

AN INTERVIEW WITH THE  
2018 AIST Steelmaker of the Year

# ANAND SEN

By Jennifer M. Emling





**Anand Sen** is president, Total Quality Management (TQM) and Steel Business for Tata Steel India. He is responsible for the steel business, including marketing and sales, and for the promotion of TQM across Tata Steel India. He graduated from Indian Institute of Technology (IIT) – Kharagpur (B. Tech, Honors) as a metallurgical engineer. Subsequently, he completed his PGDM (marketing) from the Indian Institute of Management, Kolkata, and also has an executive M.B.A. from CEDEP at INSEAD, France. Sen has worked across marketing and sales, strategy and business leadership, operations, maintenance, supply chain and projects, in his more-than-three-decade-long career. Under his leadership, Tata Steel has won the Deming Application Prize in 2008 and the Deming Grand Prize in 2012 for excellence in TQM, and witnessed major first-of-its-kind technological developments such as the use of graphene as a coating material. Sen is on the board of Tata Steel Processing and Distribution Ltd. (chairman), Tata BlueScope Ltd., The Tinsplate Co. of India Ltd., JCAPCPL, Bhushan Steel (director) and NatSteel Holdings Pvt. Ltd. (director). He is also a board member of Xavier Institute of Management, Bhubaneswar. Sen is the vice president of the Indian Institute of Metals and the chairman of its ferrous division. He serves as chair of the AIST India Member Chapter. He is a member of the advisory committee of the Centre of Excellence in Steel Technology at IIT – Bombay and IIT – Madras. Sen is an elected corporate member of the All India Management Association (AIMA) and chairman of CII's Logistics & Supply Chain Task Force for the Eastern Region. He was awarded the Essar Gold Medal of the Indian Institute of Metals in 2004 and the IIM Tata Gold Medal in 2012. IIT – Kharagpur has recently conferred him the Distinguished Alumnus Award 2017 for his exceptional professional achievements in the industry.

#### HOW DID YOU BEGIN YOUR CAREER IN THE STEEL INDUSTRY? WAS THERE ANYONE WHO SERVED AS A MENTOR TO YOU OVER THE COURSE OF YOUR CAREER?

I graduated from one of the premier engineering institutions in India, the Indian Institute of Technology – Kharagpur, as a metallurgical engineer. Being a metallurgical engineer, the steel industry was a natural choice for me and Tata Steel was the best on offer. At various stages of my career, I have had numerous mentors, bosses and colleagues who have guided and inspired me to focus on excellence. While most of them are from the company, I have also benefited from my interaction with leaders of the customer fraternity.

#### WHAT MEANING DOES BEING NAMED AIST STEELMAKER OF THE YEAR HOLD FOR YOU AND YOUR COMPANY?

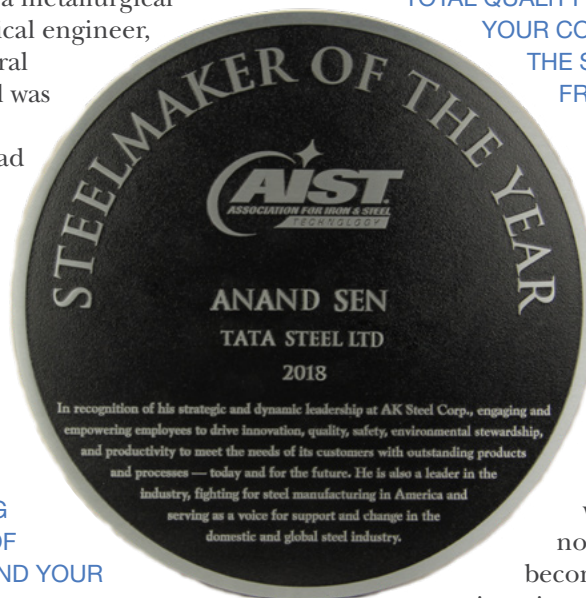
It's indeed a rare privilege and honor to be recognized from such a renowned global institution like AIST and to receive the Steelmaker of the Year award. It bears mentioning that Tata Steel has been responsible for nurturing, giving opportunity and enabling the growth of my career. While personally it is a matter of great honor to be recognized as Steelmaker of the

Year, it also serves to reiterate to my company the fact that its values, vision, and processes are for fostering talent and enhancing leadership capability.

