SAE International®

2011 Business Plan

Proprietary Information

SAE International is a global body of scientists, engineers, and practitioners that advances self-propelled vehicle and system knowledge in a neutral forum for the benefit of society. It is a non-profit educational and scientific membership organization [501(c)(3) within the United States IRS Tax Code] dedicated to advancing mobility technology to better serve humanity.

SAE has a global membership of more than 128,000 from 110 countries. Along with its Foundation and associated 501(c)(6) organizations – Performance Review Institute and the SAE Industry Technologies Consortia – the SAE Enterprise represents a $70 million per annum enterprise. In addition, it has two affiliated societies located in Brazil and India, as well as formal agreements with like-minded organizations around the world. The combined impact of SAE's brand, core competencies, programs, products, and services that have been built up over its 106 year history have made it the preeminent technical society in the mobility field.

Through SAE, thousands of engineers and scientists from around the world develop technical information on all forms of self-propelled vehicles including automobiles, trucks and buses, off-highway equipment, aircraft, aerospace, vehicles, marine, rail, and transit systems. SAE disseminates this information through its meetings, books, technical papers, magazines, online publications, standards, reports, pre-professional and professional development programs, and electronic databases.

SAE delivers value to its members, customers, and stakeholders, whether they are individuals, institutions, or corporations that operate in a government, academic, or industrial environment by providing:

- Technical publications that disseminate knowledge.
- Relevant, timely consensus standards that drive quality, performance, safety, cost optimization of products and product life cycles.
- Conferences and symposia that add value through the first-hand transfer of technical knowledge.
- Lifelong learning, education and development, and recognition for individual members, customers, and the broader workforce.
- Mutually beneficial government/industry/academic interfaces that provide information for the formation of sound public policy decisions.

Contents

Executive Summary

The 2011 Business Plan presents a confident step forward following two challenging years in the mobility industry as well as for SAE International. It reflects the priorities in the newly established ten-year strategic roadmap and continues to implement the two-pronged strategy of creating a sustainable and growth-oriented organization. The plan is forward looking and seeks to provide renewed benefits to our membership while capitalizing on emerging technologies and markets.

During 2010, a concerted year-long effort resulted in a ten-year strategic roadmap to achieve Vision 2020. Using four core strategies (pages 4 and 5), the roadmap establishes a framework for a series of sustained investments necessary for achieving the vision. First among these investments is strengthening and revitalizing the value proposition of membership. Additional investments focus on:

- Developing new core competencies in the areas of acquiring and integrating intellectual property—including the use of acquisitions,
- Creating global operational capacity,
- Srengthening the program, product, and service portfolio for multi-sector and geographical relevance, and
- Exploring new technology/sector opportunities.

As in the past, the business plan relies heavily on the input from members and customers and the direction from our member leadership. The aerospace, automotive, and commercial vehicle industry sectors highlight areas for priority attention, and the six operating boards detail specific actions for implementation in 2011. Voice of the customer data and market trends provided the basis for business unit level operating plans.

The 2011 Budget calls for revenues of $45.8 million, a 5.4 percent increase over 2010 year-end projections. While some increase is derived from inflationary price increases, the bulk of the increase is from improved year-over-year performance of the existing portfolio as well as revenue generated from the introduction of new products and the expansion into new markets. New product revenue is targeted to exceed $1.5 million, while revenue from outside North America is expected to be in excess of $8.0 million.

Expenses of $45.6 million represent a 10.8 percent increase over 2010 year-end projections. Approximately 25 percent of the increase represents additional investment to expand our global operations and the ability to better serve our three sectors. Another 15 percent will be dedicated to expanding core competencies in the publications arena. The balance represents inflationary increases and increased costs associated with delivering an expanded portfolio of programs, products, and services.

Because of the higher internal reinvestment rate, the $175,000 net contribution from operations is lower than in 2010 projections. Non-operating results are expected to contribute an additional $1.6 million, yielding a total change in net assets before adjustments of $1.8 million. At year-end, the Society expects to be in compliance with three-of-the-six financial metrics, and on target to be in compliance with five in 2012 and full compliance in 2013.

Strategic Plan

Mission Statement

SAE International is a global body of scientists, engineers, and practitioners that advances self-propelled vehicle and system knowledge in a neutral forum for the benefit of society.

Vision 2020

In the year 2020, SAE International will be #1 in the mobility industry by. . .

- Connecting a global network of students, engineers, practitioners, and companies.
- Attracting, managing, and distributing mobility-related information through
  - Education
  - Standards
  - Technical publications
- Leading in global standardization.
- Creating and sustaining beneficial affiliations and interfaces that add value, encourage innovation, and help form sound public policy.

End Statement

SAE International enterprise is preeminent in serving its members and industry, by providing:

- A global network of students, scientists, engineers, practitioners, and institutions.
- Technical publications that disseminate knowledge.
- Relevant, timely consensus standards that drive quality, performance, safety, cost optimization of products, and product-life cycles.
- Conferences and symposia that add value through the first-hand transfer of technical knowledge.
- Lifelong learning, education and development and recognition for individual members, institutional stakeholders, and the broader workforce.
- Mutually beneficial government/industry/academic interfaces that provide information for the formation of sound public policy decisions.
- Affiliated programs, products, and services that add value and encourage innovation.

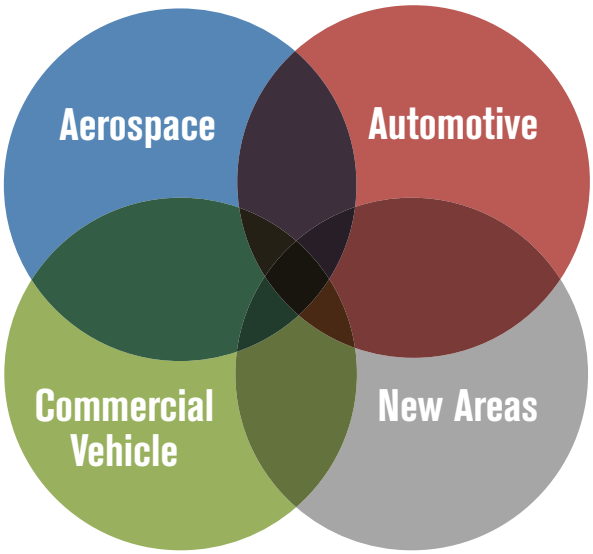
Core Strategies

Two key underpinnings for SAE International's strategy include an unwavering commitment to its members, volunteers, and institutional stakeholders and a desire to be a best-in-class, growth-oriented organization. In this context, the organization will pursue four overarching strategies:

1. Strengthening the Sectors/Market Focus

Currently, SAE successfully operates in the aerospace, automotive, and commercial vehicle sectors. The strategic plan is designed to strengthen the organizational capacity in each of these arenas, thereby enhancing the value provided to these critical mobility sectors. The strategic plan both embraces the commonalities of the three industries as well as capitalizes on the differences. In those areas where member and customer needs are similar across the three sectors, synergistic strategies are pursued. In those areas where sector-specific opportunities present themselves, unique strategies have been designed. While a focus on the three sectors is a predominant theme throughout, the plan also seeks to explore emerging opportunities and expand into new sectors as both mass and personal mobility evolve.

