

The Good News About Steel

EDITORS' NOTE *As the global steel industry emerges from the recent economic downturn, the leading corporations are rising to the challenges of the new environment, characterized by increased consolidation, rapid technological advances, and soaring demand in developing markets.*

To explore the implications of these developments, LEADERS magazine asked seven industry leaders for their assessment of current market conditions and their predictions for the future of steel in the face of global change.

P A R T I C I P A N T S



ADAMS

DIMICCO

DOLLÉ

MIDDELMANN

MITTAL

SURMA

VARIN

BLUESCOPE STEEL LIMITED

KIRBY ADAMS

*Managing Director and Chief Executive Officer
BlueScope Steel Limited, Melbourne*

Prior to assuming his current positions in July 2002, Kirby Adams served as chief executive officer of BHP Steel. He joined BHP Billiton in 1995 and held a variety of senior executive positions within that firm, including group general manager and CEO of BHP service companies. He is currently vice chairman (and a former chairman) of the International Iron and Steel Institute and a former president and CEO of Titanium Metals Corporation, the world's largest titanium metals company. Adams holds a bachelor of science degree in industrial engineering and a master's degree in business administration.

COMPANY BRIEF

Based in Melbourne, BlueScope Steel Limited is an international flat-steel solutions company with a manufacturing and marketing footprint spanning Australia, New Zealand, Asia, and North America. The global leader in the provision of high-quality metallic-coated and painted-steel products for the building-and-construction sector, BlueScope Steel also services customers in the general manufacturing, automotive, and packaging sectors. The market leader in steel pre-engineered buildings in China and North America, the company operates a network of more than 50 roll-forming facilities in 13 countries, and reported net profit of \$584 million for the year ended June 2004.

NUCOR CORPORATION

DANIEL R. DIMICCO

*Vice Chairman, President, and Chief Executive Officer
Nucor Corporation, Charlotte, North Carolina*

Since joining Nucor Corporation in November 1982, Dan DiMicco has served in a number of senior executive positions, including melting and casting manager at the Utah division and general manager of the Nucor-Yamato joint venture in Blytheville, Arkansas. He was elected president and CEO in September 2000. Previously, he served as a research metallurgist and project leader at Republic Steel Corporation. DiMicco holds a bachelor of science degree in engineering, metallurgy, and materials science from Brown University and a master of science degree in metallurgy and materials science from the University of Pennsylvania.

COMPANY BRIEF

Based in Charlotte, North Carolina, Nucor Corporation is the largest steel producer in the United States and the nation's largest recycler. With operating facilities in 14 states, the company produces carbon and alloy steel in bars, beams, sheet, and plate; steel joists and joist girders; steel deck; cold-finished steel; steel fasteners; metal building systems; and light-gauge steel framing. With more than 10,600 employees across the country, Nucor reported sales of \$11.3 billion and net income of \$1.1 billion in 2004.

ARCELOR S.A.**GUY DOLLÉ**

*Chairman and Chief Executive Officer
Arcelor S.A., Valmy, France*

A graduate of the Ecole Polytechnique (Paris), Guy Dollé began his career in 1966 at the Irsid Steel Research Center. He joined Usinor in 1980 and proceeded to hold a number of senior executive positions within the company, including executive vice president in charge of strategy, planning, and international affairs and senior executive vice president. Usinor merged with steelmakers Aeralia and Arbed to create Arcelor in 2002.

COMPANY BRIEF

Headquartered in Luxembourg, with additional offices in Paris and Madrid, Arcelor S.A. was created in February 2002 with the merger of three steelmaking companies: Aeralia, Arbed, and Usinor. Operating through four business units – flat carbon steel, long carbon steel, stainless steel, and Arcelor steel solutions and services – the group employs 95,000 associates in more than 60 countries and is a leading operator across its principal markets: the automotive industry, construction, household appliances, packaging, and general industry. Arcelor reported sales of €30.2 billion and net income of €2.3 billion in 2004.

