Helping Our World Work Better

www.astm.org
Message from the Chairman of the Board & the President

ASTM International’s high quality standards and standards-related products help our world work better. They help manufacturers build. They help small firms innovate. They help keep consumers safe. And so much more.

No one has done more to support these international standards — and the community of people who create them — than James “Jim” Thomas, who recently retired after 25 years at the helm of ASTM International.

In his final year as president, Jim put a spotlight on how our organization has become one of the leading developers of standards that are widely respected and valued on a global scale.

His fingerprints are found throughout this report:
— He signed ASTM International’s 100th Memorandum of Understanding. This caps the 15th anniversary of this highly successful program that has dramatically deepened our relationships with standards bodies worldwide (see cover).
— He announced a new technical committee in commercial spaceflight, an industry that knows no borders. This adds to a long list of committees that have blossomed during Jim’s tenure.
— And he convened the global leaders on our board at their meeting in Dubai. They joined him in showcasing how our standards are in demand throughout the fast growing Gulf region.

Jim has received many well-deserved accolades as an icon in the global standards community. Both of us are committed to carrying his legacy forward as ASTM International continues to meet the diverse needs of its members, customers, and other stakeholders.

For example, we will continue to support the active participation of small and medium-sized enterprises in ASTM International technical committees. We emphasized throughout 2016 that SMEs should have an equal voice at the table when it comes to standards development. Read some of their testimonials on page 19.

Also, we will continue to meet the ever-evolving needs of manufacturers and other customers who want proficiency testing, training, lab services, and other value-added products. Notably, this includes certification services from the Safety Equipment Institute, which became an ASTM International affiliate in April 2016. Already, SEI has expanded its portfolio to manage major certification programs related to biobased products and sports equipment (see page 20).

Most importantly, our 30,000 members from Canada to Kazakhstan — and everywhere in between — will remain at the heart of everything we do. As we begin a new presidency at ASTM International, this core commitment to members will not change.

Thank you all for joining us as we renew our promise of helping our world work better... every single day.

Ralph M. Paroli, Ph.D.
2016 Chairman of the Board
Director, R&D - Measurement Science and Standards.
National Research Council of Canada

Katharine E. Morgan
President
ASTM International
(as of Feb. 1, 2017)

Jim Thomas accepted the prestigious Ronald H. Brown Standards Leadership Award on Oct. 27, 2016

Helping our World
Helping our Environment
Helping Consumers
Helping Drive Innovation
Helping Small and Medium-Sized Enterprises
Helping our Customers
Helping Empower the Next Generation
Helping our Communities
Helping Recognize Leaders
Financials
Board of Directors
Helping Our World

ASTM International’s members and customers live in every corner of the globe. Through their involvement, ASTM International leads in providing the world’s most respected standards and related services from Argentina to Zimbabwe. In 2016, ASTM International helped our world work better by attracting more international participation, deepening engagement in key regions like Latin America and the Middle East, and creating a new committee that will change how we see the world itself...

New Commercial Spaceflight Committee

Formed in October, this committee will create standards and practices for the fast-growing commercial spaceflight industry. It will define core competencies for human spaceflight safety along with standards related to design, manufacturing, and use of spaceflight vehicles. Subcommittees will focus on occupant safety of both suborbital and orbital vehicles, unoccupied launch and reentry vehicles, spaceports, and more.

“Voluntary and technical standards are all around us, and they give confidence to people and organizations to go about their daily lives. Once people begin to learn about what standards are and why they are important, it is easy to realize that they are essential for products and services to be traded with consistency, predictability, and reliability.”
— U.S. Ambassador to the United Arab Emirates Barbara Leaf, speaking at the ASTM International board of directors meeting in Dubai, October 2016.
100th MOU Signed

In October, at the Abu Dhabi Chamber of Commerce and Industry, then-president James Thomas announced that ASTM International had reached its 100th Memorandum of Understanding on the 15th anniversary of the program. This effort has greatly expanded collaboration and exchange of information worldwide. This milestone underscored ASTM International’s deep commitment to the development dimension of international standards principles, as defined by the World Trade Organization.

The MOU program supports the use of ASTM International standards while encouraging global participation in standards development. Benefits to partners:
— free participation in committees
— access to a robust collection of ASTM International standards for the national standards body
— education about ASTM International’s standards development process and technical content
— minimized duplication of effort in standards development at the national level
— communication, awareness, access to special programs, and more

ASTM International is committed to the six World Trade Organization principles of international standards development:
— transparency
— openness
— impartiality and consensus
— effectiveness and relevance
— coherence
— development dimension

Ghana
Ghana Standards Authority
Members: 22
Number of Standards Used: 314

Chile
Instituto Nacional de Normalizacion
Members: 78
Number of Standards Used: 163

Indonesia
Badan Standardisasi Nasional
Members: 53
Number of Standards Used: 526

Qatar
Qatar General Organization for Standards and Metrology
Members: 48
Number of Standards Used: 276

www.astm.org/MOU
“Road Show América Latina” is Huge Success

In Latin America, ASTM International standards are crucial for construction and infrastructure growth in fields such as concrete, cement, steel, plastic piping, petroleum, and corrosion. These standards are cited more than 2,500 times in laws, regulations, and elsewhere in Peru, Chile, and Colombia, among others.

