What is the secret of success?

Some will say the secret of success is a well-thought-out plan, a good foundation aimed toward a feasible goal. Others may say that success is in never giving up, in learning from one’s mistakes or in being willing to take risks, to change, to roll with the punches, so to speak. Still others will tell you that time is all it takes to be a success.

Not surprisingly, the success of the Association of Iron and Steel Engineers has arisen from all these factors. Indeed, there has been plenty of time — 96 years, to be exact. There has been a solid foundation and a consistent goal: to advance the technical and engineering phases of the production and processing of iron and steel. And there has been a persistent, if not relentless, effort to become the premier source of information for iron and steel technology, responding to the industry’s needs and making whatever changes were necessary.

Author

Karen D. Hadley, Editorial Coordinator, AISE Steel Technology (khadley@aise.org)

This article is available online at www.steeltchnology.org

November/December 2003
Birth of the Association

AISE began on April 26, 1907, when a group of 28 electrical and mechanical engineers and superintendents from prominent iron and steel companies gathered in Pittsburgh, Pa., to attend a special exhibit of electrical equipment for possible use in their plants. Among those in attendance was James Farrington, superintendent of the electrical department at LaBelle Iron Works in Steubenville, Ohio. Farrington felt that the people in his industry needed some central forum where they could exchange information on the latest technology and equipment. He suggested the formation of a national organization that would “increase cooperation between the makers and users of electrical apparatus in iron and steel works, and...secure improvements in such apparatus.”

The following October, amid the start of a serious economic panic, the Association of Iron and Steel Electrical Engineers was born. Fifteen members and eight guests attended the first meeting, which featured 18 papers on such subjects as control and acceleration of electric motors, heavy-duty DC motors, mill motors, lighting, generators and steam turbines. The group elected Farrington as its President, and dues were set at $10 a year. In addition, each attendee indicated his approval of this new organization by chipping in one dollar.

Yet when the time came to celebrate the 25th anniversary of the association, Farrington admitted some surprise at how well his idea had been received. In his message to members in 1932, he wrote, “None of us at that meeting thought the Association of Iron and Steel Electrical Engineers would grow to the size, activity and prominence that it now has attained in 25 years.” He also wrote of “the esteem and respect with which the association is held by all steelpersons, from the executives down to the fellows. However, the first 25 years of AISEE were not without their struggles, and the successful operation of the association was not always within sight.

Early Struggles

As early as 1916, that year’s AISEE President, W.T. Snyder, complained that members were not taking sufficient interest in their organization. Although in 1915 the privilege of membership had been extended beyond engineers to include suppliers of equipment, six years later there were few members attending meetings, and they were not doing their full share in presenting papers, said Snyder. Suggestions and criticisms began to come from all sides. Something had to be done about the indifference of the membership.

The previous nine years had seen tremendous growth and activity in AISEE. In gearing up for World War I, the iron and steel industry had a great deal of involvement, and the association was at the forefront. The seemingly impossible demands for quality and quantity of unlimited varieties of steel for all purposes were met and executed by steel workers across the country, but not without a growing concern for safety in the workplace. In 1912 the Safety Committee held the Cooperative Safety Congress in Milwaukee in cooperation with the AISEE Annual Convention. Following the meeting, a permanent organization devoted to the promotion of safety — today known as the National Safety Council — was developed. To the steel worker, safety was an everyday issue, and the association rose to the challenge of helping to establish a safer workplace.

Who among those broad-visioned founders, even in his fondest dream, ever dared imagine the association would achieve the phenomenal success it has?

— C.S. Proudfoot, 1928 AISEE President
In 1914, to accommodate the steady growth of membership, the first District Section was formed in Boston. The Chicago Section was established in 1915, followed by Cleveland and Philadelphia in 1916. By 1917, this growth had reached a new stage, where some remodeling was necessary for continued progress. Because membership and activities had expanded so much, it was necessary to employ a full-time manager, the beginning of a permanent staff. In 1917, John F. Kelly, a former employee in the electrical department at National Tube Co., became the first Managing Director.

Our association has assumed a very enviable place in the technical world, and it is [our] ambition...to make the ASEEE a most important influence in the steel industry.