THYSSENKRUPP STEEL AG**ULRICH MIDDELMANN**

*Chairman of the Executive Board
ThyssenKrupp Steel AG, Duisburg, Germany, and
Vice Chairman of the Executive Board
ThyssenKrupp AG, Düsseldorf, Germany*

Ulrich Middelman has held leading positions in the steel industry for more than 30 years, mainly in controlling and mergers and acquisitions, and was first appointed to the executive board of ThyssenKrupp in March 1999. Additionally a member of numerous supervisory boards and advisory councils, Middelman studied mechanical engineering at Darmstadt University of Technology and business administration at Aachen University of Technology (both in Germany). He was awarded his doctorate in 1976, and in 2003 was made an honorary professor of the University of Tongji (Shanghai).

COMPANY BRIEF

Created in 1999 by the merger of two leading German companies, Thyssen and Krupp, ThyssenKrupp AG is a global technology group with approximately 184,000 employees in more than 70 countries around the globe. The firm operates in three main areas: steel, divided into two business units – carbon steel and stainless steel – and focused on high-value-added flat products; capital goods, serving the automotive, elevator, and technology industries; and services. ThyssenKrupp Steel ranks fourth in the world in terms of steel sales and 10th in terms of crude steel production. The group reported sales of €40 billion for the fiscal year ended September 30, 2004.

MITTAL STEEL**LAKSHMI N. MITTAL**

*Chairman and Chief Executive Officer
Mittal Steel, London*

A 30-year veteran of the steel industry, Lakshmi Mittal began his career working in the family's steelmaking business in India, and proceeded to found his eponymous company (formerly the LNM Group) in 1976. The recipient of numerous awards for vision and entrepreneurship, Mittal is a member of the Foreign Investment Council in Kazakhstan, the International Investment Council in

South Africa, the World Economic Forum's International Business Council, and the International Iron and Steel Institute's Executive Committee; is a director of ICICI Bank Limited; and sits on the advisory board of the Kellogg School of Management. He holds a bachelor of commerce degree from St. Xavier's College (Calcutta).

COMPANY BRIEF

The product of a merger announced in October 2004 between LNM Holdings and Ispat International, Mittal Steel is the world's most global steel producer, with steelmaking facilities in 14 countries and sales-and-marketing offices in a further 11. Employing 164,000 people around the globe, the company produces hot-rolled sheet; cold-rolled, electro-galvanized, and coated steels; bars; wire rods; wire products; pipes; billets; and slabs. Listed on the New York and Amsterdam stock exchanges, Mittal Steel reported sales of \$22.1 billion and net income of \$4.7 billion in 2004.

UNITED STATES STEEL CORPORATION**JOHN P. SURMA**

*President and Chief Executive Officer
United States Steel Corporation, Pittsburgh*

After graduating from Pennsylvania State University in 1976 with a bachelor of science degree in accounting, John Surma spent more than a decade at Price Waterhouse. In 1983, he participated in the president's executive exchange program in Washington, DC, and proceeded to serve in a number of senior executive positions in the oil industry. Surma joined United States Steel Corporation in January 2002, and was appointed to his current positions in 2004.

COMPANY BRIEF

Headquartered in Pittsburgh, United States Steel Corporation produces sheet and semifinished steel, tubular steel, and tin products at mills in Alabama, Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania, the Slovak Republic, and Serbia. Among its other business interests, U.S. Steel is involved in transportation (Transtar, Inc.); real-estate development; technology licensing, engineering, and consulting services (UEC Technologies LLC); and leasing and financial services. The company reported sales of \$14 billion and net income of \$1.1 billion in 2004.

