



WE LED.

In the midst of the challenges, the chaos, the shortages, and the uncertainties caused by the COVID-19 pandemic, our industry led in providing expertise, innovations, products, and resources which enabled delivery of medical equipment, medicine, food, and water to both our local communities and to our world. In all of these efforts you will find the people of SPE.

- Brian Landes, 2019-2020 SPE President



A SUSTAINABLE SPE

All the work, none of the fun!

As a saying reads: "We do not inherit the earth from our ancestors; we borrow it from our children." and so, I could describe my experience at the helm of SPE during a very challenging year, as responsibly enjoying the volunteer work that is advancing and leaving behind a better Society.

About 3 years ago the Board of Directors began a very challenging process, changing our Association into a more responsive, less bureaucratic, and more modern society so our beloved SPE could thrive and be sustainable for many generations to come.

The journey began with the affirmation of why our organization exists and the clarification of our Vision (Inspiring with Plastics) and Mission. That was the easy part. We then immersed in a Strategic Plan and established the 3 pillars under which all our activities should be based: Knowledge, Networking and Reputation.

You may wonder, what prompted us to make such a deep review of doing this? Simple! Our target audience has been changing rapidly, how they network, engage with not-for-profit associations and with each other. Furthermore, the new communication platforms and marketing techniques have drastically changed the ways we communicate, work together and disseminate knowledge.

As a quote reads: "You can't change what's going on around you until you start changing what's going on within you." Providing an uncluttered work environment is a signal of organization and efficiency. We moved to

new headquarters, a great and beautiful modern office that uses the latest approach in collaborative work environment; a place that invites our members to visit. These times will come back!

We adjusted our operating approach at headquarters so we could provide better service to our Chapters and affiliates from a marketing piece, website, webinar or a full conference. We streamlined our finances cutting unnecessary expenses and recognizing revenues for work performed by staff. We formed the Business Development & Technology Committee with a directive: the creation of new products and new services for SPE.

Finally, a year ago, we made significant changes to our bylaws with the clear objective of making the governance of SPE more participatory, more inclusive and more agile.

Back in December of 2019 no one was contemplating that a pandemic of such proportions was just a couple of months away. We were busy planning ANTEC® at San Antonio. The changes we started 'within us' helped us adapt to the new reality.

We became a virtual society for a full year and conducted business flawlessly proving to ourselves and to the world that the SPE is here to stay and will come out of this pandemic strengthened by our collective actions.

The best times for SPE are yet to come. Getting involved is the best way to enjoy them!

Jaime A. Gómez, PhD SPE President 2020-2021



PATRICK FARREY SPE CEO

2020 can only be remembered as the year of the pandemic. It isolated our families, rocked our industry, halted our travels and changed all of our lives. Its impact was very real, and very awful.

Together we faced these challenges head-on. We changed, adapted, persevered. We wept together over colleagues and family members lost. We figured out how to do business in new ways. We took turns going into our offices, classrooms and labs, so we could remain socially distant and keep each other safe. We laughed together at the inevitable, "Can you hear me now?" uttered during our countless Zoom calls. We learned to accommodate each other's dog barks or homeschooling interruptions during our steady stream of virtual meetings.

For me, 2020 will also be remembered as the year when SPE "doubled down" on its purpose – to bring together plastics professionals for the exchange of knowledge and technology, worldwide. At a time when "connections" and "information" were precious commodities, SPE was there – creating frequent opportunities for plastics professionals to meet and share, if only from a distance.

I am immensely proud of how SPE's Executive Board, staff, Chapter Boards, volunteers and members endured.

Through the good works of so many individuals, SPE played an important part in helping keep the plastics industry strong in 2020 - and moving forward headstrong into 2021.