To draw attention to the significant role that standards play in the region, a group led by incoming president Kathie Morgan coordinated 20 events and high level meetings in May in Lima, Santiago, and Bogotá.

In just six days, the group made more than 600 in-person contacts with leaders from industry, government, laboratories, and universities. This included half day workshops at high profile institutions: the College of Architects of Peru, the University of Chile School of Engineering and Sciences, and the Colombian Society of Engineers.

Morgan also signed new Memorandums of Cooperation with the College of Engineers of Peru and the Colombian Society of Engineers.

NEWS

During the Road Show, Kathie Morgan was interviewed by infrastructure magazines in Chile (EMB Construcción) and Colombia (Noticreto). She highlighted that 40 of ASTM International’s 145 committees are in construction, with hundreds of members from Latin America. She emphasized that ASTM International is seeking more members, customers, and partners throughout the fast-growing region.

Unprecedented Outreach During Board Meeting in UAE

ASTM International held its annual board of directors meeting in October. As part of that, dozens of events were held in Dubai and Abu Dhabi (United Arab Emirates). This included a keynote lunch featuring Rashid Bin Fahad, Ph.D., (UAE minister of environment and water), a workshop with amusement park industry leaders, a daylong event focused on sustainable construction co-supported by the International Code Council, and more.

Outreach Included:

- Abu Dhabi Chamber of Commerce and Industry
- Abu Dhabi Quality and Conformity Council
- AGE Steel
- Al Hosn University
- ARUP Gulf Ltd.
- Delta Metallurgical and Corrosion Consultants
- Dubai Aluminium
- Dubai Central Laboratory
- Dubai Health Authority
- Emirates Authority for Standardization and Metrology
- Engineering Consultants International Limited
- Geo-Chem Middle East
- Khalifa University
- Knauf
- Koltay Facades
- Masdar City
- Ready Mix Abu Dhabi
- Sinterex
- Takreer Research Center
- Union Pipes Industry
- United Piping Solutions

Board member Ron Ebelhar presented on best practices in sustainable construction at Al Hosn University.

Board members met with the leadership of Takreer Research Center, a subsidiary of Abu Dhabi Oil Refining Company, Takahe.

Board members met with leadership of Masdar City, a hub for clean-tech companies and renewable energy.

In advance of the ASTM International board of directors visit to Dubai, Kathie Morgan penned an op-ed for The National, the UAE’s leading English-language news source, where she discussed the important role that high-quality safety standards play in the Gulf region.
## Engagement Deepens Worldwide

ASTM International staff engaged global audiences at unprecedented levels in 2016:

<table>
<thead>
<tr>
<th>Europe</th>
<th>Middle East/Gulf</th>
<th>Africa</th>
<th>Asia–Pacific</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>served on panel for World Trade Organization (WTO) Technical Barriers to Trade (TBT) committee session in Geneva</td>
<td>hosted cement conference and concrete workshop in Riyadh</td>
<td>attended the African Organisation for Standardization (ARSO) General Assembly</td>
<td>visited China National Institute of Standardization, Shanghai Institute of Standardization, and Standardization Administration of China</td>
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<tr>
<td>participated in unmanned aircraft stakeholder workshop and presented on additive manufacturing at events supported by the European Aviation Safety Agency (EASA)</td>
<td>visited and took part in training sessions at the SII Mechanics and Hydraulics Laboratory in Israel</td>
<td>presented at Standards Alliance Workshop in Tanzania</td>
<td>held a seminar and geosynthetics committee meeting in Mumbai at the Bombay Textile Research Association</td>
<td></td>
</tr>
<tr>
<td>presented on small unmanned aircraft systems at the Remotely Piloted Aircraft Systems International conference in Brussels</td>
<td>met with Minister of Economy and the Society of Engineers in Palestine</td>
<td>took part in Kenya Standards Alliance Workshop in Nairobi</td>
<td></td>
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<tr>
<td>discussed international standards and trade at event organized by Italian textile services and medical devices association Assosistema in Rome</td>
<td></td>
<td>participated in East Africa Aviation Trade Mission</td>
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<tr>
<td>spoke at the 26th session of the United Nations Economic Commission for Europe Working Party 6 in Geneva</td>
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<tr>
<td>led panel discussion on standards alignment at the International Consumer Product Health and Safety Organization’s International Symposium in Brussels</td>
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ASTM International’s vice president of global cooperation Teresa Cendrowska hosted a delegation of 3D printing experts from Singapore in November. The group included representatives from the National Additive Manufacturing Industry Cluster, Digital Manufacturing and Design Centre, Temasek Polytechnic, Nanyang Technological University, and more. The delegation visited ASTM International’s Washington, D.C., office, the U.S. Food and Drug Administration, ASTM International headquarters in Pennsylvania, and more.

