

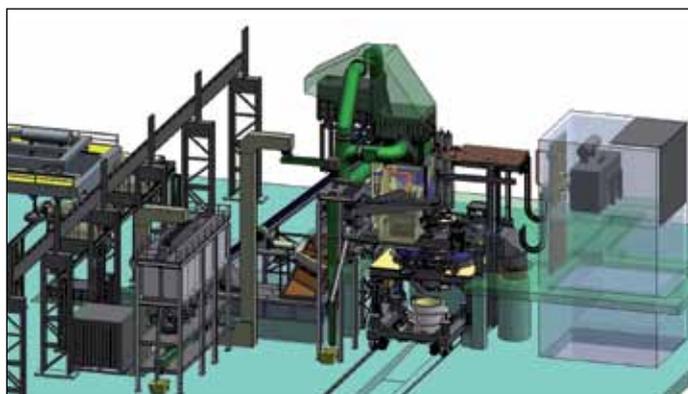
PLANTS AND EQUIPMENTS

Siemens develops new electric arc furnace

The Simetal EAF Quantum electric arc furnace from Siemens combines tried-and-tested elements of preheating furnace technology with a number of new developments. These include a new scrap charging process, a preheating system, a new tilting concept for the lower shell, and an optimized tapping system. A reference furnace with a tapping weight of 100 tons achieves an output of 1.35 million tons of crude steel per year with a tap-to-tap time of 33 minutes. The electrical energy consumption, at 280 kilowatt-hours per ton, is lower than that of a conventional electric arc furnace. Coupled with a lower consumption of electrodes and oxygen, according to Siemens this results in a total specific conversion cost advantage of around 20 percent.

The combination of a fixed shaft structure and a moveable lower shell provides enhanced air-tightness and minimizes the ingress of atmospheric air. In combination with an automated offgas stream redirection system and a special hood to capture dust and offgases during charging, process emissions are due to be considerably lower. This must reduce the cost and size of the dedusting system and the canopy installation.

The electric arc furnace is charged with scrap by means of an elevator system. A hopper transports the scrap from a charging station in the scrap yard to the shaft, eliminating the need for cranes and baskets. A defined duty cycle or a precise charging time can be specified and, if required, the charging process can also be fully automated. The shaft has a trapezoidal shape and is equipped with a retaining system. This facilitates better distribution of the scrap and improves direction of the offgas to optimize heat transfer. After the scrap has been preheated, the fingers of the retaining system are opened, and the scrap passes into the melting bath which has a maximum capacity of 70 tons. The fingers can then be closed immediately so that the next scrap charge can be fed in and preheated.

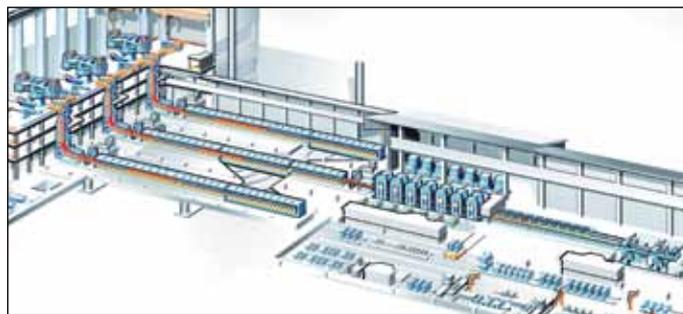


An automated offgas stream redirection system combined with a hood capture dust and offgases during charging must lower process emissions.
Photo courtesy of Siemens

Melting the scrap in a large melting bath allows pure flat bath operation. This is also assisted by efficient preheating of the following scrap charge. In conjunction with a patented, slag-free tapping system, charging, tapping and taphole refilling can all be done under power on. The transfer of heat from the melting bath into the preheated scrap, and the homogenization of the melt are assisted by a bottom stirring system with argon.

Commissioning at Essar Steel by SMS Siemag

The CSP plant (Compact Strip Production) supplied by SMS Siemag, Germany, to the Indian steel manufacturer Essar Steel Ltd. at Hazira in Gujarat was successfully put into operation on March 31, 2011. The first strip had a final gauge of 5.5 mm and a width of 1,290 mm. The plant went into operation with one casting strand and will be successively extended in the next few months by the second and third strands. Essar Steel will thus have the first three-strand CSP plant worldwide with an annual capacity of 3.5 million t of hot strip. The CSP plant is supplied by a steelworks, also built by SMS Siemag. The X-Melt® steelworks with two 200-t CONARC furnace units and two twin ladle furnaces is designed for around 5 million tpy. A conventional continuous slab caster is also supplied from the steelworks. The CSP® plant is designed for an annual production of 3.5 million t of hot strip. It consists of three casters, three roller-hearth furnaces with swivel transfer cars, a rolling mill with seven stands, the laminar strip cooling section and two downcoilers. The caster was built as a vertical-bending machine. The slab thickness can be variably adjusted between 55 and 80 mm. Essar Steel can produce hot strip with widths of 950 to 1,680 mm and thicknesses of 1.0 to 25.4 mm on the CSP plant. The product range covers carbon steels as well as pipe grades, silicon and dual-phase steels. SMS Siemag's scope of supply includes the engineering, the manufacture of the mechanical equipment, the entire electrical and automation systems, the erection supervision and commissioning.



The plant is designed for an annual production of 3.5 million t of hot strip.
Photo courtesy of SMS Siemag

Arvedi "Ar-Cold" strip processing complex now in operation

AR-COLD, composed of a continuous pickling plant with an in-line tandem cold rolling mill (3-stand 6-Hi), is now fully operative at ACCIAIERIA ARVEDI in Cremona, Italy, where a hot dip galvanizing plant

has also been installed. AR-COLD is an integrated pickling and cold rolling plant for processing a complete mix of hot rolled strip in a single passage, ready for hot dip galvanizing. The new department processes the HR coil from the Arvedi ESP (Endless Strip Production) line, started up in 2009 and now fully operative. Thickness range from 0.2 to 2 mm, max width 1560 mm, in drawing, structural and HSLA steel grades for a wide range of applications in the automotive, white goods, painting and building industries. Overall processing capacity is 1.2 – 1.4 mtpy.

Two-furnace operation begins at Peiner Träger

Peiner Träger GmbH (PTG) started to operate an additional electric arc furnaces. Smelting capacity at the Peine plant is now almost doubled. Thanks to these new capacities, PTG and its sister plant HSP Hoesch Spundwand und Profil GmbH in Dortmund will no longer be dependent on buying in external supplies of steel. In addition, some of the steel output will be consumed in Salzgitter and Ilsenburg since Peine has also had the facility to produce slabs since February 2010. Some 5,500 t of steel were produced in the first 24 hours, equivalent to around 90% of planned nominal capacity. The challenge in the months to come will be to optimize logistics and the qualification levels of the workforce, and achieve the scheduled nominal capacity.

Gerdau Ameristeel contracts Tenova Core for walking beam furnace

Tenova Core has recently been contracted by Gerdau Ameristeel to design and supply a 140 tph walking beam reheat furnace at Gerdau's Calvert City, Kentucky, facility. The new walking beam furnace will replace an existing furnace and will be used to efficiently and uniformly heat billets for processing. The furnace will feature a combustion system equipped with Tenova's TSX low NOx recuperative burners for reliable temperature uniformity as well as emissions control. Tenova Core will also design and supply the Level 1 and Level 2 process control and automation systems for the furnace. This project will mark the first installation on a new furnace of Tenova Core's Level 2 system that includes an advanced model predictive control engine. The new Level 2 system heats the charge at an "optimum cycle" predetermined for each type of material for the complete range of furnace production rates. The furnace will be installed in 2012.

Dillinger Hütte to build new continuous casting line

A new double-strand continuous caster, to be known as Continuous Caster 6 (CC6), will be built at Dillinger Hütte's steel plant in Dillingen. The line will supply slab to both high-capacity heavy plate rolling mills in Dillingen and to its wholly owned subsidiary, GTS Industries in Dunkirk,



Employee at control stand in the steelplant.
Photo courtesy of Dillinger Hütte

in addition to fulfilling the requirements of the company's product mix. The vertical type of caster, which has already proven its effectiveness in Dillingen, is to be employed. The new Continuous Caster 6 will replace Continuous Caster 3.

