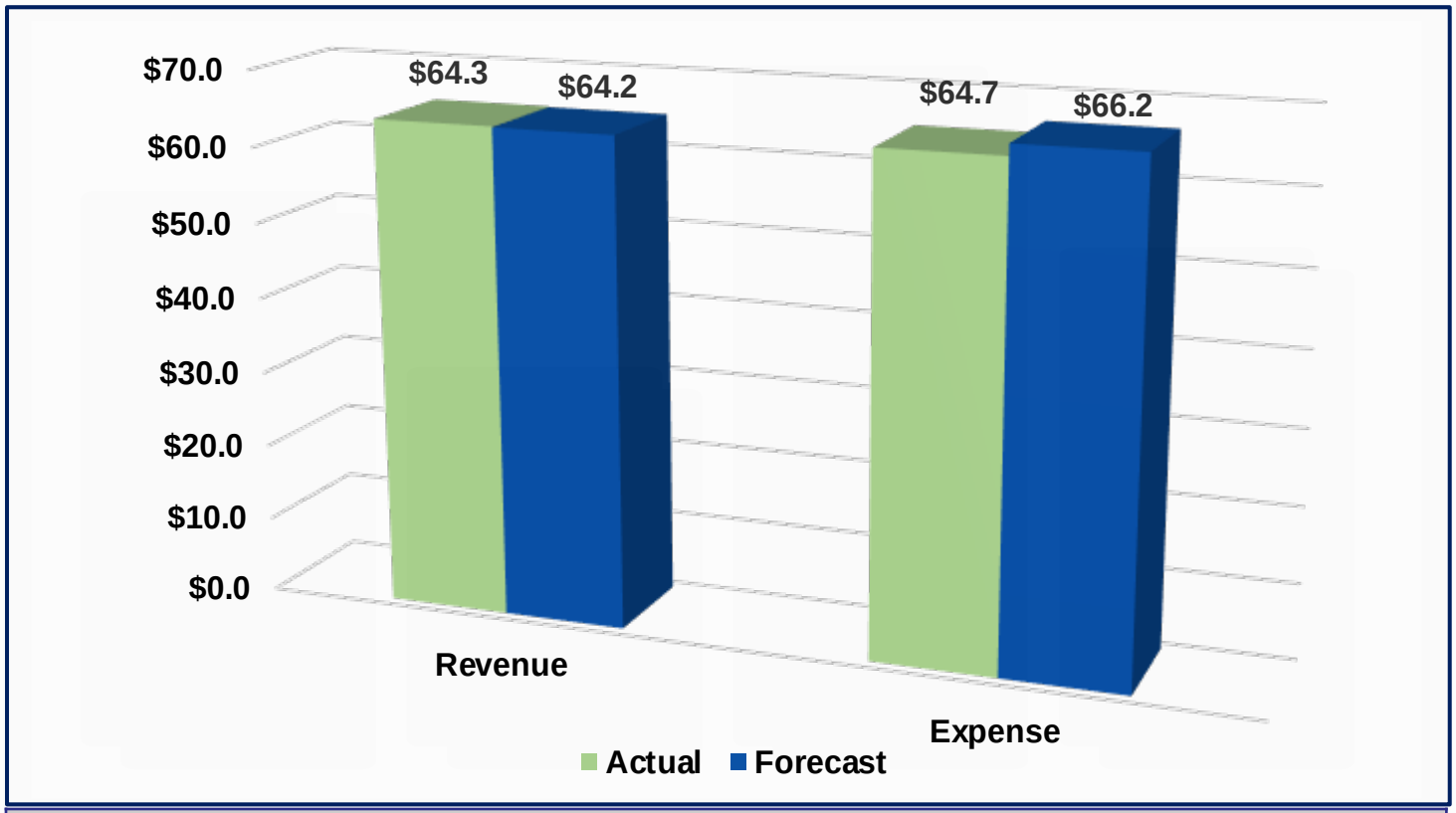
ASME FY19 January YTD Financial Results – vs. Forecast



	Actual	Forecast	Variance $	Variance %
Revenue	$64.3	$64.2	$0.1	0.2%
Expense	$64.7	$66.2	$1.5	2.3%
Net	($0.4)	($2.0)	$1.6	

FY19 Drivers vs. Forecast

Marketing Services:
Lower than expected Promo and Ad spend due to delays in product launches and staff resources being diverted to provide solutions for Volunteer Communication Tools.

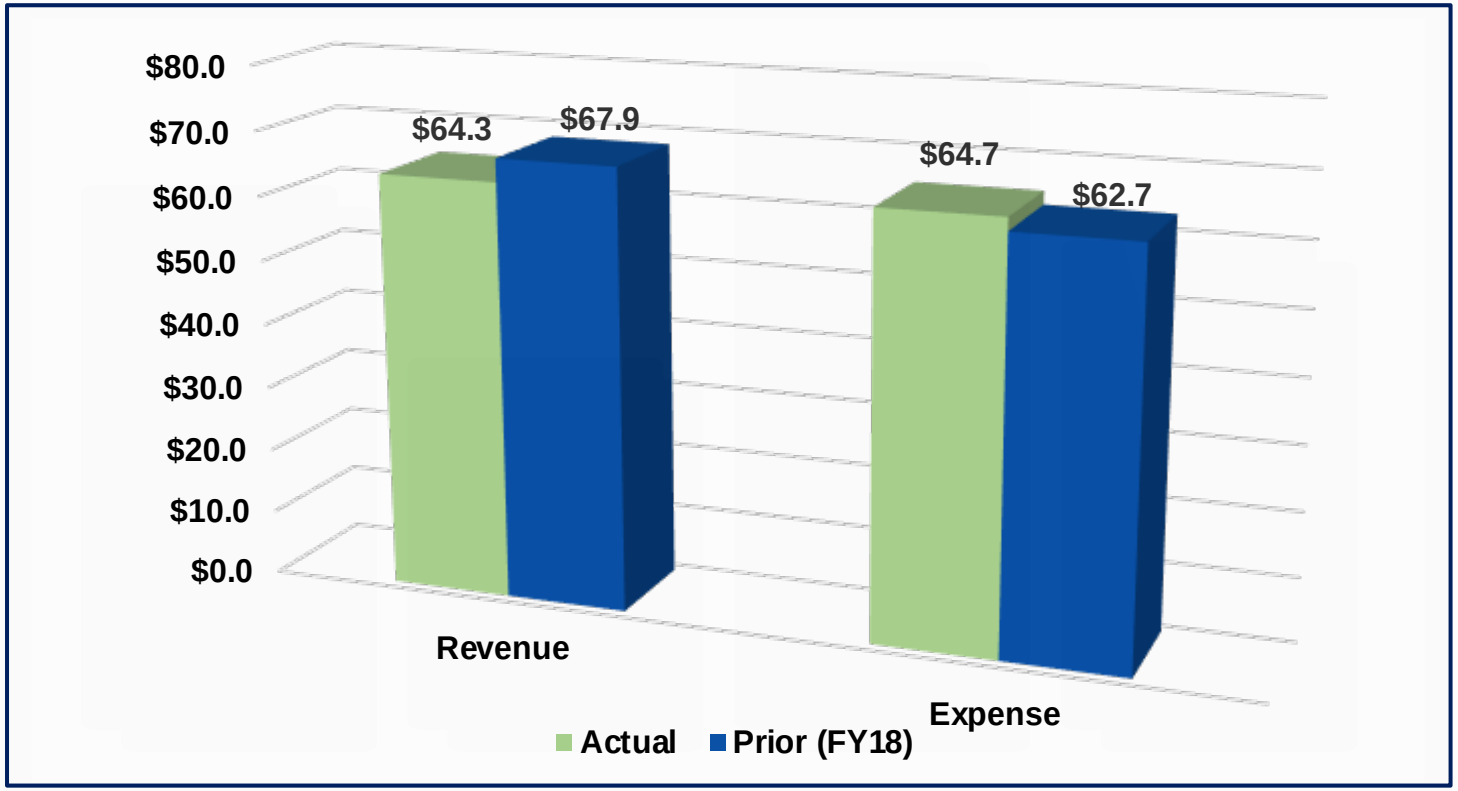
Standards:
Variance in Royalties based on positive impact of improved reseller terms. Lower than expected expenses due to deferred consulting work in ST-LLC, and staff vacancies in Operations.

Learning & Development:
Higher than anticipated performance of CORE live programs & the Bolting Specialist qualification program result in favorable revenues. Increased spending in later part of year due to added headcount in L&D.

Conformity Assessment:
Lower than expected revenues due to decline within the U.S. nuclear industry, causing most companies to hold fewer certificates and allow their multiple certifications to expire.

Technical Events:
Significant underspend due to lowered travel expenses associated with the GLDC event and lower than anticipated surplus sharing expenses.

ASME FY19 January YTD Financial Results – vs. Prior (FY18)



	Actual	Prior (FY18)	Variance $	Variance %
Revenue	$64.3	$67.9	($3.6)	-5.3%
Expense	$64.7	$62.7	($2.0)	-3.2%
Net	($0.4)	$5.2	($5.6)	

ASME Statements of Financial Position

	December 31, 2018	June 30, 2018
	FY 2019 Total	**FY 2018 Total**
Assets		
1 Cash and cash equivalents	$ 7,144,613	$ 8,090,012
2 Accounts receivable, less allowance for doubtful accounts of $226,000 in 2019 and $277,000 in 2018	10,519,389	15,856,240
Due from The ASME Foundation, Inc.	—	—
Inventories	693,611	656,976
Prepaid expenses, deferred charges, and deposits	3,064,689	3,109,710
3 Investments	111,081,262	133,047,764
Property, furniture, equipment, and leasehold improvements, net	20,357,932	19,540,459
Total assets	$ 152,861,496	$ 180,301,160
Liabilities and Net Assets		
Liabilities:		
Accounts payable and accrued expenses	$ 8,394,926	$ 10,408,184
Due to The ASME Foundation, Inc.	136,593	63,364
4 Accrued employee benefits	6,727,556	17,415,567
5 Deferred publications revenue	5,695,239	11,332,346
Deferred dues revenue	4,266,064	2,339,030
Accreditation and other deferred revenue	17,613,760	19,821,179
Deferred rent	10,041,072	10,539,157
Total liabilities	52,875,210	71,918,827
Commitments		
Net assets:		
Unrestricted	99,559,636	107,883,545
Temporarily restricted	304,808	362,220
Permanently restricted	121,842	136,567
Total net assets	99,986,286	108,382,332
Total liabilities and net assets	$ 152,861,496	$ 180,301,160

ASME Statements of Financial Position Commentary

Cash and cash equivalents

Cash decreased by $0.9M associated with operational and capital needs, plus a $10M pension plan contribution, offset by liquidation from our investments of $15M.

1

Accounts receivable, less allowance for doubtful accounts

The change in balance is associated with timing of publication and journal sales.

2

Investments

The decreased balance is associated a liquidation of $15M of investments for cash requirements, as well as negative investment returns of (6.1%) through December.

3

Accrued employee benefits

The decrease is associated with pension plan contribution.

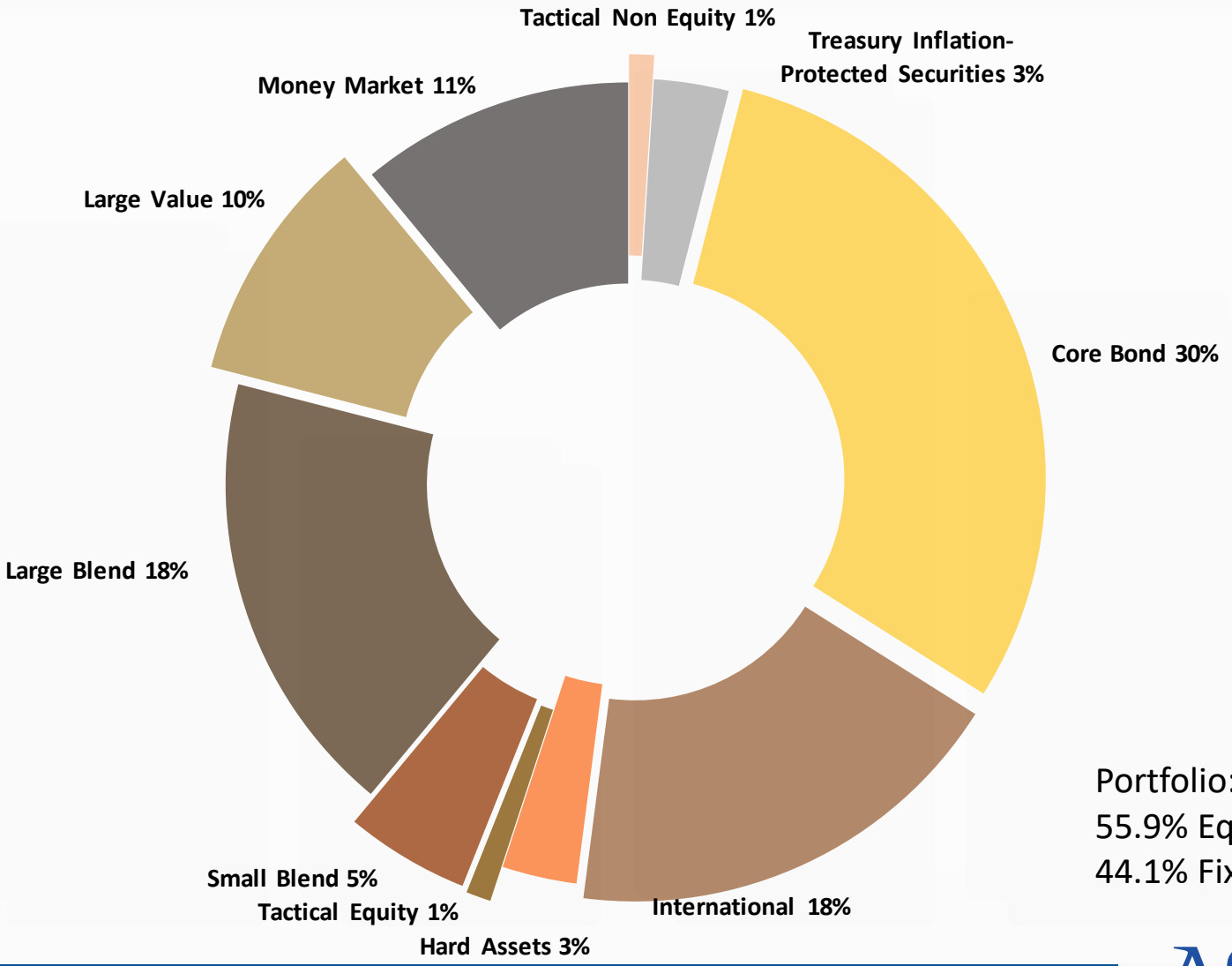
4

Deferred publications revenue

This decrease reflects the recognition of revenue related to year 2 of the BPVC publication cycle.