— S.S. Wales, 1927 ASEE President

Growth and Expansion

Under the leadership of a Managing Director, the association began to expand once again. Mr. Kelly brought to the job a combination of vision, sales ability, and energy that established the association as a dynamic force, and kept it moving through the next several years. In 1919 the first Iron and Steel Exposition (now termed Exposition) was held in St. Louis. This has gone on to become the industry’s most important trade show in North America.

In 1924 ASEEE began publication of a monthly technical journal, Iron and Steel Engineer. Containing technical information on the design, construction, operation and maintenance of iron and steel production facilities, most of the content was contributed or suggested by the readers themselves. The magazine has been the mouthpiece of the association ever since. In his 1932 message to the membership, S.S. Wales, the 1927 President of ASEEE, said,

Through the vehicle of our publication, the Iron and Steel Engineer...we have laid before us each month the most important advances in steel manufacture and material handling, new electrical, mechanical, combustion, lubrication and safety applications, improvements in repairs and upkeep, fresh from the minds of those whose business in life is to deal with these special problems. Our advertisers realize the value of the Iron and Steel Engineer as a means of communication with the industry.

F.D. Egan, 1917 ASEE President, commented that the magazine “soon obtained wide circulation and became known nationally and internationally.” He also pointed out that “membership increased from a meager dozen courageous pioneers to an international body of progressive operators and engineers.” The combination of technical articles and pertinent advertising was a success.

AISEE will serve, as always, as an important medium for the exchange of technical and operational know-how for the industry. With our combined energies concentrated on better techniques and greater production, we will successfully meet the challenge of the present and safeguard our future.

— J.F. Black, 1951 ASEE President

Another major accomplishment for the association during this time was its pioneering in standardization. F.W. Cramer, President of the ASEE in 1929, wrote about the association’s efforts in this area:

A poster version of this timeline is available on-line in PDF format at www.steeltechnology.org.
John F. Kelly was a former employee in the electrical department at National Tube Co., McKeesport, Pa.

T.B. Little was a member of the AISE staff for seven years before taking over the duties of Managing Director for one year upon the death of John Kelly.

Brent Wiley graduated from Rose Polytechnic Institute in electrical engineering. He first worked for Carnegie Steel Co. at the Ohio and Homestead works. In 1904 he went with Wellman-Seaver-Morgan Co., and in 1906 he joined Westinghouse Electric and Manufacturing Co., where he spent the next 25 years in close contact with electrification in the steel industry.

T.J. Ess graduated from Carnegie Institute of Technology in mechanical engineering. He spent 15 years with Republic Steel Corp. and its predecessors in maintenance, power and combustion work. In 1938 he joined the association staff in an editorial capacity and later assumed general supervisory work. He authored many articles that appeared in *Iron and Steel Engineer*.

William C. Friesel served as Assistant Managing Director beginning in 1965. He had been on the AISE staff since 1947 and was in charge of advertising and the Iron and Steel Exposition since 1952. Prior to joining the association, he was with the Pittsburgh investment banking firm, Mellon Securities Co.

Back in 1908 it was realized that overhead traveling cranes contained about all possible sizes of wheels, shafing, gears, etc., but the cooperative spirit was not strong enough to put the crane code across. This was not done until years later, but we now have overhead traveling cranes standardized, so that they can be economically built by several manufacturers and the spare parts required are reduced to a minimum.

The AISEE made strides in standardization in other areas, including mill motors and ball and roller bearings. As a result of these standards, both manufacturers and consumers were able to save many thousands of dollars.

In my opinion, our association is an important link for each individual member and his or her company to advance to higher levels.

— P.N. Wigton, 1988 AISE President

The association was gaining in influence and expanding its scope of activities. In 1921 a paper by G.E. Stoltz, entitled “Review of Cost of Rolling Steel in Various Mills,” showed that the association’s ongoing program of releasing information of industry-wide interest was continuing despite opposition. With the growth of membership, interest developed in fields other than electrical. A combustion division was formed in 1921, a lubrication division in 1930 and a mechanical division in 1938. The growth of these engineering divisions gradually rendered the name of the association obsolete. In 1928 it was suggested that the word electrical be dropped, but it was not until 1938 that the name was changed to Association of Iron and Steel Engineers.