ASTM International staff engaged global audiences at unprecedented levels in 2016:

- served on panel for World Trade Organization (WTO) Technical Barriers to Trade (TBT) committee session in Geneva
- participated in unmanned aircraft stakeholder workshop and presented on additive manufacturing at events supported by the European Aviation Safety Agency (EASA)
- presented on small unmanned aircraft systems at the Remotely Piloted Aircraft Systems International conference in Brussels
- discussed international standards and trade at event organized by Italian textile services and medical devices association Assosistema in Rome
- spoke at the 26th session of the United Nations Economic Commission for Europe Working Party 6 in Geneva
- led panel discussion on standards alignment at the International Consumer Product Health and Safety Organization’s International Symposium in Brussels

The home use of polluting cooking fuels like wood or charcoal can cause widespread illness and death in developing nations. In addition, overreliance on these fuels can add to global deforestation. In response, ASTM International’s Committee on Bioenergy, Industrial Chemicals, and Biomass (E48) developed a standard to support the introduction of denatured ethanol as a cooking and appliance fuel. The specification will help support the buying, selling, and transportation of ethanol worldwide. It will also act as a benchmark for further quality control in nations where ethanol is being used.

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Jim Thomas and Kathie Morgan (center) visited experts from Sinopec Corporation Shanghai Research Institute of Petrochemical Technology (SRPFT) who began participating in ASTM International activities in 2005.
Helping Our Environment


Repurposing Landfills

The Committee on Environmental Assessment, Risk Management, and Corrective Action (E50) developed a new guide that will help people who want to assess or repurpose landfills and chemically impacted sites. The guide will help rehabilitate decades-old landfills and establish criteria for chemical cleanup and post-cleanup use.

Water: Our Most Precious Resource

On World Water Day in 2016, the Committee on Water (D19) approved a new standard that will help labs monitor the presence of radioactive material in water. The standard provides a rapid and accurate way to measure using mass spectrometry.

In addition, D19 approved a standard that will help ensure the safety of drinking water. The standard will allow for simultaneous analysis of total nitrogen and total phosphorus in water.

Revised Plastic Standard

The Committee on Plastics (D20) revised a standard that teaches how to experimentally measure biobased content using radiocarbon analysis. The standard is used by U.S. government agencies and others to help improve the sustainability of plastics.

Sustainable Manufacturing

The Committee on Sustainability (E60) approved a standard that helps manufacturers incorporate more sustainable practices into production. The new standard will ultimately help companies reduce costs, improve quality, incorporate best practices, reduce environmental impact, and more.

Sustainable Roofing

The Committee on Roofing and Waterproofing (D08) developed a standard that will help reduce the amount of old roofing materials that go to landfills. The new standard will help building owners and contractors who want to minimize their environmental impact.
Toy Standard Updated

After diligent collaboration over five years, hundreds of leading experts and advocates completed a major revision to the world-renowned toy safety standard (F963). It includes new and updated requirements for battery safety, projectiles, toys that expand if swallowed, and more. Manufacturers and retailers will use the standard to design and sell products that comply with laws such as the Consumer Product Safety Improvement Act in the United States.

Water Park Conveyor Belts

The Committee on Amusement Rides and Devices (F24) developed the first standard specifically for conveyors used in water parks. The focus of the new standard is on the safety of conveyors used for transportation in water-related amusement rides, including rafts and tubes.

Surfing Simulator Attractions

The Committee on Amusement Rides and Devices (F24) developed a standard that will help designers and manufacturers build safe attractions that simulate surfing. The standard provides manufacturing guidelines, including structural design requirements, identification markings, and design responsibilities.

Hockey Throat Protectors

The Committee on Sports Equipment, Playing Surfaces, and Facilities (F08) developed a standard aimed at protecting hockey players from potential throat injuries. The standard covers performance requirements and test methods for throat protectors used by ice hockey goalies. The standard was initiated by a father and son (pictured above), who brought the issue to an ASTM meeting a few years ago.

Synthetic Turf Tests

The Committee on Sports Equipment, Playing Surfaces, and Facilities (F08) developed a new standard to help test the safety of synthetic turf infill (crumb rubber) used in some sports fields. The standard measures the amount of certain metals that could be extracted if accidentally swallowed by players.

Helping Consumers

Whether you are playing ice hockey in Canada or buying toys in Europe, ASTM International standards are meeting the everyday needs of people worldwide.