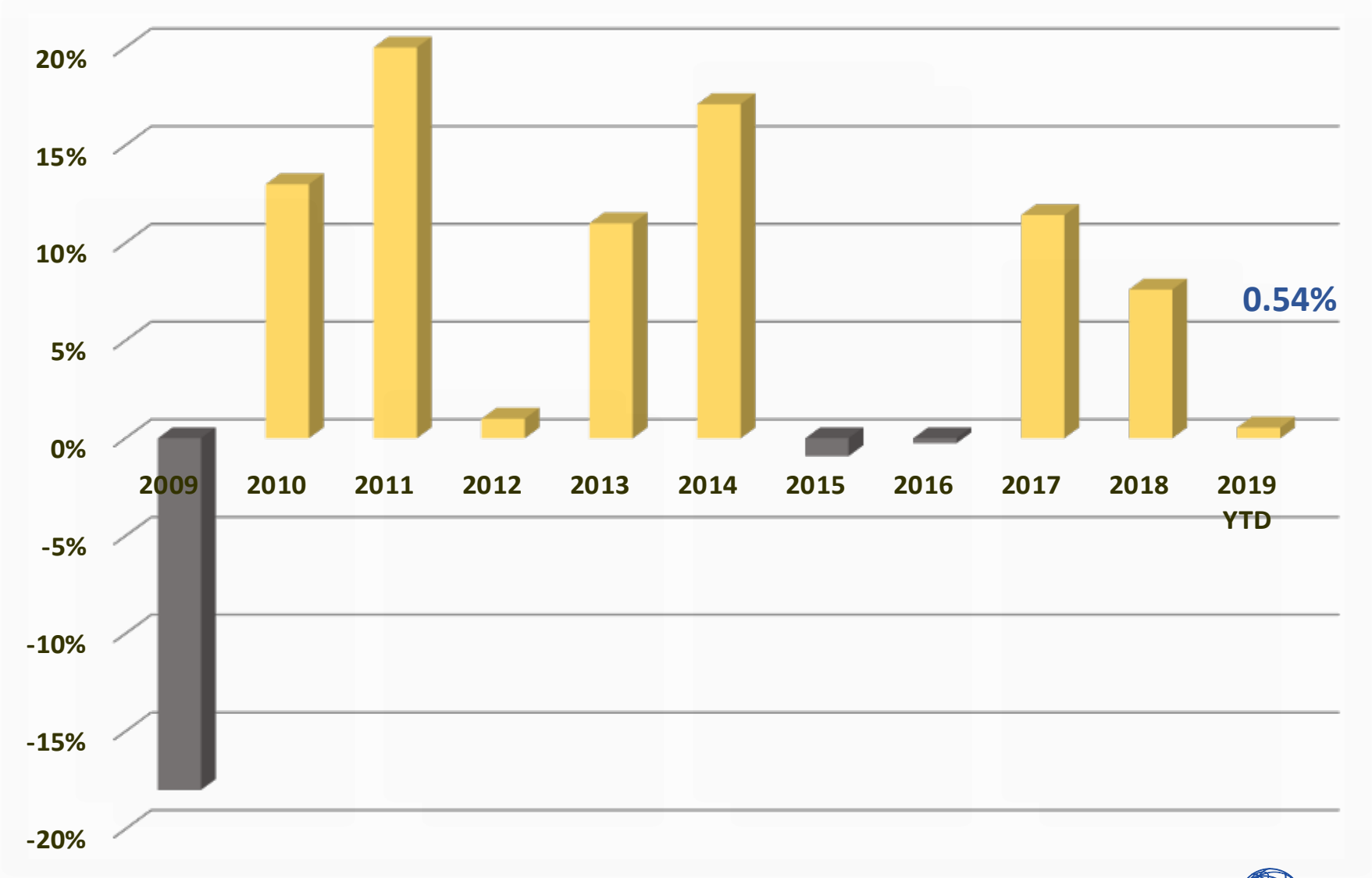
5

ASME Investment Portfolio
[as of FY19 Feb YTD]

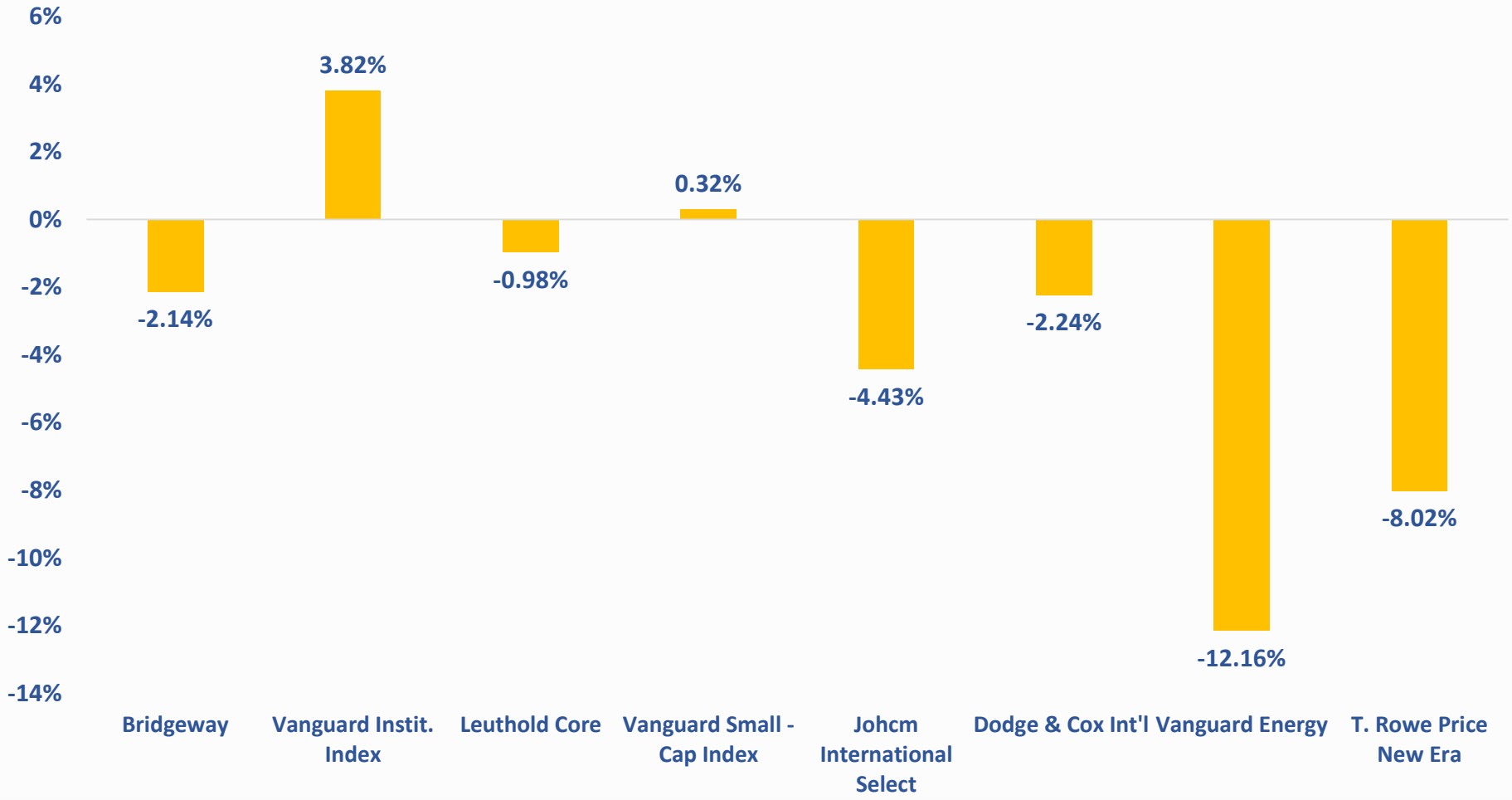


Portfolio:
55.9% Equity
44.1% Fixed Income

ASME Investment Returns



Equity Investment Portfolio
[as of FY19 Feb YTD]



ASME Statements of Cash Flows

	December 31, 2018 FY 2019	December 31, 2017 FY 2018
Cash flows from operating activities:		
Increase in net assets	$ (8,396,046)	$ 13,481,462
Adjustments to reconcile increase in net assets to net cash provided by (used in) operating activities:		
Depreciation and amortization	1,746,157	2,509,264
~~Loss on disposal of fixed assets~~		
Realized and unrealized gain / loss on investments	8,561,027	(7,421,839)
Bad debt recovery	(52,000)	(1,015)
Pension and post-retirement changes other than net periodic costs	—	—
Change in operating assets and liabilities:		
Accounts receivable	5,388,852	(1,731,740)
Due from The ASME Foundation, Inc.	—	279,289
Inventories	(36,635)	(185,494)
Prepaid expenses, deferred charges, and deposits	45,021	386,383
Accounts payable and accrued expenses	(2,013,258)	2,576,831
Due to the ASME Foundation, Inc.	73,229	—
~~Accrued employee benefits~~	~~(10,688,011)~~	~~(10,189,632)~~
Deferred publications revenue	(5,637,107)	8,565,608
Deferred dues revenue	1,927,034	1,882,847
Accreditation and other deferred	(2,207,419)	(3,183,556)
Deferred rent	(498,085)	(287,373)
Net cash (used in) provided by operating activities	(11,787,241)	6,681,035
Cash flows from investing activities:		
Purchases of investments	(1,473,453)	(8,402,994)
Proceeds from sales of investments	14,878,925	6,950,787
Acquisition of fixed assets	(2,563,630)	(1,598,640)
Net cash provided by (used in) investing activities	10,841,842	(3,050,847)
Net (decrease) increase in cash and cash equivalents	(945,399)	3,630,188
Cash and cash equivalents at beginning of period	8,090,012	12,028,868
Cash and cash equivalents at end of period	$ 7,144,613	$ 15,659,056

Appendixes

Confidential and Proprietary - Not to be disclosed outside of ASME

ASME FY19 January YTD Financial Results – vs. Budget

	Actual			Budget			Actual vs Budget		
	Revenue	Expense	Net	Revenue	Expense	Net	Revenue	Expense	Net
Products, Programs & Services									
Standards	$23,139	$5,457	$17,682	$23,566	$5,799	$17,767	($427)	$342	($85)
CA & Process Mgmt	16,993	8,221	8,772	17,340	9,084	8,256	(347)	862	516
Publishing	8,186	4,943	3,243	8,023	5,052	2,970	163	109	273
Learning & Development	2,889	2,772	117	3,209	3,948	(739)	(320)	1,176	856
Technical Events	5,313	6,065	(752)	5,302	7,145	(1,843)	12	1,080	1,091
Industry Events & TABD	(0)	1,781	(1,781)	0	1,980	(1,980)	(0)	200	199
Constituent Engagement	7,501	3,641	3,860	7,968	4,037	3,931	(466)	396	(70)
Programs	163	2,926	(2,763)	379	3,500	(3,121)	(216)	574	358
Products, Programs & Services Subtotal	**$64,185**	**$35,806**	**$28,379**	**$65,787**	**$40,546**	**$25,241**	**($1,602)**	**$4,740**	**$3,138**
Operating									
Marketing Services	$0	$2,986	($2,986)	$0	$3,603	($3,603)	$0	$618	$618
Public Information	0	913	(913)	0	1,010	(1,010)	0	97	97
ASME.org	0	924	(924)	0	1,048	(1,048)	0	125	125
Sales & Customer Care	0	1,483	(1,483)	0	1,596	(1,596)	0	113	113
Philanthropy	0	51	(51)	0	0	0	0	(51)	(51)
Global Public Affairs	3	2,186	(2,183)	0	2,386	(2,386)	3	200	203
Human Resources	0	2,875	(2,875)	0	2,328	(2,328)	0	(547)	(547)
Facilities	0	5,605	(5,605)	0	5,818	(5,818)	0	213	213
Technology Services Group	0	5,147	(5,147)	0	5,497	(5,497)	0	349	350
Finance & Accounting	0	2,715	(2,715)	0	3,047	(3,047)	0	332	333
Executive Office	(0)	2,564	(2,564)	(1)	2,534	(2,535)	1	(30)	(29)
Global Alliance & Board Ops	0	425	(425)	0	503	(503)	0	78	78
Governance	(1)	735	(735)	1	821	(820)	(2)	87	85
Miscellaneous	103	250	(146)	0	391	(391)	103	142	245
Operating Subtotal	**$106**	**$28,857**	**($28,751)**	**$0**	**$30,582**	**($30,582)**	**$105**	**$1,725**	**$1,831**
Total Operating Surplus / (Deficit)	**$64,291**	**$64,663**	**($372)**	**$65,787**	**$71,128**	**($5,341)**	**($1,496)**	**$6,465**	**$4,969**