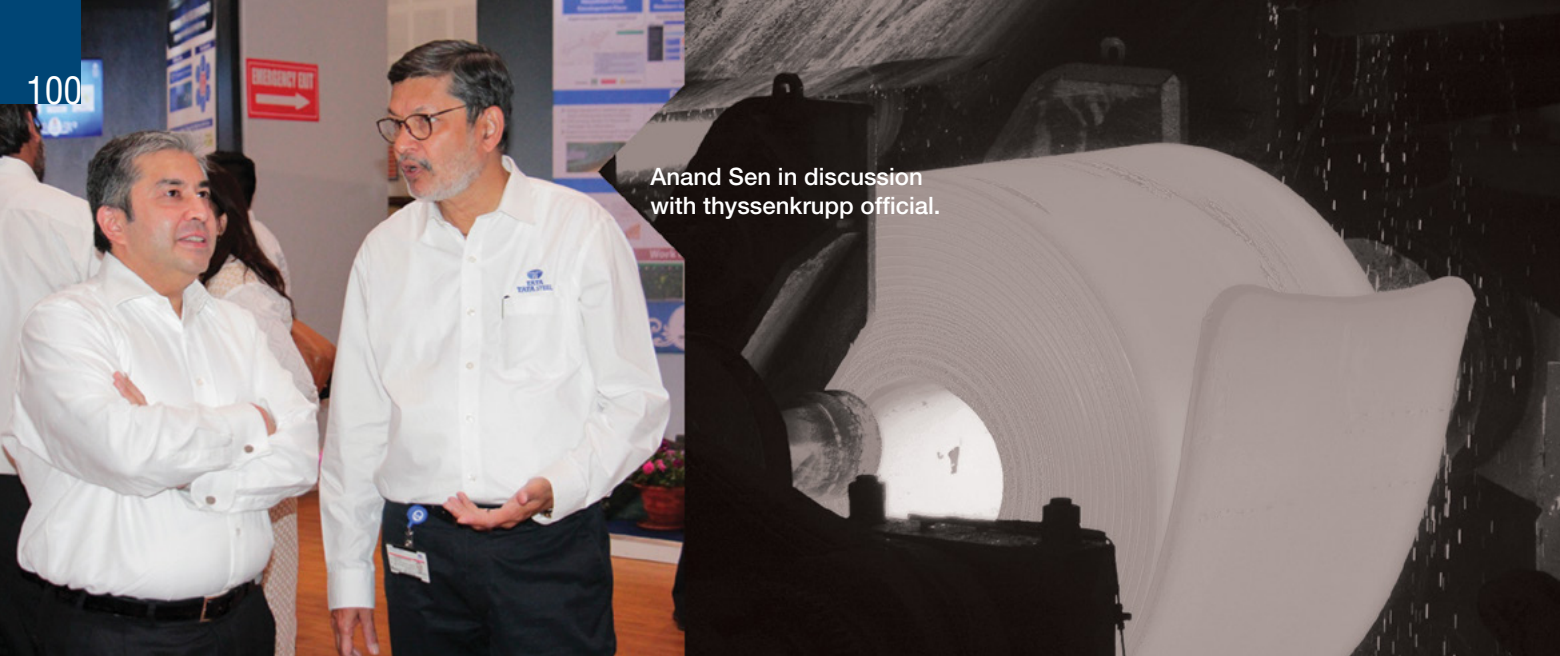
#### YOU'VE BEEN RECOGNIZED AS THE DRIVING FORCE BEHIND THE ADOPTION OF TOTAL QUALITY MANAGEMENT PRINCIPLES AT TATA STEEL. WHAT IS TOTAL QUALITY MANAGEMENT AS IT APPLIES TO YOUR COMPANY? WHAT LESSONS CAN THE STEEL INDUSTRY TAKE AWAY FROM THIS PHILOSOPHY?

Total Quality Management (TQM) is a management philosophy that encourages organizational alignment and focus on customer-centric delivery of quality in every aspect of work and interaction. It also inculcates an attitude of continuous improvement in the organization. In this era when disruptions are the new norm, customer specifications are becoming more exacting, and there is an increasingly greater responsibility to maintain our planet, TQM becomes even more relevant. TQM definitely enables a company to build long-term competitive advantage and sustainable success.