Strengthen Our Sector Focus



A Strategic Framework

2. Creating a Portfolio for 2020

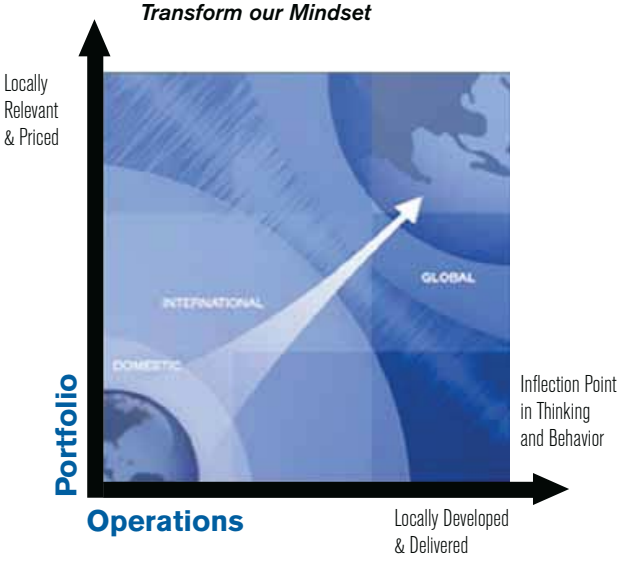
Over the past 100 plus years, SAE has developed an impressive portfolio of programs, products, and services that provide significant value to members and customers. Particular strengths include technical standards, lifelong learning, volunteer corps, and networks of like-minded engineers. Globalization, information technology, speed-to-market, changing demographics, and a host of other trends place new demands on the ways organizations interact and deliver value to their customers. This is true for the mobility industry and SAE. The strategic plan embraces these opportunities and lays the groundwork for developing a robust portfolio of programs, products, and services for 2020. As a part of that process, the plan focuses on:

- Providing industry-specific and cross-industry solutions.
- Establishing market leadership across the portfolio.
- Expanding SAE's library of intellectual property.
- Providing state-of-the-art and preferred delivery of programs, products, and services.
- Ensuring financial performance, operating efficiency, and organizational development.

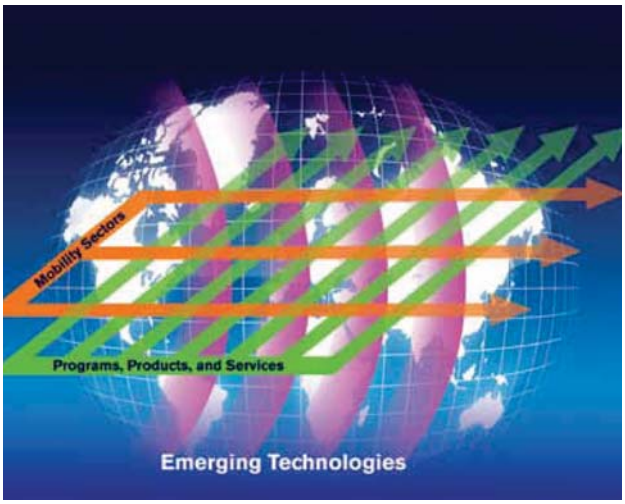
3. Transforming to a Global Organization

For decades, SAE has been proud of and benefited from its international membership. Further, its programs, products, and services have been embraced by a customer base from around the world. Today, the global nature of the mobility industry and the expectations of our members, customers, and institutional stakeholders are strengthening and along with it the market pull for the society's portfolio of programs, products, and services. As a result, the strategic plan positions SAE to transform its historical domestic orientation that reaches outward to an international membership and customer base to a global organization that is capable of delivering locally relevant programs, products, and services at locally relevant prices utilizing a dispersed operating model. In so doing, the strategies pursued will involve a combination of those focused on achieving an immediate return on investment as well as those that have a longer-term investment horizon.

Transform our Mindset



Integrate our Strategy 2020



4. Capitalizing on Emerging Technologies

In a technologically driven marketplace, the organization that is able to capitalize on and quickly and effectively implement technological advances will have the competitive advantage. This is especially true for the mobility industry. Technology is ever advancing and continues to challenge and enable the mobility industry to create and deliver new products to an evolving marketplace. As a critical partner to mobility engineers and the mobility industry itself, the strategic plan focuses SAE's efforts on being the forum in which technology advances. Whether through technical meetings and publications, professional development, or educational efforts that create tomorrow's workforce, SAE's programs, products, and services will focus on emerging technologies and provide the platform on which these technologies advance. In short, SAE will be the place of choice for the mobility industry to turn to meet its technological challenges of tomorrow.

The Power of Integration

While each strategic axis is vital to success and will be pursued aggressively, the great power of the strategic plan is in the integration of the four axes. The plan leverages those areas where the confluence of these four strategies amplifies the impact of each axis. It is through these integrated strategies that SAE International will become the best-in-class organization that achieves growth through expanded market reach; developing new market-demanded programs, products, and services; and creating new value-added businesses.

Organizational Strategies

These organizational objectives define the specifics of how SAE International will realize its vision and strategic priorities.

Growth: Achieve 8 - 12 percent compounded annual revenue growth.

SAE's strategy calls for the organization to be growth-oriented. While revenue growth will be a measure, the primary focus will be on creating a portfolio of programs, products, and services that have a compelling member and customer value.

Global Markets: By 2020, 50 percent of annual revenue will be from Asian, European, and South American markets.

SAE has a strong historical market presence within North America, and the strategic plan calls for continued emphasis on the North American market in recognition of its importance to the mobility industry. Despite our strength in North America, our brand and reputation are stronger than our market presence in other parts of the world. To capitalize on the market opportunities, efforts to expand in Europe and continued investment in China and India will be focuses. Further, models for working with our affiliates will be refashioned to ensure win-win propositions.

Programs, Products, and Services: Improve the product pipeline so that 15 percent of each year's revenue is derived from new products.

The marketplace in which SAE operates is dynamic and the pace of change is ever increasing. As a result, the expectations of our members and customers change as well; therefore, so must the programs, products, and services that SAE offers. As that portfolio changes to reflect the market needs, SAE will aggressively capitalize on the Internet and digital delivery capabilities. Further, SAE will utilize market-based pricing and divest of programs, products, and services that no longer provide member and customer value.

Sectors: By 2020, 10 percent of SAE revenue will come from a sector not served in 2008.