ASME FY19 January YTD Financial Results – vs. Forecast

	Actual			Forecast			Actual vs Forecast		
	Revenue	Expense	Net	Revenue	Expense	Net	Revenue	Expense	Net
Products, Programs & Services									
Standards	$23,139	$5,457	$17,682	$22,870	$5,755	$17,115	$269	$298	$567
CA & Process Mgmt	16,993	8,221	8,772	17,525	8,579	8,946	(532)	358	(174)
Publishing	8,186	4,943	3,243	8,092	4,981	3,111	95	38	132
Learning & Development	2,889	2,772	117	2,702	3,122	(420)	187	350	537
Technical Events	5,313	6,065	(752)	5,224	6,571	(1,347)	89	506	595
Industry Events & TABD	(0)	1,781	(1,781)	0	1,351	(1,351)	(0)	(430)	(430)
Constituent Engagement	7,501	3,641	3,860	7,522	3,708	3,814	(21)	67	46
Programs	163	2,926	(2,763)	194	2,964	(2,770)	(31)	37	7
Products, Programs & Services Subtotal	**$64,185**	**$35,806**	**$28,379**	**$64,129**	**$37,030**	**$27,099**	**$56**	**$1,224**	**$1,280**
Operating									
Marketing Services	$0	$2,986	($2,986)	$0	$3,518	($3,518)	$0	$533	$533
Public Information	0	913	(913)	0	921	(921)	0	8	8
ASME.org	0	924	(924)	0	936	(936)	0	13	13
Sales & Customer Care	0	1,483	(1,483)	0	1,512	(1,512)	0	29	29
Philanthropy	0	51	(51)	0	98	(98)	0	47	47
Global Public Affairs	3	2,186	(2,183)	3	2,292	(2,290)	0	107	107
Human Resources	0	2,875	(2,875)	0	2,947	(2,947)	0	71	71
Facilities	0	5,605	(5,605)	0	5,700	(5,700)	0	94	94
Technology Services Group	0	5,147	(5,147)	0	5,514	(5,514)	0	367	367
Finance & Accounting	0	2,715	(2,715)	0	2,734	(2,734)	0	19	19
Executive Office	(0)	2,564	(2,564)	(0)	2,649	(2,649)	0	85	85
Global Alliance & Board Ops	0	425	(425)	0	395	(395)	0	(30)	(30)
Governance	(1)	735	(735)	(2)	844	(846)	1	110	111
Miscellaneous	103	250	(146)	102	(852)	954	2	(1,102)	(1,100)
Operating Subtotal	**$106**	**$28,857**	**($28,751)**	**$102**	**$29,209**	**($29,107)**	**$3**	**$353**	**$356**
Operating Surplus / (Deficit)	**$64,291**	**$64,663**	**($372)**	**$64,231**	**$66,239**	**($2,008)**	**$60**	**$1,576**	**$1,636**

ASME FY19 January YTD Financial Results – vs. Prior (FY18)

	Actual			Prior			Actual vs Prior		
	Revenue	Expense	Net	Revenue	Expense	Net	Revenue	Expense	Net
Products, Programs & Services									
Standards	$23,139	$5,457	$17,682	$27,610	$7,262	$20,348	($4,471)	$1,805	($2,665)
CA & Process Mgmt	16,993	8,221	8,772	16,570	9,152	7,418	423	931	1,354
Publishing	8,186	4,943	3,243	7,506	4,568	2,938	680	(375)	305
Learning & Development	2,889	2,772	117	2,893	2,793	100	(4)	21	17
Technical Events	5,313	6,065	(752)	4,880	5,032	(153)	433	(1,033)	(599)
Industry Events & TABD	(0)	1,781	(1,781)	0	1,475	(1,475)	(0)	(306)	(307)
Constituent Engagement	7,501	3,641	3,860	8,118	3,036	5,082	(616)	(605)	(1,222)
Programs	163	2,926	(2,763)	258	3,077	(2,819)	(95)	151	55
Products, Programs & Services Subtotal	**$64,185**	**$35,806**	**$28,379**	**$67,835**	**$36,395**	**$31,440**	**($3,650)**	**$589**	**($3,061)**
Operating									
Marketing Services	$0	$2,986	($2,986)	$0	$2,631	($2,631)	$0	($355)	($355)
Public Information	0	913	(913)	0	970	(970)	0	57	57
ASME.org	0	924	(924)	0	984	(984)	0	61	61
Sales & Customer Care	0	1,483	(1,483)	0	1,384	(1,384)	0	(98)	(98)
Philanthropy	0	51	(51)	0	0	0	0	(51)	(51)
Global Public Affairs	3	2,186	(2,183)	(16)	666	(682)	18	(1,519)	(1,501)
Human Resources	0	2,875	(2,875)	0	1,839	(1,839)	0	(1,036)	(1,036)
Facilities	0	5,605	(5,605)	27	5,592	(5,566)	(27)	(13)	(40)
Technology Services Group	0	5,147	(5,147)	(2)	4,192	(4,195)	2	(955)	(953)
Finance & Accounting	0	2,715	(2,715)	0	2,783	(2,783)	0	68	68
Executive Office	(0)	2,564	(2,564)	(0)	3,133	(3,133)	0	569	569
Global Alliance & Board Ops	0	425	(425)	0	1,011	(1,011)	0	587	587
Governance	(1)	735	(735)	19	787	(768)	(19)	52	33
Miscellaneous	103	250	(146)	27	290	(262)	76	40	116
Operating Subtotal	**$106**	**$28,857**	**($28,751)**	**$55**	**$26,264**	**($26,209)**	**$51**	**($2,593)**	**($2,542)**
Operating Surplus / (Deficit)	**$64,291**	**$64,663**	**($372)**	**$67,890**	**$62,659**	**$5,231**	**($3,599)**	**($2,004)**	**($5,603)**
Board of Governors Approved Initiatives	$0	$0	$0	$0	$195	($195)	$0	$195	$195
Total Operating Surplus / (Deficit)	**$64,291**	**$64,663**	**($372)**	**$67,890**	**$62,854**	**$5,036**	**($3,599)**	**($1,809)**	**($5,408)**

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 15, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors (BoG)
From: Integrated Operating Plan (IOP) Development Team
Presented by: Thomas Costabile, William Garofalo and Jeff Patterson
Agenda Title: Draft FY20-23 IOP and Budget – Information Item

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Agenda Item Executive Summary:

Pursuant to the schedule for developing the FY20 IOP and FY20-23 Budget, staff and volunteers have worked together to create Enterprise Planning Documents and associated budgets for Sectors and Departments, which have been combined into a single enterprise-wide draft plan.

On March 1, 2019, presentations of initial draft plans and budgets were made by Sector Senior Vice Presidents (SVPs), their staff counterparts and other staff departments to the Presidential team (PEDT) and Sector Management Committee (SMC).

On March 28, 2019, updated presentations will be given to the full membership of the Committee on Finance and Investment (COFI) with a request that COFI endorse the IOP and Budget by March 30, 2019, with the provision that the IOP is subsequently approved by the BoG on June 5, 2019.

On April 8, 2019, the Executive Director, Associate Executive Director/Finance & IT and Chief Operating Officer will present to the BoG a high-level summary of the draft IOP and Budget for discussion.

Attachment:

Draft FY 20 IOP and FY20-23 Budget (PDF)

Draft FY 2020-23 Plan and Budget

Subject to approval by the ASME Board of Governors on June 5, 2019

Overview of FY 2020-23 Plan and Budget 4.8.19 - Confidential and Proprietary – Not to be disclosed outside of ASME

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What to expect from this presentation

- **Brief Description** – High-level overview of the FY 2020-23 Plan and Budget
- **Desired Outcome** – Awareness of key elements of the Plan and Budget
- **Questions** – Please hold questions until the presentation is complete
- **Duration** – 60 minutes (19 slides: 25 minutes for presentation, 35 minutes for discussion)

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ASME
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Executive overview

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Executive overview

Imperatives

The FY 2020-23 Plan and Budget reflect our recommendation that ASME:

- Carefully balance mission impact with financial sustainability.
- Stay the course in executing the principal actions and initiatives first articulated in the multi-year plan begun in FY 18, with refinements and course corrections informed by our practical experience to date in FY 18 and FY 19.
- Prioritize and align proposed work and spending to strategic imperatives that include refurbished IT infrastructure, improved impact of programs and philanthropy, increased support for volunteer groups, and development of new revenue opportunities in industry events and professional learning.
- Maintain our shared commitment to measurable progress and accountability for results.

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ASME
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Executive overview

Opportunities

The FY 2020-23 Plan and Budget address our operating environment:

- Continue to rebuild volunteer confidence in the Society's commitment to fulfilling our mission.
- Provide trusted career-long education and training to engineers throughout their working lives, e.g., the practical skills required to understand and master complex, rapidly changing technologies.
- Produce industry events that complement our robust R&D conferences by providing scalable venues that connect exhibitors to attendees with documented buying authority.
- Deploy contemporary information technology tools and platforms that enable us to support volunteer communities and manage commercial customers and prospects effectively and efficiently.

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ASME SETTING THE STANDARD

Executive overview

Threats

The FY 2020-23 Plan and Budget address our operating environment:

- The re-emergence of political pressure for free public access to our intellectual property, particularly Open Access (publishing) and Incorporation By Reference (standards).
- The implementation of data privacy regulations that restrict access to constituents and potential customers, e.g., the European Union's General Data Protection Regulation.
- The acceleration of market trends that undercut our traditionally "safe" revenue streams, including cost reductions by oil & gas producers and the shift in nuclear plant construction to countries in which purchase and use of our Boiler & Pressure Vessel Code is not mandatory.
- The continuation of demographic shifts in the engineering workforce, including the aging of our core membership base and the challenges in serving a global engineering community.

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Key elements of the plan

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Key elements of the plan

Core products and programs

The FY 2020-23 Plan and Budget support our core products and programs including:

- Launch our CA Connect platform to support our Conformity Assessment ecosystem: customers, applicants, committees, authorized inspection agencies, inspectors and designated testing organizations.
- Improve the usability and reliability of our digital infrastructure.
- Continue to support the health of our Divisions through increased staff support and engagement in the planning and execution of our R&D Conferences.
- Continue to develop and launch new Journals and e-Books.
- Create new Learning & Development courses that meet growing industry demand for workforce development.
- Execute Government Relations and Engineering Education programs designed to expand ASME's insight and influence.

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Key elements of the plan

New products and programs

The FY 2020-23 Plan and Budget support <u>new</u> product and program development including:

- Implement a plan for replacement of our outmoded Personify constituent database.
- Continue C&S Connect rebuild with new constituent database at the center.
- Increase customer/prospect databases in the strategic technologies to support sales growth.
- Test the new membership value proposition designed to increase engagement and lifetime value of a member.
- Continue to support E-Fest and EFX as key platforms for serving the next generation of engineers.
- Launch one new trade-show-level industry event in a strategic technology, e.g., Additive Manufacturing.
- Execute the restructuring of Programs and Philanthropy for maximum impact.

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Key elements of the plan

Financial sustainability

The FY 2020-23 Plan and Budget promote long-term financial sustainability:

- Revenue growth from $119M in FY 19 to $130M in FY 20, rising to $219M in FY 29.
- Deficit spending of ($7.7M) in FY 20, ($4.4M) in FY 21, and ($3.0) in FY 22 than achieving a net surplus, i.e., revenue greater than expenses, of $0.1M in FY 22.

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FY 2020-23 Budget

Overview of FY 2020-23 Plan and Budget 4.8.19 - Confidential and Proprietary – Not to be disclosed outside of ASME

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Budget Overview

- The FY 2020-23 Operating and Capital Budgets align with the Plan; all of which align with the ASME Strategy.
- The Budget includes maintaining staffing levels necessary to accomplish Plan goals. These levels may slightly fluctuate depending on many variables, including revenue.
- The FY 20 budget includes a reduced subsidy from ASME to the ASME Foundation from $700K to $0.
- Balanced approach between investing in future revenue-generating products and supporting non-revenue programs.
- Generate surplus (i.e., revenues greater than expenses) in FY 23.