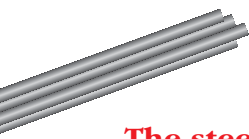
CORUS GROUP PLC**PHILIPPE VARIN**

*Chief Executive
Corus Group plc, London*

A graduate of the Ecole Polytechnique and the Ecole des Mines civil-engineering school (both in Paris), Philippe Varin joined the Pechiney Group in 1978, where he held positions of increasing responsibility culminating, in March 1999, in his appointment as senior executive vice president of the aluminum sector and a member of Pechiney's executive committee. He assumed his current position in May 2003.

COMPANY BRIEF

Created in October 1999 through the merger of British Steel and Koninklijke Hoogovens, Corus Group plc provides steel and aluminum products and related services to customers worldwide through its four business divisions: strip products, long products, distribution and building systems, and aluminum. With major operating facilities in the Netherlands, Germany, France, Norway, and Belgium, Corus employs 48,300 people in more than 40 countries, is listed on the London, New York, and Amsterdam stock exchanges, and reported sales of \$17.9 billion and net income of \$855 million in 2004.



The steel industry has faced many challenges over the past years. Are you optimistic for growth when you look to the future, and where will that growth come from?

Adams: We are optimistic about the longer-term opportunities for the steel industry. Globally, the industry is undergoing major changes. Consolidation is increasing, particularly in Europe and North America. This has enabled the rationalization of unprofitable capacity, even in countries like China, where steel demand is strong. There is no doubt that the closure of uneconomic capacity over the past years has strengthened the industry.

We believe production and consumption growth will come from the middle part of the world, which some have coined as BRIC – Brazil, Russia, India, and China – with continued restraint in capacity growth for the developed countries. China, the world's biggest market, is a significant force as the world's largest steel producer and consumer. Demand for steel in China continues to be strong, but it is growing at a less frenetic pace than last year.

DiMicco: The challenges facing the steel industry in the United States today tie in very closely to the challenges facing our customers. Steel is a great product. It is used in products ranging from cell phones to automobiles, from common household hardware to skyscrapers. More than ever before, the consumption of steel in this country is dependent on what gets made here. Thus, steel and the general metalworking and manufacturing sectors are locked at the hip. The major issues facing those sectors will determine steel usage and how bright our future is.

The challenges include what I'll call "self-inflicted" burdens and government intervention in competitiveness. On the self-inflicted side, the recent study by the National Association of Manufacturers covers the major issues facing companies with locations in the United States. The major-ticket items include the lack of a forward-reaching energy policy; litigation; our tax laws and system, as compared with those of overseas competitors; health-care costs; and overregulation. However, these issues are dwarfed by subsidies to business and currency intervention or outright exchange-rate manipulation. The latter confers upon recipients a subsidy effect of 25 percent or more. In the case of China, for example, credible studies suggest that country's currency is undervalued to the tune of 40 percent.

How these issues are handled will determine investment flow and, thus, our optimism or lack thereof in the growth of the U.S. market. On a broader basis, and specific to steel, global consumption will increase as developing countries mature. Steel consumption per capita increases as living standards rise. So our outlook for growth in our core business – steel – is solid going forward.

Dollé: I'm optimistic about the prospects for the steel industry. Global steel consumption will continue to increase significantly, at a rate of 4 to 5 percent per year, driven by economic growth in developing economies, which will generate four-fifths of global expansion. In parallel, the global industry should consolidate, and Arcelor is going to be a driving force of this development.

Middelmann: In the medium term, I am optimistic that the trend in the steel industry will continue to point upward. In 2004, global steel production exceeded one billion metric tons for the first time, representing a year-on-year increase of 8 per-

cent. That growth was global, but the driving force was China, with an increase of 21 percent. While growth in China will slow, it should continue at a rate of almost 10 percent for some time to come.

In the United States, demand for steel has also increased, but the rates in the highly developed industrial nations will not be as high as in the Asian countries, where infrastructure is still being built.