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As part of a supplement within USA Today, Kathie Morgan penned a column and took part in a Q&A about ASTM International’s leadership in consumer product safety. Morgan spoke about the importance of certification for children’s toys and other consumer products.
Additive Manufacturing

A Global Path Forward
ASTM International and the International Organization for Standardization (ISO) celebrated five years of partnership in additive manufacturing by jointly releasing the Additive Manufacturing Standards Development Structure (see below). This framework will help meet the fast-growing needs for new standards in areas such as aviation, medical devices, and automotive.

New File Format
ASTM International and the 3MF Consortium (an industry association that supports a new file format for 3D printing) signed an agreement to jointly work on standards and roadmapping to help bring state-of-the-art 3D-printing technologies to market.

Metals
The Committee on Additive Manufacturing Technologies (F42) approved a standard that covers directed energy deposition, an important metal additive manufacturing process.

Stainless Steel
F42 also created a standard to help manufacturers and buyers who want to use 3D-printed stainless steel alloys, which can be made more quickly than through previous methods. The new standard describes chemical and mechanical requirements for additively manufactured parts.

Helping Drive Innovation
Emerging technologies and entrepreneurship get a boost from new standards that provide a technical foundation for new ideas. From drones to 3D printing, ASTM International members are driving innovation on a global scale.
Helping Small and Medium-Sized Enterprises (SMEs)

Our world works better when everyone has a voice in standards development. In 2016, ASTM International celebrated the “Year of the SME,” encouraging entrepreneurs and small business owners to join while also thanking them for their contributions to creating high quality technical standards.

ASTM International highlighted the advantages SMEs gain by becoming members:

— an equal voice at the table through participation in committees
— networking with more than 30,000 members
— competing globally with over 7,000 standards cited by 75 nations
— reducing costs and increasing profits by relying on standards built to optimize performance
— easy participation through web-based and in-person meetings and digital workshops

"For me, ASTM membership is crucial because my business relies on both existing standards in traditional industries as well as new standards being developed in cutting-edge fields like additive manufacturing [3D printing]. We need to be at the table to ensure that there is a strong foundation of high quality standards as new technologies enter the mainstream. That's how we'll unleash the potential of my business and my field of hybrid manufacturing."
— Jason Jones, Ph.D., Hybrid Manufacturing

"People with many years of experience in ASTM happily mentored our team, worked through challenges, solved problems, and put forward an ASTM specification with impressive speed and accuracy."
— Rebecca Boudreaux, Ph.D., Oberon Fuels Inc.

"Participation in ASTM helps our staff think more clearly, write more concisely, formulate persuasive arguments both affirmative and negative, anticipate countering points of view and, most importantly, listen to other knowledgeable people about what they are thinking and doing. Where else can you reap all of these benefits and then have a nice dinner with a great bunch of friends?"
— Robert J. Kudder, Raths, Raths & Johnson Inc.

"We see our involvement with ASTM as crucial to our continued success, and our involvement certainly benefits our customers with the interpretation of test procedures, reports, and standard cross-references as well as independent, third-party accreditation issues."
— Shawn Byrd, Tinius Olsen

During the U.S. National Small Business Week, an event that ASTM co-sponsored with the U.S. Small Business Administration, Kathie Morgan wrote an op-ed in the San Antonio Business Journal about the important role that SMEs play in standards development. Morgan also described the significance of ASTM International’s committee weeks, referencing the fact that the June committee week was taking place in San Antonio at the time.
Safety Equipment Institute (SEI) Joins ASTM International Family

On April 19, the ASTM International board of directors unanimously voted to make the Safety Equipment Institute (SEI) a subsidiary of ASTM International. The move broadens ASTM International’s overall certification capabilities while also bolstering SEI, a top certification provider founded in 1981.

SEI provides third-party certification for a wide range of products such as sports and athletic equipment, safety and protective products used by firefighters and emergency responders, eye and face protection for industrial workers, and more.

SEI Selected to Manage USDA Biobased Certification Program

On Sept. 1, the U.S. Department of Agriculture selected SEI to manage the certification program that supports labeling thousands of products as “biobased.” This five-year contract will mean that more and more people will be able to find and purchase products that are made and packaged using renewable materials.

US Lacrosse Certification Program

SEI and US Lacrosse introduced a new certification program for women’s lacrosse headgear and goggles. The program will certify headgear and goggles to meet the requirements of two key ASTM International standards.

Our Flagship Product:

New 2016 features through our Compass online subscription platform:

— single sign-on partnerships: (Shibboleth, Open Athens)
— enhanced options: cite, export, print
— updated user-resources section
— bookmarking ability: papers and standards
— “save your search” capability
— feedback button

Helping Our Customers

Expanding our online platform. Publishing new journals. Creating new e-learning tools. The continued development and expansion of value-added services allow ASTM International’s stakeholders to work better and smarter 24/7, from anywhere in the world.
New/Revised Books, Manuals, and Journals
Nine new or revised titles were published in 2016 on topics ranging from aviation fuels to detention-and-correctional facilities.
ASTM International published four active journals (below) and prepared for a new journal, Smart and Sustainable Manufacturing Systems.