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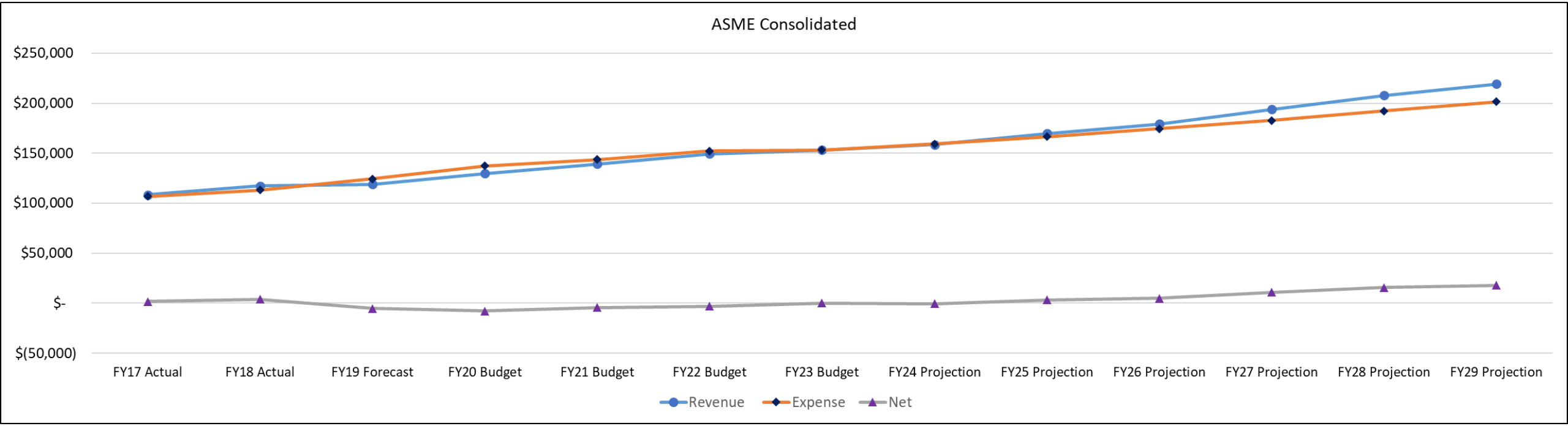
FY19 Forecast FY20-23 Budget

($'s in 000)	2019 Forecast			2020 Budget			2021 Budget			2022 Budget			2023 Budget		
	Revenue	Expense	Net	Revenue	Expense	Net	Revenue	Expense	Net	Revenue	Expense	Net	Revenue	Expense	Net
Products, Programs & Services															
Standards	$41,550	$10,339	$31,211	$43,413	$11,922	$31,490	$44,989	$11,250	$33,739	$47,450	$13,556	$33,894	$47,498	$11,998	$35,501
CA & Process Mgmt	32,807	16,853	15,954	33,951	18,110	15,841	34,016	18,865	15,151	35,160	18,989	16,171	35,426	18,777	16,649
Publishing	13,753	8,739	5,014	14,269	9,130	5,139	14,789	9,543	5,245	15,345	9,846	5,499	15,919	9,928	5,992
Learning & Development	6,585	7,401	(816)	9,922	8,431	1,491	11,620	8,864	2,756	13,728	9,357	4,371	16,104	10,536	5,567
Technical Events	10,317	11,883	(1,566)	11,790	14,455	(2,666)	12,002	14,920	(2,918)	13,336	15,824	(2,489)	13,307	15,900	(2,593)
Industry Events & TABD	2	2,547	(2,545)	886	3,311	(2,425)	3,077	4,702	(1,625)	3,510	4,951	(1,441)	5,180	5,704	(524)
Constituent Engagement	12,982	6,855	6,126	12,500	5,888	6,612	12,299	4,792	7,507	11,523	4,893	6,629	11,835	5,067	6,768
Programs	744	6,156	(5,412)	2,912	6,913	(4,000)	6,361	7,165	(804)	9,143	7,436	1,707	7,990	6,890	1,100
Products, Programs & Services Subtotal	**$118,740**	**$70,774**	**$47,966**	**$129,643**	**$78,159**	**$51,483**	**$139,154**	**$80,102**	**$59,052**	**$149,194**	**$84,853**	**$64,342**	**$153,260**	**$84,800**	**$68,460**
Operating															
Marketing Services	$0	$7,527	($7,527)	$0	$8,853	($8,853)	$0	$10,882	($10,882)	$0	$11,871	($11,871)	$0	$12,384	($12,384)
ASME.org	0	1,783	(1,783)	0	2,973	(2,973)	0	3,426	(3,426)	0	3,880	(3,880)	0	3,845	(3,845)
Strategic Communications	0	1,577	(1,577)	0	1,490	(1,490)	0	1,623	(1,623)	0	1,717	(1,717)	0	1,760	(1,760)
Sales & Customer Care	0	2,751	(2,751)	0	2,879	(2,879)	0	2,966	(2,966)	0	3,054	(3,054)	0	3,146	(3,146)
Philanthropy	0	615	(615)	0	2,187	(2,187)	0	1,905	(1,905)	0	2,077	(2,077)	0	2,148	(2,148)
Global Public Affairs	31	4,373	(4,342)	28	4,593	(4,565)	28	4,780	(4,752)	28	4,928	(4,900)	28	5,070	(5,042)
Human Resources	0	5,053	(5,053)	0	4,511	(4,511)	0	3,930	(3,930)	0	4,022	(4,022)	0	4,085	(4,085)
Facilities	0	9,898	(9,898)	0	10,065	(10,065)	0	10,217	(10,217)	0	10,357	(10,357)	0	10,354	(10,354)
Technology Services Group	0	9,794	(9,794)	0	11,139	(11,139)	0	12,801	(12,801)	0	13,399	(13,399)	0	13,000	(13,000)
Finance & Accounting	0	4,803	(4,803)	0	4,810	(4,810)	0	4,966	(4,966)	0	5,031	(5,031)	0	5,051	(5,051)
Executive Office	(0)	4,437	(4,437)	0	5,523	(5,523)	0	5,817	(5,817)	0	6,369	(6,369)	0	6,862	(6,862)
Global Alliance & Board Ops	0	712	(712)	0	787	(787)	0	817	(817)	0	849	(849)	0	882	(882)
Governance	(1)	1,381	(1,382)	41	1,461	(1,419)	42	1,482	(1,440)	43	1,520	(1,477)	43	1,559	(1,516)
Miscellaneous	122	(1,166)	1,288	0	(1,987)	1,987	0	(2,084)	2,084	0	(1,697)	1,697	0	(1,745)	1,745
Operating Subtotal	**$152**	**$53,537**	**($53,386)**	**$69**	**$59,283**	**($59,214)**	**$70**	**$63,530**	**($63,460)**	**$71**	**$67,377**	**($67,307)**	**$71**	**$68,402**	**($68,331)**
Operating Surplus / (Deficit)	**$118,892**	**$124,312**	**($5,420)**	**$129,712**	**$137,443**	**($7,731)**	**$139,224**	**$143,632**	**($4,408)**	**$149,265**	**$152,230**	**($2,965)**	**$153,331**	**$153,202**	**$129**

10 Year Revenue and Expense Projections (ex. Initiatives)

ASME General Fund (000s Omitted)	2017 Actual	2018 Actual	2019 Forecast	2020 Budget	2021 Budget	2022 Budget	2023 Budget	2024 Projection	2025 Projection	2026 Projection	2027 Projection	2028 Projection	2029 Projection
Operations													
Revenue	108,554	117,263	118,892	129,712	139,224	149,265	153,331	158,618	169,574	179,392	193,768	207,769	219,403
Expense	106,966	113,233	124,312	137,443	143,632	152,230	153,202	159,147	166,395	174,513	182,822	192,166	201,435
Net Operating Results	**$ 1,588**	**$ 4,030**	**$ (5,420)**	**$ (7,731)**	**$ (4,408)**	**$ (2,965)**	**$ 129**	**$ (529)**	**$ 3,180**	**$ 4,879**	**$ 10,946**	**$ 15,603**	**$ 17,968**



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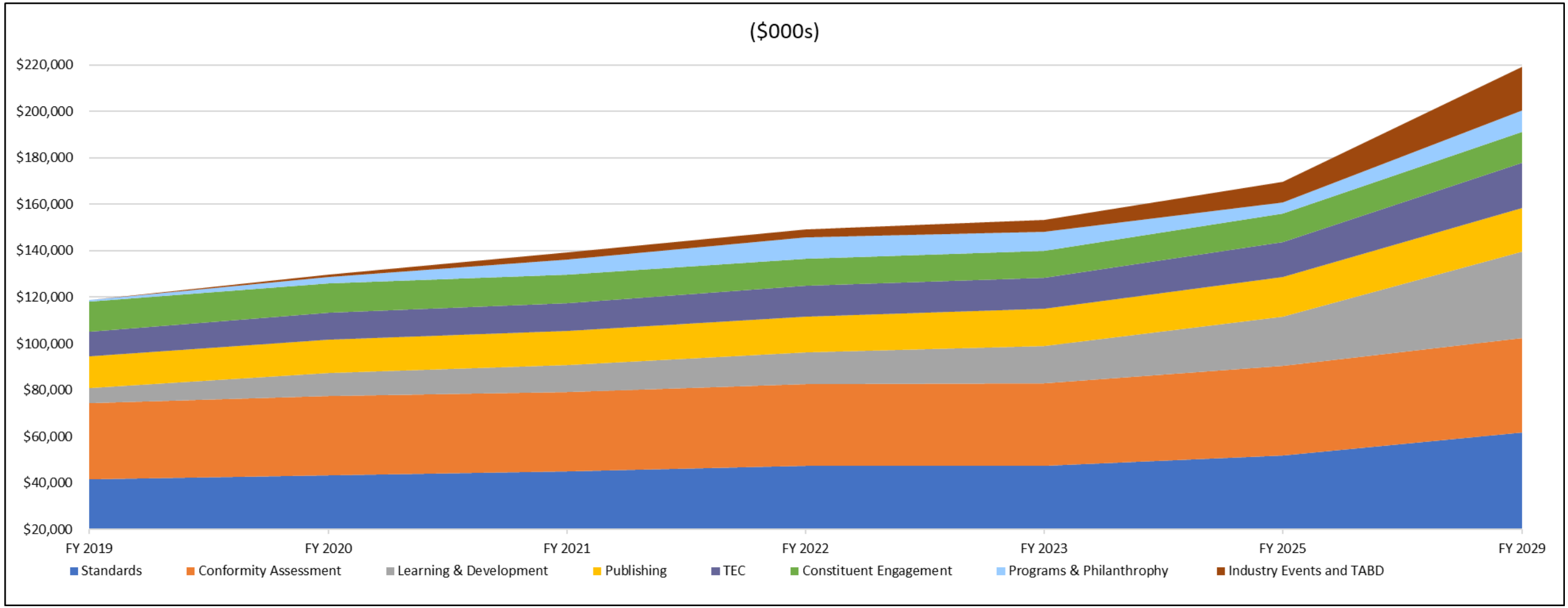
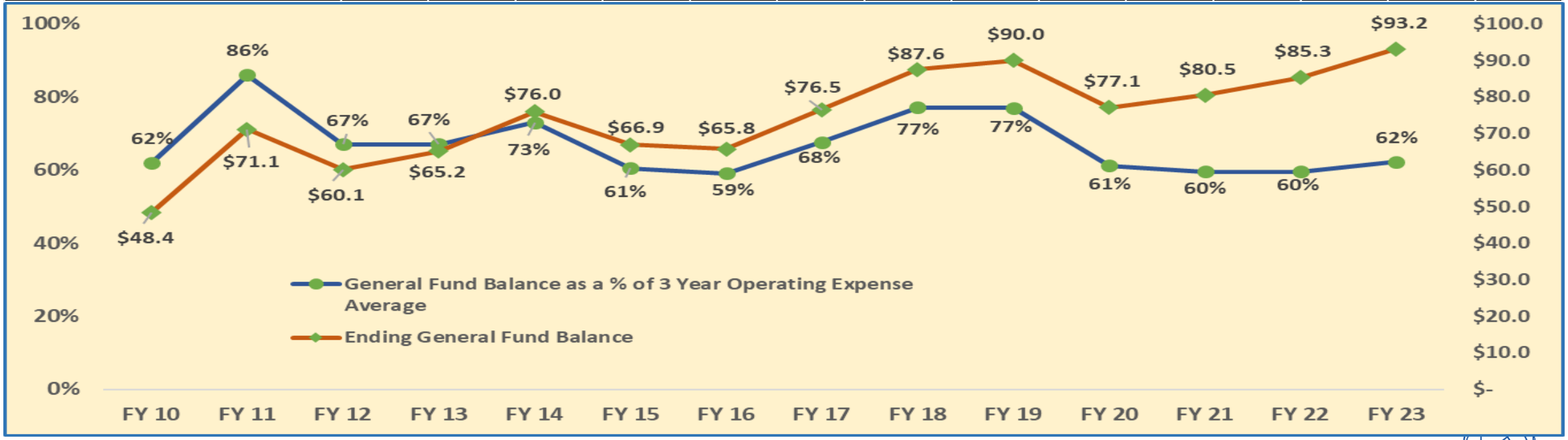
ASME SETTING THE STANDARD

Revenue by Business Unit
(FY 19 Forecast; FY 2020-23 Budget; FY25, FY29 Projections)



ASME Contingency Reserve %

$ millions	Actual/Forecast										Budget			
	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	FY 22	FY 23
Beginning General Fund Balance	$ 46.4	$ 48.4	$ 71.1	$ 60.1	$ 65.2	$ 76.0	$ 66.9	$ 65.8	$ 76.5	$ 87.6	$ 90.0	$ 77.1	$ 80.5	$ 85.3
Net Operating Results	0.8	6.5	(0.9)	(8.8)	(2.4)	(2.3)	1.4	(1.7)	1.4	(5.4)	(7.7)	(4.4)	(3.0)	0.1
Investment Returns	8.4	14.5	0.7	8.7	13.4	(1.5)	(0.3)	10.8	7.9	7.8	7.8	7.8	7.8	7.8
Pension Adjustments	(7.2)	1.7	(10.8)	5.2	(0.2)	(5.3)	(2.2)	1.6	1.8	-	(13.0)	-	-	-
Ending General Fund Balance	$ 48.4	$ 71.1	$ 60.1	$ 65.2	$ 76.0	$ 66.9	$ 65.8	$ 76.5	$ 87.6	$ 90.0	$ 77.1	$ 80.5	$ 85.3	$ 93.2
General Fund Balance as a % of 3 Year Operating Expense Average	62%	86%	67%	67%	73%	61%	59%	68%	77%	77%	61%	60%	60%	62%