Mittal: It's fair to say that the steel industry was going through a very tough and challenging time until recently, which led to numerous bankruptcies, most notably in the United States. However, the industry has emerged from this in a stronger and more consolidated position, which I believe will be beneficial for its future sustainability. Overall, it is safe to say that steel demand should continue to grow at annual rates of at least 3 percent over the next decade.

Varin: Globally, world steel demand crossed the billion-tonne mark last year and growth is expected to be at a level of about 4 percent between now and 2007, largely driven by China and other Asian markets. In Europe, growth is expected to be a more modest 1.5 percent over this period, nevertheless we see several opportunities to strengthen our positions in our main markets: construction and automotive. In construction, for example, Corus already has a good reputation for reliability and innovation. This is particularly true in the United Kingdom but also elsewhere in the world. So the first and most logical opportunity for Corus is in Europe where construction output has been flat. For example, in France, Germany, and Italy the level of steel in single- and multi-story construction is significantly below the level of the U.K. and the Netherlands. We have an opportunity to take our proven experience in the U.K. and the Netherlands to other markets and an opportunity to help create greater efficiency by offering different solutions in terms of products, services, and solutions. Meanwhile, in the automotive sector, Corus's approach is to be a highly effective and efficient supplier to a select group of customers. By this I mean we are developing the products and services our customers need in a very focused way.



With the global nature of business today, which regions or countries offer the greatest opportunities for your businesses?

Adams: BlueScope Steel has a number of growth initiatives underway principally in Asia and the Far East. In Thailand, a second metallic-coating line is under construction at our Rayong site, while in Vietnam, we are constructing a new metallic-coating and paint-line facility in Ba Ria, Vung Tau Province, 80 kilometers southeast of Ho Chi Minh City. We also commenced construction of a major metallic-coating and painting facility at Suzhou, 80 kilometers west of Shanghai, in February 2004.

In early December, we announced we will be constructing three new manufacturing facilities in India, at Pune, Chennai, and New Delhi, to deliver our range of Lysaght and Butler quality branded products to customers in the growing Indian building and construction industry. India is starting from a very low level of steel consumption per capita – 27 kilograms per head compared to 130 kilograms per head in China. We believe there is great potential for inter-material substitution and growth in the use of steel in building and construction applications there.

DiMicco: Steel is a very interesting product. You only have to look at the roof on your house, the material used to frame it, and at what auto designers decide to use to make cars safer or

enhance performance to see new business opportunities. Steel competes with other metals and materials regularly. We have made tremendous strides in growing the number of applications for which steel is used, and that effort is ongoing.

With regard to basic markets for things like construction, anywhere that has a combination of population growth and rising living standards presents an opportunity for steel. Places like China, India, and South America all fit that general description. The issue is how to participate in those markets.

Dollé: Market potential is key, of course, but in our industry, access to raw materials and logistics are fundamental factors as well. Brazil, India, China, Russia, and the former Soviet states are key focus areas for us. We also look at expanding our position in central and eastern European countries and in Turkey. At Arcelor, our aim is to grow our business outside our traditional geographic area, which is Western Europe. We made our first major move in Brazil last year. Less than 10 years from now, we want 50 percent of our sales to be generated outside Europe.

Middelmann: China will remain the locomotive for the steel boom, but other regions in Asia are also on an upward trend. Many observers think that India will develop similarly to China. I do not share this optimism as far as the near future is concerned; maybe it could play this role in a decade's time. The markets in Europe, all of which are going through lean economic times, are still growing slightly in terms of steel consumption. I also see strong opportunities in eastern Europe. We can serve this region from our home base in Germany.

Duisburg is the biggest steel location in Europe and, after Posco in Korea, the second-biggest in the world, with a crude steel capacity of almost 17 million metric tons. Its location on one of Europe's central waterways offers a host of advantages which support our competitiveness. However, Germany as a location also has some disadvantages of its own making. These include carbon-dioxide-emissions trading and specific energy laws with follow-up costs, as well as other burdens for German companies that are above the European average. Companies are unable to pass these costs onto the market because their competitors in neighboring European states do not have these burdens. Nevertheless, Germany will continue to be a focus for our investment. We are also planning to build a \$1.3-billion steel mill in Brazil, with an annual capacity of 4.4 million metric tons of crude steel. The mill is expected to start operation in mid 2008.