— Journal of Testing and Evaluation
— Materials Performance and Characterization
— Geotechnical Testing Journal
— Advances in Civil Engineering Materials

Interoperability through XML Tagging
In concert with other standards development organizations (SDOs) and industry, ASTM International provided technical expertise, financial support, and business requirements to help define a common XML standard for “standards document interchange.” In 2016, this group prepared for the new standard’s release by partnering with the U.S. National Information Standards Organization (NISO). NISO’s Interoperability through XML Tagging Suite will simplify this integration, reduce publication costs, and improve the interoperability of SDO documents.

E-learning Growth Continued
Instruction-led and self-guided e-learning courses helped organizations provide internal, continuous, and up-to-date training for their staff on standards and related topics.

In 2016, ASTM International surpassed 230 e-learning courses, which cover petroleum, construction, environment, mechanical testing, and metals. Industry and member reaction to these training courses was overwhelmingly positive.

ASTM International also offered many seminar courses (live and recorded) in areas such as statistics, property condition assessments, aviation fuel, corrosion, light sport aircraft, and gasoline.

Thousands Flock to Proficiency Testing Programs
Provenance Testing/Programs provide companies with a statistical quality control tool that allows labs to evaluate and compare performance conducting tests with other participating labs around the world.

In 2016, this grew to 46 programs with a new textiles program for knit fabrics in December. Nearly 3,000 participation units came from outside the U.S., driven by popularity of programs in areas such as petroleum and mechanical testing.

ASTM International applied ASTM’s Standards Tagging Suite to thousands of documents.

E-learning Growth continued

More Sympoias and Workshops in 2016
ASTM International provided opportunities for members and other technical experts from across the globe to present their research findings and exchange information. From 2015 to 2016, the program grew from 25 to 31 sponsored events, a mix of workshops, symposia, seminars, and conferences. Event topics included additive manufacturing, environmental assessment, textiles, smart textiles, the nuclear industry, and more.

Test Monitoring Center Launches Diesel Test Methods
The Test Monitoring Center (TMC) provides worldwide calibration services for more than 45 ASTM International test methods that evaluate automotive lubricants. Reference oil distribution, test stand calibration, and laboratory visits form the core of the TMC’s mission under the subcommittee on automotive lubricants (D02.B).

In 2016, D02.B efforts resulted in three new diesel test methods, two of which are for the newly created heavy-duty diesel engine oil specification. The third focuses on an original equipment manufacturer specification.

CCRL Global Footprint
The Laboratory Inspection Program provides direct evidence of a lab’s ability to perform test methods. This grew to about 1,500 testing labs in concrete, concrete aggregates, steel reinforcing bars, cement, pozzolan, slag cement, and masonry products.

— The Profficiance Sample Program provides labs the ability to compare their results with others by testing samples of the same material. In 2016, this program also grew, shipping over 21,000 boxes (851 tons) to 1,760 laboratories worldwide.

“I really like when the modules use real-life scenarios. It helps me understand things to actually look for at sites.”

“I enjoyed taking this course. I now have a better understanding of the ASTM standard.”

“I enjoyed the learning course. It was very helpful and well taught.”

“The design and outline of this course was excellent.”

“This was an impressive learning environment.”
Helping Empower the Next Generation

To ensure that our world will continue to work better in the years ahead, we must empower and enrich the next generation of leaders. ASTM International is dedicated to the development of standards leaders through scholarships, academic outreach, and an emerging professionals program.

Investments in Tomorrow’s Leaders

ASTM International has 5,000 student members and offers several scholarships and grant opportunities each year. In 2016, three $10,000 scholarships were awarded to deserving students for their graduate studies.

David Buckley is a Ph.D. candidate studying antimicrobial solutions that can help combat noroviruses at Clemson University. He holds a bachelor’s degree in biology and chemistry from East Carolina University.

Mohammad Mahtabi is a Ph.D. candidate studying the mechanical and fatigue behavior of nickel-titanium alloys (used in aerospace and biomedicine) at Mississippi State University. He holds a bachelor’s degree from the University of Tehran and his master’s from the Iran University of Science and Technology.

Joel Kulesza is a Ph.D. candidate studying nuclear engineering and radiological science at the University of Michigan. He earned his bachelor’s degree in nuclear engineering at the University of Michigan and his master’s degree in nuclear engineering from the University of Tennessee.

Emerging Professionals Pilot Program Expands

To help technical committees attract the next generation of experts, ASTM International conducted its second Emerging Professionals pilot program during the November committee week in Orlando, Florida. Selected professionals received financial support to attend the week, mentoring, and a comprehensive introduction to the standards development process.