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ASME Statement of Financial Position

(whole $'s)	June 30, 2019	June 30, 2020
Assets		
Cash and cash equivalents	$ 6,662,000	$ 5,426,000
Accounts receivable, less allowance for doubtful accounts	17,303,917	15,986,061
Due from The ASME Foundation, Inc.	—	—
Inventories	1,000,000	500,000
Prepaid expenses, deferred charges, and deposits	3,188,493	3,360,192
Investments	96,200,334	99,730,126
Property, furniture, equipment, and leasehold improvements, net	21,133,856	23,992,309
Total assets	$ 145,488,600	$ 148,994,688
Liabilities and Net Assets		
Liabilities:		
Accounts payable and accrued expenses	$ 13,954,578	$ 18,651,059
Due to The ASME Foundation, Inc.	63,364	50,000
Accrued employee benefits	7,415,567	8,247,567
Deferred publications revenue	888,427	10,806,155
Deferred dues revenue	3,036,046	2,933,847
Accreditation and other deferred revenue	20,412,246	22,461,368
Deferred rent	9,672,136	8,729,456
Total liabilities	55,442,364	71,879,452
Commitments		
Net assets:		
Unrestricted	90,046,236	77,115,236
Total net assets	90,046,236	77,115,236
Total liabilities and net assets	$ 145,488,600	$ 148,994,688

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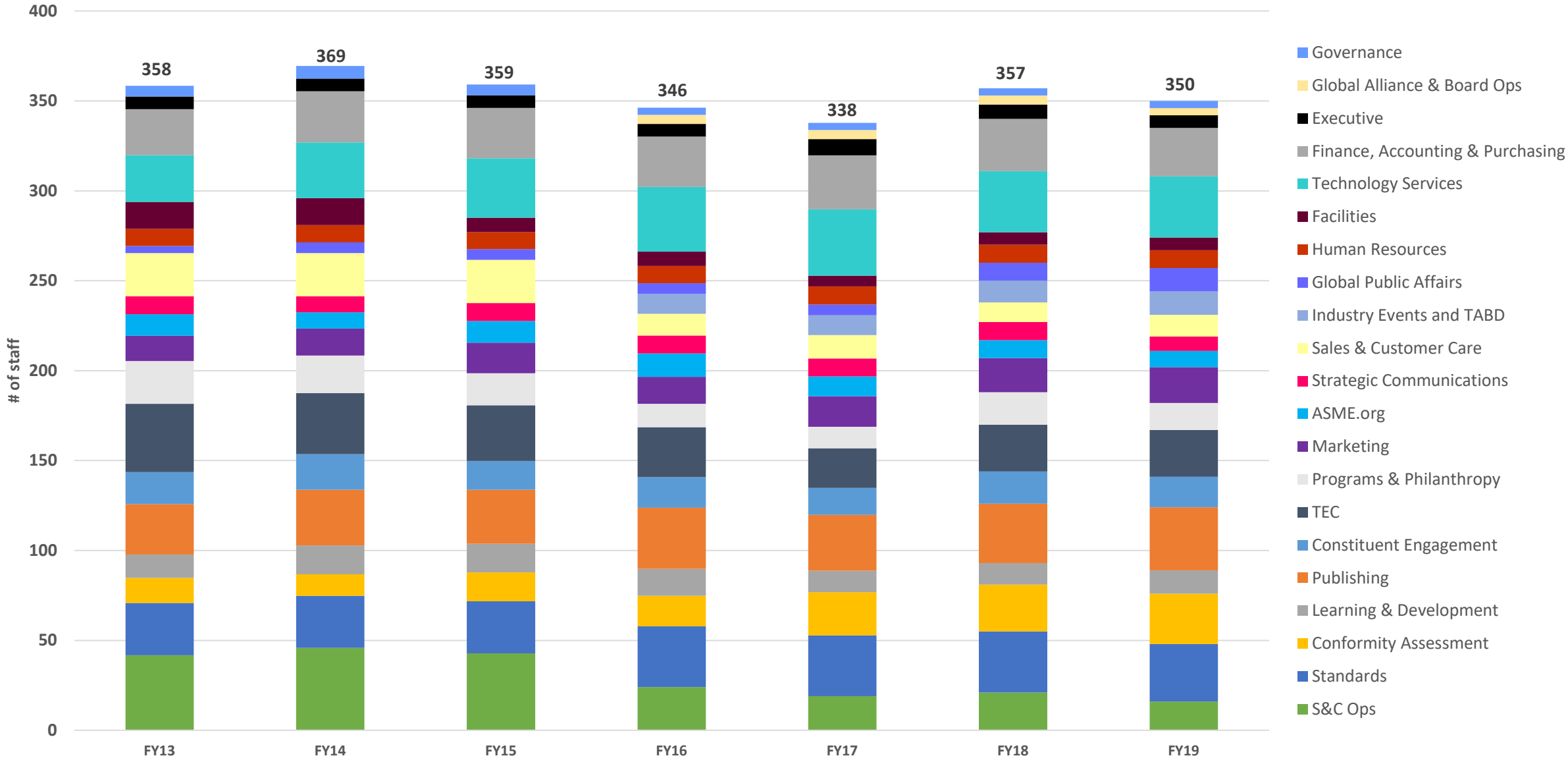
ASME
SETTING THE STANDARD

FY13- FY19 YTD
of employees per Business Unit



ASME Capital Budget Summary

ASME International, Inc
Capital Budget Summary

(amount in 000's)

	FY20	FY21	FY22	FY23	Grand Total
Facilities & Space	$265	$290	$290	$290	$1,135
Network Infrastructure, Desktop Support, and Telecom	$2,005	$410	$115	$415	$2,945
Shared Enterprise Systems/Technology Related Projects and Requests	$5,156	$1,376	$984	$824	$8,340
Web Related Projects and Requests	$349	$1,273	$1,528	$615	$3,765
Grand Total	$7,775	$3,349	$2,918	$2,144	$16,186

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 15, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors
From: Membership Task Force
Presented by: Andy Bicos, Chair
Agenda Title: Membership Task Force Update

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

The Membership Task Force, which will be wrapping up its activity in April, will provide a final report to President Jahanmir with recommendations for the continuation of the staff-led initiative to implement a new membership model for ASME. The report will include, inter alia, the following:

1. Summary of Task Force work to date; Recap of Phase 1 of staff-led "New Membership Model Initiative"
2. DRAFT: Guiding Principles of ASME's reimagined approach to membership (1 slide)
3. Key Drivers & Rationale from Situation Analysis Report as lead-in to recommendations
4. MTF Recommendation Part 1: Top Priorities for Revitalizing Membership
    a. Priority 1: Personalizing the Membership Experience – Proposed Framework for New Membership Model (with example benefits to be finalized in market test)
    b. Priority 2: Enhancing the Local Experience
    c. Priority 3: Developing a Global Footprint
    d. Expanding Membership Targets – future phase of Choice Model after initial implementation
5. Scope of New Membership Model Pilot
6. Next phases of Staff Initiative - timeline
7. MTF Recommendation Part 2: Recommendation for continuity of New Membership Model Initiative to complete the work through FY22 cycle; Membership Committee.

This update is for information only, although action may be proposed after President Jahanmir receives the report and circulates the report to the Board of Governors.

Proposed motion for BOG Action: None

Attachments: Presentation to follow

Membership Task Force Report to Board of Governors

April 2019

Chair: Andy Bicos*

Members: Stuart Cameron*, Josh Heitsenrether*, Mahantesh Hiremath*, Julie Kulik*, Tom Costabile, Julia Goodrich, Said Jahanmir, Jeff Patterson, Khosro Shirvani, Charla Wise

Submitted 3/27/19

*Core task force members

What to Expect from Presentation

- Brief Description – An update on the work of the Task Force with a summary of recommendations for continuation of the staff-led initiative to implement a new membership model for ASME
- Desired Outcome - This update is for information only, although action may be proposed after President Jahanmir receives the report and circulates the report to the Board of Governors.
- Questions – Please hold questions until after the presentation
- Duration – The full deck is for pre-read purposes and context. The live briefing will be 15 minutes (10 minutes of presentation and 5 minutes for questions) and will focus only on slides 7, 9, 10, 11, and 16.

Charge and Scope

- ASME is a membership organization and our membership has been shrinking AND aging.
- Much thought, research and study has taken place over more than a decade by ASME, now is time for action.
- What concrete actions are needed to not just recruit new members but to retain members?
- What is the value proposition for ASME membership – The New 21st Century Membership Model?
- Develop plan of action with both staff and volunteer viewpoints, and in coordination with other task forces and outside consultant.
- Present recommendations and plan for implementation at April 2019 BOG meeting
  [Timing revised based on decision to wrap Task Force in April]

High-level Summary of Task Force Activities

- ✓ **July-September 2018:** Deep Dive into Membership Research, Data and KPIs; review and input into staff-driven New Membership Model Initiative and consultant engagement & agreement with approach; Completion of Membership Task Force (MTF) ideation questionnaire to consultant for inclusion in research & benchmarking
- ✓ **October 2018:** TF Presentation to Board of Governors during October meeting; show-of-hands agreement and support of Task Force's work and parallel staff initiative; deployment of Task Force survey to Board of Governors and committees
- ✓ **November-December 2018:** Short-list of organizations and additional questions for benchmarking interviews; agreement on strategic areas of focus for TF input in recommendation report
- ✓ **January-February 2019:** Review of research findings and summary conclusions from consultant's Situation Analysis Report from Phase 1 of New Membership Model Initiative; agreement on areas of focus for April report
- ✓ **March 2019:** Collaboration and review of MTF Report draft – including framework for market test of new membership model, support of staff's continuing action plan to execute Phase 2 of initiative, and agreement on recommendation to President
- ✓ **April 2019:** Task Force concludes activity following delivery of report

Membership Model Project Update

- Phase 1 of Project completed on schedule – Discovery, Research & Recommendation
- Phase 1 Research included:
  - Staff & Volunteer interviews
  - Open-ended survey to MTF and other volunteer committees
  - Qualitative interviews with 40 members and lapsed members
  - Quantitative survey of Members, Lapsed Members and Non-member Prospects with international panel – over 4,200 responses (including partial) - 3% response rate
  - Benchmarking interviews with eight associations plus secondary research on 3 additional associations
- Situation Analysis draft report indicated 3 main areas of focus based on research, including a framework for the new membership model
- Next actions for this initiative will be covered later in the presentation

ASME's Reimagined Approach to Membership (draft)

Benchmarking interviews underscored the need for ASME to define and commit to an organizational culture that mirrors its new approach to membership and engagement.

The brand value of ASME membership must be prioritized

GUIDING PRINCIPLES

- Prioritize members as ASME's most valuable asset
- Position ASME to appeal to a more diverse membership base, particularly in attracting and retaining younger and more global audiences
- Ensure the local and national ASME experience is aligned, such that members receive consistent, comparable value from engaging with ASME regardless of geographic location
- Maintain ASME's leadership in delivering quality technical content and resources

CORE ELEMENTS

- Organization-wide commitment to prioritizing the member experience
- Personalized/ customized/ flexible benefit packages
- Reduced barriers to engagement and participation
- Improved local experiences and infrastructure
- Enhanced digital capabilities
- Adoption of a global organizational mindset
- Rebrand and elevate the "Online Community" membership to broaden the ASME ecosystem

POSITIONING STATEMENT:

ASME seeks to meet members where they are with what they need, providing work-critical technical resources with professional development and community that help members navigate the global mechanical engineering field and realize their full potential.

Three Top Priorities from the Situation Analysis

- ***Personalize the Membership Experience***: Enable choice in ASME's membership model to best align with members needs and preferences.
- ***Enhance the Local Experience***: Facilitate consistency at the section and division level, to ensure all ASME members have a comparable baseline experience.
- ***Develop a Global Footprint***: If ASME believes global growth is a key priority, we must define, prioritize and appropriately resource ASME's global member and engagement strategy.

Rationale for Choice Model Recommendation

- The simplest possible choice model is best – too much choice becomes overwhelming and leads to customer confusion, deferred decision-making
- Focus on key benefits that resonate (based on research) instead of offering a “kitchen sink” approach
- Prioritize benefits that are tied to ASME’s core value proposition and play to the strengths of the organization – access to technical information, content, programming, professional development and peers that they can’t get anyplace else
- It is about engagement, not just membership. We must offer top-of-mind benefits that drive everyday engagement with clear paths for deeper involvement.
- Introduce new benefits that are easily marketed to each member segment based on their career stage and drivers – with a new unique value proposition designed for each segment based on the new model offering
- Choices must consider ease of fulfillment/delivery and cost efficiency
- Enable members to change their “choice benefits” at pre-determined intervals as their needs and interests change – e.g. choice made upon sign up/renewal
- Data does not support a change from the current single annual membership date – though we will address simplifying the member classifications and pro-ration to avoid cumbersome AMS configuration going forward

Priority 1: Personalize the Member Experience
Proposed Framework for New Model

In order to meet the desire for choice and personalization for current, lapsed and non-members, we are recommending the following new membership structure – which will be accompanied by **a new membership value proposition for each member segment** (e.g. student, early career, mid-career, etc.), a plan for engaging new membership target segments (e.g. technicians), and an evaluation of the member grade structure:

Option 1	Core Membership Package*	Base package at a lower price point than current offering
Option 2	Core Membership Package + Choice Benefits	Base package and ability to add multiple (# TBD based on modeling) annual choice benefits based on areas of interest at a higher price point

Sample Benefits for *Illustration Purposes Only*

Specific benefits will be modeled and market tested from April – June 2019

Sample Ideas for Choice Benefits

Professional Development	Technical Interests & Specialization	Experiences
• $ credit toward learning courses • Refresher software training • Interview boot camp or resume review	• $ credit toward codes & standards • X free journals or papers • Member-exclusive content based on specific technologies, industries	• Member exclusive events at sections, industry events, or E4C

*A streamlined set of benefits in categories such as News & Information (e.g. newsletters), Resources (e.g. AccessEngineering), local sections, basic career services, affinity programs and offers, volunteer opportunities, networking, and others to be considered.