I see Tata Steel as an amalgamation of three industry types — mining; manufacture and sales of steel products, services, and solutions; and engineering and



Left: Anand Sen is pictured with a bust of Jehangir Ratanji Dadabhoj Tata, the man who made Tata Group one of the most prestigious and successful industrial groups in India. Tata was honored with India's highest civilian award, the Bharat Ratna, for his visionary leadership.



Anand Sen in discussion with thyssenkrupp official.

projects. We are now the No. 1 steel company in India by volume and the third-largest mining company in India in terms of volume of raw material mined. We have invested approximately US\$7.5 billion within a span of 10 years in our greenfield and brownfield expansion projects. We realized very early on that unwavering focus on quality was the only way to convert challenges into opportunities. This led us to adopt and internalize the TQM philosophy as our way of work. This involved encouraging all employees of Tata Steel to continually seize opportunities to improve and innovate products and processes to achieve the organizational goal. Adoption of TQM has helped us establish a systems and process perspective in our functioning.

There is need for continuous improvement in the way steel companies utilize natural resources, in our energy efficiencies, in our productivity, in the experience we give to our customers, in our product qualities, etc. I firmly believe that TQM is the philosophy that can help steel industries achieve this continuous improvement in a structured manner that will be sustainable. It necessarily needs to be a company-wide movement to ensure maximum results. It is incumbent upon leaders at every level to make this happen.

TATA STEEL HAS BEEN MAKING STRIDES IN THE BRANDING OF SPECIALTY STEEL PRODUCTS IN INDIA AND LAUNCHING CAMPAIGNS TO DISCOVER NEW APPLICATIONS AND SOLUTIONS USING STEEL, A MOVE THAT HAS BEEN SPEARHEADED BY YOU. WHAT MARKET OPPORTUNITIES ARE THERE FOR STEELMAKERS IN INDIA? AND WHAT NEW RESEARCH AND DEVELOPMENT EXCITES YOU AS A STEELMAKER?

Tata Steel first established itself as a leader in the automotive steel segment, and also set up a strong network to service dispersed rural demand and small industry and then ventured into solutions. While I have played some role in all these developments, a sustained effort by numerous people cross a large period of time has enabled these unique results.

As India develops into one of the largest markets for steel, new segments will evolve. Developments in the pipeline, energy, and lifting and excavation segments hold great promise. Similarly, as consumer consciousness increases, the market for sophisticated solutions will be very exciting.

Thus, research in clean steels, lightweight steels and coatings are yielding new possibilities every day. Tata Steel aims to be at the forefront of such developments and is pushing commercialization through relevant investments in people and assets. Similarly, there is exciting development, often unique, ongoing in the solutions space.

WITH THE SECTION 232 TARIFFS NOW IN EFFECT IN THE UNITED STATES, HOW IS A GLOBAL STEELMAKING OPERATION LIKE TATA ADAPTING TO THIS NEW SITUATION? WHERE DO YOU SEE THE GLOBAL STEEL INDUSTRY HEADING IN THE WAKE OF THE U.S. TARIFF INSTITUTION?

While India and Tata Steel India do not export any significant amount to the U.S., the Section 232 tariffs may affect global trade flows. The good news is that, since the intention of tariffs across the world are aimed at restoring the health of the steel industry, a globally positive economic forecast will assist. To elaborate, after a very long time almost every economy in the world is simultaneously demonstrating growth,



which bodes well for the steel industry. This should result in improved capacity utilization and profitability. As customer requirements are also evolving and making some of the excess capacity obsolete, continuation of these developments may reduce the need for tariffs.

IT APPEARS THAT INDIA IS OVERTAKING JAPAN AS THE WORLD'S SECOND-LARGEST STEEL PRODUCER. WHAT DOES THAT ACHIEVEMENT MEAN TO THE STEEL INDUSTRY? WHAT BENEFITS DO YOU FORESEE ACCRUING TO THE INDIAN STEEL INDUSTRY, IF ANY?

At the time of this interview, India is the third-largest producer of steel in the world and is also well on the way to overtaking Japan and becoming the second-largest producer. While, as such, it does not signify much, it is definitely an early signal of the Indian steel industry entering a high-growth phase.