Mittal: It's true that business today is global, and that's why we have been saying for many years that the steel industry now needs to think and act globally. Historically, the industry has been very fragmented and operated on a regional basis, which has led to considerable volatility in the sector. Mittal Steel's strategy has always focused on consolidating on a global basis, and today the company is still the only truly global steel producer, with operations in 14 countries on four continents.

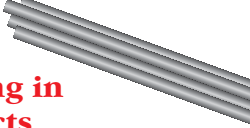
In terms of new opportunities, we would not rule any market out. We look for opportunities where we believe we can add long-term value, in both developing and developed markets. For example, over the past few years we have built up a leading position in central and eastern Europe, as we believe this market is set for growth and higher steel consumption. We also recently announced our first move into China, with the acquisition of a 37.2-percent equity stake in Hunan Valin Steel Tube & Wire Company. Emerging markets definitely offer exciting growth opportunities, but we are not limited to them. For example, we recently acquired International Steel Group in the U.S., as we believe this is a company where we will be able to add long-term value.

Surma: Our current facilities are in North America and central Europe, which we believe will continue to be points of major focus. The United States is one of the largest steel-consuming markets in the world, with reasonable growth prospects, and maintaining a strong position here is important. Our position in central Europe is ideal for serving the developing markets in that

region and moving east. We also maintain a careful watch on developments in eastern Europe and the former Soviet states, as well as China and India, and are positioned to respond to any appropriate opportunity.

Varin: Yes, growth is back on the agenda, and we are well positioned to selectively pursue profitable growth opportunities, both internal and external. The BRIC (Brazil, Russia, India, and China) countries are very promising, new, and emerging markets for growth. Turkey is another country that offers high growth potential and low cost, which, together with its more stabilized economy, has led us to express an interest in the privatization process of Erdemir, one of Turkey's major steel companies.

Internally, we will base our organic growth on fewer operating sites, and on technically advanced equipment and a product range that is focused on adding more value. Our recently announced \$130-million investment in Scunthorpe [United Kingdom] demonstrates this. So, broadly speaking, we have a significant capital-expenditure program for the group.



What role is technology playing in the way the steel industry conducts business today, and how will technology affect the future of the steel industry over the longer term?

Adams: Technology plays an important role by enabling us to continue to innovate. At BlueScope Steel, innovation is fundamental to everything we do. It's built into our products, systems, and processes, the way we work with our customers, and the way we regard our own people. Just to give an idea of such innovation, imagine painted-steel panels with an inbuilt antibacterial capability, purposely built for hygiene-critical areas like sterile cool rooms. As another example, our branded COLORBOND steel roofing and walling with a photo-voltaic coating enables the entire exterior of a building to capture solar energy. This is the future of coated steels: a future based on technical innovation.

But technical innovation is not restricted to products and processes. It extends into the environment. An example of this is our Port Kembla sinter machine emission-reduction plant. After six years of research and technical innovations, our team effectively removed the single biggest point source of emissions and made a highly visible contribution to local air quality.

DiMicco: Obviously, technology has changed the ways in which we communicate with one another and how machines are made to do what we want them to do. That's on the communications and control side. Nucor has always been on the leading edge of process technology – whether in iron making, steelmaking, or the processes used to make finished products. Nucor is generally credited with pioneering the commercialization of thin-slab casting.