SAE currently serves the aerospace, automotive, and commercial vehicle sectors. As the field of mobility changes, new opportunities for SAE to provide value-added services in new sectors will emerge. SAE will pursue those that offer a good product-market fit.

Technologies

SAE will be active in technology development and standardization throughout the technology life cycle, including the scientific research, development, application, commercialization, and implementation stages. SAE recognizes that technology is ever changing and quickly evolving.

Competitive Advantage

SAE's distinct competitive advantages include:

- Our reputation and brand built on 100 plus years of uncommon service.
- Our core competency as a best-in-class, neutral catalyst, facilitator, and advisor.
- Our volunteers who bring on-demand knowledge and insight to the collective wisdom and deliver high-value products every time.

Value Proposition

SAE's compelling value proposition includes:

- A global network of professional engineering talent.
- 100 plus years of experience in standards development.
- One of the world's largest libraries of intellectual property focused on technology within the mobility industry.
- Our unique position as a neutral, third-party source with our customers and their companies, which enables us to bring industry experience, thought-leadership, and problem solving skills to bear on problems faster and more effectively than alternative sources in the private sector.
- An ability to deliver state-of-the-art and preferred information technology solutions.

Operating Principles

We are a membership organization focused on delivering best-in-class programs, products, and services to our members and institutional stakeholders.

We serve diverse yet correlated sectors and customers; we operate as an integrated conglomerate of businesses.

We seek to find growth opportunities that leverage our distinct competitive advantage in service of our customer's most critical needs.

We succeed in the market when we integrate our programs, products, and services with our members and customers as they develop advanced technology and innovations.

We will achieve our goals and increase member value and customer satisfaction by focusing on these key areas:

- Providing industry-specific and cross-industry solutions.
- Establishing market leadership across the portfolio.
- Expanding our library of intellectual property.
- Providing state-of-the-art and preferred delivery of programs, products, and services.
- Ensuring financial performance, operating efficiency, and organizational developments.

Aerospace Sector

Overview

The slow global economic recovery and sharp reductions in national defense budgets are expected to have a mixed effect on the aerospace industry in 2011. The recovery to date has been uneven across the aerospace sector and profit margins for many companies have been thin. The underlying hope is that the two-year downturn in aviation and defense is nearing the bottom.

The decline in commercial aviation began with a steep drop in passenger travel largely tied to the economic downturn of the past few years. The airlines responded to the drop in passenger demand with a corresponding reduction in their capacity as well as delaying/cancelling orders for new aircraft. Despite the downturn, the commercial aircraft manufacturers stuck with their product development plans for new aircraft and there are a number of aircraft in the final stages of development and/or certification incorporating new materials and built using improved manufacturing processes. An upswing in orders in 2010 indicated a turnaround for the airline industry that should likely lead to an increase in the production rate. Signs of recovery in the airfreight business have also been observed concurrently with new freighters coming into the market. The industry continues to fund research into stronger, lighter, and more environmentally friendly designs. The economic decline also forced many countries to shift resources from their traditional defense spending levels toward more immediate needs related to supporting their domestic economy. The budget deficits that are being incurred by many countries fighting the recession have restrained defense spending and will likely delay or stretch out military aircraft procurement planned for 2011 and beyond. The impact of these decisions will lead to higher development costs and lower production rates. The financial pressures may even force some countries to reduce their commitments to partner programs. Shrinking defense budgets may signal the "new normal" and contract competition may grow more intense. In contrast to potential drops in demand for traditional military aircraft (fighters, bombers, transports), the area of unmanned vehicles is growing rapidly, bringing in new manufacturers and new technologies. Aerospace companies are also expanding into adjacent businesses including cyber security, smart grid technologies, and other areas related to homeland security.

The aerospace sector is impacted by many trends that cut across the sector and are interrelated. Some of the more notable trends include the following:

- The aerospace sector will continue to face shortages of engineers as it competes with other industry sectors for talent. Given the cyclic nature of the aerospace industry, the average age of an employee continues to climb as overall employment remains flat.
- The aerospace sector has transformed the way that it conducts business. Gone are the days when a single company can design and manufacture a product completely within itself. The enormous cost and complexity associated with launching a new aircraft program demands partnership throughout a diverse and intricate supply chain to help minimize risk. In addition, the global nature of aerospace requires partnering with offshore companies in order to gain orders from their respective governments.
- Quality assurance for aviation parts, processes, and systems will continue to be a key in addressing supply-chain issues and system safety. This is increasingly true due to new suppliers entering the market from developing regions of the world and the growing problem of counterfeit parts.
- A side effect of partnering with and relying on a supply chain so widely diverse in geographic location, size, technical, engineering, quality, production capability, and financial resources is that anomalies in quality, quantity, and delivery schedules are much more likely to occur. When such disruptions occur they can throw production, assembly, and testing wildly off schedule resulting in system integrators being unable to meet promised delivery dates to customers.
- The traditional aircraft manufacturers are being supplemented by new entities from around the globe. A number of regions and nations (including China, Japan, and Russia) have made aerospace a focal area of their economic plans. Their growth has been remarkable and they will add to the number of viable aerospace products and companies in the very near future.
- The continued instability around the world will drive the need for enhancement in air-transport safety and security. As an example, several new counter-terrorism systems are under development.
- The escalating costs of fielding and supporting traditional warfare products along with the evolving way that conflicts are being fought have caused many governments to re-evaluate their approaches. Governments are more often making strategic decisions that place greater emphasis on counterinsurgency approaches along with foreign-military assistance in an effort to combat terrorism.
- There has been a shift in the United States space priorities with cancellation of the Space Shuttle Program and an increased dependence on private/commercial space activities. At the same time, there has been an increased emphasis in space programs from Europe, Asia, Russia, and other regions of the world. Europe and the United States are in the process of restructuring, upgrading, and improving their Air Traffic Management systems to allow for greater capacity, more efficient operations, increased safety and transform the infrastructure from a ground-based system to a satellite-based system.
- Unmanned vehicles will continue to expand beyond their current roles. Unmanned vehicles are under development that will significantly expand their ability to provide persistent intelligence gathering and communication links, troop and convoy protection, and cargo resupply to name a few. There is a significant push to have UAS (Unmanned Aircraft System) certified to operate in national air spaces, for both security (*e.g.*, border patrol) and commercial (*e.g.*, traffic monitoring) applications.

- The ability to develop new materials technologies will play a large role in new aircraft programs; however, aging aircraft issues (structures, electronics, inspection methods, *etc.*) will remain increasingly important.
- Global and national treaties to reduce the effect of greenhouse gases and noise levels will drive changes in aircraft design, fuels, and operations. In particular, European environmental directives are placing new burdens on aerospace companies.
- Trade issues are continuing to escalate within the World Trade Organization as nations line up to protect jobs and commerce. Export control regulations are having a far-reaching effect on the globalization of aviation.