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Priority 2: Enhancing the Local Experience

Objective: Deliver a *consistent*, high quality local experience to drive engagement

Recommended considerations:

- Develop guidelines for all sections to drive consistency
- Utilize a scorecard approach to track annual progress. Compliance and performance elements include: Recruiting and training new officers, outline of annual meetings and proposed events, ongoing communication to members, maintaining updated records of members
- Provide all groups with new and additional staff as points of contact for driving engagement within sections and in other ASME initiatives
- Provide updated financial management information and enable local fundraising
- Upgrade online community platform to encourage broader engagement among sections, divisions and national
- Re-evaluate options for choosing multiple professional sections for professional members and increase permitted number of technical division interests for students

Next Actions:
Planning will be done in coordination with Tim Graves & Section Support team as their revised annual plan is developed for FY21 – in synch with full relaunch of membership

Priority 3: Developing a Global Footprint

Many of the organizations interviewed have prioritized international markets as the only true growth opportunity for membership. ASME must follow a similar path and work to overcome the perception of survey respondents that it is a US-centric organization.

Key considerations:

- Identify target growth markets and develop a prioritized timeline – must focus on specific markets and build relevant offerings, in phases, on a market-by-market basis vs. a single global relaunch
- Determine membership needs in local markets
- Determine additional resources and staff investment to support strategy
- Embed staff in key markets via dedicated staff offices or a field staff model to best meet the needs of global ASME members
- Leveraging the strength of the ASME brand in key global growth markets, e.g., India
- Where appropriate, work with local societies and associations to develop opportunities for growth

Next Actions:

- Collaborate with Heidi Hijikata and John Hasselmann on their international market scan to prioritize markets for membership
- Conduct additional research to determine the benefits choice options that are most relevant to each priority market

Expanding Membership Target Segments

- **Volunteer surveys and the Task Force identified several new membership targets, including technicians, high school students, and STEM teachers**
- The immediate priority is to first focus on the new choice model and value proposition for current target groups
- Once the success and scalability of the new choice model is established following the FY21 relaunch, we would plan to expand to these new targets.
- We target FY22 for kicking off research to gain a better understanding of the new targets' needs for the choice model
- Following research, we would start building new content to support their needs and launch test acquisition campaigns
- Corporate engagement was also suggested; options for corporate purchase of individual memberships and services will be explored as part of ASME's overall B2B sales strategy

Scope of Membership Model Pilot

- Priority 1 (Personalization framework) is the focus for the pilot
- Pilot will include control and test groups. Test group will feature a cross-section of current member segments by career stage.
- We will ensure representative sample for key segments in US as well as a single international pilot location (e.g. India) to gauge success for full-scale roll out
- Pilot launch will begin in late CY 2019 and will run for a full year to measure impact on renewals
- Preliminary evaluation report in late CY20 to help inform the viability of full relaunch or need to optimize model offering. Full data will be available in early CY21.
- Future phases of the project will incorporate priorities #2 and #3, along with the expansion of membership targets

Action Plan: Next Project Phases

April - June 2019 → Financial modeling and market testing of benefits, choice configurations, and pricing

July - Nov 2019 → Develop infrastructure support for Pilot

- Business unit alignment
- Technology platform support
- Financial/accounting reporting
- Marketing implementation plan

Aug - Oct 2019 → Conduct additional qualitative market testing of choice benefits

Nov 2019 - Jan 2020 → Launch & market Pilot of new membership model

Oct/Nov 2020 → Full relaunch preparation and Pilot data analysis (partial cycle)

Jan - May 2021 → Relaunch marketing in acquisition and win-back campaigns (ongoing)

June - Sept 2021 → Full relaunch renewal campaigns for FY22 cycle begin

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Action Plan: Next Project Phases *cont'd*

FY21 →

- Full cycle data on Pilot available
- Launch of enhanced local experience in collaboration with Section Support unit
- Development of international growth plan & benefit exploration

FY22 →

- First full cycle of new membership model across all segments
- Research conducted for expanding model to new member segments & development of relevant offerings
- Begin phased launches of new membership offerings and international growth initiatives based on prioritized regions/countries

FY23 → Launch campaigns for expanded member segments

Task Force Summary Recommendations

- The Task Force supports the "Reimagined Approach to Membership" overview (slide 5) with the guiding principles and core elements to an organization-wide focus on member engagement and experience
- The Task Force supports the go-forward action plan and approach outlined by staff to proceed with the staff-led New Membership Model Initiative through findings of the full relaunch in FY22
- The Task Force supports the three priorities for improving membership as outlined in this presentation – Personalization, Local Experience, and International Growth – as well as the prioritized new member segments to target after the initial model test
- The Task Force supports the recommended framework for a Choice-based model to be Piloted in FY20-21 and expanded to select countries and new member segments in FY22-23
- The Task Force underscores the need for continuity of this plan and the new model rollout into future Presidential terms – to avoid disruption to both the model pilot and full relaunch to secure reliable findings through FY22 cycle
- The Task Force recommends that the Task Force on Organizational Structure consider a committee on membership focusing and consolidating membership activities across all segments/sectors/divisions to provide continuity and ongoing alignment between staff and volunteers.

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ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 18, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors
From: Nomination Process Task Force
Presented By: Howard Berkof
Agenda Title: Nomination Process Task Force Update

Agenda Item Executive Summary:

The Presidential Task Force on the Nomination Process has been meeting regularly and is providing the following update:

- President and Governor Position Descriptions and Time Commitment
- Board Structure
- Candidate Vetting

Proposed motion for BOG Action:

None

Attachments: Presentation

Nominating Process Task Force

Chair:	Howard Berkof
Members:	Marc Goldsmith
	Twishansh Mehta
	Alma Martinez Fallon
	Laura Hitchcock
	Charla Wise
	Thomas Costabile
	Richard Laudenat
	Said Jahanmir
	John Delli Venneri
TF Staff Coordinator:	RuthAnn Bigley

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What to Expect from Presentation

- Brief Description – To update the Board on the work of the Task Force.
- Desired Outcome – Information Only
- Questions – Please hold questions until after the presentation
- Duration – 15 minutes (8 minutes with 7 minutes Q&A)

Task Force Charge and Purpose

Charge

- Review the current process for the nomination of candidates for the Board of Governors and President
- Draft a set of proposed actions to enhance the nominating process for evaluation by the Board of Governors

Purpose

- To enhance the nominating process to ensure a larger qualified pool of candidates for the Board of Governors and President

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President and Governor Position Descriptions

completed

Task

1. Created and Reviewed by Task Force.
2. Research other similar organizations on their benchmark for qualification/minimum experience on their Board of Directors
3. Final position descriptions for candidates and the NC.

Status

1. Sent to President Jahanmir shared with PEDT for review
2. Received information from IEEE, ASCE, AIME, TMS. Our benchmarks seems to be aligned.
3. Completed and shared with candidates and the NC.

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President and Governor Position Time Commitment

completed

Task

1. Final Position Time Commitment for Candidates and NC.

Status

1. Completed and shared with NC and Candidates.

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Board Structure

completed

Task	Status
1. Size of the Board	1. Taskforce agreed the current size is fine.
2. Terms of ASME Board Members	2. Taskforce agreed the current terms for President and BOG are fine but may change in the future.
3. A Hybrid Board	3. To allow the Board the ability to have a voting or non-voting Member-at-large position recommended by the Board to the NC.

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Candidate Vetting

Completed

Task

1. Permit the President, President-Nominee/Elect and Executive Director/CEO to review packets, interview Presidential Candidates and provide feedback to the NC Chair and Secretary.

Status

1. The TF supports this process

ASME
SETTING THE STANDARD

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 18, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors (BOG)
From: Presidential TF on Core Technologies
Presented by: Mike Molnar, Joe Fowler, Karen Thole, Jeff Patterson, Tom Costabile, Richard Laudenat, Said Jahanmir and Charla Wise
Agenda Title: Presidential Task Force on Core Technologies (15 Mins)

Agenda Item Executive Summary:

This presentation will consist of the Core Technologies Task Force recommendations.

Attachment:

PowerPoint Presentation

CORE TECHNOLOGIES Task Force
Recommendations for implementation

April 8, 2019

Mike Molnar
Said Jahanmir
Tom Costabile
Debbie Holton
Joe Fowler
Charla Wise
Jeff Patterson
Karen Thole
Rich Laudenat
John Delli Venneri

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What to Expect from Presentation

- Brief Description – To update the Board on the concluding recommendations of the Task Force.
- Desired Outcome – Information Only
- Questions – Please hold questions until after the presentation
- Duration – 15 minutes (10 minutes with 5 minutes Q&A)

Task Team Assessment

- The ASME strategic plan is well planned and detailed. This task force is not looking to change the plan or the five priority areas.
- Staff had done extensive research into many of these and has produced very good "state of the industry" research on a number of them.
- Some ASME divisions cannot "find themselves in the Five Core Technologies". This confusion is a barrier to buy-in and in gaining volunteer participation to advance.
- More definition is needed of what each "go to" state really means. With general (or aspirational) goals there is insufficient competitive analysis and business development plans to achieve that state.
- There are tremendous opportunities for synergy with other ASME units, especially technical divisions, in the five technologies.
- For each area there needs to be additional planning on how to best engage with external organizations (for partnerships, alliances, joint ventures, or M&A).

Recommendation 1: Establish Tech Implementation Plan

Build on IOP, Define "go to" state for created detailed roadmap and business development plan for each Core Technology

1a) Working together, better define each "go to" state

- What is the "vivid image" for 5 and 10 years for each technology?
  - Vivid image tool – a one page prose description of the ASME future state. This is a powerful technique to align organizational goals and expectations for each state.
  - Important – this will be different for each technology, dependent on ASME core competencies, market leadership and competitive landscape.

1b) Further define the competitive landscape and business opportunities

- Based on go-to state definition, further develop the competitive analysis (including SWOT and competitive positioning) and business development plans for each technology.
- Development plans should include strategy on market incumbents (ie do we compete, collaborate, or explore M&A)

Recommendation 2: Integrate Core Technologies with ASME

Make the ASME Core Technologies really "core" with ASME!

2a) Communicate, engage and leverage all related ASME leaders

- More communications outreach is needed with ASME units and volunteer leaders, with improved messaging of what these technologies mean / how can ASME volunteers be involved
  - "Core Technology" shown to be divisive to those engaged in different technologies – develop better terminology to something that conveys these are strategic priorities - and other technologies are also important to ASME (strategic technologies?)
  - Messaging on why these are important, and how ASME members and leaders can get involved
  - Messaging that there are other "cross-cutting" technologies that enable these priorities, and that other technologies may be added as priorities

Recommendation 2: Integrate Core Technologies with ASME

2b) Engage and unleash the ASME Technical Divisions

ASME Technical Divisions are a unique competitive resource. We must engage our tech divisions and create a strong partnership that they are "owners" in these core technologies

- Organize a lead Technical Group* as the volunteer leader champions
  - Objective is to leverage division strengths, expertise, networks – to be engaged/support product and event development for that technology
  - ***Select one technology area and pilot this concept***
- Tech Group to have Exec Committee focused on that technology
  - Exec Committee to include the Chairs of all related ASME Tech Divisions and liaison
- Tech Group has standing committees for all critical functions to advance their respective Core Technology, closely partnered with ASME staff**
  - Committees would include Conferences, Training/Professional Development, Publications, Emerging Technologies (this committee would succeed separate Technical Advisory Panels)
  - Mission is to enable ASME and partner with ASME Staff to form new technical conferences, industry events, new publications, content for new technical training

** A lead Technical Division, or a strategic grouping of ASME Technical Divisions for each respective Core Technology. This is an opportunity with the Organizational Task Team*

*** We follow ASME policies and best practices on the Staff/Volunteer Partnership - IE staff leads the business development and operations of products and events*

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PILOT – ASME Manufacturing Technology Institute/Group