With this investment of around EUR 300 million, Dillinger Hütte strengthens its positions in the production of continuously cast slabs for heavy plate specifications. Construction of the new facility is to begin in fall 2011 and the start of operation is planned for the first half of 2014.

SMS Siemag supplies two-stand tandem mill to Novelis do Brasil

SMS Siemag, Germany, has received an order from Novelis do Brasil Ltda. in Pindamonhangaba, Sao Paulo, Brazil, to supply a new two-stand cold rolling mill for aluminum alloys. The new tandem cold mill will be used for manufacturing can stock for the beverage industry. The products will comprise strip in widths of up to 2,000 mm and with a minimum final gauge of 0.15 mm. The mill will be designed for an annual capacity of 330,000 t. The key components are roll bending systems, multizone roll cooling and the hydraulic roll adjustment system. A coil preparation station, an offline strip inspection facility and a pallet transport system from SMS Siemag complete the rolling mill.

JFE Steel to produce large-diameter specialty pipe

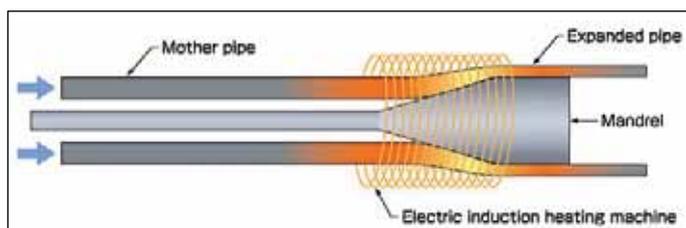
JFE Steel Corporation will manufacture and sell seamless specialty pipe measuring 18 inches or more in outer diameter (OD) and 30 mm or less in wall thickness, in response to the increasing use of large OD,

thin-wall seamless specialty pipes for steam- and gas-turbine combined-cycle power plants and petroleum refineries.

JFE Steel Chita Works in Japan will produce seamless pipes (mother pipes) measuring 16 inches (406.4 mm), which it will enhance with chromium for high-heat resistance. The pipes then will be outsourced to SungKwang Bend Co., Ltd. in Busan, South Korea for expansion and heat treatment. Large OD, thin-wall seamless pipes measuring 18 to 30 inches will be imported back into Japan and inspected by Chita Works before final shipment.

Seamless pipes for transporting mainly steam and oil under high temperature and high pressure are used for connections between boilers and steam turbines in power plants and transportation of distilling oil in refineries.

These facilities allow wire rod to be produced over the full size range from 5.5 to 25.0 mm by means of temperature-controlled rolling. Ultra-fine microstructures can be achieved especially for cold-heading grades by thermomechanical rolling. The maximum rolling speed at the loop laying head is 120 m/s for 5.5-mm wire rod.



JFE Steel Chita Works in Japan will produce seamless pipes, which it will enhance with chromium. Photo courtesy of JFE Steel

ThyssenKrupp to invest 300 million euros in hot strip production

ThyssenKrupp Steel Europe AG is to invest about 300 million euros in its hot strip mills in Bochum and Duisburg. The investments will help the steel producer strengthen its position as regards flat-rolled carbon steel products. The modernization must also secure sites and jobs in the Rhine-Ruhr area.

Hot-rolled strip is the basis for all ThyssenKrupp Steel Europe's flat steel products. The company operates four hot strip mills with a total annual capacity of around 15 million metric tons. Hot strip mills 1 and 2 are located at the Duisburg site, along with a casting-rolling line that also produces hot-rolled. Hot strip mill 3 is in Bochum. To produce hot strip, steel slabs are rolled into thin strip in a series of mill stands at temperatures of more than 1,000 °C. The material is either used by customers directly or further processed at ThyssenKrupp Steel Europe.

Among other things, the hot strip mills now to be modernized produce lightweight steels for the automotive industry, starting material

for tinplate – which is 100% recyclable and is used to make food and beverage cans – as well as steels for oil and gas pipelines. Other products include starting material for electrical steel, which is used for example in wind turbines, in hybrid engines for cars and transformers, where it ensures power transmission.

One of the focuses of the investment program is hot strip mill 1, which has an annual capacity of around three million metric tons. The mill will be equipped with profile, contour and flatness control systems to ensure highly consistent and precise dimensions over the full length and width of the hot strip. The strip cooling system will also be replaced. The cooling process exerts a major influence on the properties of the steel, such as its strength and formability. The furnaces used to heat the steel slabs to rolling temperature will be fitted in part with new burners. These will reduce heating times and require less energy. The upgrade program also includes new roll drives and a new computer control system for the entire mill train.

A new accelerated cooling system is currently being installed on hot strip mill 2 at the Duisburg-Beeckerwerth plant. This must permit ThyssenKrupp Steel Europe to expand its range of high-strength steels for oil and gas pipelines. Additional investments will go into a new computer control system for the roughing and finishing mills and into equipping further roll drives with new, large motors. The transportation and storage facilities for finished hot-rolled coils will also be replaced. At hot strip mill 3 in Bochum, a new cooling line is to be installed for more exact temperature control as well as new rolling equipment for enhanced dimensional accuracy.

Posco: stainless cold-rolling mill to be established in Turkey

Posco is to establish a stainless cold-rolling mill within the Izmit industrial complex near Istanbul, Turkey, with annual capacity of 200,000 tons. This new stainless cold-rolling mill will start construction in 2011 to be completed in 2013.

With the Turkey stainless cold-rolling mill, Posco expects to gain a lead in Turkey's domestic stainless market, and utilize Turkey's geographic advantage to take on the demands from surrounding areas including the Middle-East, Eastern Europe, and CIS (Commonwealth of Independent States) region.

The stainless hot-rolled steel plates necessary for Posco's Turkey stainless cold-rolling mill will be provided by Pohang Steelworks.

Nippon Steel invests in Nigeria

Nippon Steel Corporation (NSC) and Marubeni-Itochu Steel Inc. (MISI) have reached an agreement with Midland Rolling Mills Limited (MRM) in regard to equity investment in MRM. According to the agreement, each of NSC and MISI is to respectively invest US\$ 3 million in MRM which manufactures and sells cold-rolled steel in Nigeria under management of SAFAL Group. SAFAL Group owns and operates businesses in

Sub-Saharan African countries (Southwards of Sahara Desert). This group manufactures steel coils and sheets in form of cold rolling, galvanizing, color coating, etc. and steel pipes and tubes used mainly in the construction and infrastructure projects.

MRM is the first company to install a cold rolling mill in Nigeria; after trial run was complete, commercial production was expected to start in January 2011.

ArcelorMittal Kessales modernizes CAL

The furnace section of the existing Stein Heurtey CAL at ArcelorMittal Kessales, built in 1985, will be completely revamped. Annealing throughput is 650,000 t/y, the max. processing speed is 230 m/min.

Ebner will fit this facility with double-P type Inconel radiant tubes from the new line of Recoteb radiant tube / burner system solutions. This radiant tube / burner package features higher combustion efficiency and simultaneously lower NOx emissions. The scope of supply includes a new furnace section, 203 Recoteb radiant tube / burner packages (double-P type, Inconel), modifying the exhaust system from pull to push/pull and new electrical and control systems including installation and commissioning.

The largest challenge presented by this project involves dismantling the existing furnace section and removing it in segments, without touching the support frame. Both roll boxes will remain as is. This continuous annealing line largely produces material for the automotive industry, especially high strength steel (DP1400).

The modification work is scheduled for summer 2011, commissioning will be finished in the 3rd quarter of 2011.

Ruukki opens sandwich panel line in Ukraine

Ruukki starts up a new sandwich panel production line in Ukraine: this investment supports Ruukki's aim to increase the share of emerging markets of consolidated net sales. Helped by the new production line, Ruukki is aiming for a significant share of the Ukrainian and Russian sandwich panel market. Half of the products are destined for the local market and half will be sold to Russia and other nearby countries.