“This was a great experience to become familiar with the elements of standards development as well as to meet peers, ASTM management, and staff.”

— Nima Shamsaei, Auburn University

“The program exceeded my expectations by providing a balanced combination of networking opportunities, committee meetings and learning experiences.”

— Ash Kotwal, Martin Marietta Corp.

www.astm.org/emergingprofessionals
Helping our Communities

Helping our world work better begins with helping our communities. In 2016, ASTM International continued supporting communities both within and beyond the vicinity of our global headquarters.

Riverbend Environmental Education Center
ASTM International continued its support for Riverbend Environmental Education Center—located near ASTM International’s global headquarters—by sponsoring field trips for Bridgeport, Conshohocken, and Whitehall elementary schools in 2016. Riverbend’s mission aligns well with ASTM International’s activities related to sustainability and the environment.

Conshohocken Free Library
ASTM International continued support of the Friends of the Conshohocken Free Library through the purchase of state-of-the-art computer equipment, which offers access to more than 12,000 standards. ASTM International’s support has also helped support various children’s and family library events throughout the year.

Staff-Driven Philanthropic Efforts
ASTM International supported staff-driven efforts to raise funds for organizations including the American Cancer Society, For Pete’s Sake Cancer Bespoke Foundation, Cradles to Crayons, and more.

Thousands of Police Officers, Public Defenders, Labs, and Others Gain Free Access to Forensic Science Standards

Approximately 30,000 public criminal justice agencies now have free access to forensic science standards through a new agreement involving ASTM International, the U.S. National Institute of Standards and Technology (NIST), and the Organization of Scientific Area Committees (OSAC) for Forensic Science.

The contract supports access to nearly 50 standards developed by ASTM International’s Committee on Forensic Science (E30), including guides, practices, test methods, and more to help with many forensics-related activities. These include:

— sexual assault investigations
— analyzing illegal drugs
— labeling physical evidence
— computer forensics

Helping Recognize Leaders

We appreciate the hard work and dedication of our volunteer members and their commitment to ASTM International.

Congratulations to the Award of Merit Winners

Peter S. Unger
Accreditation and Certification (E36)

Andrew F. Oberta
Air Quality (D22)

Brian King
Amusement Rides and Devices (F24)

John R. Sieber
Analytical Chemistry for Metals, Ores, and Related Materials (E01)

Chiara F. Ferraris
Cement (C01)

Fred R. Goodwin
Concrete and Concrete Aggregates (C09)

Joe M. Lundy
Concrete Pipe (C13)

Andrew G. Kretsa Jr.
Copper and Copper Alloys (B16)

Quentin M. Smith
Fasteners (B16)

Andrew H. Rosenberger
Fatigue and Fracture (E08)

Edmond M. Fortuna
Leather (D31)

Steven M. Tafeides
Manufactured Masonry Units (C15)

John S. Goode
Medical and Surgical Materials and Devices (F04)

Paul G. Johnson
Performance of Buildings (E06)

Mary K. Bruch
Pesticides, Antimicrobials, and Alternative Control Agents (E35)

C. Patrick Maggs & Richard M. Stanley
Petroleum Products, Liquid Fuels, and Lubricants (D02)

Andrew M. Oslah
Plastic Piping Systems (F17)

Gary R. Cornall
Plastics (D20)

Aaron Philips
Reeling and Waterproofing (D08)

Julia C. Sherrimpanning
Security Systems and Equipment (F22)

William F. Edelen
Sol and Rock (D18)

Scott M. Goodwin
Steel, Stainless Steel, and Related Products (A01)

Patricia A. Arvis
Textiles (D15)

Daniel R. Miller
Vacuum Cleaners (F11)

David E. Kretschmann
Amusement Rides and Devices (F24)

W.T. Cavanaugh Memorial Award

This prestigious award is given in honor of ASTM International’s CEO, who served from 1980-1985.

Francis “Fran” Schrotter, senior vice president and chief operating officer, American National Standards Institute (ANSI), was honored for her sustained leadership in the U.S. and global standards community, exemplifying a commitment to consensus, collaboration, and professionalism. Schrotter has been with ANSI since 1976, working with a variety of domestic and international committees and organizations that develop standards in dozens of industries.

James A. Thomas President’s Leadership Award

This award recognizes individuals early in their ASTM International career who have advanced the organization’s mission through extraordinary accomplishment, example, and vision. In October 2016, the award was renamed by the ASTM International Board of Directors in honor of James A. Thomas, who retired after 25 years of service as president. Winners were:

Athanasia “Nassia” Tsielepí, laboratory fellow in Graphite Technology at UK National Nuclear Laboratory in Cumbria, Great Britain, and member of Committee on Petroleum Products, Liquid Fuels, and Lubricants (D02).