Strategies

In support of SAE International's Mission and Vision 2020, the following continue to be the strategic objectives and goals for the Aerospace Sector:

- SAE Aerospace will be better recognized as a leading-aerospace organization. SAE will expand the prestige and improve SAE Aerospace's image and recognition. The achievements of aerospace members will be recognized by increasing the number of SAE Fellows from the aerospace sector and expanding the SAE Aerospace Sector awards program. By 2020, SAE will be perceived as a leading forum where aerospace executives and practicing engineers alike come to address their professional needs. SAE will offer a wide variety of programs, products, and services that help to advance the careers of aerospace professionals at every stage. Equally, SAE will offer opportunities for aerospace executives and practicing engineers to give back to their profession and mentor those following in their footsteps. SAE will encourage global incentives for today's youth to become the aerospace engineers of tomorrow.
- Industry, government, and academia from the aerospace community will identify SAE as the "go to" organization to address their technical needs. SAE will be recognized as the premier-engineering society to start new standards work, increase the number of projects started with regulatory agencies, and partner with regulatory agencies around the globe to pull together industry solutions. By 2020, industry, government, and academia from the aerospace community will identify SAE as the "go to" organization to address their technical needs. SAE will capitalize on its unique position as a neutral-global forum to bring together a wide array of constituencies to address key technical challenges facing the aerospace sector. SAE will be perceived as flexible in its processes, willing to partner with other key organizations, and offering world-class solutions.
- SAE will become more visible and active in aerospace outside of the United States. Two key underpinnings to achieve this goal are (1) increasing the number of non-United States participants on SAE's boards and committees and (2) planning to hold technical meetings and major aerospace conferences outside of North America. SAE will develop contacts at the executive level with global OEMs to promote campaigns for a greener-aviation industry. By 2020, SAE will replicate its United States' reputation as a leader in the aerospace sector on a global basis. As the aerospace sector becomes global, SAE will continue to expand its aerospace activities beyond North America. Eventually, SAE will operate locally on a global level in the development and delivery of programs, products, and services.

Programs, Products, and Services Highlights

The Aerospace Sector strategies are critical in providing a context so that SAE's aerospace programs, products, and services will be embraced by the industry. Each of the strategies requires specific tactics that will help create an environment that supports the various aerospace programs, products, and services. The tactics for 2011 include the following:

- SAE will be better recognized as a leading-aerospace organization by identifying multiple methods for expanding and improving the aerospace sector's image and implement as appropriate.
- Increasing the number of SAE Fellows from the aerospace sector by proactively identifying aerospace members and submitting nominations for those qualified.
- Expanding the aerospace sector's award program offerings to ensure that SAE has a vibrant and comprehensive selection of awards.
- Industry, government, and academia from the global aerospace community will identify SAE as the "go to" organization to address their technical needs. Make SAE Aerospace the "go to" organization by:
  - Attracting new standards work from regulatory agencies, leading manufacturers, and key industry groups.
  - Developing strategic partnerships with regulatory agencies to address issues that are critical to the aerospace community.
- SAE will become more visible and active in aerospace outside of the United States. Continue globalization efforts to increase the SAE presence and engagement outside of the United States by:
  - Creating and beginning implementation of a program to increase the number of non-United States' participants that serve on SAE boards and committees.
  - Conducting AeroTech in Toulouse, France hosted by Airbus with an emphasis in the program on green aviation technology.

Automotive Sector

Overview

During 2010, the global automotive industry began its long climb out of the depths of a severe recession and car sales began to recover. Hopefully, concerns about a "double-dip recession" will not materialize, but automobile manufacturers are being very cautious. Recently, automobile dealers have been complaining about the lack of inventory. The expectation is that it will be a number of years before sales will return to pre-2009 numbers, but for the most part automobile manufacturers, as well as the supply chain, have right sized their organizations and appear much better positioned to withstand the storm. SAE's automotive business has also shown an improvement, as evidenced by an extremely successful SAE 2010 World Congress, a sold out On-Board Diagnostics Symposium, and more enthusiasm for participation in many other SAE activities. SAE is being more cautious about scheduling events, but at the same time is seeing a lot of enthusiasm for important activities such as the North American International Powertrain Conference and many of the automotive professional development programs.

In 2010, the United States based manufacturers, who have been big supporters of SAE, saw a great improvement in their fortunes. Ford provided a tremendous amount of leadership for SAE activities throughout the year, and also saw a major turnaround in their financial performance. General Motors is in a much better position than it was a year ago, and it too looks as though its financial performance is on the mend. Chrysler, another important organization for SAE, has recently introduced some exciting products and also has shown improvements in their financials. SAE continues to improve relationships with the New American Manufacturers and Nissan is slated to be the host for the SAE 2012 World Congress.

Automotive suppliers have come through the recession much better than predicted. Many of them have re-engineered their operations and are now positioned to be very successful if automotive sales improve.

The industry continues to be challenged by new regulations and an ongoing pressure to improve fuel economy, reduce emissions, improve safety and quality, and reduce weight. At the same time, consumers expect to be provided with the latest technology, but not to have the price of the vehicle increase. Vehicle electrification is a major consideration with all the original equipment suppliers, as well as the supply chain, and whoever gets it right stands to reap large benefits. Having said that, in the industry there is consensus that the Internal Combustion Engine (ICE) will be the dominant powertrain for years to come.

Against that backdrop, SAE has the opportunity to provide forums and opportunities for all of these issues to be discussed and explored and it looks like a very exciting era for SAE, technology, and the industry.

The expectation is that automotive manufacturers and suppliers, which make up the largest portion of SAE's automotive sector, will continue to be very cautious as far as committing resources (travel, participation, sponsorship, *etc.*) with SAE in 2011. SAE will need to operate with extreme efficiency and select issues of high importance to the automotive industry to gain their support.

Global-vehicle production improved in 2010 and is expected to continue to improve in 2011, but the increase is not expected to be dramatic.

Market share of the United States' domestic-automotive manufacturers has stabilized somewhat, although the largest gains for companies such as General Motors continue to be in the overseas markets, particularly China. The expectation going forward is that the United States will continue to be an extremely important market for all the original equipment manufacturers (OEMs) and suppliers, especially in terms of profitability, but that other markets, particularly in the BRIC countries (Brazil, Russia, India, and China), will gain in importance. This could have major implications for SAE, in that, the engineering component of the automotive industry, which has already begun to move off shore, will be accelerated in that direction. SAE will need to be nimble and find ways to serve engineers who are living and working outside of North America.

Vehicle-propulsion systems, an area of strength for SAE, will continue to receive a lot of attention. The electrification of the powertrain, hybrids, infrastructure, and the grid to support such changes will get a lot of attention. SAE standards can play a role as standards for new electrical configurations will be needed. Fuel economy and emissions regulations are also driving significant powertrain changes. Systems engineering, virtual simulation, lightweight materials, and improved safety systems will also need to be factored into the equation and total vehicle integration should become a major topic.