The new production line is located at the Kopylov plant near Kiev. The investment is valued at about EUR 5 million and the production line has a capacity of 1.1 million m² per year.

Ruukki has two production sites in Ukraine. A plant in Kopylov produces metal roofing, load-bearing steel sheets and sandwich panels and there is a colour-coating line in Antratsit. In addition to the production sites, Ruukki has 19 regional offices and customer service centres in major Ukrainian cities. Ruukki has 360 employees in Ukraine.

ThyssenKrupp Nirosta investing in new skin pass mill at Dillenburg site

ThyssenKrupp Nirosta is strengthening its Dillenburg plant (approx. 730 employees) with an almost 18 million euro investment in a new skin pass mill, a central unit of the cold rolling facility. Preparatory work has now begun and the order has been placed with equipment manufacturer BWG Bergwerk-und Walzwerk-Maschinenbau GmbH. The new skin pass mill for the downstream treatment of cold-rolled stainless steel is scheduled to start production in early 2012.

Following the stainless strip market trend toward materials with higher yield strength and improved flatness, it must allow thicknesses from 0.20 to 3.50 millimeters.



The new skin pass mill will allow thicknesses from 0.20 to 3.50 millimeters.
Photo courtesy of ThyssenKrupp

NLMK upgrades rolling facilities

NLMK has signed contracts with SMS Siemag AG and Sytco AG, agreeing the supply of new equipment for its Lipetsk-based rolling operations worth a total of EUR 15.3 million.

SMS Siemag AG (Germany) will supply equipment necessary for the modernization of the hot strip mill run-out table, which will be delivered between August 2011 and February 2012. The facility will be upgraded on a gradual basis, culminating in 2013 when the capacity of the hot strip mill will have been increased by 45 000 tonnes, up to 5.7 million tonnes per annum. Under the agreement with Sytco AG (Switzerland), new equipment for the roll preparation plant in the Cold Rolled & Coated Flats Shop will be supplied in April 2012. The project will ensure high quality roll surface finishing and rebuilding for the Company's new cold rolling facilities. NLMK plans to install the equipment in Q4 2012 as part of the second stage of its technical upgrade program.

Northwest Pipe expands Kansas facility

Northwest Pipe Company, a supplier of welded steel pipe and tube products, has plans to expand its Atchison, Kansas mill facility. The Atchison location is home to one of three Tubular Products Group locations. The facility currently operates two pipe mills with a product range of 3.5 inches to 16 inches outside diameter and wall thickness up to 0.281 inches.

The expansion, anticipated to be complete by the fourth quarter of 2011 must increase the production capacity by more than 50 percent, improve productivity and enable Northwest Pipe to supply products up to 0.375 inch wall. "This expansion is an important step forward for our Atchison facility. Being able to produce standard wall pipe products will greatly increase the markets available to us and enhance our ability to serve both our API and ASTM customers", said Rich Roman, CEO Northwest Pipe Company. "The project is consistent with our view that there are very attractive opportunities in our Tubular Products segment", added Bob Mahoney, President of Northwest Pipe Company's Tubular Products Group.

Headquartered in Vancouver, Washington, Northwest Pipe Company's Tubular Products Group operates three ERW (Electric Resistance Weld) mill facilities in the United States. Tubular's products serve a wide-range of applications including: energy, oil and gas, structural, industrial, fire protection, low pressure and agricultural.

Production improvement at ArcelorMittal Dofasco

Ontario is helping ArcelorMittal Dofasco reduce energy use and emissions during the steelmaking process and help maximize its production. The province is investing \$43.6 million at ArcelorMittal Dofasco in Hamilton which would help solidify the company as Canada's only producer of Galvalume, a coated steel product with double the durability and corrosion resistance of galvanized steel.

This announcement supports the province's five-year Open Ontario plan to create new job opportunities and help promote economic growth. "Our government's support to ArcelorMittal Dofasco, part of the world's largest steel company, signals that Ontario is a highly competitive jurisdiction for new steel investment that is critical to the automotive and other advanced manufacturing industries, Sandra Pupatello, Minister of Economic Development and Trade, says. We congratulate ArcelorMittal Dofasco who are innovating and accelerating growth by investing in projects that promote sustainability and a reduced environmental footprint." Established in Hamilton in 1912, ArcelorMittal Dofasco's steel is used heavily in Ontario's automotive sector as well as in the energy, construction, food packaging and consumer goods sectors. ArcelorMittal Dofasco has committed to invest \$253 million by 2013.

Metinvest launches BOF steel rails production

Metinvest is launching BOF steel rails production at Azovstal Iron and Steel Works. The manufacturing procedure for the rails production has been approved by Azovstal strategic partner "Ukrzaliznytsya".

Metinvest experts together with the State Research and Development Center of Ukraine "Energostal" have developed and evaluated the manufacturing practice for BOF steel rails and all delivery trials have been successful. Adoption of this advanced manufacturing practice will entail reduction in operating costs, energy consumption and improved total operating efficiency of the company.

INDUSTRY CONTRACTS

JFE Steel awarded contract from In Salah Gas

JFE Steel Corporation has received line pipe orders for the In Salah Gas southern fields development project in Algeria, with delivery to be handled by Marubeni-Itochu Steel Inc.

Details of the orders are:

- 21,000 metric tons of DNV 13% chrome-grade seamless steel line pipe;
- Diameters of 6.625 to 16 inches;
- Delivery will start in spring 2011 and will continue for nearly 2 years.

The In Salah Gas Southern Fields Development Project is operated by In Salah Gas, a joint venture between Sonatrach, Statoil and BP. In Salah Gas, which comprises three gas fields located 1,200 km south of Algiers, is the second largest gas development in Algeria. It started making deliveries in 2004 and is now planning to open four additional fields to the south of its current operations, for which JFE Steel will supply the 13% chrome line pipe.



In Salah Gas comprises three gas fields located 1,200 km south of Algier.
Photo courtesy of JFE Steel

The seamless steel line pipes will be used for long-distance wet gas inter-field and gathering pipelines.

Ural Steel to supply steel for Russian bridge builders

A Coordinating Board on bridge and construction steel supply was held at the Ural Steel plant. Representatives of Metalloinvest Management Company, Central Scientific Research Institute of Construction, and seven leading Russian bridge construction companies (including Mostovik, Ulan-Udestalmost, Chelyabinsk Steel Structures Plant) attended the meeting.

The board discussed prospects for the future cooperation and opportunities of customized supplies. Ural Steel's manager Nazim Efendiev noted that participation in the Sochi-2014 Olympics and the World Cup-2018 programmes had become the main priority in the plant's work. "It is very important for all of us - steel producers, bridge builders, construction plants. We should be ready to meet all needs and provide necessary volumes and quality". During the meeting it was decided that Ural Steel will take part in a workgroup for a new edition of national standards (GOST) for rolled metal for bridge constructions and will participate in joint technology implementation project in order to develop production lines. Ural Steel also announced the full compliance of the company's products with new building regulations 2.05.03-84 "Bridges and Tubes".

New sarcophagus in Chernobyl built from ArcelorMittal Kryviy Rih rebar

ArcelorMittal Kryviy Rih will supply 12 kt of rebar for the construction of new confinement over the 4th energy block of Chernobyl nuclear power plant. Specifically, ArcelorMittal Kryviy Rih 40 mm rebar is used in construction of the foundation of new sarcophagus. The bases of the sarcophagus are foundation blocks that will take on the total weight of the steel structure. Just in connection with the particular requirements for such construction reliability, in its construction 40 mm rebar, which has high strength characteristics while preserving a specified level plasticity, produced by ArcelorMittal Kryviy Rih is used. "It is an immense responsibility and technical challenge, but at the same time - a real test for our products reliability", Rinat Starkov, CEO of ArcelorMittal Kryviy Rih, says. ArcelorMittal Kryviy Rih has already shipped 3 kt of rebar for the Confinement construction within the framework of the two-year contract.