Pivoted ANTEC® San Antonio to <u>Virtual ANTEC®</u> in thirteen days, an event which turned out to be better attended and equally profitable to past in-person events. Keynote presentations featured industry leaders <u>Jim Fitterling</u>, <u>CEO of Dow and Tom Salmon</u>, <u>CEO of Berry Global</u>



Ended the year with a small operational profit (Revenue exceeded Expenses), without any salary cuts or staff layoffs

thanks to the strong performance of SPE's

investment portfolio

Grew Financial Reserves by more than \$500,000



Continued as an active Inaugural Member the Society's Consortium on Sexual Harassment in STEMM, while further committing to build a more diverse, equitable and inclusive Society and profession



Transitioned seamlessly into a fully remote workforce, made possible by the investment in technology infrastructure of the prior two years



Applied for and received \$250,000 in Paycheck Protection Program funding (a forgivable government loan from the first round of stimulus funding) and a \$500,000 Small Business Administration subsidy loan, neither of which were needed or used to fund 2020 operations



Developed the new <u>PlastiVideo</u>® series, designed to bring the PlastiVan® messages to a larger audience of remote middle- and high-school learners, through over two-hours of custom videos and companion materials. This project made possible with the generous support of <u>SPE Detroit Section</u>, <u>SPE Automotive Division</u>, <u>SPE Color & Appearance Division</u>, <u>Plastics Pioneers Association</u>, and primary corporate supporter, <u>Braskem</u>.



Entered into a license agreement with ACC for its *Plastics Make it Possible* program, which will serve as a springboard for future programs to share the positive contributions of plastics and plastics professionals to society at large

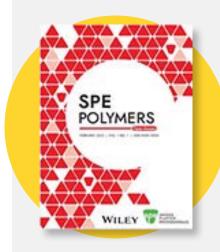


Added CoreTech System Co., Ltd. (Moldex3D) as a Preferred Partner of SPE.



WE SPRUNG TO ACTION. In late March we launched "SPE in Action – the Battle Against COVID-19" on our website. This was a public forum designed as a gathering place for individuals and organizations to exchange ideas, contacts, expertise, and action plans for delivering solutions to challenges created by the pandemic. We witnessed companies offering production capacity, materials, component design, manufacturing repurposing and financial support. We saw people offering expertise, time, training, and mentoring. These combined efforts contributed to greater availability of PPE, increased capacities in mobile housing and storage, additional equipment, and safer and more reliable delivery of medicine, food, and water. Our industry and our collective SPE members are remarkable! - Brian Landes

JOURNAL PUBLICATIONS



Journal Launching

SPE launched its first open access journal SPE Polymers in May 2020 with Dr. Brian P. Grady serving as the first editor-in-chief. The journal published two issues in 2020. SPE Polymers will continue to publish four issues yearly.

Editorial Changes

Dr. Prithu Mukhopadhyay took the baton of the editor-inchief of Journal of Vinyl and Additive Technology on May 1. 2020. Prof. Tim Osswald joined Polymer Composites as an editor on January 15, 2021. Dr. Alessandro Pegoretti will joing *Polymer Composites* as editor in March 2021.

The 2-year citations numbers in 2020 are up for all our journals indicating that the 2020 impact factors of our journals are higher than the 2019 values. The impact factor of Journal of Vinyl and Additive Technology went up from 1.292 in 2018 to 1.550 in 2019.



(*Up from 2,440 in 2019*)



663,460 full text article downloads (Up from 634,890 in 2019)



online open articles (*Up from 10 in 2019*)



articles published (Up from 609 in 2019)



median days from submission to publication (Down from 153 in 2019)



5,450 current 2-year citations (Up from 3,150 in 2019)