Strategies

In support of SAE International's Mission and Vision 2020, the following strategic objectives have been identified:

- SAE will develop closer relationships with the new generation of automotive-industry executives who are leading the automotive manufacturers and key suppliers. These executives will decide whether or not to support SAE and also decide the participation level of their companies, engineers and managers.
- SAE will provide increased support to non-United States automotive manufacturers and suppliers. Non-United States automotive manufacturers and suppliers are gaining a higher-market share and will become increasingly important to SAE's global success.
- SAE will establish profitable and sustainable operating models in the automotive communities of Brazil, Russia, India, China, and Europe. These models may involve partnerships with other societies, private automotive organizations, and governmental entities.
- SAE will become the provider of choice for automotive information globally. SAE will aggressively seek out intellectual property, not only from important technological areas such as mobility electronics and advanced propulsion systems, but also from geographically diverse areas.

Programs, Products, and Services Highlights

All SAE's offerings to the automotive sector for 2011 have been carefully scrutinized to be sure they provide added value, are efficient, are cost effective, and include the latest technology. The SAE 2010 World Congress was a good example of this and all the improvements realized will be further developed and incorporated into the SAE 2011 World Congress. Innovation was a central theme for this past year's Congress and will continue to be a main theme going forward.

Additional automotive sector programs include:

- The development of additional partnerships with sister societies and automotive organizations around the world to create more global programs and activities, especially in China, India, and Europe.
- Further development of relationships with global OEMs and tier-one suppliers.
- Identification of key technologies in the automotive industry and ensuring that SAE has programs, products, and services that adequately address these technologies.
- Continue to enhance the reputation of the North American International Powertrain Conference, which has become a premier executive-level event.

Commercial Vehicle Sector

Diverse industries, products, applications, and duty cycles comprise the commercial vehicle sector. While there is diversity in the market segments within the sector, there are common challenges in environmental regulation that are addressed and impacted by common technologies. The areas of synergy surrounding the commercial vehicle sector provide a significant opportunity for SAE International, its members, and the companies doing business in these industries.

Difficult business and economic conditions that began in 2009, have further challenged the commercial vehicle industry to respond to the global recession by making rapid changes in scaling down production operations, downsizing staff, and implementing trough plans to remain profitable. This will continue into 2011 as markets in North America and Europe have not recovered. There is optimism that the economy will rebound and allow the commercial vehicle industry to again experience sustained growth starting in 2011. The economic impact has put an additional strain on limited engineering resources that are required to develop products to meet the new regulations related to lower-exhaust emissions and safety. In addition, the global markets outside North America and Europe have put an additional strain on available resources as the industry manufacturers pursue growth opportunities in these markets to offset the business downturn. The need for workforce development to address skill gaps with a younger work force and the need to improve productivity and product reliability with new technical solutions in the evolving global market are growing challenges within the sector.

Diesel engine exhaust emissions regulations continue to become more stringent with broader application of standards at varying levels globally and across market segments within the sector. This is driving more complex and costly technology in order to meet the new standards. This more costly and complex technology is creating challenges in business financial recovery, field technician capability, diagnostics, and maintenance efforts.

Safety continues to be a critical factor in the product development and total-life-cycle stages of commercial vehicles. Safer commercial vehicles lead to the saving of lives and decreasing liability expenses.

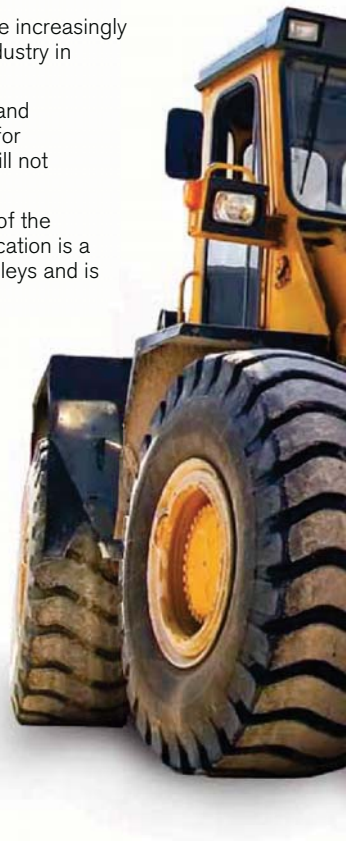
Workforce and talent development has become increasingly important to the industry. Companies are under pressure to do more with less and in many instances are competing for the same talent. New engineers are being supplied by Asian countries and while the theoretical knowledge and analytical skills are very good, the application knowledge is limited thus increasing the transition to industry and full productivity.

The implementation of advanced technology is a means for survival in the commercial vehicle industry. Companies have been extremely vigilant in finding and applying new technologies as a competitive differentiator for their customers.

This plan recognizes the challenging environment facing the commercial vehicle industry and defines SAE International's role in collaborating with the commercial vehicle industry to achieve sustainability on a global-playing field.

Major Trends in the Commercial Vehicle Sector

- Fuel economy and efficiency standards through CO2 regulation are being phased in for the United States for the medium- and heavy-duty on-highway arena. This has an immediate impact for the truck and bus markets and will compound the challenge of On Board Diagnostics with more complex systems. The off-highway segment may not be far behind relative to similar regulations.
- Continued globalization of the industry increases both opportunities and competition.
- Standards and regulations are not harmonized, which causes increases in costs and inefficiencies and is a significant improvement opportunity for the industry.
- Intellectual property protection and ownership are increasingly more important within the commercial vehicle industry in emerging market business development.
- Increasing productivity and reliability of vehicles and equipment is critical to the success and survival for commercial vehicle companies and most likely will not diminish in importance.
- On-highway, off-highway, and military segments of the industry are cyclical in nature. Segment diversification is a key way to navigate through these peaks and valleys and is critical to sustainability.
- There is an ongoing shortage of skilled personnel that spans the technical, engineering, maintenance, technician, and driver/operator workforce subsets in the commercial vehicle sector.
- Government stimulus money and infrastructure improvement programs, which were initiated in 2009, have not been effective in developed markets and are not benefitting the commercial vehicle industry. The end result is a reduction in product offerings from manufacturers as well as consolidation of equipment manufacturers and suppliers to maintain financial health.



- Vehicles and equipment are not necessarily being used in ways for which they were intended or designed and require tailoring/modification to meet developing market requirements. More complex technology is driving the need for better information on vehicle/machine duty cycle and operator actions.
- Vehicle-load limits are not established or enforced in many regions; operator skill levels are low, which results in impacts to reliability and durability.