According to conceptual project the building called as new "safe confinement" will be above the existing sarcophagus. It will be in form of the arc with the height of 108 meters and length of 150 meters. The technological body will include sections for deactivation, fragmentation and packing, sanitary sluices, workshops and other technological premises. After the construction this arc will be moved over the 4th energy block of Chernobyl Nuclear Power Plant. The sarcophagus will be equipped by modern control systems of radiation safety. As scheduled the construction will be finished in 2013. It is expected that new confinement will work for 100 years.

Nord Stream Pipeline moves another step closer to completion

The Nord Stream Pipeline takes another important step towards its target of starting to deliver gas directly from Russia to the European Union by the end of 2011. Preparations for welding together two of the three sections of the 1,224 kilometres pipeline through the Baltic Sea have now started. They will be welded together on the seabed off the coast of Finland in a complex process expected to take about two weeks. The technical completion of the first of the twin pipelines will be achieved in June, when the final section is welded onto the pipeline off the Swedish island of Gotland. Construction of the second of the twin pipelines is scheduled for completion in 2012.

Nord Stream was able to design its offshore pipeline to operate without an intermediate compressor station, but with three different design pressures and pipe wall thicknesses as the gas pressure drops over its long journey from Russia to landfall in Germany.

The connection of these three pipeline sections will be carried out at the two offshore locations where the design pressure changes from 220 to 200 bar and from 200 to 177,5 bar respectively. Today sees the start of the connection of the Gulf of Finland section and the Central section at a sea depth of approximately 80 metres. The connection of the Central and South Western sections off Gotland will take place at a depth of approximately 110 metres.

Each of the three sections is gauged and thoroughly pressure-tested before being joined together by "hyperbaric tie-ins" and subsequently linked to the landfalls in Russia and Germany. The pre-commissioning activities are already underway: for the Gulf of Finland and Central section cleaning, gauging and pressure-testing have been successfully completed, and the pressure test for South Western section now follows. On the site of the German landfall all piping has been completed and successfully pressure tested. For the Russian landfall site pressure testing is expected by the end of May after completion of all welding



The welding habitat is a dry environment where divers work without diving equipment to set up the automatic welding machine. The welding is completely controlled from the dive support vessel.

Photo courtesy of Nord Stream AG

works. Further testing will be carried out on the whole system before it becomes operational in the last quarter of 2011.

Ruukki to deliver bridge in Sweden

Ruukki has agreed the delivery and installation of steel structures for two bridges at Rotebro on the E4 highway between Stockholm and Arlanda in Sweden. Ruukki's delivery includes both the load-bearing steel structures and the piles used in the foundations. The customer is NCC Construction Sverige AB and the contract is worth about EUR 6 million.

Ruukki's deliveries to Rotebro will begin during spring this year and are scheduled for completion during 2013. The steel components for the bridge will be made at Ruukki's works in Ylivieska and the piles for the foundations will be made at the Pulkkila works, Finland. The new bridges will open to traffic in 2014. In addition to the load-bearing steel structures, Ruukki's bridge delivery includes the RD piles, with threaded sleeves, that will be used for the bridge foundations.

voestalpine to supply heavy-plate shapes to Siemens Wind Power

voestalpine Anarbeitung, a subsidiary of the voestalpine Group, has been awarded a contract for the supply of roughly 20,000 tons of pre-cut heavy-plate shapes for Siemens Wind Power for the London Array offshore wind tower project in the United Kingdom. The total sales volume of the contract signed this month amounts to a double-digit million-euro figure. The delivery project will last for a period of one year.

The heavy-plate pre-cut shapes are being produced in the shape cutting facility of voestalpine Anarbeitung and will be delivered to



voestalpine will deliver heavy-plate pre-cut shapes for the installation of 106 wind towers.
Photo courtesy of voestalpine

Siemens Wind Power for the installation of 106 wind towers, each with a capacity of 3.6 MW, as part of the London Array project. The installation of the wind towers must allow a total annual reduction of 560,000 tons in CO2 emissions.

During the first phase of the London Array project, the wind park must achieve a power output of roughly 630 MW. When completed, the park is scheduled to generate up to one gigawatt of electrical power, enough to supply 750,000 households with environmentally friendly electricity. This corresponds to roughly one-fourth of the Greater London power requirement. The first project phase is expected to be completed as early as 2012.

Outokumpu delivers steel to monument in Mexico

The state of Mexico is building a 104 meters high monument in stainless steel in central Mexico City to celebrate its 200 years of independency. The steel to the monument "Estela de Luz" ("Trail of light") will be delivered by Outokumpu to the project's main contractor Euroguarco in Italy.

The order is for 1 500 tonnes of duplex special grades LDX 2101® and 2205 produced in Outokumpu's Degerfors site. The steel will be made into tubes in Italy and the monument will be built in Mexico before the end of 2011.



Outokumpu hopes the project can be a breakthrough for special grade LDX 2101® in architectural constructions.
Photo courtesy of Outokumpu

Ruukki RD drilled pile walls in the Trondheim road tunnel

Construction of the Trondheim (Norway) road tunnel, which is part of the E6 road project to be built between Trondheim and Stjordal, has started. The construction relies on the retaining wall solution installed by drilling developed by Ruukki.



Ruukki's RD pile wall used in building a Road tunnel under a city in roadE6, Norway.
Photo courtesy of Ruukki



Corrosion resistance, formability, and environmental performance allowed Nippon Steel's material to be officially approved for Volt's fuel tank.
Photo courtesy of GM Corp

Ruukki RD pile walls are being installed in difficult conditions unsuitable for traditional retaining walls; besides, a separate construction-period retaining wall is not required since the RD pile wall can serve both as a temporary and a permanent structure.

The total length of the Trondheim road tunnel is 500 metres, 120 metres of which will be furnished with drilled pile walls. The Ruukki solution was chosen in Trondheim because the soil at the site consists of very easily disturbed quick clay. The retaining wall must be installed with minimum stress to the soil, all the way down to bedrock.

The RD pile wall is based on RD steel pipe piles, interlocks welded onto them at the mill and an installation method that uses reamer bits larger than normal diameter. The dimensions of the reamer bit and the interlocks allow drilling the RD piles through stones and boulders into bedrock without the interlocks getting stuck in soil, stones, boulders or the bedrock surface. In other words, the reamer bit cuts a hole larger than the outside diameter of the pile in order to allow the interlocks on the outer surface of the pile to fit into the drilled hole.

Nippon Steel's "EcoKote-STM" adopted in Chevrolet Volt fuel tanks

Nippon Steel Corporation has received orders for its specially developed "EcoKote-STM" for fuel tanks to be manufactured by Spectra Premium Industries Inc., from Canada, for Chevrolet Volt electric vehicle with extended range. "EcoKote-STM" is a tin-zinc-coated steel sheet for automotive fuel tanks that contains no lead, and boasts high corrosion resistance.

"Through technical exchange with Spectra, a fuel tank manufacturer, we have been endeavoring to achieve corrosion resistance, formability, and environmental performance most appropriate for environmentally safe vehicles", Nippon Steel states. "As a consequence, "EcoKote-STM" became an officially approved material for Volt's fuel tank."

ThyssenKrupp donates memorial to the victims of the Love Parade disaster

A memorial to the 21 people who died at the Duisburg Love Parade is to be erected at the eastern end of the tunnel on Karl-Lehr-Strasse in Duisburg by the middle of this year. The "Initiative Spendenträuermarsch" (Condolence March Donation Campaign) collected around 26,300 euros in donations for a sculpture and base. Now ThyssenKrupp Steel Europe has offered to build the steel sculpture – designed by Duisburg artist Gerhard Losemann and selected by a panel of judges.

ThyssenKrupp Steel Europe has already formed a working group which will shortly realize the artist's abstract design in the company's apprentice workshops in Duisburg-Hamborn. A team of trainers and apprentices will produce the sculpture in the coming weeks.