Changes to steelmaking practice, including vacuum degassing, have put us into the demanding deep-drawing and dual-phase steel arena. We have also commercialized direct-strip casting, where we process molten steel directly into a strip product. This process is known as Castrip, and it eliminates the slab stage of production and minimizes capital costs. In addition, we are in a partnership with Rio Tinto, Mitsubishi, and Shougang in a venture we call Hismelt. The Hismelt process converts iron-ore fines and coal fines directly to molten metal, bypassing the classic blast-furnace process and its inherent high capital costs.

We are also engaged in another cutting-edge operation, to produce iron units called Green Pig. In this process, we covert

iron-ore fines to pig iron using charcoal produced from eucalyptus trees. This venture is being done with Companhia Vale Do Rio Doce in Brazil. It has some very attractive environmental benefits.

Dollé: Innovative products play an important role for our global customers, for instance, in the automotive industry. We are actively involved in the R&D processes of our customers. Product innovation is particularly critical in mature markets. R&D will also play an important role to further optimize the environmental impact of steel. Steel is one of the most recycled materials in the world, and we will be able to boost its environmental friendliness by further reducing carbon-dioxide emissions, thanks to breakthrough innovations currently under development.

Middelmann: Value management is a central maxim at ThyssenKrupp Steel. Our benchmark is a return on capital employed of at least 12 percent. The aim is to continuously increase the value of the company by concentrating on business areas that rank among the world's best, in terms of performance. However, our goals cannot be achieved without technological competency. Our motto is: "Thinking the future of steel." Innovations are essential, if only because of the rapid technological changes and the associated changes in product requirements.

But as I keep reminding our managers, engineers, and technicians, we have to keep an eye on feasibility – i.e., the market – when pursuing new developments. The best examples of this are tailored blanks, laser-welded blanks of different grades and thicknesses for automotive weight optimization. They were developed by our engineers in the late '80s and they have given us global market leadership. We have great expectations for our new steel body, a weight-optimized cost-neutral solution for entire car bodies. It is 24 percent lighter than the benchmark body and displays slightly improved safety characteristics.

Mittal: Technology is important in the steel industry and we are regularly investing to maintain and improve the technology that we are using at our plants around the world. The last major innovation that led to a structural change in the industry was the introduction of thin-slab casting in the late '80s.

Surma: From systems that enhance our commercial functions to processes that create advanced steels with more sophisticated properties, technology encompasses all aspects of our business. Looking ahead, technology will continue to play a major role in our industry, creating more efficient ways of operating and more efficient ways of using and producing energy, improving the steels we manufacture, and improving the way we conduct business.

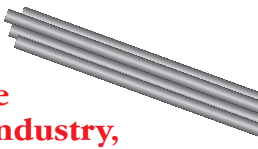
Varin: There are numerous examples across the company of how we are using and developing technology and adding value to our overall business. Steel for packaging, for example, is made thinner and thinner to allow food-and-beverage cans to be made ever thinner. The weight of a steel beverage can is now less than a third of what it was 40 years ago, but to achieve this, much effort had to be spent on the improvement of the steel-production process, as the steel has to be free of any foreign inclusions that may be picked up during manufacture.

For the automotive market, advancements in steelmaking technology have enabled the production of new high-strength steels that allow car bodies to be made thinner and lighter, thus reducing fuel consumption during useful life. However, these new grades also call for adaptations to the production process of the cars, for which we provide advice to our customers based on our knowledge of both our materials and their processes.

In construction, which is a rapidly growing market, pre-coated steel, with a colored, organic top coating for wall cladding, allows architects to achieve special aesthetic effects, while at the same time reducing corrosion under atmospheric conditions. Corus has also pioneered the development of innovative concepts that allow buildings to be made up from modules that are manufactured in an industrial environment, and subsequently assembled on site within

an amazingly short time compared to traditional methods.

These are just a few examples illustrating that, although the steel industry is often seen as a mature industry, it is innovating continuously.



Are young people entering the workforce attracted to the steel industry, and are you happy with your ability to attract top talent?