Any change made within the organization, according to W.S. Hall, 1922 AISEE President, was attempted only “where it was felt that the greatest need existed.”
Herschel B. Poole served as Secretary of the Birmingham District Section beginning in 1968. He received a degree in mechanical engineering from Auburn University in 1955 and did graduate work at the University of Alabama. He began his career in the steel industry as an engineer manager at U. S. Steel and worked at Rust Engineering Co. for 15 years as a consultant and staff engineer. He also served as a consultant to Dravo Corp.

Lawrence G. Maloney graduated from Michigan College of Mining and Technology in 1952 with a B.S. degree in civil engineering. He spent 22 years in the design and construction of steel mill, chemical and lime facilities. He also had 17 years of experience in the sales and services to the metals industry. He served as Director of Business Development — Metals for MK-Ferguson, and he previously worked for DuPont, Marblehead Lime, Inland Steel, Davy McKee and Rust International. He holds eight patents, mainly in the field of iron production.

Ronald E. Ashburn received his B.S. degree in mechanical engineering from the University of Pittsburgh in 1987. Prior to joining the AISE staff, Ron worked approximately 16 years with Mannesmann Demag, first joining them in 1986 as a mechanical engineer in their Continuous Casting Div. In 1992, he served as the Director of Technology Steelmaking and Casting. In 1997, he assumed the role of Vice President — Casting and Hot Rolling. In 1999, SMS and Mannesmann Demag merged to form SMS Demag, where Ron last served as Vice President — Operations for their Steelmaking and Casting Div. located in Pittsburgh, Pa.

...on division was in 1930 and a with of these engi the name of the suggested that the was not until 1936 to and the steel and steel division. Mr. Hall believed that the expansion via technical divisions would "prove equally as successful as the work carried on by the association in the early days, when only electrical problems were considered." And so it has been as successful, if not more so.

The AISE has also changed with the times. A dynamic staff organization has pumped excitement into our programs and provided an array of timely seminars that deal with technological opportunities and project execution philosophies.

— B.J. Fedak, 1996 AISE President

Adaptation and Change

With its continued growth, the AISE began to adapt more and more to changes within the industry. As Mr. Hall said, "The success of the association was largely due to the policies adopted from time to time. The Officers and Board of Directors, since the organization of the association, have been continually changing."

Following the death of John Kelly in 1934, T.B. Little, who had been a member of the association staff for seven years, served one year as Managing Director. He was succeeded by Brent Wiley, a graduate of Rose Polytechnic Institute in electrical engineering. During the 10 years of Mr. Wiley's management, the association developed materially in membership and strength, despite the economic depression in the early 1930s, and it broadened its scope of activities even more. Two more District Sections were added, and membership reached 3,000.

Technology kept advancing, and AISE strove to keep its members on top of the latest and best in the industry. With the advent of continuous rolling, numerous association programs focused extensively on rolling equipment and methods. The free exchange of information, always fostered by AISE, was credited with being a crucial catalyst in the rapid and successful maturation of this technological development.

By now, the country had become involved in the conflict of World War II. Members of AISE produced the steels that went to war, from armor plate to shell steel, high-tensile stainless steel for aircraft, and...
fatigue-resisting steels for a variety of uses. New alloys were developed, and the heat treating of carbon steel was improved. Despite the significant drain on ablebodied manpower during the war, the membership of AISE actually increased, from 1619 members in 1941 to 3214 members in 1945. With increased production requirements placed on the mills during the war, the need to share information increased, and membership consequently grew.

In 1943 AISE saw the need to encourage people in the industry to write articles for *Iron and Steel Engineer*. Thus, the Kelly Award was established in memory of the first Managing Director. The award was given annually for the best paper published in *Iron and Steel Engineer*.

Furthermore, the association began to produce a number of books in fields where published material was sparse but still needed. In 1941, *The Modern Strip Mill* provided a comprehensive analysis of these new mills that revolutionized the production of sheet and tinplate products. The book presented the only complete catalog of any kind of steel plant equipment at that time. Other pertinent publications followed, including *Pipe Mill Practice* and *Roll Design and Mill Layout*.