The apprentices will produce a 3.45 meters tall steel panel with an arrangement of welded square tubes. The front will show the date of the disaster and feature a plaque bearing the names of the victims.

STRATEGY AND ORGANISATION

ArcelorMittal to invest in Thai steel producer

ArcelorMittal announces that it has signed agreements to invest new capital resulting in a shareholding of 40 percent in G Steel Public Company Limited. G Steel and its subsidiary GJ Steel Public Company Limited, which is also listed on the Stock Exchange of Thailand, are leading producers of hot-rolled coils. G Steel has an EAF-based medium

slab rolling facility in Rayong and GJ Steel has an EAF-based thin slab rolling facility in Chonburi, with a combined annual capacity of over 2.5 million tonnes per annum. The companies together have over 1,400 employees.

ArcelorMittal is partnering with a group of major shareholders represented by the Leeswadtrakul family which is the founding shareholder of G Steel. ArcelorMittal has signed a shareholders agreement with the Leeswadtrakul family who will remain associated with the companies. ArcelorMittal has also signed a credit facility agreement with G Steel and GJ Steel for USD 500 million for working capital, capital expenditure and other corporate purposes.

Aditya Mittal, CFO and Member of the Group Management Board of ArcelorMittal said: "G Steel is an important component of our overall emerging markets strategy and will provide ArcelorMittal with a major manufacturing presence in Thailand and the ASEAN region where we expect steel demand to continue growing".

Eisenbahn und Häfen to be merged with ThyssenKrupp

Eisenbahn und Häfen GmbH, a provider of logistics services in the ThyssenKrupp Group, was merged into parent company ThyssenKrupp Steel Europe AG in June 2011. Under the merger, the operating activities – port, rail and technology – will be integrated into the Logistics Services unit of ThyssenKrupp Steel Europe, while administration will be incorporated in the steel manufacturer's functional service units. The aim of the reorganization is to achieve even closer integration of logistics and production. "The merger is an important element in further establishing existing logistics concepts and securing the company's competitiveness", explained Executive Board Chairman Edwin Eichler.

Severstal to establish joint venture with NMDC

Severstal, Russia, and NMDC Limited, a Navratna public sector undertaking under the Government of India, plan to establish a joint venture company to build an integrated steel plant.

The joint venture proposes to have its captive coking coal mining subsidiary in Russia and iron ore mining subsidiary in India which must ensure long term supply of raw materials to the proposed steel plant. The plant which will be constructed in Karnataka will have a capacity between 2 and 5 Mill tpa.

voestalpine increases research budget

voestalpine group is spending money on the expansion of its research and technology development. For the business year 2011/12,

R&D funds will increase from EUR 111 million by another 10% to a new high of more than EUR 120 million. This increase is based on higher budget volumes in all five divisions of the Group, with the Special Steel Division showing the most substantial growth at about 25%.

The increased research and development funding is focused on cross-divisional, long-term projects in the mobility and energy sectors, which already represent the two largest customer segments of the voestalpine group.

"In addition to continuing development of lightweight materials for the automotive and consumer goods industries we are also focusing on the most technologically challenging applications in the energy



The research and development funding is focused on projects in the mobility and energy sectors. Photo courtesy of voestalpine

sector, such as high-temperature materials that enable a significantly higher efficiency in power plant turbines and aircraft engines," says Peter Schwab, voestalpine's head of research. "We are working toward an optimum combination of material, tooling, and processing because future applications are becoming more and more complex and we must increasingly develop highly integrated solutions in close cooperation with customers and external research institutions".

Severstal participates in future steel vehicle program

Together with other 16 global steelmakers Severstal is to complete Phase 2 of the Future Steel Vehicle program (FSV), being the only Russian participant of this project. LCV is a recent addition to the global steel industry's series of initiatives offering solutions to challenges facing automakers.

In support of FSV's global launch, WorldAutoSteel, the automotive group of the World Steel Association, announced the results of a three-year programme to develop fully engineered, steel-intensive designs for electrified vehicles that reduce greenhouse gas emissions over their entire life cycle. The projected steel body structure must reduce mass by more than 35 percent over a benchmark vehicle and reduce total life cycle emissions by nearly 70 percent. This provides steel producers with a significant competitive advantage, if compared with substitute materials for the global automotive industry.

FSV has added the most advanced steel products and technologies to its portfolio, utilizing more than 20 new advanced high strength steel (AHSS) grades, representing materials expected to be commercially available in the 2015–2020 technology timeline.

"Dearborn's new cold-rolling complex and the automotive hot dip galvanizing line, as well as a proposed new continuous annealing line, will directly support the manufacture of the future steels in this design. These efforts help assure that steel remains the material of choice for vehicle body structures", commented Chris Kristock, Vice President of Advanced Engineering at Severstal North America.

Kobe Steel to set up welding company in India

Kobe Steel plans to establish a company to sell welding consumables and provide sales support and maintenance services for welding robot systems in India.

To be called Kobelco Welding India Pvt. Ltd. (or KWI), the company will be based in Gurgaon, Haryana state, about 30 kilometers southwest of New Delhi. KWI will be capitalized at 5 million rupees (about 9 million yen). Kobe Steel will hold an 80% share, while group companies Kobe Welding (Singapore) Pte. Ltd. will hold 10% and Ta-seto Co., Ltd. will hold the remaining 10%. The company will have a staff of five people, including two Japanese. In addition to marketing,

KWI will search for new sources of raw materials for welding consumables and support procurement. Demand for welding consumables is growing significantly in India. As many power plants are planned to be constructed, demand for welding products in the energy field is expected to grow.

Kobe Steel's Welding Business anticipates rising sales mainly for welding consumables. For Japanese users in the heavy electrical machinery, construction equipment and automotive fields that have already entered India or plan to do so in the future, it is urgently necessary to build a framework to provide total support in India for not only welding consumables, but also welding robot systems. In addition, the Welding Business intends to develop new sources of wire rod and fluxes, the raw materials used to make welding consumables.

ThyssenKrupp metal forming: sale contract with Gestamp

ThyssenKrupp and Gestamp Automoción S.L. signed the sale and purchase contract for the transfer of the Metal Forming Group. As next steps, the merger control authorities will have to grant their approval of the transaction, which is expected to happen during this summer. The Metal Forming Group was no longer part of the core business of ThyssenKrupp Steel Europe. Francisco Riberas, chairman of Gestamp Automoción declared that: "With the take-over of the Metal Forming Group, we will significantly strengthen our market position in the chassis and body in white areas, which will also improve our position as global player".

ThyssenKrupp Metal Forming has production plants for chassis and body components in Germany, France, the UK, Spain, Poland, Turkey and China. The group employs around 5,700 people and in the fiscal year ended September 30, 2010 generated sales of almost €1.1 billion and achieved an earnings turnaround.

With currently around 18,000 employees, Gestamp Automoción develops and produces metal components and structural parts for auto bodies. Active in 20 countries, it achieved sales of €3,1 billion in 2010.

JFE Steel, JFE Shoji Trade and Suzhou Hesheng to produce PCM Sheet

JFE Steel Corporation, JFE Shoji Trade (Shanghai) and Suzhou Hesheng Special Material announced today plans to launch a company in Chiangsu Province, China to manufacture and sell pre-coated metal (PCM) sheet for electrical appliances and high-end building materials.

The new company, Suzhou Weijie Special Material, is expected to begin the production of PCM with 60,000 tons/year capacity in March 2012.



Location of Suzhou Weijie Special Material.
Photo courtesy of JFE Steel

China is a major production base of electrical appliances, with particularly many domestic and international electrical appliances manufacturers located in the eastern part of the country. With the production of electrical appliances expected to continue increasing, the demand for PCM sheet also is forecasted to increase, supported by the growing shift from self-spray coating to the outsourcing of coating by specialized manufacturers due to tightening global control of liquid waste.

Tata Steel announces turnaround strategy for long products business

Tata Steel has proposed a restructuring of its Long Products business to introduce greater flexibility into its costs and operations. To support this strategy, Tata Steel plans to invest £400 million over a five-year period.