Adams: We have found that our ability to attract young people depends upon the country in which we are recruiting. Our employees are based in Australia, North America, Asia, and New Zealand. In Australia, we have increased our trainee intake to twice a year, and we are hiring more mature-age apprentices. The challenge, however, continues in our ability to attract women to the industry. We are working with our internal human-resources teams, our contractors, and alliance partners to do everything we can to encourage the widest cross section of the population to work with us. The situation is similar in New Zealand.

In Asia, there is a dynamic, youthful, high-quality, and well-educated workforce pool. We have a number of exciting growth prospects in the region and have been able to tap this great pool of young people and top talent. In North America, our focus has been on the integration of our business following our acquisition of Butler Manufacturing last year.

DiMicco: The steel industry has been mischaracterized as a low-technology, rust-belt industry for decades. It is anything but. It is a high-tech lab, in a way. The growth of process technology in this industry is at least as impressive as it is in most other industries. The unfortunate part is that preconceived notions are stopping us from attracting bright young people.

We address the issue several ways. Within Nucor, training and skills upgrade is ingrained in the culture. We provide job training in a very significant way. We assist employees and their families with the costs of further education. As an industry, we have recently initiated programs and scholarships to attract young achievers to our technical disciplines. We are also working with universities to initiate or restore certain curriculums specific to this industry.

Dollé: The so-called old economy looks much more interesting to young graduates now than it did five years ago. More importantly, the global consolidation process offers new opportunities for international careers in leading steel companies such as Arcelor. We aim now at developing the diversity of our recruitment, attracting more women and more high potential from outside Europe.

Middelmann: In general, there has been a growing lethargy toward technology in Germany in the last decade. Young people have become much less inclined to study technical subjects. That's why we, as a company, support the efforts of the German government to improve public opinion toward technology and innovation. We want to demonstrate to young people that working with materials like steel requires creativity, practical skills, and solid technical know-how, and that working together in solving technical problems brings a high degree of personal and job satisfaction. With this in mind, we are working closely with a number of national and international universities, in order to recruit our future leaders in good time.

Mittal: This is a very interesting question, and I think it can be used as an example of the changing image and fortunes of the industry. Five or 10 years ago we would have had much more difficulty in attracting younger people to the industry, or indeed

people from outside the industry. This is definitely changing. People can see now that the steel industry is an exciting and dynamic place to work. It is an industry that is restructuring in a significant way. There is a lot of merger-and-acquisition activity and a new type of management team has emerged – one that is profit driven and not production focused.

This year, we started our M.B.A. recruitment program, recruiting M.B.A. students from the top business schools in Europe, the U.S., and India. We have seen a lot of interest from the students in joining the company, and will be increasing the number of students we take on in 2005. More broadly, we are also seeing a lot of interest from people wanting to join the company from outside the industry. This year, we have made senior-executive hires from a host of top companies, including BP, Shell, Unilever, Dow Chemical, and McKinsey. So we are very happy with the talent that we are attracting.

Surma: Following the downturn in the tech industry, many young people began to recognize the benefits of pursuing careers in more “traditional” industries, the steel industry included. Industry consolidation has created more global, more innovative, more competitive companies, and the opportunities for responsibility and career advancement are significant. U.S. Steel has emerged as an industry leader and is able to attract talented individuals, from recent college graduates seeking entry-level positions to more experienced workers looking for employment at other levels of management.

Varin: I think the steel industry today is a more exciting industry to work in than ever before. Structural changes taking place in the industry are changing the way we have to run our business, and are making us move away from the traditional way of viewing our company and our industry.

We recruit around 200 graduates a year across a range of functions, and a large number of apprentices in more technical roles. We are not only attracting more young people, but they are also some of the best in their fields, and this has a tremendous value to organizations like Corus, where we are changing the way we operate. We need young and dynamic people but particularly those who bring onboard the right skill sets.



What will the global steel industry look like in the coming 10 to 20 years?