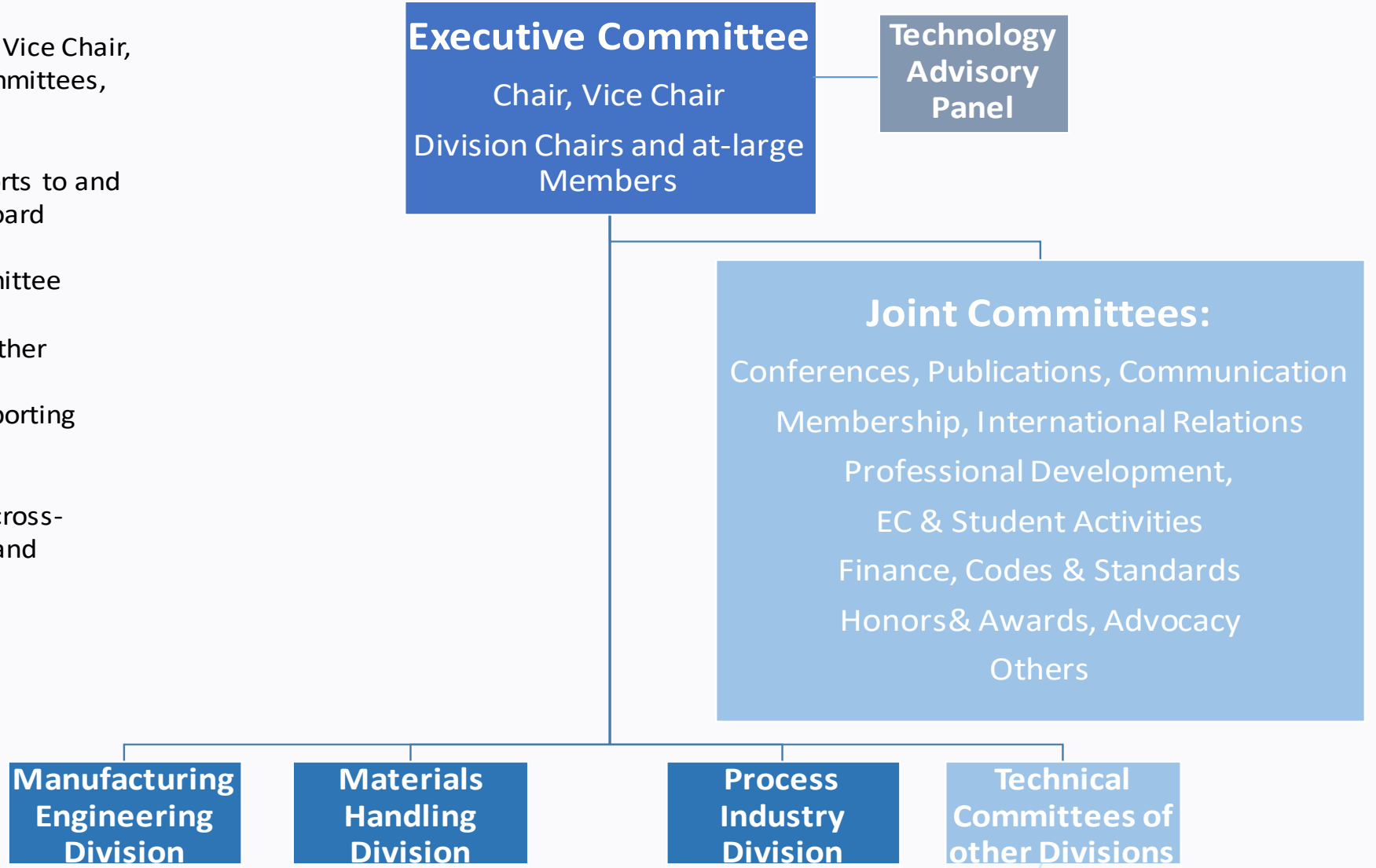
Executive Committee consists of Chair, Vice Chair, Division Chairs, Chairs of Technical Committees, and chairs of Joint committees

The Chair of Executive Committee reports to and is a member of Strategic Technology Board

Divisions report to the Executive Committee

Mfg-related Technical Committees of other Divisions collaborate with the Mfg Group/Institute, but remain in their reporting structure

The Joint (admin) Committees ensure cross-sector and cross-Board collaborations and adherence to policies



Appendix

April 1, 2019

Dr. Said Jahanmir, President
American Society of Mechanical Engineers
3 Park Avenue, New York, NY

Dear Dr. Jahanmir:

In light of ASME's recent selection of five technology areas for increased emphasis and determining a path forward to make ASME the "go-to" organization in these areas, on February 22, 2019 you started a pilot volunteer/staff team for Manufacturing Technology consisting of Mike Molnar, Tom Kurfess, and Debbie Holton with the two of us as co-chairs of the team. The initial assignment for the team involved four items:

1. Discuss the team make up and determine if others should be invited to the team, keeping in mind that we want to keep the team as small as possible to ensure quick results.
2. Discuss a possible model for the ASME Manufacturing Technology Group/Institute that incorporate recent staff activities and future volunteer participation.
3. Outline plans for evaluating the "Go-To" state for Manufacturing in 10 years.
4. Discuss the types of products and services ASME should provide consistent with our Mission, Vision, and Strategy.

The team discussed all four of these items by email throughout the month of March. Below is our preliminary report summarizing this discussion. A more complete report and recommendations will be provided by June 1, 2019.

Sincerely,
Shawn Moylan and Raj Manchanda

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 22, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors
From: Presidential Task Force Commission on Organizational Structure
Presented By: Amos Holt
Agenda Title: Presidential Task Force Commission on Organizational Structure

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Agenda Item Executive Summary:

The Organization Task Force Chartered in June 2018 has completed its work as documented in the attached slide package which is made part of this presentation.

The Task Force will present its recommendations in a simplified format which summarizes extensive discussions held with the Board of Governors during the recent past including the 2019 IMECE Meeting and the March 5, 2019 Informational call.

Proposed motion for BOG Action:

Attachments: PowerPoint Presentation

ASME Commission on Organizational Structure

Amos Holt, Chair

April 8, 2019

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What to Expect from Presentation

- Brief Description – This presention will summarize the work of the 2018 Orgnization Task Force with recommendations
- Desired Outcome – There are several specific recommendations to be voted on, the Task Force recommends each be approved
- Questions –Please hold questions until after the presentation
- Duration – 15 Minutes have been allocated for the Presention, Questions and Answers

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ASME
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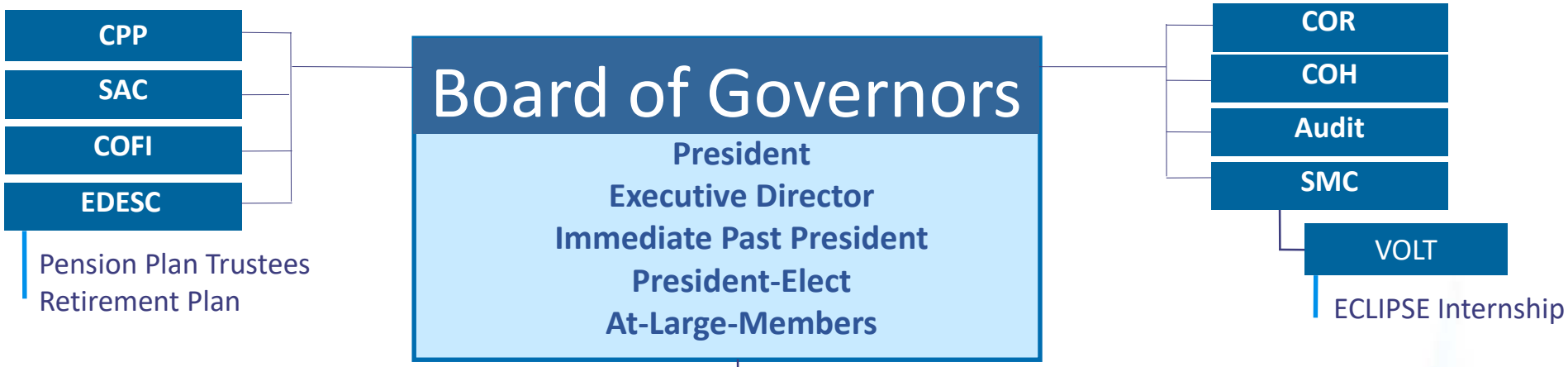
Current Volunteer Structure



Standards & Certification

- Codes & Standards Operations
- Conformity Assessment
- Energy & Environmental Standards
- Hearings & Appeals
- Nuclear Codes & Standards
- Pressure Technology Codes & Standards
- Safety Codes & Standards
- Standardization & Testing
- Strategic Initiatives

Technical Events & Content

- Design, Materials, & Manufacturing
- Energy Conversion & Storage
- Energy Sources and Processing
- Engineering Sciences
- Gas Turbine

Group Engagement Committee

- Divisions & Research Committees
- Sections
- International Sections
- Student Sections
- Early Career Engagement

Students & Early Career Development

- Early Career Engineer Programming
- E-Fests Steering
- Student Programming

Public Affairs & Outreach

- Engineering Education
- Government Relations
- Diversity and Inclusion Strategy
- Engineering for Global Development
- Industry Advisory Board
- Pre-College Education

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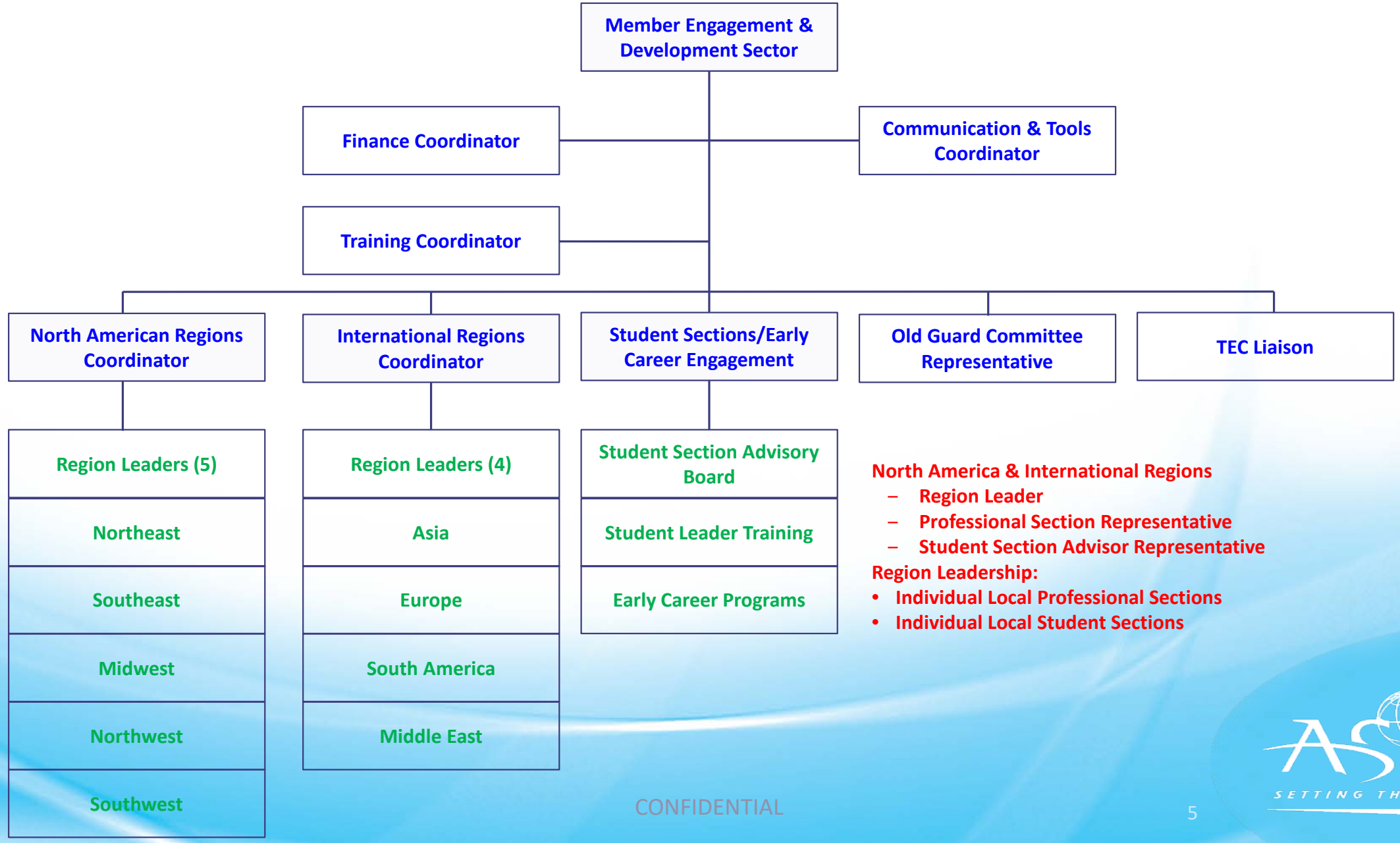
Task Force Recommends the Following Realignments to the Volunteer Structure and Governance Documents

1. Elevate GEC to a new MED Sector
2. Create a structure in TEC for Core Technologies
3. Create a reporting and engagement structure for divisions in TEC
4. Rename and restructure TEC …*Technical and Engineering Communities Council*
5. Revise the Bylaws and Operating Guide of IAB, DISC and VOLT to functionally report to BOG, maintain administrative functions in PA&O Sector
6. Revise Bylaws and Operating Guide of SMC to clarify reporting relationship to BOG along with the reporting roles of the Sector Senior Vice Presidents to the BOG

Member Engagement & Development Sector (Suggested)



North America & International Regions
- Region Leader
- Professional Section Representative
- Student Section Advisor Representative

Region Leadership:
- Individual Local Professional Sections
- Individual Local Student Sections