SPE FOUNDATION



EVE VITALE Chief Executive, SPE Foundation



\$129,250 in scholarships awarded to



46 students at



27 *universities*

\$31,085 total grant dollars awarded



\$36,730 raised from SPE membership renewal donations

\$105,458 given to support PlastiVideo™ development



\$443,799 generously given to support the work of the SPE Foundation

donors gave more than

\$22,950

for PlastiVideos™ on Giving Tuesday



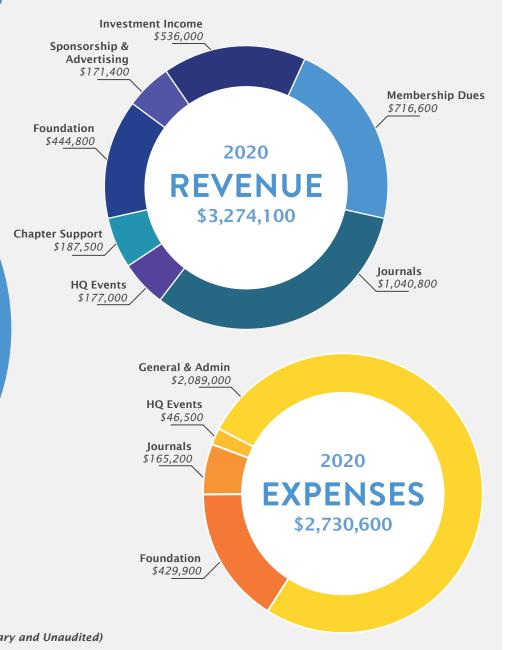
PlastiVideo™ learning modules created



FINANCIAL REVIEW

2020 Balance Sheet Summary

Assets	2019	2020
Current Assets	\$840,820	\$794,657
Fixed Assets	\$112,374	\$95,216
Other Assets	\$5,895,288	\$6,450,104
Total Assets	\$6,848,482	\$7,339,977
Liabilities	2019	2020
Current Liabilities	\$127,790	\$148,889
Long-Term Liabilities	\$3,278,311	\$3,192,935
Total Liabilities	\$3,406,101	\$3,341,824
Equity	\$3,442,381	\$3,998,153
Total Liabilities & Equity	\$6,848,482	\$7,339,977



WE ENGAGED.



LYNZIE NEBEL Vice President of Member Engagement

New Year, New Name(s)

With the streamlining of our Executive Board, a couple of changes were made to make valuable use of the board members. A big change was to transition the position of VP, Young Professionals to VP, Member Engagement. While it is incredibly important to make sure there is always a focus on engaging young professionals in our society, it is just as critical to make sure all members are being heard and are finding new and meaningful ways to connect with fellow SPE members. The broader position title allows for more time to make sure the best interest of ALL members are considered while we move forward with new and exciting changes. The young professionals group also got a name change of their own. The NGAB (Next Generation Advisory Board) has changed to YPC (Young Professionals Committee). This change will reflect the new responsibilities of this committee. In the past the group was meant to be (as its name implied) an advisory group. However, with the official committee title the group is able to create new programs on their own and can always count on the support of the Executive Board.



PlastChicks Podcast

Season 2 of PlastChicks is finishing up and season 3 will be released in March! During the past year PlastChicks were often found conducting interviews during lunch hours for various virtual conferences, ANTEC® included. Much of the upcoming episodes are recorded via Zoom. Some episodes will be released on YouTube (as well as all podcast streaming locations) so you can hear and see our awkward and fun interviews. In addition, PlastChicks did an Instagram Live session, dubbed Quarantinis, every night during the initial few weeks of COVID-19 lockdown.

Plastics in Electronics

The Young Professionals Committee held their first successful global virtual conference as part of SPE's "Plastics in..." series.

Volunteer Opportunities in Communities

When it comes to volunteering, the #1 ask is to find interested candidates to join chapter boards. The #2 ask is members interested in serving but have no idea how to get started. Enter the Opportunities Forum in the new Communities boards. This is a place to put out a call for volunteers and express what type of volunteer work they could expect. Interested members can peruse the site at their leisure and inquire or apply for positions that would benefit them and the society. Think of it as plastics classifieds!