Sudarsan Rachuri, Ph.D., federal program manager for the Clean Energy Smart Manufacturing Innovation Institute in Los Angeles, California, and member of Committee on Sustainability (E60), and editor of the new journal, Smart and Sustainable Manufacturing Systems.
### Consolidated Statements of Financial Position

#### December 31, 2016 and 2015

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<th></th>
<th>2016</th>
<th>2015</th>
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<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$1,664,615</td>
<td>$3,405,910</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>8,849,701</td>
<td>7,348,525</td>
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<tr>
<td>Interest receivable</td>
<td>493,671</td>
<td>248,149</td>
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<tr>
<td>Royalties receivable</td>
<td>6,743,608</td>
<td>5,962,540</td>
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<tr>
<td>Investments</td>
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<tr>
<td>General investment fund</td>
<td>222,983,796</td>
<td>220,331,139</td>
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<tr>
<td>Committee funds</td>
<td>4,904,950</td>
<td>4,871,602</td>
</tr>
<tr>
<td>Other</td>
<td>14,328,098</td>
<td>16,291,782</td>
</tr>
<tr>
<td>Inventories</td>
<td>3,010,024</td>
<td>2,603,515</td>
</tr>
<tr>
<td>Property and equipment, net</td>
<td>15,149,385</td>
<td>15,539,172</td>
</tr>
<tr>
<td>Prepaid pension asset</td>
<td>30,160,330</td>
<td>8,633,158</td>
</tr>
<tr>
<td>Other assets</td>
<td>1,137,847</td>
<td>965,545</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td><strong>$314,238,025</strong></td>
<td><strong>$286,121,037</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LIABILITIES AND NET ASSETS</strong></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable and accrued liabilities</td>
<td>$4,605,237</td>
<td>$3,099,038</td>
</tr>
<tr>
<td>Deferred income</td>
<td>12,899,359</td>
<td>12,382,894</td>
</tr>
<tr>
<td>Pension liability</td>
<td>1,331,669</td>
<td>1,539,172</td>
</tr>
<tr>
<td>Postretirement benefit liability</td>
<td>4,086,625</td>
<td>4,036,014</td>
</tr>
<tr>
<td>Other liabilities</td>
<td>246,268</td>
<td>518,259</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td><strong>$23,169,156</strong></td>
<td><strong>$20,742,732</strong></td>
</tr>
<tr>
<td><strong>Unrestricted</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Temporarily restricted</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total net assets</strong></td>
<td><strong>$291,068,869</strong></td>
<td><strong>$265,378,305</strong></td>
</tr>
<tr>
<td><strong>Total liabilities and net assets</strong></td>
<td><strong>$314,238,025</strong></td>
<td><strong>$286,121,037</strong></td>
</tr>
</tbody>
</table>

### Consolidated Statements of Activities

#### Years ended December 31, 2016 and 2015

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes in unrestricted net assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating revenues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Publication sales</td>
<td>$50,644,609</td>
<td>$48,659,345</td>
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<tr>
<td>Laboratory services</td>
<td>17,248,718</td>
<td>12,624,820</td>
</tr>
<tr>
<td>Interest and dividends</td>
<td>2,710,405</td>
<td>3,160,532</td>
</tr>
<tr>
<td>Members’ administrative fees</td>
<td>2,171,621</td>
<td>2,187,779</td>
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<tr>
<td>Technical and professional training and symposia workshops</td>
<td>1,942,080</td>
<td>1,424,218</td>
</tr>
<tr>
<td>Contributions</td>
<td>838,521</td>
<td>941,329</td>
</tr>
<tr>
<td>Other</td>
<td>285,668</td>
<td>419,629</td>
</tr>
<tr>
<td><strong>Net assets released from restrictions</strong></td>
<td><strong>75,631,712</strong></td>
<td><strong>69,417,652</strong></td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td><strong>78,483,812</strong></td>
<td><strong>72,543,549</strong></td>
</tr>
<tr>
<td>Operating expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Society office</td>
<td>43,224,689</td>
<td>41,223,941</td>
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<tr>
<td>Cost of publications</td>
<td>4,073,455</td>
<td>4,339,480</td>
</tr>
<tr>
<td>Building occupancy</td>
<td>5,952,424</td>
<td>4,922,814</td>
</tr>
<tr>
<td>Administration</td>
<td>2,333,252</td>
<td>2,333,252</td>
</tr>
<tr>
<td>Laboratory services</td>
<td>5,638,173</td>
<td>4,466,156</td>
</tr>
<tr>
<td>Technical and professional training and symposia workshops</td>
<td>1,058,333</td>
<td>3,987,119</td>
</tr>
<tr>
<td>Awards, contracts and other expenses</td>
<td>838,521</td>
<td>3,188,760</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td><strong>64,724,394</strong></td>
<td><strong>60,621,623</strong></td>
</tr>
<tr>
<td><strong>Excess of operating revenues over operating expenses</strong></td>
<td><strong>13,759,418</strong></td>
<td><strong>11,921,926</strong></td>
</tr>
<tr>
<td>Other revenues and expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board meeting - outside headquarters expense</td>
<td>(492,287)</td>
<td>(230,029)</td>
</tr>
<tr>
<td>Legal, copyright and strategy</td>
<td>(404,379)</td>
<td>(1,630,906)</td>
</tr>
<tr>
<td>Net realized gains on sale of investments</td>
<td>2,624,989</td>
<td>8,011,447</td>
</tr>
<tr>
<td>Inherent contribution</td>
<td>579,664</td>
<td>-</td>
</tr>
<tr>
<td>Net unrealized appreciation (depreciation) in fair value of investments</td>
<td>7,917,320</td>
<td>(14,353,252)</td>
</tr>
<tr>
<td>Pension and postretirement benefit changes</td>
<td>3,769,219</td>
<td>2,035,875</td>
</tr>
<tr>
<td><strong>Total other revenues and expenses</strong></td>
<td><strong>13,994,435</strong></td>
<td><strong>(5,359,164)</strong></td>
</tr>
<tr>
<td><strong>Increase in unrestricted net assets</strong></td>
<td><strong>27,753,853</strong></td>
<td><strong>5,662,762</strong></td>
</tr>
<tr>
<td>Changes in temporarily restricted net assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research income</td>
<td>214,169</td>
<td>4,459,495</td>
</tr>
<tr>
<td>Contributions</td>
<td>838,521</td>
<td>3,160,532</td>
</tr>
<tr>
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<td>2,710,405</td>
<td>3,160,532</td>
</tr>
<tr>
<td>Net unrealized appreciation (depreciation) in fair value of investments</td>
<td>8,233</td>
<td>(3,033)</td>
</tr>
<tr>
<td><strong>Net assets released from restrictions</strong></td>
<td><strong>(2,852,100)</strong></td>
<td><strong>(3,125,897)</strong></td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
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<td><strong>11,921,926</strong></td>
</tr>
</tbody>
</table>