Educational projects were not far from AISE's sights, either. AISE began to sponsor lecture series on steel plant topics, and the association supported graduate scholarships and postgraduate fellowships at different times and at different schools. In 1956, a program of four-year engineering scholarships, administered by the National Merit Scholarship Corp., was instituted. AISE has remained one of the few continuous sponsors of the National Merit Scholarship Corp. since its
A total of 135 students have received AISE's Regional Merit award since then.

In 1946, T.J. Ess was named the fourth Managing Director of AISE. During his tenure, with business and industry growing in the postwar period, the association added eight District Sections, and AISE membership more than doubled. When 1957 arrived, AISE was celebrating its 50th anniversary, and membership had reached nearly 7000.

**The Association of Iron and Steel Engineers is a diversified organization... Whatever the job of an individual member, the industry-wide range of AISE activities will help him stay abreast of current technical knowledge.**

— R.W. Holman, 1970 AISE President

**Continuing Growth**

In 1968, William C. Friesel became the fifth Managing Director, and AISE continued to grow. During the time of his management, three new District Sections were formed (in Texas, Baltimore and Florida), and several technology divisions were established. These divisions included the Coke and Byproducts Division, the Iron Producing Division and the Oxygen Steelmaking Division. Oxygen steelmaking, as mentioned earlier, had gotten its start in 1952 in Austria and was introduced in the U.S. two years later. As usual, AISE expanded in this area because a need existed, but its focus remained on the steel plant engineers and equipment manufacturing representatives who would benefit from the change.

**The membership of the Association of Iron and Steel Engineers will contribute in many ways to the success of the long-range plans of the industry by developing new concepts and the continual improvement of existing methods and facilities.**

— J.L. Laidlaw, 1966 AISE President

Beginning in 1973, AISE took over publication of the annual Directory of Iron and Steel Plants, formerly published by Steel Publications Inc. of Pittsburgh. This “black book” has been one of the most valuable reference tools for industry personnel, featuring data on essentially every North American steel producer as well as a comprehensive, alphabetical listing of all major suppliers to the international iron and steel industry.

As the 1980s rolled in, Herschel B. Poole was named the sixth Managing Director of AISE. He led from AISE’s sights, a series on steel supported graduate ships at different times, a program of administered by the, was instituted, a continuous sponsorship Corp. since its 

In honor of the 75th anniversary of AISE, a Bessemer converter was erected at Station Square in Pittsburgh.
the association in its celebration of its 75th anniversary in 1982. In commemoration of this event, AISE erected a Bessemer converter at Station Square. Seventy-five years of dynamic industrial growth had passed, and the association had never shirked its function of trying to improve the technological aspects of making iron and steel.

In 1984 U. S. Steel Corp. approached AISE about taking on future publication of the popular reference book, The Making, Shaping and Treating of Steel. U. S. Steel published the first (1919) through ninth (1971) editions and thought AISE to be the appropriate organization to carry the mantle of this publication into the future. AISE worked jointly with U. S. Steel research personnel and Carnegie Mellon University to author and publish the 10th edition. In 1998, AISE transferred the rights to the MSTS to the AISE Steel Foundation, bringing in volunteer authors to write chapters for the various editions, thus broadening the scope and experience base for the 11th edition. Since then, three volumes have been published, each a comprehensive manual on a vital topic: the Ironmaking Volume, the Steelmaking and Refining Volume and the Casting Volume.

By the time Lawrence G. Maloney was named the seventh Managing Director in 1991, AISE had established the Samson Scholarship and the Tadeusz Sendzimir Memorial Award, there were 15 active District Sections, and a Material Handling Systems and Technology Division had been added. In 1997 the first Project Excellence Award was given in recognition of a project that combined successful advancements in steel making with a novel business approach. Two years later, in 1999, AISE published the first issue of AISE Steel Technology. It is pictured here with the first issue of Iron and Steel Engineer, from 1924.
the industry. Approximately 1500 industry professionals attend these programs each year, gaining vital knowledge and skills that go back into the steel mills where they work.