It is anticipated that India will grow at 6% to 8% over the next couple of decades. A vibrant and growing economy, particularly one that is fueled by domestic demand growth and is consumption-led, creates opportunities for numerous segments. Since the first tranche of growth will come from infrastructure development, construction and automotive industries, one would expect steel to be a significant beneficiary.

INDIA HAS SET A GOAL TO PRODUCE 300 MILLION METRIC TONS ANNUALLY. WILL DOMESTIC PRODUCERS BE ABLE TO ACCOMPLISH THIS ON THEIR OWN THROUGH EXPANSION? OR WILL IT REQUIRE FOREIGN INVESTMENT?

It is quite reasonable to assume that a country with a population of a foreseeable 1.4 billion over the next decade or so would consume at least 300 MT of steel annually. Setting up greenfield capacity is undoubtedly a tough task and is time- and capital expenditure-consuming, so the first burst of increase in supply of steel would come from exploitation of established asset and brownfield expansion. However, in an economy that is consumption-led, supply often trails

demand. I would expect that as demand grows, supply would follow with greater speed.

RECENT CHANGES TO INDIA'S BANKRUPTCY LAWS HAVE QUICKENED THE ASSET LIQUIDATION PROCESS FOR DEFAULTING COMPANIES, AND SEVERAL STEEL PRODUCERS ARE UNDERGOING INSOLVENCY RESOLUTION PROCEEDINGS. IN WHAT WAYS WILL THESE INSOLVENCIES RESHAPE THE COUNTRY'S STEEL INDUSTRY?

World over, the steel industry is far more fragmented than most of the consuming industries. A process such as the insolvency resolution process now underway in India is expected to consolidate the industry and also shift leadership in favor of the stronger companies. This should help in rationalizing supplies against demand variations more efficiently.



Anand Sen and president of Tata Workers Union at pellet plant during Safety Line Walk.

AIST'S PRESENCE IN INDIA IS ON THE RISE THROUGH PROGRAMS LIKE THE INTERNATIONAL STEEL ACADEMY AND THE STEADY GROWTH OF THE INDIA MEMBER CHAPTER, OF WHICH YOU ARE CHAIRMAN. IN WHAT AREAS WOULD YOU LIKE TO SEE FUTURE DEVELOPMENT FOR THE INDIA MEMBER CHAPTER AND HOW CAN AIST CONTINUE TO EXPAND ITS GLOBAL OUTREACH?

While events such as International Steel Academy (ISA) have given a good impetus to the growth of the India Member Chapter, I believe it is time for the domestic steelmaking fraternity to come together and provide the next wave of growth. One important lever here is the efficacy of Technology Committees, which form the backbone of the AIST system. Besides providing an open platform for technical discussion across companies, these committees create avenues for industry benchmarking and professional networking. A thriving Technology Committee structure will favorably contribute to the success of the India Member Chapter.

For the India Member Chapter to reach the next rung of growth, it has to involve the students, who are the steelmakers and decision-makers of tomorrow. The benefits which this association has to offer need

to be communicated to these potential members. Scholarships offered by AIST come in handy here and networking opportunities provided by AISTech and the ISA offer intangible benefits to the students.

CENTRAL TO THE MISSION OF AIST AND THE AIST FOUNDATION IS TO INSPIRE AND SUPPORT THE NEXT GENERATION OF STEELMAKERS. WHAT WORDS OF ADVICE WOULD YOU GIVE A YOUNG PERSON JOINING THE STEEL INDUSTRY TODAY?

The students and the younger generation of today need to appreciate that the steel industry has now evolved into a precision industry. The common perception is one of dust and smoke and a commodity output. However, the steel industry is today at the forefront of automation and well on the way to developing efficiency through the Industrial Internet of Things (IIoT). The use of artificial intelligence is also not too distant in the future. This should help the youngsters of today to envision the steel industry in its new avatar and create an excitement and interest to be part of it. The capital nature of the industry and the long gestation periods will somewhat challenge the patience of youth, but will make the race more fulfilling. ♦

## TATA STEEL

Anand Sen (second from left) accepted the Prime Minister's Trophy on behalf of Tata Steel from the vice president of India, Shri M. Venkaiah Naidu (far left). The Prime Minister's Trophy is awarded yearly by India's Ministry of Steel to the best-performing integrated steel plant in India.