DR. RAY PEARSON Vice President of Publications



The VP, Publications is a new position on the Executive Board for 2020. It replaced VP, Education & Technology. This position is responsible for SPE's overall content strategy. The focus for 2020 is organizing SPE content from all channels into a top-notch resource which will serve stakeholders and generate more revenue for SPE. A "Content Strategy Committee" was formed. It is comprised of several SPE Council members (Maggie Baumann, Jose Luis Chavez, and Paul Uglum). The committee took on the task of evaluating the various sources of content coming into SPE. They identified the most promising source of revenue as short courses and will define future topics.



WE CONNECTED.

Throughout 2020, our Chapters, staff and Executive Board cultivated new ideas and set new strategies for delivering member value in a world that was changing dramatically every day. The new "Plastics In" series of virtual conferences was initially proposed by your Executive Board, then rolled out in a matter of weeks by SPE staff. Topics included Plastics In: Aerospace, Food Packaging, Electronics, Clean water, Medical Manufacturing, and Cannabis Packaging. Each of these unique conferences gathered expertise and leadership from across the entire value chains. Our SPE leadership is remarkable! - Brian Landes



DR. SCOTT EASTMAN Vice President of Chapters

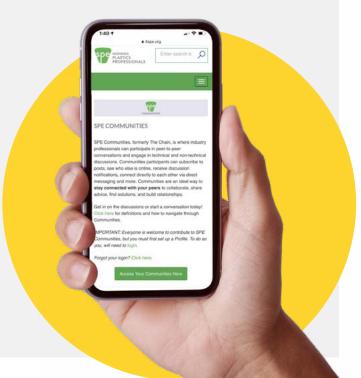
NEW MECHANISMS TO ORGANIZE WITHIN SPE

SPE is always looking for new ways to empower our members and free chapter volunteers of unnecessary tasks. Choosing a structure that is right for their organization while enabling them to focus on what's most important-new ways to educate and connect. I'm very excited to report that we've taken a huge step in that direction.

The new Regional Interest Group (RIG) model was launched in 2020. This reduces the activation barrier for setting up new regionally focused Interest Groups both domestic and international. Current Chapters now have an option of a structure that better supports their needs.

Launch of SPE Communities

This provides a more user-friendly platform for engaging in conversations pertinent to our members and stakeholders. Chapters are already leveraging these forums to advertise open Chapter Board positions, connect with experts, and share technical experiences.





BRUCE MULHOLLAND Vice President of Professional Development

2020 was a challenging year for planning and executing events. After February, in-person events were non-existent across all industries. The plastics industry and SPE were no exception.

In about three weeks' time, SPE headquarters turned what was supposed to be an in-person ANTEC® 2020 in San Antonio to an all virtual ANTEC without moving the start date.

ANTEC® 2020 went live Monday, March 30 using the Zoom conferencing platform. The virtual event kicked off with a keynote session featuring Tom Salmon, CEO and Director, Chairman of the Board, Berry Global Group, and Jim Fitterling, CEO, Dow. More than 2,910 viewed the opening keynote on both Zoom and YouTube.

Over the six-week period comprised of 17 days in total, SPE clocked in 93+ hours of air-time, which not only included keynote speakers and technical presentations but blended in multiple networking opportunities, five PlastChicks podcasts, three PlastiVan demonstrations, a how-to on getting published in SPE's Technical Journals, two live music performances, one golf lesson, a spirited debate about the wonders of soccer, a primer on vinyl records, an early evening virtual cocktail hour, and musical interludes between sessions provided by SPE's resident DJs. 7,000+ attendees from 575 companies living in 28 countries also had over 1,100 questions answered by keynotes and technical presenters.

This phenomenal effort paid off as ANTEC® the Virtual Edition was the only major plastics conference during 2020.

This effort also helped springboard other SPE events convert scheduled in-person events to all virtual conferences, and the creation of the SPE "Plastics in" series.