Strategies

In support of SAE International's Mission and Vision 2020, the following strategic objectives have been identified:

- SAE International will grow the commercial vehicle sector by expanding its global footprint. To accomplish this, SAE will collaborate with the industry to support its efforts in competing in the global market by providing platform(s) for collaboration of global teams to gain access to and share technical information in the 24/7 environment, increasing the number of SAE International Fellows from the commercial vehicle sector, and providing industry benchmarking in an anonymous environment.
- SAE International will continue to build member and customer loyalty at both the individual and corporate levels. This will be achieved by addressing workforce development issues to help the industry in upgrading and rebuilding its human resources in response to new technologies and expanding global market challenges. Focus areas to assist our customers will be in the areas of recruiting, training, retraining, and retaining their workforce.
- SAE International will address and meet the needs of the multiple niches within the sectors of on-highway, off-highway, and military/defense while simultaneously monitoring the rail and marine segments, which face similar challenges and offer synergy around diesel engines, emissions, and their related technologies.
- SAE International will promote the commercial vehicle industry through the various channels of our programs, products, and services.

Programs, Products, and Services Highlights

For 2011, the commercial vehicle sector will deploy strategies that in themselves may not necessarily be related to SAE International's programs, products, or services. The strategies selected are designed to set the stage for activities that will commence throughout 2011 and have increased future relevance. SAE International will support its constituents in the commercial vehicle sector by implementing this plan. SAE International will:

- Identify programs, products, and services with an emphasis on expanding SAE International's commercial vehicle global footprint.
- Create a platform to demonstrate SAE International's overall value proposition to the industry and its niche segments.
- Leverage non-SAE International global commercial vehicle related events to increase revenue while also expanding its global footprint.
- Provide education and training in critical technology areas such as fuel economy and efficiency, emissions reduction, on-board diagnostics, systems integration and validation, hybrids, and safety systems.
- Create environmental platforms aimed at reducing the "carbon footprint" and greenhouse gases.
- Create platforms to address the challenge of managing multiple staffs, virtual teams, and products in multiple global locations.
- Highlight technologies that improve product safety, quality, and total-life cycle ownership costs.

Operating Board Strategies

Education Board

The Education Board was created in 2009, bringing together SAE's key-education programs: *A World in Motion*®; Collegiate Design Series; and Professional Development. In 2010, during its first-full year of existence, the Education Board focused on identifying and prioritizing opportunities for synergism between SAE's existing education programs.

For 2011, the Education Board's plan will be to continue to address SAE's education continuum in three-primary areas: (1) pre-college education; (2) university programs; and (3) professional development. The Education Board will further its efforts associated with addressing the education continuum and is considering a number of activities that would either address gaps in the program and service delivery or enhance SAE's existing education activities.

Pre-College Education:

The pre-college education area of the Education Board plan focuses on SAE's award winning *A World in Motion* program. This year the plan includes a concentration on educational benchmarking that aligns the *A World in Motion* curriculum with both national- and state-education standards in science and math, stimulating volunteer participation, emphasis on special initiatives, making changes in the distribution policy, leveraging intellectual property to stabilize financial support for the program, expanding *A World in Motion*'s reach through collaboration, and programmatic growth (Gravity Car Challenge, K-3 curriculum).

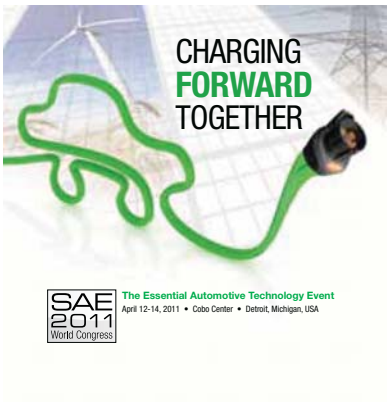
University Programs:

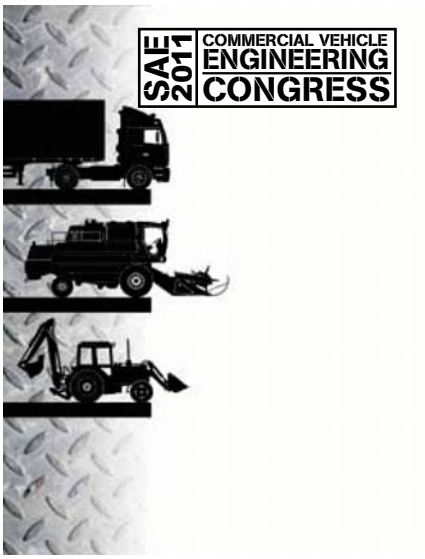
The university programs area of the Education Board plan focuses on SAE's prestigious Collegiate Design Series, the Ralph Teetor programs, and SAE's role in the Accreditation Board for Engineering and Technology. More specifically, the plan includes actions to achieve sustainability in the Collegiate Design Series (*i.e.*, reducing costs, seeking partnering opportunities) as well as growth considerations (*i.e.*, possible new products related to existing events and possible new competitions). The plan includes a global role for SAE in the coordination of collegiate design events to ensure a safe, consistent experience for students globally.

Professional Development:

The professional development area of the Education Board's plan focuses on returning the program to its previous level of profitability by maintaining core live-learning events while increasing online learning products, introducing serial course offerings with related certifications, and increasing public and customer webinar products. This will include open-enrollment classes in key locations throughout the United States as well as targeted locations globally. It will also include a greater presence in the defense sector and new content in target technology areas such as vehicle electrification, advanced propulsion, and safety.

As the Education Board looks forward to 2011, SAE's existing educational programs will re-establish and position themselves for growth while the Education Board continues to seek opportunities to address needs across the entire engineering education spectrum.





Engineering Meetings Board

The Engineering Meetings Board (EMB) overarching objective has been a constant, which is "to develop, collect, and distribute technical information of value to SAE members and other mobility practitioners." Through the years, the EMB has been adaptive and innovative in meeting the then current methods to conduct meetings (face-to-face, virtual, etc.) and content delivery (hardcopy, fax, download, etc.) and is committed to meeting the future needs of SAE members.

The Engineering Meetings Board's plans are to expand its global reach; enhance SAE's intellectual property; maintaining quality; revenue growth; and sustainability. Some of the accomplishments to this plan will occur in 2011 while others will take more time to come to fruition. The EMB is dedicated in its support of the Society's Mission and Vision.

The EMB has identified four topic areas as those that will best enhance SAE's portfolio of programs, products, and services as well as position SAE on the ten-year roadmap to Vision 2020.

Globalization: The Engineering Meetings Board will work on transforming itself to be a globally, diverse volunteer-leadership board. It will do so by recruiting and engaging global volunteers and participants on all EMB groups and committees. In addition, the Board will enable delivery of content globally by use of MyTechZone by global SAE Sections. It also will develop regional capability in Europe/Asia by repeating critical programs tailored to the local market, which will include conducting key events outside of North America (2011 AeroTech will be held in Toulouse) and leveraging regional volunteers.