Significant cost savings were achieved in Long Products during the global economic downturn after a range of strategic actions were taken, including a radical restructuring of the Speciality Steels business, which is now in profit. However, the Long Products business as a whole has continued to make losses over the last two years. The decline in some major markets, particularly the construction sector, has been a key factor. Demand for structural steel in the UK is only two-thirds of the 2007 level and is not expected to fully recover within the next five years.

As a consequence the business has proposed a plan to further reduce costs, focus on core products and improve its ability to respond quickly to demand fluctuations. This strategy includes a proposal to close or mothball parts of the Scunthorpe plant and puts at risk 1,200 jobs at Scunthorpe and 300 jobs at its Teesside sites.

Karl-Ulrich Köhler, Managing Director and CEO of Tata Steel's European operations, said: "We are proposing to take these actions only after going through an inclusive consultative process that involved very careful scrutiny of the Long Products business performance. We have used the experience we gained in turning around our Speciality Steels business in developing this strategy for the rest of Long

Products and we are convinced it represents the best chance of making this business successful and sustainable in the long term. Tata Steel is showing its commitment to making this strategy work by earmarking £400 million of investment for this business over the next five years". The investment follows a number of recent announcements in the business, including upgrading the rail rolling mill at Hayange in France, as well as improvements to the plate and wire rod rolling facilities in Scotland and England. "The continuing weakness in market conditions is one of the main reasons why we are setting out on this difficult course of action", Karl-Ulrich Köhler added. "Another is the regulatory outlook. EU carbon legislation threatens to impose huge additional costs on the steel industry. Besides, there remains a great deal of uncertainty about the level of further unilateral carbon cost rises that the UK Government is planning. These measures risk undermining our competitiveness and we must make ourselves stronger in preparation for them".

As part of the restructuring, the business is proposing (in Scunthorpe):

- To close the Bloom and Billet Mill and associated steel caster (Bloom 750)
- To mothball the Queen Bess blast furnace, which will be kept in readiness for a market upturn
- To review the operations of the Billet Caster.

"This investment will improve Long Products' manufacturing capabilities, particularly in the area of plant reliability", according to Jon Bolton, Director of Tata Steel Long Products. "By closing the Bloom and Billet Mill we will be taking out of production some highly energy-intensive plant that is pretty well obsolete in today's steelmaking world. By mothballing Queen Bess furnace we will match our operations to the new market realities, but retain the flexibility to respond to a market upturn".

£1.2 million investment at Scunthorpe rod mill

Tata Steel is investing £1.2 million in two new high-tech machines at its wire rod rolling mill in Scunthorpe. The investment in a new testing machine must improve quality testing on the company's "cold heading" product range, which includes steels used in fasteners for the automotive, mechanical engineering and construction sectors.

A new size and shape-measuring gauge at the mill will provide machine operators with rapid feedback on rod dimensions during the steel rolling process. The investment will not result in increased overall production at the Rod Mill but must enable Tata Steel to increase its focus on the most demanding and safety-critical fastener products for the automotive industry. The fasteners can be used in anything from attaching car bonnets to securing children's car safety harnesses. "This investment, like the £8 million Clydebridge investment we also announced, supports our ambition to focus on making premium products for profitable markets", said Jon Bolton, Director of Tata Steel's Long Products Hub. It is anticipated both machines will be commissioned in October 2011.

Four Japanese firms establish joint venture to manufacture aircraft parts

Hitachi Metals, Ltd., Kobe Steel, Ltd., IHI Corporation, and Kawasaki Heavy Industries, Ltd. (KHI) have established a joint venture called Japan Aeroforge, Ltd. to manufacture large forgings for use in aircraft and power plants. Japan Aeroforge will install Japan's first 50,000 metric ton forging press. The press will manufacture large forgings made of titanium, nickel and high alloys, mainly for the aircraft industry (engines and fuselages), and for power plants. In addition, integrated production in Japan will promote the recycling of the large amount of waste chips and other scrap derived in the manufacturing process.

According to the firms, the world aircraft industry is an estimated 30-trillion-yen market that is growing 4% to 5% per year, and Japan's aircraft market is currently over 1 trillion yen. Facing western countries and emerging countries that are developing their own aircraft industries and in order to expand its business, Japan's aircraft industry, including materials manufacturers, mean to increase their competitiveness.

While Hitachi Metals has expertise in forging and molding technologies for nickel and high alloys, Kobe Steel is Japan's only integrated manufacturer of titanium, from melting to final products. Hitachi Metals, Kobe Steel and other material makers will supply titanium, nickel, high alloys and other materials to Japan Aeroforge, which will then process the material. After processing, Japan Aeroforge will return the processed parts to Hitachi Metals, Kobe Steel and other materials makers for heat treatment, machining, and inspection. Hitachi Metals and Kobe Steel will then supply the forged parts to IHI, KHI, other domestic heavy industry manufacturers and heavy electrical machinery manufacturers.

Construction of Japan Aeroforge's plant began in March in Kurashiki, Okayama Prefecture in western Japan. The plant is anticipated to be completed in March 2012. Marubeni-Itochu Steel Inc. and Sojitz Aerospace Corporation will also join the venture.

Japan-Korea consortium to invest in niobium production

A Japanese investor group consisting of JFE Steel Corporation (JFE), Nippon Steel Corporation (NSC), Sojitz Corporation (Sojitz) and Japan Oil, Gas and Metals National Corporation (JOGMEC) and a Korean investor group consisting of major Korean steel producer POSCO and National Pension Service (NPS) entered into an agreement with the controlling shareholders of the Brazilian niobium company Companhia Brasileira de Metalurgia e Mineração (CBMM) under which the Japan-Korea partnership will acquire a 15% stake in CBMM. Niobium is a critical alloying additive in the production of high-grade steel products.

Niobium is indispensable in the production of high-grade and special steel products. It is distinguished by its ability to dramatically enhance the



Map of Brazil showing the site of the niobium mine and the Araxá mine.
Photo courtesy of JFE Steel

strength, durability, and heat resistance of steel products with the addition of only trace amounts. High-grade and special steel products and superalloy products containing niobium include pipelines, automotive steel, large-scale construction steel, turbines, aircraft engines, including the ones used in the space shuttle, and other cutting edge machinery.

In addition to the acquisition of CBMM shares, JFE, NSC, POSCO and Sojitz entered into a long-term niobium supply agreement with CBMM, assuring that the stable relationship these companies have long had with CBMM continues. According to JFE Steel, worldwide demand for niobium recorded an annual growth rate of some 10% from 2002 through 2009, buoyed by growing need for high-grade steel in emerging economies including China and India. China in particular doubled its niobium imports over a four-year period to about 30% of global output. Demand for niobium is projected to grow faster than the expansion in world crude steel production. As global crude steel production rises, the global demand for niobium must also show steady growth.

Photovoltaics: ThyssenKrupp and juwi Group cooperate

Together with juwi Group, the Color/Construction business unit of ThyssenKrupp Steel Europe is now offering construction elements featuring integrated roof-parallel photovoltaic modules. The new photovoltaic modules will equip roofs of industrial and commercial buildings. The photovoltaic systems consist of solar modules installed on special, roof-parallel substructures. The substructure is matched to the roofing elements supplied by ThyssenKrupp Steel Europe. The systems are suitable for both single-skin roofs and roofs made from sandwich panels. For sandwich roofs, the partnership provides a climate- and resource-friendly combination of effective heat insulation and renewable energy generation.

Severstal announces a US \$ 2 billion investment programme for 2011

Severstal announces a target US \$2 billion capital investment programme for the current financial year. In 2011 the total amount of

investment at Severstal Russian Steel will be approximately US \$ 940 mln, around a 73% increase on 2010 and will include the following key projects: the continued construction of a mini-mill in Balakovo in the Saratov Region, the renovation of the No 7 coke oven battery, the modernisation of the No 5 blast furnace and the construction of a second polymer coating line in Cherepovets and the large-scale IT projects. In 2011 the total amount of investment at Severstal Resources will be approximately US \$ 650 mln, around a 53% increase on 2010 and will include a project to modernise production equipment across the division's iron ore mills and coalmines, the completion of a thermoelectric power station burning coalmine methane in Vorkuta, an exploration of the Putu iron ore deposit in Liberia, the continued development of the division's gold mining assets and a coalmine at PBS Coals.