7,000+ total attendees at ANTEC® 2020



93+
total hours of air-time



WE WERE RESILIENT.

In early March we made the decision to pivot from a traditional live ANTEC meeting to a completely virtual ANTEC. SPE staff imagined, designed, and delivered a virtual international conference in just two weeks! This includes communicating with and the rescheduling of hundreds of speakers, vendors, and sponsors and... modifying networking, recognition, and social events so they all could be held in a virtual setting. Our SPE staff are remarkable. - Brian Landes

EVENTS



6 new virtual conferences were created under the new "Plastics in...." brand

Topics included *Plastics in Aerospace, Cannabis Packaging, Clean Water, Electronics*, and *Medical Manufacturing*.



SPE launched its first all-Spanish-language conference, *Plastics Forum*, in cooperation with the Colombian plastics association, ICIPC and partnered with IOPP to produce *Plastics in Food Packaging*.

Chapter Events

SPE International Polyolefins Conference took place in late February before the pandemic hit. 7 SPE Chapters turned their "live in-person" conferences into virtual conferences this year. 5 more SPE Chapters launched new virtual events. Over 4,200 people attended a total of 13 SPE Chapter virtual conferences.

SPE Chapters held 32 meetings in 2020. 13 were held between January and March live in person and 19 virtual. Meetings included plant tours, career nights, SPE member benefit overview sessions and technical sessions.



32 SPE Chapter meetings & conferences held in 2020

4,200+
people attended SPE Chapter
virtual conferences



Webinars

SPE HQ continued to build a strong webinar program in 2020 despite the virtual event competition and Zoom burnout. Topics ranged from in-depth technical presentations to Fundamentals of U.S. Patent Law to Compensation of Plastics Professionals: Perspective, Trends, and Forecast. Over 5,505 people participated in a total of 28 SPE HQ webinars given during 2020.

A total of 44 SPE webinars (HQ & Chapters) with 8,250 attendees. SPE Chapter webinars in 2020 totaled 16 for 2,740+ attendees.



WE SERVED AND CONTINUE TO SERVE.

As Past President, I have had a little more time to take note of the ordinary (which I am thankful for), the interesting (which can go either way), and the truly remarkable. In my mind 2020 was in many ways... remarkable. I am very sure that all of you have used different words to describe the past year, yet I would guess that "remarkable" was not the first word that came to mind. What was so remarkable to me? It was the people of SPE. - Brian Landes



In June we celebrated the tremendous efforts and achievements of a select few SPE members in recognition of their many contributions made on behalf of the Society and to our industry.

First Mark MacLean-Blevins¹, Product Design & Development Division and Robert V. Petrach Jr.², Detroit Section were presented with our Honored Service Member Award. This Award recognizes those who have demonstrated long-term, outstanding service to, and support of, the Society and its objectives. Second, Roger W. Avakian³, Thermoplastic Materials and Foams Division, Dr. Santosh Bawiskar⁴, Extrusion Division, and both Dr. Kurt A. Koppi⁵, and Dr. Donggang Yao⁶, of the Applied Rheology Division were named as Fellows of the Society. Fellows of the Society are honored for their outstanding contributions in the field of plastics engineering, science, technology, or in the management of such activities.















Finally, our most prestigious award, the SPE President's Cup was presented to Dr. Brian Grady, The University of Oklahoma and Past President of SPE. The President's Cup was first awarded by Peter Simmons in 1958 and continues to be awarded each year by the President for outstanding and meritorious service to our society. Brian has served our Society in literally dozens of capacities over several decades. His dedication to all things SPE and his desire to serve continue today. Our SPE members are remarkable!