Intellectual Property: The collection and distribution of intellectual property is a critical function of the EMB. As in the past, the focus will be on facilitating the publication of state-of-the-art technical information through two approaches: publishing information presented at meetings as well as a new effort to publish content not associated with a specific conference. MyTechZone is a powerful tool to capture relevant global content, and the EMB intends to work more closely with global SAE Sections to make this process more efficient and effective. A strong intellectual property set is only as good as its distribution mechanisms. The EMB also intends to continue its work with the Publications Board to stay in step with technology changes to be able to provide members technical content in the digital format of their choice.

Quality: Providing exceptional congresses, conferences, and symposia remains a high priority. Voice of the customer data has helped focus meetings on innovation and high-value, relevant technology. Similarly, it has helped improve and expand the effectiveness of networking opportunities. Providing high-quality technical information also requires volunteers who are well trained and rewarded. The EMB will continue to improve its own processes, including the use of the Rewards Program being established by the Membership Board.

Sustainability: As a major part of the portfolio of programs, products and services, it is imperative that Meetings contribute to the sustainable SAE operations. Creating a well-balanced, market-driven portfolio of events meeting the needs of the sectors served by SAE is an essential aspect in achieving this objective. In an effort to improve the total revenue growth of the Society, EMB will seek to develop and launch vertical programs (specialty conferences) with the first focus on mobility electronics.

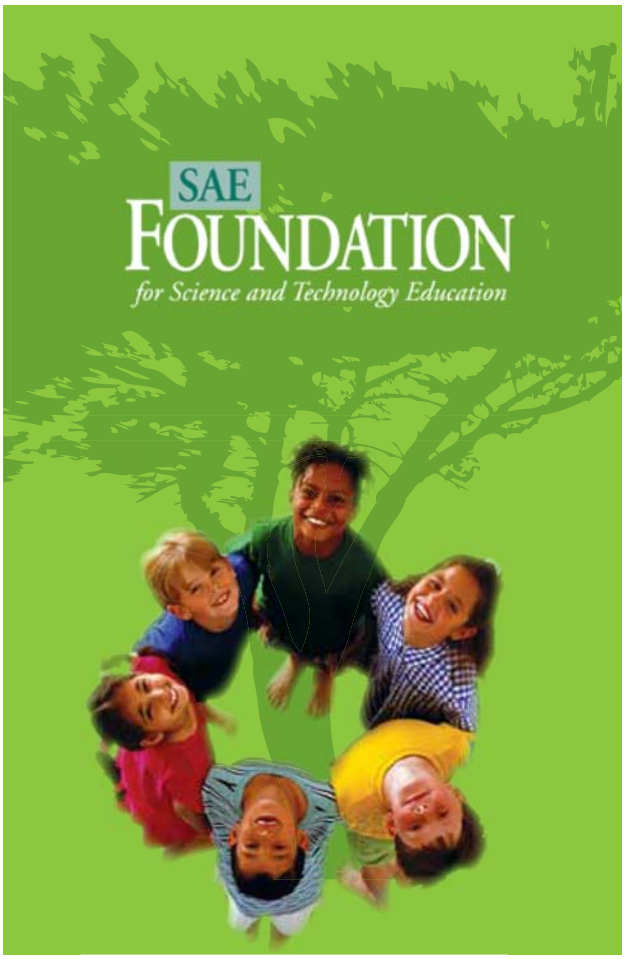
Foundation Board of Trustees

The Foundation Board of Trustees promotes and supports educational programs to encourage and increase participation of kindergarten-through-college students in the achievement of science, technology, engineering, and mathematics (STEM).

Thanks to diligent adherence to the three-year sustainability plan established in 2009, which outlined specific turnaround strategies, the SAE Foundation operations stabilized in 2010. These actions included continued expense reductions, revitalization of the SAE Foundation Banquet, re-engaging past corporate supporters, and focusing on the Annual Fund for general support. In 2011, the SAE Foundation seeks to diversify and expand its funding base by leveraging the existing portfolio of STEM programs and fine-tuning and implementing solicitation strategies for individuals, corporations, and government entities. The firm-financial footing established in 2010, has created an environment in which the SAE Foundation Board of Trustees can focus on their sole job – fundraising – to complete the final phase of the plan in 2011.

Corporate donors, who have historically provided the majority of funding to the Foundation, will continue to play an important role. In 2010, more than 50 percent of historic donors solicited for contributions either gave to the SAE Foundation or encouraged submission of a proposal for consideration. The core strategies for 2011 are: (1) seek continued support from historic and loyal donors; (2) cultivate and solicit auto-related, STEM-focused companies; and (3) leverage SAE member contacts to "open doors" for the solicitation process.
In addition to Corporate Foundations, the SAE Foundation made some inroads into the Private Foundation funding sector in 2010. However, it remains a large, untapped resource. In 2011, the SAE Foundation's Corporate Development Committee will focus on this area to develop a prospect list to target for short-term and long-term cultivation. A newly formed subcommittee of the SAE Foundation Board of Trustees, along with contract experts, will also more closely explore and evaluate government grants and appropriations opportunities for program specific funding.

Of course, contributions from individuals will continue to grow in importance as the SAE Foundation strives to sustain its programs for future generations of engineers. In 2011, the SAE Foundation plans to increase individual giving through a donor acquisition campaign focused at new donors, special giving opportunities throughout the year, and the creation of the Sustainers Club, which recognizes donors for their annual gifts as well as their cumulative giving to the SAE Foundation. In addition, approximately 300 individuals have been identified as "major gift" or planned "gift prospects." These individuals will continue to be



personally cultivated through SAE staff, the Foundation Board of Trustees, and other committed SAE member leaders to build the relationship toward solicitation of a gift.

Lastly, the SAE Foundation banquet, which has served as the organization's hallmark event for more than a decade, has also been the largest and most consistent source of unrestricted funding annually. Despite the banquet's success over the years, it has been somewhat disconnected from the overall fundraising strategy of the SAE Foundation. In response to the rapidly changing environment, the SAE Foundation Banquet Committee will develop a five-year strategic plan and begin partial implementation with the 2011 banquet with full implementation in place for the 2012 banquet.

Membership Board

In 2010, the Membership Services Board and Sections Board cooperatively embarked on a bold, new approach to membership in SAE. After extensively listening to the customer and conducting both quantitative and qualitative research of SAE members and trends in membership societies, a new membership model was established. This model is a novel, comprehensive approach and brings SAE to the forefront of how professional-technical associations deliver value to its membership.

The new membership model is composed of three key elements: (1) tiered levels of membership (Classic, Premium, and Elite); (2) a member only website (EngineerXchange); and (3) a rewards program. These three elements were designed to complement each other, strengthen the member value proposition, and help encourage volunteers to become members of SAE.