In 2011 the total amount of investment at Severstal North America will be approximately US \$ 465 mln, around a 69% increase over 2010, and will include the construction and commissioning and start-up of the 2nd electric arc furnace, continuous caster, tunnel furnace, pickle line and the 2nd hot dip galvanizing line at Severstal Columbus, new cold rolling complex and hot dip galvanizing line at Severstal Dearborn. Overall, the level of capital expenditure represents an approximately 48% increase over the level for 2010. According to Severstal, steel use is estimated to increase by approximately 8% in Russia and CIS.

Vallourec strengthens its presence in Saudi Arabia

Vallourec has reached an agreement to acquire Saudi Seamless Pipes Factory Company Limited ("Zamil Pipes"), the first processing company of seamless OCTG (Oil Country Tubular Goods) in Saudi Arabia. Located in Dammam, Zamil Pipes is close to Vallourec's new VAM threading plant which is currently under construction and due to be commissioned in H2 2011. In complement to this project, the acquisition of Zamil Pipes must provide Vallourec with ready-to-run heat treatment capacity and threading facilities of up to 100 kt of pipe per year. With these two operations, Vallourec aims at reinforcing its local presence in the Kingdom, through additional finishing capacities and reduced lead-times to serve the premium OCTG market in Saudi Arabia.

The Kingdom of Saudi Arabia, through its national oil company Saudi Aramco, is the world's largest oil producer and is one of Vallourec's main customers with growing requirements for premium OCTG.

PEOPLE

ArcelorMittal announces new GMB responsibilities

ArcelorMittal announced some changes to both its Group Management Board and Management Committee.

Changes to the GMB are as follows:

- Aditya Mittal, CFO with current responsibility for Flat Carbon Americas, Strategy, Investor Relations and Communications, remains CFO, but will now have responsibility for Flat Carbon Europe as well as Investor Relations and Communications.
- Michel Wurth, who previously was responsible for Flat Carbon Europe, will now be responsible for Long Carbon worldwide.
- Gonzalo Urquijo, who previously was responsible for Long Carbon, will take up responsibility for AACIS (excluding China and India), AMDS, Tubular Products, Corporate responsibility and will also remain Chairman of the Investments Allocations Committee (IAC).
- Lou Schorsch, currently a member of the Management Committee and CEO of Flat Carbon Americas, will join the GMB with responsibility for Flat Carbon Americas, Strategy, Technology (CTO), Research & Development and member of IAC.
- The other GMB responsibilities will remain unchanged, eg Peter Kukielski will continue as Head of Mining; Sudhir Maheshwari will continue to hold responsibility for Corporate Finance, M&A, Risk Management, China and India; and Davinder Chugh will continue with responsibility for Shared Services.
- Christophe Cornier has chosen to retire from the GMB and will assume the role of Advisor to CEO and GMB; he will also remain as Chairman of ArcelorMittal France.
- Mr Lakshmi Mittal, CEO, will take direct charge of Health and Safety.

worldsteel appoints new Director General

The worldsteel Board of Directors formally approved the appointment of Edwin Basson as Director General of the World Steel Association, effective from August 2011.

Edwin Basson (51) joined the steel industry in 1994 and has held various positions at world leading steel companies. At Iscor Ltd, he started as Chief Economist and later managed coated products and flat steel products, before moving on to Strategic Initiatives. From 2004 to 2006, he was responsible for Marketing Strategy and Commercial Research & Market Segmentation at Mittal Steel (now ArcelorMittal). He joined worldsteel from ArcelorMittal where he held the position of Vice President, Commercial Coordination, Marketing and Trade Policy.

Aleksandr Ioskov Chief Production Officer, ArcelorMittal Kryviy Rih

Aleksandr Ioskov has been appointed Chief Production Officer of ArcelorMittal Kryviy Rih. Professional activity of Aleksandr Ioskov has

been closely connected with the enterprise since 1980. Aleksandr loskov has worked at the section rolling shop No.1 for 16 years. In 1996 Aleksandr loskov was appointed deputy head of production department and in 2002 he headed this department of the enterprise. He managed the operational regulation of production processes at ArcelorMittal Kryviy Rih and also he coordinated the performance of primary production departments. Since 2010, Aleksandr loskov has worked as a production director of ArcelorMittal Kryviy Rih. Aleksandr loskov graduated Dnepropetrovsk metallurgical University with a specialization in metal deformation process. He gained the diploma of metallurgical engineer.

ArcelorMittal appoints senior Head of Marketing and Sales in Mining

Simon Wandke has been appointed as the new Chief Commercial Officer heading up Marketing and Sales for its Mining division and a Vice-president of ArcelorMittal. Mr Wandke will report to Peter Kukielski, Head of Mining and member of the Group Management Board.

Mr Wandke has significant senior management and marketing experience in the mining industry where he has focused in particular on the development of greenfield projects, transportation logistics and designing and implementing major change to ensure companies are more customer focused.

His most recent position was as Chief Marketing Officer at Ferrexpo Group, the London-listed iron ore mining and processing company where he worked from 2006 until recently. Between 2002 and 2005 he was a Partner in the Destra Consulting Group where he was responsible for launching the Australian practice. Between 1989 and 2002 Mr Wandke held a number of senior positions at BHP Billiton, including Vice-President of Strategic Marketing and Vice-President for Strategy within the Minerals Group.

Henrik Adam to be new commercial head at Tata Steel in Europe

Dr Henrik Adam has joined Tata Steel's European operations as Chief Commercial Officer.

Dr Adam joins the company after 13 years in a series of sales, marketing and technical roles with ThyssenKrupp Steel Europe.

In his new role he will be responsible for the sales and marketing organisation of Tata Steel's European business and for completing the implementation of the company's new market differentiation strategies and customer sector focus in Europe.

ArcelorMittal reports 2010 results

ArcelorMittal announced results for the twelve month period ended December 31, 2010. Sales for the twelve months ended December 31, 2010 were \$78.0 billion, as compared with sales for the twelve months ended December 31, 2009 of \$61.0 billion. The increase was due to the improvement in global steel markets in the wake of the global economic crisis, leading to margin recovery and higher steel shipments.

ArcelorMittal's net income for the twelve months ended December 31, 2010 was \$2.9 billion, as compared to net income for the twelve months ended December 31, 2009 of \$0.2 billion. Total steel shipments for the twelve months ended December 31, 2010 increased by 22% to 85.0 million metric tonnes as compared with 69.6 million metric tonnes for the twelve months ended December 31, 2009.

Operating performance for the twelve months ended December 31, 2010 was positively impacted by a net gain of \$140 million recorded on the sale of carbon dioxide credits, the proceeds of which will be re-invested in energy saving projects, and by non-cash gains of \$354 million relating to unwinding of hedges on raw material purchases. Volumes are expected to increase in 1Q 2011 as the gradual underlying demand recovery continues and market sentiment improves. Additionally, selling prices are adjusting to rapid increases in raw material prices.

Commenting, Mr. Lakshmi N. Mittal, Chairman and CEO, ArcelorMittal, said: "Although 2010 continued to be a challenging year, as anticipated we saw a slow and progressive recovery which enabled us to deliver a substantially improved performance compared with 2009. The gradual underlying demand recovery continues and we expect 2011 to be stronger than 2010. The year has started positively with the successful spin-off of Aperam. We have also continued to pursue expansion in mining and have recently acquired control of Baffinland, an extremely high-quality iron-ore asset in Canada".

Operating income for the twelve months ended December 31, 2010 was \$3.6 billion, as compared with an operating loss of \$1.5 billion for the twelve months ended December 31, 2009.