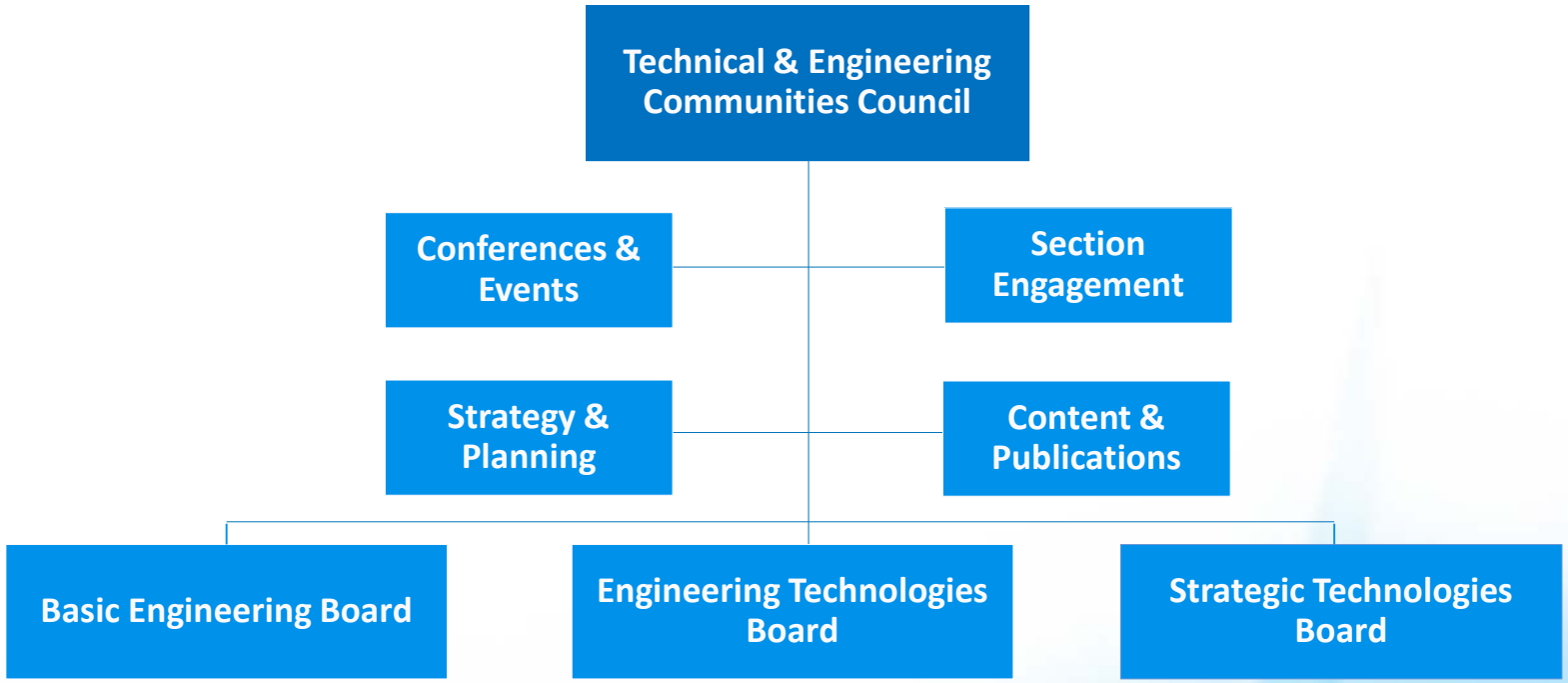
Proposed New TEC Structure

TEC Council Composition
- SVP, Board Leaders, Chairs of Admin com and Liaisons

Board Composition
- Group/Segment/ Leaders, Other Supporting Functional Leads

Group/Segment/ Composition
- Leaders, Division Chairs & Reps, SMEs

Divisions select a home in one of the three Boards through Groups/Segments



- Thermal & Fluids
- Mechanics & Materials
- Design and Analysis
- Dynamic Systems
- Other Groups

- Gas Turbine
- Power & Energy
- Transportation
- Petroleum
- Nano/Micro Systems
- Other Segments

- Bioengineering
- Clean Energy
- Manufacturing
- Pressure Technology
- Robotics

Summary of TF Recommendation for Realignments to the Volunteer Structure

1. Elevate GEC to a new MED Sector
2. Create a volunteer structure in TEC for Strategic Technologies
3. Create a reporting and engagement structure for Divisions in TEC
4. Rename and restructure TEC
5. IAB and DISC report to BOG for Strategic Direction; continue to participate in PA&O Sector
6. VOLT to report to BOG for Strategic Direction; continue to participate with SMC
7. Clarify reporting relationships with SVPs to BOG via By Law Revision

Suggested Volunteer Structure

- SMC
- CPP
- VOLT*
- IAB*
- DISC*

Board of Governors

President
Executive Director
Immediate Past President
President-Elect
At-Large-Members

- COR
- COH
- Audit
- SAC
- COFI
- EDESC

Standards & Certification

- Codes & Standards Operations
- Conformity Assessment
- Energy & Environmental Standards
- Hearings & Appeals
- Nuclear Codes & Standards
- Pressure Technology Codes & Standards
- Safety Codes & Standards
- Standardization & Testing
- Strategic Initiatives

Technology & Engineering Communities

- **Basic Engineering**
  - Thermal and Fluids
  - Mechanics & Materials
  - Design & Analysis
  - Other Groups
- **Engineering Technologies**
  - Gas Turbine
  - Power & Energy
  - Transportation
  - Other Segments
- **Strategic Technologies**
  - Pressure Technology
  - Manufacturing
  - Bioengineering
  - Other Institutes

Membership Engagement & Development

- **Membership Development**
- **North American Sections**
- **International Sections**
- **Student Sections**

Students & Early Career Development

- Early Career Engineer Programming
- E-Fests Steering
- Student Programming

Public Affairs & Outreach

- Engineering Education
- Government Relations
- Engineering for Global Development
- Pre-College Education
- IAB/DISC/VOLT

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*** In order to facilitate collaboration between the PEDT and VOLT, IAB and DISC , these committees will functionally report to the BOG through the PEDT team.**

Questions?

ASME Board of Governors
Agenda Item
Cover Memo

Date Submitted: March 25, 2019
BOG Meeting Date: April 8, 2019

To: Board of Governors
From: Lester Su, Chair, Committee on Government Relations
Presented by: Lester Su, Chair, Committee on Government Relations
Agenda Title: Technology Intersecting Policy and Politics

Agenda Item Executive Summary:

Presentation of ASME Government Relations activities in preparation for the Public Policy Symposium. Information only.

Proposed motions for BOG Action:

None

Attachments: Presentation

ASME Government Relations

Technology Intersecting Policy and Politics

Lester Su
Chair, ASME Committee on Government Relations

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What to Expect from Presentation

- Brief Description – Overview of ASME Government Relations
- Desired Outcome – Informational Only
- Questions – Please hold questions until after the presentation
- Duration – 10 minutes for the presentation; 5 minutes for Q&A.

ASME
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ASME's Policy Personnel Resources

ASME Washington Office

Established 1972; among earliest and most influential policy efforts among engineering professional societies

Work focuses on advancement of issues identified in ASME's Technology Strategy

Managing Director, Global Public Affairs: John Hasselman
Director, Government Relations: Kathryn Holmes
Various other staff with professional policy experience

Committee on Gov't Relations (CGR)

10 members, with broad technical expertise and policy interests

Chair, Lester Su (educator);
Chair-elect, Connie Lausten (policy consultant)

Public Policy Task Forces

Aligned with ASME's Technology Strategy: Clean Energy, Advanced Manufacturing, Robotics, Bioengineering, Pressure Tech, R&D/STEM

Membership comprises prominent topical experts

ASME Federal Fellows Program

Places ASME members in Congressional offices and Executive Branch agencies

Established in 1973; first Federal Fellowship program among professional engineering societies;
126 Fellows to date

(member volunteers)

ASME Government Relations

- **Our vision:** *To be the premier professional society government relations organization.*

- **Our mission:**

  - **Identify** issues and initiatives of interest to ASME stakeholders emanating from government, education, and industry sectors, and assess ASME member priorities regarding technology and policy matters.
  - **Inform** government entities on matters of technical content or professional concern to the engineering community, and keep stakeholders apprised of government policies and actions.
  - **Involve** ASME Members in advocacy roles, and encourage their participation in providing technical input and expertise to improve the quality of government and public policy decision-making.
  - **Influence** through position papers, testimony, and briefings, the directions and outcomes pertaining to public issues of engineering relevance, consistent with **ASME's Technology Strategy** and ASME Member priorities, and communicated by authorized representatives of the Society.

ASME
SETTING THE STANDARD

Public Policy Activities

Coalition memberships

Strengthen the voices of individual professional societies, industry assocations, universities, and other stakeholders through consensus-building

10 coalition memberships, including the Task Force on American Innovation, the Energy Sciences Coalition, and the STEM Coalition; hundreds of stakeholders

ASME General Position Papers
(approved by BoG)

Securing America's Energy Future; Strengthening the U.S. Manufacturing Sector; Engineering America's Future: Economic Growth through Technical Innovation

ASME Position Statements

Responsive to e.g. current legislation; engages technical sectors; includes coalition statements on R&D budget requests; 25-30 annually

Engineering Public Policy Symposium

16th Symposium this year; highlights policy issues related to U.S. innovation and competitiveness; ASME has the lead role among 45 sponsoring organizations; funded each year by UEF

Communications

Outreach to Congressional and Executive branch offices by ASME Members and staff; Capitol Update; ASME News

ASME Congressional Briefings

Highlight issues aligned with ASME's Technology Strategy, and strengthen ASME's reputation as a credible and trusted source of technical information

6-8 briefings annually; 2018 briefings included: *The Critical Role of Water for Manufacturing; The Value of the NIST Manufacturing Extension Program (MEP); and Incorporating Connected and Autonomous Vehicles into Our Transportation Infrastructure*

ASME
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ASME Federal Fellows Program

- **Established 1973** as the first federal fellowship program among professional technical societies
- Fellows serve in **Congressional** offices, or in **Executive Branch** offices (e.g. the White House Office of Science and Technology Policy (OSTP), or the Advanced Manufacturing National Program Office (AMNPO))
- **Financial support** for the fellows program comes from a variety of sources:
  - The Petroleum Division and Bioengineering Division currently support Congressional Fellows jointly with ASME Government Relations
  - Support for Fellows (primarily in the Executive Branch) has come in recent years from a generous grant to the ASME Foundation by ASME Member John Swanson
  - Manufacturing Fellows are jointly supported by AMNPO and the Swanson funds
  - Ongoing funding for ASME Federal Fellows remains a challenge

ASME
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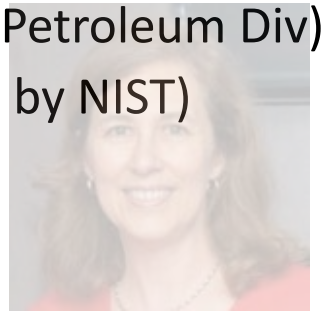
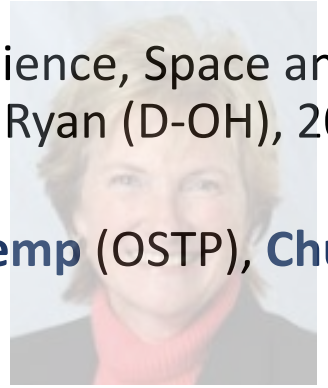
Current and former ASME Federal Fellows

- Current Congressional Fellows:
  - Bioengineering: **Laurel Kuxhaus**, office of Rep. Dan Lipinski (D-IL) (supported by Bioeng Div)
  - Energy: **Marc Santos**, office of Sen. Chris Coons (D-DE) (supported by Petroleum Div)
  - Manufacturing: **KC Morris**, office of Rep. Tom Reed (R-NY) (supported by NIST)



- Current Executive Branch Fellow:
  - AMNPO: **Hong Liang** (supported by ASME Foundation and AMNPO)

- Past ASME Federal Fellows include some genuine ASME luminaries (apologies to those luminaries not mentioned here):
  - Past Congressional Fellows include: **Mahantesh Hiremath** (House Science, Space and Technology Committee, 2013-14); **Said Jahanmir** (office of Rep. Tim Ryan (D-OH), 2015-17); **Andy Bicos** (office of Rep. Tom Reed (R-NY), 2017-18)
  - Past Executive Branch Fellows include: **Mike Molnar** (OSTP), **Sue Skemp** (OSTP), **Chuck Thorpe** (OSTP), **Steve Schmid** (NIST), **Tom Kurfess** (OSTP)



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ASME Federal Fellows Program Testimonials and Highlights

Rep. Tim Ryan on **Said Jahanmir** and the Fellows program:

"The ASME Congressional Fellowship is a very important program that allows us to benefit from someone of Said's knowledge and experience in the legislative process."

"There is no doubt that he has become one of the most sought-after staffers on the Hill regarding these policy issues, and I am proud to call him a member of our team."

As Assistant Director for Advanced Manufacturing at the White House Office of Science and Technology Policy (OSTP), **Tom Kurfess** personally briefed President Obama and the President's Council of Advisors on Science and Technology (PCAST) on advanced manufacturing; was instrumental in the launch of the National Network for Manufacturing Innovation (NNMI); and ensured that Advanced Manufacturing was mentioned prominently in the President's 2013 State of the Union Address

ASME's Annual Public Policy Events

Mansfield Room (Dinner), US Capitol

Sen. Christopher Coons
Rep. Paul Tonko
Keynote Speaker

16th Annual Engineering Public Policy Symposium

45 Co-Sponsors; 150 Society Leaders
Tuesday, April 8, 2019 - Capitol Hill

ASME Congressional Visits

U.S. Senate | U.S. House of Representatives

ASME Congressional Briefing: Bioengineering

Questions?

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