The success of an organization of any kind, whether it is for pleasure, education or financial return, can be measured only by its results over a period of years.
— W.S. Hall, 1922 AISEE President

Looking Ahead

Ronald E. Ashburn, the eighth Managing Director of AISEE, was brought on in 2002. In the same year, AISEE rededicated the Bessemer converter at its new location in Bessemer Court in Square. With nearly 7000 members spread across more than 50 countries, AISEE had come a long way since 1907. However, the long-term ability of AISEE to serve the industry was coming into question. The steel industry was being challenged from many angles, and this in turn affected the association.

In January 2003, AISEE President Joseph A. Rutkowski Jr. wrote the following about the challenges facing the industry:

The challenges of our industry are so evident that they hardly need repeating: bankruptcies, legacy costs, worldwide excess production capacity, lack of access to capital, etc. There may be some who believe this is the hand we have been dealt and expect to play it out as long as possible. They will lose. When faced with tremendous challenges, we must always look at the opportunities for change.

With finances tighter than they were just a decade earlier, steel producers and suppliers now had less to spend on “extras” like association membership. But as 1982 AISEE President Robert D. McBride said, “Many breakthroughs and much progress have come out of adversity. With the present problems of industry worldwide, we must recognize the opportunities that exist.”

AISEE has always been on the lookout for opportunities, and this time it was no different. In 2002, the AISEE Executive Committee initiated an evaluation of a possible merger between AISEE and the Iron & Steel Society, in hopes that the combination would be beneficial to both the memberships and the industry. Could a successful organization be formed from two long-standing and revered associations, or would it somehow tear people in the industry apart?

In 2003, both AISEE and ISS memberships voted in favor of the consolidation of the two organizations to form the Association for Iron & Steel Technology. On Jan. 1, 2004, AIST will begin to carry out the mission of advancing the technical development, production, processing and application of iron and steel. This is not much different from the mission AISEE has had all along. In an AISEE brochure published for the 75th anniversary, we find the following words, describing how we might face the future:

In the years ahead, members of the Association of Iron and Steel Engineers and its future members will be key people in achieving the accomplishments bound to come in this most basic of industries. The association is pledged to continue as responsive to industry interests by providing an open forum for the exchange of information and ideas. Its practical approach and a membership that covers every facet of the industry make it an invaluable vehicle for the broad dissemination of innovations originated by steelmakers, researchers and suppliers. The men and women who make iron and steel have new challenges to meet. AISEE expects to make significant contributions to their meeting those challenges and to be a dynamic force in seeing that the resulting solutions reach a large, diverse and influential audience.

AISEE has indeed been a dynamic force in the steel industry, and AIST will be the same, continuing the endeavor of being the premier source of information for iron and steel technology. In an ever-changing and challenging industry, there will still be a place for cooperation and a concerted effort directed toward continuous improvements, just as the first AISEE President, James Farrington, envisioned it many years ago.

In Closing

AISEE began in 1907 with just 28 electrical engineers, and what a success it has become since then! To the many who have made up its numbers over the years, AISEE has been an organization with an unwavering focus and an open responsiveness to the industry it serves. Beginning with the safety movement and the standardization of mill equipment and practices, the association never stopped moving ahead and improving the quality of steel production.

Now the AISEE name is coming to an end, but its spirit will continue as an integral part of AIST. Its members will continue to gather and talk about the latest improvements in steelmaking, only now they will have the added benefit of an increased membership base as a result of consolidating existing AISEE and ISS memberships. The dissemination of technical information will continue on a monthly basis in a technical journal, Iron & Steel Technology. Most importantly, the fruit of James Farrington’s vision will continue to be a greater success than he ever imagined it would be.

Imagine the success we have to look forward to. Like Farrington, we all may sit back, years from now, and say, “None of us at the beginning of 2004 thought the Association for Iron & Steel Technology would grow to the size, activity and prominence that it now has attained.”

So what is the secret of success? Ask the Association of Iron and Steel Engineers. It started with a solid mission. It took time to grow. It changed when it needed to. It never gave up. And what a success it has been!

Farewell, AISEE. We will see you on the other side of the door of opportunity, the door that opens to AIST.