Tata Steel records US\$ 2bn profit

Tata Steel Limited declared audited consolidated financial results for the full year ending March 31, 2011. The 2010-2011 financial year featured record deliveries and profits from Tata Steel's Indian operations and a significant turnaround in financial and operating performance in Europe. Tata Steel Group recorded profit after tax of Rs8,983 crores (US\$2,015 million) in FY'11, an improvement of Rs10,992 crores (US\$2,466million) over the loss of Rs2,009crores (US\$451million) in FY'10. The Indian operations' profit after tax of Rs6,866 crores (US\$1,540 million) and EBITDA of Rs12,225 crores (US\$2,742 million)

were the highest ever on the back of higher volumes, improved product-mix and higher realisations.

The European operations recorded improvement, posting an EBITDA of Rs4,204crores (US\$943 million), an increase of Rs5,555crores (US\$1,246 million) over FY'10. Higher sales and realisations along with cost-cutting measures, are to be mentioned. The sale of Teesside Cast Products (a slab manufacturing facility mothballed in February 2010) was completed in March 2011 in a deal valuing the business at Rs2,091crores (US\$469 million). Tata Steel Managing Director Mr HM Nerurkar said: "The Indian operations registered a 36% increase in annual profits because of favourable market conditions and the untiring efforts of employees to exceed targets. We enjoy an excellent position in India compared to our global peers to counter cost pressures, given the growing domestic market, a higher proportion of value-added products and a sizeable increase in capacity by the end of the financial year. The Odisha project is gaining momentum and its first phase is expected to be commissioned by the end of 2014. The South East Asian operations focused on tackling a challenging business environment and are now better placed to take advantage of improving market conditions".

Tata Steel Europe MD & CEO Dr Karl-Ulrich Köhler said: "Our encouraging fourth-quarter performance consolidated the turnaround in the European operations achieved during the year. Higher selling prices and deliveries gave us a particularly strong end to the quarter, with additional one-off financial benefits from items such as the completion of the Teesside Cast Products sale. Our strategy, founded on four building blocks of market differentiation, technical innovation, cost leadership and operational excellence, is starting to deliver early successes as we focus on customer relationships. The measures announced last week in Long Products show our determination to complete the turnaround task and create a very competitive business that delivers robust performance in all market conditions".

Ternium expects growth in NAFTA region

Ternium's operating income in 2010 was US\$1.1 billion, compared to US\$296.4 million in 2009. The increase was mainly due to a US\$137 increase in revenue per ton and a 1.7 million ton increase in shipments, partially offset by a US\$57 increase in operating cost per ton. Shipments and revenue per ton in 2009 were significantly impacted by the global economic downturn during the period. Net income was US\$779.5 million in 2010, compared to US\$767.1 million in 2009. There were no discontinued operations results in 2010, whereas there was a US\$428.0 million discontinued operations gain in 2009 related to the transfer of the Sidor shares to Venezuela. The year-over-year change in net income also included the US\$757.6 million increase in operating income and a US\$315.4 million increase in income tax expense. Ternium expects the NAFTA region to accelerate its growth rate in 2011, with higher industrial activity in Mexico driving local demand for steel products. The company also anticipates that South America's economies will continue to grow during 2011. Ternium expects an improvement in operating income in

the first quarter 2011 compared to the fourth quarter 2010, mainly as a result of a recovery in operating margin in the North America Region due to an increase in prices and higher shipment levels, partially offset by an increase in cost per ton during the same period.

Northwest Pipe reports sales increase

Northwest Pipe Company announced that it has filed with the Securities and Exchange Commission its Annual Report on Form 10-K for the year ended December 31, 2010. Sales for the year ended December 31, 2010 were \$386.8 million compared to \$278.7 million for the year ended December 31, 2009. Net loss for 2010 was \$1.4 million compared to a net loss of \$7.3 million for 2009.

Water Transmission sales increased to \$221.3 million in 2010 from \$210.4 million in 2009 reflecting increased sales volume partially offset by a decrease in selling prices. Water Transmission gross profit increased to \$20.7 million in 2010 from \$16.1 million in 2009 due to increased volume which lowered unit costs as compared to 2009. Tubular Products sales increased to \$165.5 million in 2010 from \$68.3 million in 2009, reflecting a significant increase in sales volume partially offset by a small decline in selling prices. Tubular Products gross profit increased to \$12.3 million in 2010 from a loss of \$4.4 million in 2009, as a significant increase in volume, particularly for our energy products, improved the recovery of fixed costs resulting in improved gross margin.

As of December 31, 2010 the Company's backlog of orders was \$258 million compared to \$222 million as of December 31, 2009. "We expect Water Transmission sales to remain stable in 2011 as compared to 2010", said Richard Roman, president and chief executive officer of the Company. "We expect Tubular Products sales in 2011 will be significantly stronger than 2010 primarily due to the additional capacity brought into production in Bossier City over the course of 2010".



Ternium expects the NAFTA region to accelerate its growth rate in 2011, and higher industrial activity in Mexico.
Photo courtesy of Ternium

ORE & MINING

Severstal Resources improves energy efficiency of its mining operations

Over the course of three days at the Severstal Resources Energy Efficiency Forum in Vorkuta, more than 80 specialists have shared their knowledge and expertise in the field of energy efficiency and health and safety at energy facilities. The Forum has gathered professionals from four companies comprising Severstal Resources, the mining division of Severstal, as well as representatives from several suppliers of specialised equipment from across Russia, Germany and Brazil.

Vorkutaugol, a company with an especially strong track-record in this field, hosted the Forum. In the past year Vorkutaugol have introduced efficiency measures across the business to reduce costs by over 340 mln Rubles: more than half of this saving, about 200 mln Rubles, is as a result of improved energy efficiency. Representatives from Vorkutaugol reported the use of methane as an energy source in the mine boiler stations, presented the unique construction project of a piston gas-generating thermal and power plant in the Severnaya mine, which is powered by methane, and shared their experience of using block mini-boiler stations.

The Forum saw specialists from Severstal Resources share their experiences of implementing energy saving technologies and discussed the Workplace Safety project, which aims at improving operational safety, including energy safety across the division's mining facilities. Ritter, Production Director at Severstal Resources, commented; "Today energy costs comprise between 10 to 20% of the mining division's products cost base".

ArcelorMittal launches CAN\$2.1 billion dollar investment

ArcelorMittal announces the expansion of its Mont-Wright mining complex and additional construction at Port-Cartier. The investment

must allow ArcelorMittal Mines Canada to increase its annual production of iron ore concentrate from 14 million tons to 24 million tons by 2013. AMMC is also considering increasing its production of iron ore pellets from 9.2 million tons to 18.5 million tons. The scheme represents a total investment of CAN\$2.1 billion dollars that must create 8,000 jobs during construction and more than 900 permanent jobs once completed.

Commenting, Peter Kukielski, Member of the Group Management Board and Head of Mining for ArcelorMittal, said "ArcelorMittal Mines Canada is a flagship mining asset for the Group, which offers considerable opportunity for expansion. We have already announced our intention to grow our iron ore production to 100 million tonnes by 2015 and this expansion forms an important part of that".

Severstal acquires a stake in a Brazilian iron ore exploration company

Severstal announces that it has acquired a 25% stake in the Brazilian company SPG Mineração ("SPG"). SPG owns highly-prospective iron ore exploration licences in the northern state of Amapa, Brazil.

The total consideration of the deal is \$ 49 mln payable in performance-related installments, with part of the amount to be directed to finance the first stage of geologic exploration, which aims to re-confirm the attractive geologic potential of the target's properties. Severstal has also entered into a call option agreement to purchase an additional 50% stake in this company, exercisable upon completion of certain conditions.

Severstal believes that the Amapa project has high potential with an estimated resources potential of 0.5–1.5 billion tonnes with an approximately 40–45% Fe grade. Production potential is estimated at around 10–20 million tonnes of iron ore concentrate. The project is located near to a railway and a port, however, the company considers developing its own logistics solution.