### Financials

Below is a summary of ASTM International’s 2016 Financial Results. Please contact the Corporate Communications department if you are interested in the full audit report from Grant Thornton LLP.
2016 ASTM International Board of Directors

Chairman of the Board
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Director; R&D - Measurement Science and Standards, National Research Council of Canada

Vice Chairman of the Board
D. Thomas Marsh
President/CEO, Centrottrade Minerals & Metals Inc.

Dale F. Bohn
Product Quality Manager, Flint Hills Resources LP

Chairman of the Finance and Audit Committee
Taco van der Maten
Marketing Manager, PANalaytical

Many thanks to our 2014-2016 Directors

Lawrence D. Carberry
Industry Scientist on the Façade Engineering and Architectural Design Team, High Performance Building Solutions, Dow Coming Corp.

John R. Logar
Senior Director, Aseptic Processing and Radiation Sterilization, Johnson & Johnson Sterility Assurance

Christina A. Lomasney
President, CEO and CoFounder, Modumetal

Jun Sasaki
General Manager of Instrumentation and Control R&D Laboratory, Nippon Steel & Sumitomo Metal Corp.

James A. Tann
Director of Technical Services, Belden Brick Co.

Vicky J. Taylor
Senior Research Technologist, INVISTA

Corporate Communications
In 2016, ASTM International’s highly-visible digital communications – including Standardization News online, social media, eNews, and video – reached tens of thousands of members, customers, and others:

Social Media Snapshot
facebook.com/ASTMInternational
Twitter: @ASTMIntl
Linkedin: ASTM International
youtube.com/ASTMIntl

2016 Snapshot

180 New Standards
1,922 Revised Standards
2,995 Total Standards Actions
12,700 Active Standards
30,000 Members Worldwide
145 Technical Committees
2,000 Technical Subcommittees

2016 Directors

2016-2017
Lawrence D. Carberry
Industry Scientist on the Façade Engineering and Architectural Design Team, High Performance Building Solutions, Dow Coming Corp.

John R. Logar
Senior Director, Aseptic Processing and Radiation Sterilization, Johnson & Johnson Sterility Assurance

Christina A. Lomasney
President, CEO and CoFounder, Modumetal

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James A. Tann
Director of Technical Services, Belden Brick Co.

Vicky J. Taylor
Senior Research Technologist, INVISTA

Past Chairmen
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Senior Principal, Terracon

Thomas A. Schwartz
Consulting Principal & Immediate Past President, Simpson Gumpertz & Herger Inc.

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President
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(through Jan. 2017)

Katharine E. Morgan
(begining Feb. 2017)

Twitter: @astmmpress

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Bertrand Morel
Research and Development Deputy Director, AREVA

Steve D. Sandstrom
Director of Technical Services, ISCO Industries Inc.

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2016 ASTM International Annual Report