SUSTAINABILITY



CONOR CARLIN Vice President of Sustainability

When the Plastics Environmental Division of SPE changed its name in 2001, the volunteer leaders probably didn't recognize how far ahead of the curve they were. In fact, it was even earlier – May 6, 1991, to be precise - when Division D40, "Plastics Recycling", was first chartered. Long before terms like "circular economy" and "zero waste" became hashtags, SPE members were elbows-deep in recycling technologies, bio-based material development, and energy-saving techniques for plastics processing. I remember going to my first Global Plastics Environmental Conference (GPEC) in 2002, where over 200 people crowded into conference rooms at the GM Renaissance Center in Detroit. With over 4000 papers, proceedings, and technical articles in the archives, SPE environmentalists have documented the evolution of plastics and sustainability for 3 decades.

Fast forward to 2020 and we now have 2 distinct divisions, multiple conference tracks, a webinar series, quarterly journals, and a new executive board position, Vice President, Sustainability. By raising the profile of sustainability within our society, we are better able to promote our expertise and liaise with various like-minded groups around the world. So far, I have had the privilege to speak to plastics professionals in India, Australia, Colombia, in addition to various audiences in the US. From circular fashion entrepreneurs in Los Angeles to processing engineers in Akron, it seems that everyone is keen to talk and learn more about plastics and sustainability.

It's one thing to talk the talk; it's another to walk the walk. Back in September 2020, our group joined forces with The Alliance to End Plastic Waste (AEPW) in their "Day of Global Action". The event, tagged as ALL_TOGETHER GLOBAL CLEANUP, united thousands of volunteers from around the world to engage with their communities to discover, identify, collect and dispose of litter. Enabled by technology and innovation partner, Litterati, SPE members used the app-based geo-tagging system to photograph litter as well as to measure and track their participation. By the end of

the 2-week period, we smashed our goal and contributed with scores of other groups and individuals worldwide to show that collective action has a powerful impact on our environment.

At its core, sustainability means that we - today - cannot compromise the ability of future generations to sustain themselves. The native American Nation, the Iroquois, lived by the "7th Generation Principle": "In our every deliberation, we must consider the impact of our decisions on the next 7 generations." In a world where forecasts have proliferated with the advent of Big Data and the arrival of predictive algorithms, one would be forgiven for thinking that we can surely do better when it comes to our shared planetary responsibilities. The heart of plastics and sustainability, therefore, is the measurement of the impact of our material choices on the environment. If everything is equally important, then nothing is important. We must work with what we have, and develop new tools to assess, measure and manage our choices. Some choices will be hard, and they will be sub-optimal, but we cannot let the perfect be the enemy of the good.

When you consider that the SPE "North Star" is found at the nexus of knowledge and networking, it is not surprising that we continue to attract people to our events. And though one could easily attend a sustainability seminar every week of the year, SPE's focus on objective, data-driven knowledge leads to more meaningful papers, seminars, and webinars. Be sure to keep an eye on the calendar of events for more webinars, and definitely tune in to ANTEC® 2021 where a full suite of sustainability-related topics awaits you.



WE ENDED STRONG... TOGETHER.

Yes – I am thankful that 2020 has passed. But I am also very thankful for what I was reminded of in 2020. People are remarkable. In the strangest, most difficult, most bizarre, most trying of circumstances, people are remarkable. And in the midst of all life demands of us, the people of SPE are truly remarkable, in so many different ways. I am glad you were part of my remarkable 2020! - Brian Landes



DR. JASON LYONS President Elect

In the future when we reflect on 2020, I believe we will have a deep appreciation for all that transpired. While there was certainly great loss on a variety of levels, there was also a renewed appreciation for things that we value or may have taken for granted. To this extent, SPE is no exception. 2020 forced us to look inward and as a result, we are recommitted to our mission of developing plastic professionals, thereby bringing value to your SPE membership.

Looking forward to 2021, we will strive to solidify existing programs while continuing to develop new ones focused on making both information and professional relationships accessible to all. I look forward to seeing as many of you as possible in the near future and I thank you in advance for your engagement and inspiration which will make SPE shine in the world of plastics.





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