Adams: We operate in a highly competitive global industry, which is undergoing major changes. I am very optimistic about these changes. In the past, steel industries were largely government owned, as many governments saw a national steel industry as an adjunct to national security. There was oversupply of steel, fuelled by subsidies propping up inefficient capacity and by a mentality that valued operating for cash or employment above financial returns. As a result, there were wild swings in capacity-utilization rates.

More recently, we have seen some fundamental changes. The global steel industry is now largely privatized, with former state-owned enterprises progressively being sold off. China is now the engine of global steel demand, with demand in the former Soviet Union, India, and other Asian economies growing strongly. Consolidation has accelerated, and there are now fewer producers, who tend to be major regional players, rather than national companies. We see the emergence of several global steel players. In addition, the mindset of management has changed and most managers are now squarely focused on shareholder return. It is this continuing market focus that is taking us into a new era in the global steel industry.

DiMicco: I foresee an industry comprised of fewer and

larger companies that are in business to make a profit, as opposed to companies that are run by governments – de facto – for trade reasons. The industry should be more global in appearance and deed, and technology will shape the future. I’ve briefly described some of the exciting changes taking place in that area. Steel production is extremely capital intensive. The technological advances that cut capital costs and improve efficiency will be a big part of that future, and that is something Nucor focuses on. On the optimistic side, this should be done by private enterprises. On the pessimistic side, the longer governments stay involved in the steel sector, the longer it will take for technology to shape that aspect of the industry.

Dollé: This industry has to consolidate and it will consolidate. Global consumption growth will be fueling this process. Arcelor and three or four other companies will be acting as catalysts, creating global groups producing 80 to 100 million metric tons of steel each. Together they will hold a global market share of 40 percent. Arcelor is already the largest producer in Europe and Latin America and the global leader in many product categories, such as automotive steels. Our ambition is to continue acting as a driving force of industry transformation while further expanding in high-growth markets.

Middelmann: Questions about the future are very popular, not just among journalists. For companies, it is vital to assess the future realistically. Naturally, we therefore keep most of our findings under lock and key. But the steel landscape has to change. In most of our customer sectors and among our suppliers, the consolidation process is already at a much more advanced stage. Take the example of ore producers. The three biggest companies have a combined world market share of almost 80 percent, whereas the top five in the steel business have less than 20 percent. ThyssenKrupp Steel, as the fourth-biggest company in terms of sales, will not only consolidate, but will also expand its position. We will take an active role in the reorganization of the European and international steel industry, and we will play a part in global strategic alliances.

Mittal: Mittal Steel is now the largest producer in the world, but we still only have 6 percent of total global production. When compared with other industries, steel is still a fragmented market. But this is changing and I believe it will continue to change. Mittal Steel is no longer the only company pursuing a global strategy, and you are seeing many of the larger steel companies beginning to expand outside their traditional markets. This is a positive step for the market and will hopefully lead to a less volatile environment, giving steel companies a better opportunity to prove that they can provide value through the cycle.

Surma: Like others, I think the industry will continue to see more consolidation in the coming years, creating larger and more global companies – companies with greater operating synergies and more flexible production schedules. As business and labor practices evolve and as advances in steelmaking technology take place, the industry will continue to be competitive and innovative. We look forward to being a strong player in this competitive global environment, and we believe steel will still be the material of choice for building a modern world.

Varin: Steel companies are becoming more focused on having better manufacturing processes, and in Western Europe, the move is to produce steel with significantly higher value-added components and more sophisticated specifications geared to customers’ requirements. Before, this would have been viewed as a niche strategy, but today, I see it as standard. Corus is working a lot more closely with customers now. In this regard, our goal is to be a value player in steel.

The responsible companies are the ones that maintain the right discipline when it comes to managing production across the cycles and the higher environmental standards that Western European producers have to comply with. This consciousness needs to spread to all steel-producing nations, especially as new capacity comes onstream. ●