During a continual review of the same customer feedback, industry trends, and substantial research of SAE members used in the creation of the new membership model, it also became increasingly apparent that the member-leader structure would also need to change. The traditional roles of independently serving members at both the local and global level began to blur given the new membership model. After careful consideration, a merger of the Membership Services Board and Sections Board was proposed and accepted by the SAE Board of Directors to better position SAE to serve its members and achieve Vision 2020. The new board formed by the merger is the Membership Board.

For 2011, the new Membership Board will address the key strategies created by both the former Membership Services Board and Sections Board:

- Increase SAE's ability to attract and retain members.
- Enhance awareness and perception of SAE membership.
- Integrate membership with the core business of SAE.
- Make membership a self-sustaining endeavor.
- Enhance SAE's distribution channels to the worldwide market by connecting individual members with common interests and encouraging opportunities for professional and technical networking both in person and virtually.
- Provide section leaders with the resources, training, and tools necessary to improve the quality of activities at the local level.
- Promote opportunities to gain knowledge, skills, and materials needed to run a successful section.
- Provide local leaders with a variety of models to use in forming a local unit.

The combination of these key objectives will provide a robust portfolio of highly valued member benefits that are locally relevant, globally accessible, and address the needs of both mobility engineering professionals and institutions.

The Membership Board will utilize 2011 to combine the various functions of the Membership Services and Sections Boards while at the same time supporting the strategies of the two former boards. This will be a transitional period for the Membership Board. It is also a brave step forward for how SAE will better meet its members' needs and provide support at the local level globally.

As the Membership Board moves forward, it will focus on achieving SAE Vision 2020 goals relevant to its charter. As such, the Membership Board's strategy incorporates tasks over a multi-year time frame. Over the next three years, the Membership Board will complete implementation of the new membership model and will recast as necessary to build awareness of SAE, attract new members, and retain current members. The Membership Board will work to develop strategies to diversify and increase SAE's membership outside of North America as well as develop a new affiliate model. Expansion of member benefits that will be globally relevant, improvement of member benefits in local sections, and leadership tools for section leaders will be identified and implemented. Finally, the SAE rewards program will be better formulated.

In the 3-to-5 year time frame, the Membership Board will look at deploying a new membership model for outside of North America and work to aggressively leverage this model to gain new members. Work will also focus on deploying the new affiliate model. Finally, a strategy will be developed to attract members from a new sector based on evolving technology.

The longer term Membership Board strategy will include investigating a strategy for institutional membership in SAE, expanding the new affiliate model, and continuing to promote and expand membership into any new sector that will be developed based on evolving technology.

The combined short- and long-term strategies are expected to allow the Membership Board to support the Vision 2020 and to continue to position SAE for future growth and sustainability.

SAE International EngineerXchange™

Publications Board

To better provide SAE International members and customers with technical information in their preferred delivery method, the Publications Board's plan is to expand SAE's online, digital products and services. The overarching strategy is that nearly every SAE-generated content element will be available in one form or another using an online delivery system.

A major component of the plan requires that most, if not all, existing DVD or CD products will be replaced by online offerings; print products will be converted to online products or available in dual formats (print and online). Through the investment in the content management system and new taxonomy, SAE can create custom, on-line paper collections and subscriptions in high-interest subject areas. Mirroring the online delivery plan for technical papers, all SAE standards and revisions will be accessible for online standards subscriptions in high-interest subject areas. Paramount to the online delivery of SAE's intellectual property is to ensure that the appropriate digital rights management techniques are in place to lessen the potential for intellectual property abuse.

A unified-operating boards approach to SAE's intellectual property protection will be established. Liaisons from the Publications Board, Technical Standards Board, and Engineering Meetings Board and its Technical Quality Review Team will meet to jointly monitor activities and projects of the four operating boards to identify areas of concern related to intellectual property protection.

The Publications Board will oversee a business development initative to create a new series of Global Mobility Library products. This will be the first tier in building a new-compentency for SAE; the aggregation of regulations and patent information. This will likely require acquiring or leasing and reselling new "outside" content to expand SAE's intellectual property within the online space. If done properly, this will better position SAE as the largest compendium of mobility-engineering information in the world by 2020.

The Board also will establish a Journals Subcommittee that will be populated with the Editors-in-Chief of SAE's seven Journals and will establish and maintain processes and procedures to deliver high-quality SAE Journals. In addition, the Subcommittee will explore new Journal opportunities, including technical paper subjects not necessarily driven by existing SAE meetings.

In listening to members, it was gleaned that there remains a high interest in the print version of SAE magazines. To respond to members' needs, the Publications Board established a new policy to provide print publications at least quarterly to members in sectors served by SAE. In response to these findings, in 2011 *Aerospace Engineering* magazine will return to a print publication (being published four times a year). Members that prefer an online delivery method will have their needs met through the publication of 14 digital editions.

Technical Standards Board

Management Oversight and Enforcement

The Technical Standards Board (TSB) has identified a number of standards-management projects designed to improve the quality, consistency, and usefulness of SAE-produced technical standards. The creation of a new sub-committee called the Committee on Technical Committee Operations (CTCO) will be key in these efforts. The CTCO will oversee and coordinate all the operations of the TSB's technical committees to ensure consistency of operation and performance.

Further, a new classification system for standards will be active in early 2011, eliminating many legacy classifications and improving user understanding. A major thrust for 2011 will be to review existing standards and to aggressively populate the new standards categories, reducing industry confusion and setting a new standard for other standards development organizations (SDOs) to follow.

The TSB continues to define and continuously improve their important metrics. A special metrics committee is now in place to monitor metric performance and suggest corrective/remedial actions as required. Metric performance for the TSB is center stage in the management of SAE standards development.

And finally, the TSB is focusing on the harmonization and maintenance of policies and procedures employed throughout the councils and hundreds of committees that makeup SAE's standards writing initiative.

Improve Product, Processes and Customer Responsiveness

The year 2011 will mark a special effort to evaluate several Committee and Council recommendations involving policies that are core to the process of standards creation. Some of the policies under review include the policies on proxy voting and policies on committee balance (i.e., suppliers/producers vs. users vs. government vs. academia).

Other projects will include monitoring and expanding the use of standards in Collegiate Design Series events and other projects aimed at exposing engineering students to SAE standards.

Sharing best practices among the many councils of the TSB and benchmarking SAE processes with other SDOs are among additional projects on tap for the TSB in 2011.

Expand Recognition, Involvement, Use, and Customer Base

An important outreach project for the TSB in 2011 will be the development of a presentation on involvement in standards activities as a means of professional development. These and other tools will be used to promote use of SAE standards with students, young engineers, and other groups (small and medium enterprises).

A survey of engineering professors will be conducted to determine the feasibility of providing learning materials to colleges and universities to promote the understanding of standards use among engineering students. Projects may range from a "Short Course" on standard use to a full semester course, depending upon the needs of the academic community.